



**STATE OF WEST VIRGINIA  
REQUEST FOR QUOTATION CRFQ 0506 WEH1600000014  
TELEMETRY SYSTEM**

*Closing Date: March 1, 2016*



***Submitted by:  
Jeff Ritchie  
Sales Executive – Monitoring & IT Solutions – East Region***

02/25/16 09:24:05  
Int'l Purchasing Division

February 19, 2016

Ms. April Battle, Buyer 22  
State of West Virginia  
Department of Administration, Purchasing Division  
2019 Washington Street East  
Charleston, WV 25305-0130

**RE: CRFQ #0506 WEH1600000014 - Telemetry System**

Dear April:

Thank you for giving Draeger Medical, Inc. the opportunity to respond to your Request for Quotation. We offer an innovative portfolio of solutions to meet your patient monitoring, interfacing, networking and IT needs – both today and in the future.

Draeger Medical, Inc. provides your facility with a unique opportunity to improve your workflow, productivity and patient outcomes through several key areas:

- **Leverage your Network Infrastructure** – Build on your existing, non-proprietary hospital infrastructure components and an open architecture design. The Draeger system uses standard technology, both wired and wireless (all 802.11b/g). Eliminates the need for a separate expense network/antenna system.
- **Standardization** – Optimize your performance through consistent technology to allow movement of assets across care units, enable flexibility in staff utilization, reduce training time, protect prior investments and improve productivity.
- **Mobility** – Move patients and information without compromising the level of care or surveillance.
- **Scalability** – Maximize assets with monitors that accommodate all acuity levels and patient types and offer a pathway to the future.

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Thank you again for this opportunity. We look forward to a potential long-term and mutually successful relationship.

Sincerely,

*Jeff Ritchie*

Jeff Ritchie  
Sales Executive, Monitoring\IT Solutions – East Region

Draeger Medical, Inc.  
3135 Quarry Road  
Telford, PA 18969 USA  
Mobile +1 315-679-0268  
[jeff.ritchie@draeger.com](mailto:jeff.ritchie@draeger.com)  
[www.draeger.com](http://www.draeger.com)

Dräger. Technology for Life®



State of West  
Virginia

Solicitation No.  
CRFQ 0506  
WEH1600000014

Telemetry  
System

1	State of West Virginia CRFQ Form
2	DMI Exceptions to Request for Quotation, General Terms and Conditions, and Certification and Signature Page
3	Specifications and Dräger Monitoring Project Template
4	Pricing Page and Price Quotations
5	HIPAA Business Associate Addendum
6	Purchasing Affidavit
7	Product Literature
8	



Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

State of West Virginia  
 Request for Quotation  
 26 - Medical

Proc Folder: 160151

Doc Description: Telemetry

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2016-02-01	2016-03-01 13:30:00	CRFQ 0506 WEH1600000014	1

**BID RECEIVING LOCATION**  
 BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
 US

**VENDOR**  
 Vendor Name, Address and Telephone Number:  
 Draeger Medical, Inc.  
 3135 Quarry Road  
 Telford, PA 18969  
 1-800-4DRAGER

**FOR INFORMATION CONTACT THE BUYER**  
 April Battle  
 (304) 558-0067  
 april.e.battle@wv.gov

Draeger Medical, Inc.  
 Signature X By:  FEIN # 23-1699096 DATE 2-24-16

All offers subject to all terms and conditions contained in this solicitation  
 Timothy S. Rugel, Sr. Mgr. of Financial Operations  
 Page : 1

**ADDITIONAL INFORMATION:**

The West Virginia Purchasing Division is soliciting bids on behalf of West Virginia Department of Health and Human Resources (WVDHHR), Bureau for Behavioral Health and Health Facilities (BHFF), Welch Community Hospital to establish a contract for the one time purchase of one fifteen (15) bedside monitors; ten (10) medical surgical wearable patient monitors; and two (2) information centers. Vendor is to provide installation and in-service training for medical staff.

PROCUREMENT OFFICER - 304-436-8708 HEALTH AND HUMAN RESOURCES WELCH COMMUNITY HOSPITAL 454 MCDOWELL ST  WELCH WV24801  US	PROCUREMENT OFFICER - 304-436-8708 HEALTH AND HUMAN RESOURCES WELCH COMMUNITY HOSPITAL 454 MCDOWELL ST  WELCH WV 24801  US
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Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Bedside Monitors	15.00000	EA		

Comm Code	Manufacturer	Specification	Model #
42181719			

**Extended Description :**  
**3.1.1 Bedside monitors**

PROCUREMENT OFFICER - 304-436-8708 HEALTH AND HUMAN RESOURCES WELCH COMMUNITY HOSPITAL 454 MCDOWELL ST  WELCH WV24801  US	PROCUREMENT OFFICER - 304-436-8708 HEALTH AND HUMAN RESOURCES WELCH COMMUNITY HOSPITAL 454 MCDOWELL ST  WELCH WV 24801  US
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Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Medical surgical wearable patient monitors	10.00000	EA		

Comm Code	Manufacturer	Specification	Model #
42181719			

**Extended Description :**  
**3.1.2 Medical surgical wearable patient monitors**

INVOICE TO		SHIP TO	
PROCUREMENT OFFICER - 304-436-8708 HEALTH AND HUMAN RESOURCES WELCH COMMUNITY HOSPITAL 454 MCDOWELL ST WELCH WV24801 US		PROCUREMENT OFFICER - 304-436-8708 HEALTH AND HUMAN RESOURCES WELCH COMMUNITY HOSPITAL 454 MCDOWELL ST WELCH WV 24801 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	Information centers	2.00000	EA		

Comm Code	Manufacturer	Specification	Model #
42181719			

Extended Description :  
3.1.3 Information centers

INVOICE TO		SHIP TO	
PROCUREMENT OFFICER - 304-436-8708 HEALTH AND HUMAN RESOURCES WELCH COMMUNITY HOSPITAL 454 MCDOWELL ST WELCH WV24801 US		PROCUREMENT OFFICER - 304-436-8708 HEALTH AND HUMAN RESOURCES WELCH COMMUNITY HOSPITAL 454 MCDOWELL ST WELCH WV 24801 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	Warranty	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
84101503			

Extended Description :  
3.1.4 Warranty

INVOICE TO		SHIP TO	
PROCUREMENT OFFICER - 304-436-8708 HEALTH AND HUMAN RESOURCES WELCH COMMUNITY HOSPITAL 454 MCDOWELL ST WELCH WV24801 US		PROCUREMENT OFFICER - 304-436-8708 HEALTH AND HUMAN RESOURCES WELCH COMMUNITY HOSPITAL 454 MCDOWELL ST WELCH WV 24801 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
5	Manual/CDs	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
55101521			

**Extended Description :**

3.1.5 Manual/CDs

Manufacturer	Specification	Model #
PROCUREMENT OFFICER - 304-436-8708 HEALTH AND HUMAN RESOURCES WELCH COMMUNITY HOSPITAL 454 MCDOWELL ST WELCH WV24801 US	PROCUREMENT OFFICER - 304-436-8708 HEALTH AND HUMAN RESOURCES WELCH COMMUNITY HOSPITAL 454 MCDOWELL ST WELCH WV 24801 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
6	Installation	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
81111809			

**Extended Description :**

3.1.6 Installation

Manufacturer	Specification	Model #
PROCUREMENT OFFICER - 304-436-8708 HEALTH AND HUMAN RESOURCES WELCH COMMUNITY HOSPITAL 454 MCDOWELL ST WELCH WV24801 US	PROCUREMENT OFFICER - 304-436-8708 HEALTH AND HUMAN RESOURCES WELCH COMMUNITY HOSPITAL 454 MCDOWELL ST WELCH WV 24801 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
7	In-service medical staff	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
86000000			

**Extended Description :**

3.1.7 In-service medical staff

**SCHEDULE OF EVENTS**

Line	Event	Event Date
1	Technical Questions	2016-02-17



<b>WEH1600000014</b>	<b>Document Phase</b> Final	<b>Document Description</b> Telemetry	<b>Page 5</b> of 5
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**ADDITIONAL TERMS AND CONDITIONS**

**See attached document(s) for additional Terms and Conditions**

## **DMI Exceptions to the State of West Virginia Request for Quotation**

Solicitation No. CRFQ 0506 WEH160000014

26- Medical; Proc Folder:160151; Descript: Telemetry

1. **Section 25. Assignment.** Add the following language to the end of the first sentence:

“...unless it is to a parent, affiliate or subsidiary as part of a merger or consolidation without the prior written consent of the other party.”

2. **Section 26 Warranty.** This section shall be replaced in its entirety with the following:

“Vendor warrants that the Products manufactured by Vendor and sold hereunder shall be free from defects in material or workmanship under normal use and service for the warranty period. Unless otherwise set forth in a separate warranty statement covering the Products to be provided by Vendor, the warranty period shall commence on the date that the Products are delivered to Customer and shall continue for twelve (12) consecutive months except for the following: (a) Vendor’s workplace infrastructure products (“WI Products”) consisting of the Ponta, Agila, Movita, Gemina and Pendula are warranted for a period of two (2) years from the delivery date, (b) Bearing and brake assemblies related to WI Products are warranted for a period of seven (7) years from the delivery date, (c) Used/refurbished Vendor Products are warranted for a period of ninety (90) days from the delivery date, (d) All sensors, accessories, complementary products and spare parts are warranted for ninety (90) days from the delivery date, (e) Factory repairs and service exchange replacements are warranted for ninety (90) days from the delivery date, (f) Expendable/disposable/consumable goods are warranted at time of delivery only, and (g) Information systems/software will operate in all material respects in conformity with Vendor’s published specifications, under normal use, for a period of ninety (90) days from the earlier of implementation sign-off or first productive use as set forth in the applicable license. Vendor makes no warranty for any third party or other products other than those Products expressly covered under the terms of this Agreement. Customer’s sole warranty for any third party products, if any, is the original manufacturer’s warranty, which DMI agrees to pass on to Customer, as applicable.

No warranty extended by Vendor shall apply to any Products: (a) which have been damaged by accident, misuse, abuse, negligence, improper application or alteration or by a force majeure occurrence or by Customer’s failure to maintain the recommended operating environment and line conditions; (b) which are defective due to unauthorized attempts to repair, relocate, maintain, service, add to or modify the Products by Customer or any third party or due to the attachment and/or use of non-Vendor supplied equipment without Vendor’s prior written approval; (c) which failed due to causes from within non-DMI supplied equipment; and/or (d) which have been damaged from the use of operating or cleaning supplies or consumable parts not approved by Vendor. Vendor’s obligation under this warranty is limited to the repair or replacement of or credit for, at Vendor’s option, defective parts. Vendor may effectuate such repair at Customer’s facility, and Customer shall furnish Vendor safe and sufficient access for such repair. Repair or replacement may be with parts or products that are new, used or refurbished. Repairs or replacements shall not interrupt, extend or prolong the term of the warranty. Customer shall, upon Vendor’s request, return the non-complying Product or part to Vendor pursuant to the terms of Vendor’s Return Policy. Customer shall pay Vendor its normal charges for service and parts for any inspection,

repair or replacement that is not, in Vendor's sole judgment, required by noncompliance with the warranty set forth in this Section 26.

This warranty is made on condition that immediate written notice of any noncompliance be given to Vendor and Vendor's inspection reveals that the Customer's claim is valid under the terms of this warranty.

**VENDOR MAKES NO WARRANTY OTHER THAN THE ONE SET FORTH HEREIN OR THAT WHICH MAY BE PROVIDED IN A SEPARATE WARRANTY COVERING THE APPLICABLE PRODUCT. SUCH WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND SUCH CONSTITUTES THE ONLY WARRANTY MADE WITH RESPECT TO THE PRODUCTS AND ANY DEFECT, DEFICIENCY OR NONCOMFORMITY IN ANY PRODUCT, SERVICE OR OTHER ITEM FURNISHED UNDER THIS AGREEMENT."**

3. **Section 36 Indemnification.** Add the following at the end of (1) after the word Contract:

"on behalf of Vendor"

4. **Section 43. Preference for use of Domestic Aluminum, Glass, and Steel.** This section shall be removed in its entirety since it does not apply to the product quoted by the Vendor.

**The following sections shall be added to the General Terms and Conditions section:**

**1. Acceptance.**

"Unless otherwise agreed by Vendor in writing, all Products delivered by Vendor to Customer hereunder shall be deemed to have been accepted by Customer the earlier of (i) the date Customer signs an acceptance certificate provided by Vendor for any Products, (ii) the date Customer first uses the Products for patient use, or (iii) thirty (30) days after delivery of the Products to Customer."

**2. LIMITATION OF LIABILITY AND DISCLAIMER.**

Excluding third party claims for personal injury or death arising as a result of a proven defect in a Vendor Product, in no event shall Vendor's liability to Customer hereunder exceed the actual loss or damage sustained by Customer, up to the purchase price of the Products.

**VENDOR SHALL NOT BE LIABLE FOR ANY LOSS OF USE, REVENUE OR ANTICIPATED PROFITS, LOSS OF STORED, TRANSMITTED OR RECORDED DATA, OR FOR ANY INCIDENTAL, UNFORESEEN, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT OR THE SALE OR USE OF THE PRODUCTS. THE FOREGOING IS A SEPARATE, ESSENTIAL TERM OF THIS AGREEMENT AND SHALL BE EFFECTIVE UPON THE FAILURE OF ANY REMEDY, EXCLUSIVE OR NOT.**

## **INSTRUCTIONS TO VENDORS SUBMITTING BIDS**

**1. REVIEW DOCUMENTS THOROUGHLY:** The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.

**2. MANDATORY TERMS:** The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.

**3. PREBID MEETING:** The item identified below shall apply to this Solicitation.

A pre-bid meeting will not be held prior to bid opening

A NON-MANDATORY PRE-BID meeting will be held at the following place and time:

A MANDATORY PRE-BID meeting will be held at the following place and time:

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one person attending the pre-bid meeting may represent more than one Vendor.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. The State will not accept any other form of proof or documentation to verify attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing.

Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in, but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting

are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

**4. VENDOR QUESTION DEADLINE:** Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below in order to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are nonbinding.

Submitted e-mails should have solicitation number in the subject line.

**Question Submission Deadline:** February 17, 2016, at 3:00 PM EST

Submit Questions to: April Battle, Buyer 22  
2019 Washington Street, East  
Charleston, WV 25305  
Fax: (304) 558-4115 (Vendors should not use this fax number for bid submission)  
Email: april.e.battle@wv.gov

**5. VERBAL COMMUNICATION:** Any verbal communication between the Vendor and any State personnel is not binding, including verbal communication at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.

**6. BID SUBMISSION:** All bids must be submitted electronically through wvOASIS or signed and delivered by the Vendor to the Purchasing Division at the address listed below on or before the date and time of the bid opening. Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason. The Purchasing Division will not accept bids, modification of bids, or addendum acknowledgment forms via e-mail. Acceptable delivery methods include electronic submission via wvOASIS, hand delivery, delivery by courier, or facsimile.

The bid delivery address is:  
Department of Administration, Purchasing Division  
2019 Washington Street East  
Charleston, WV 25305-0130

A bid that is not submitted electronically through wvOASIS should contain the information listed below on the face of the envelope or the bid may be rejected by the Purchasing Division.:

**SEALED BID: Telemetry System**  
**BUYER: April Battle, Buyer 22**  
**SOLICITATION NO.: CRFQ 0506 WEH1600000014**  
**BID OPENING DATE: March 1, 2016**  
**BID OPENING TIME: 1:30 PM EST**

**FAX NUMBER: (304) 558-3970**

In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal plus convenience copies of each to the Purchasing Division at the address shown above. Submission of a response to a request for proposal is not permitted in wvOASIS. Additionally, the Vendor should identify the bid type as either a technical or cost proposal on the face of each bid envelope submitted in response to a request for proposal as follows:

**BID TYPE: (This only applies to CRFP)**

Technical

Cost

**7. BID OPENING:** Bids submitted in response to this Solicitation will be opened at the location identified below on the date and time listed below. Delivery of a bid after the bid opening date and time will result in bid disqualification. For purposes of this Solicitation, a bid is considered delivered when confirmation of delivery is provided by wvOASIS (in the case of electronic submission) or when the bid is time stamped by the official Purchasing Division time clock (in the case of hand delivery).

**Bid Opening Date and Time: March 1, 2016, at 1:30 PM EST**

**Bid Opening Location: Department of Administration, Purchasing Division  
2019 Washington Street East  
Charleston, WV 25305-0130**

**8. ADDENDUM ACKNOWLEDGEMENT:** Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

**9. BID FORMATTING:** Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

**10. ALTERNATES:** Any model, brand, or specification listed in this Solicitation establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.

**11. EXCEPTIONS AND CLARIFICATIONS:** The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

**12. COMMUNICATION LIMITATIONS:** In accordance with West Virginia Code of State Rules §148-1-6.6, communication with the State of West Virginia or any of its employees regarding this Solicitation during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.

**13. REGISTRATION:** Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the \$125 fee, if applicable.

**14. UNIT PRICE:** Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.

**15. PREFERENCE:** Vendor Preference may only be granted upon written request and only in accordance with the West Virginia Code § 5A-3-37 and the West Virginia Code of State Rules. A Vendor Preference Certificate form has been attached hereto to allow Vendor to apply for the preference. Vendor's failure to submit the Vendor Preference Certificate form with its bid will result in denial of Vendor Preference. Vendor Preference does not apply to construction projects.

**16. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES:** For any solicitations publicly advertised for bid, in accordance with West Virginia Code §5A-3-37(a)(7) and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to contract award to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minority owned business shall be applied in accordance with W. Va. CSR § 148-22-9.

**17. WAIVER OF MINOR IRREGULARITIES:** The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.6.

**18. ELECTRONIC FILE ACCESS RESTRICTIONS:** Vendor must ensure that its submission in wvOASIS can be accessed by the Purchasing Division staff immediately upon bid opening. The Purchasing Division will consider any file that cannot be immediately opened and/or viewed at the time of the bid opening (such as, encrypted files, password protected files, or incompatible files) to be blank or incomplete as context requires, and are therefore

unacceptable. A vendor will not be permitted to unencrypt files, remove password protections, or resubmit documents after bid opening if those documents are required with the bid.

**19. NON-RESPONSIBLE:** The Purchasing Division Director reserves the right to reject the bid of any vendor as Non-Responsible in accordance with W. Va. Code of State Rules § 148-1-5.3, when the Director determines that the vendor submitting the bid does not have the capability to fully perform, or lacks the integrity and reliability to assure good-faith performance.”

**20. ACCEPTANCE/REJECTION:** The State may accept or reject any bid in whole, or in part in accordance with W. Va. Code of State Rules § 148-1-4.5. and § 148-1-6.4.b.”

**21. YOUR SUBMISSION IS A PUBLIC DOCUMENT:** Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

**DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.**

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled “confidential,” “proprietary,” “trade secret,” “private,” or labeled with any other claim against public disclosure of the documents, to include any “trade secrets” as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.



## **GENERAL TERMS AND CONDITIONS:**

**1. CONTRACTUAL AGREEMENT:** Issuance of a Award Document signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.

**2. DEFINITIONS:** As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.

**2.1. "Agency" or "Agencies"** means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.

**2.2. "Bid" or "Proposal"** means the vendors submitted response to this solicitation.

**2.3. "Contract"** means the binding agreement that is entered into between the State and the Vendor to provide the goods or services requested in the Solicitation.

**2.4. "Director"** means the Director of the West Virginia Department of Administration, Purchasing Division.

**2.5. "Purchasing Division"** means the West Virginia Department of Administration, Purchasing Division.

**2.6. "Award Document"** means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the contract holder.

**2.7. "Solicitation"** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.

**2.8. "State"** means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.

**2.9. "Vendor" or "Vendors"** means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

**3. CONTRACT TERM; RENEWAL; EXTENSION:** The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

**Term Contract**

**Initial Contract Term:** This Contract becomes effective on \_\_\_\_\_

and extends for a period of \_\_\_\_\_ year(s).

**Renewal Term:** This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any request for renewal should be submitted to the Purchasing Division thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Renewal of this Contract is limited to \_\_\_\_\_ successive one (1) year periods or multiple renewal periods of less than one year, provided that the multiple renewal periods do not exceed \_\_\_\_\_ months in total. Automatic renewal of this Contract is prohibited. Notwithstanding the foregoing, Purchasing Division approval is not required on agency delegated or exempt purchases. Attorney General approval may be required for vendor terms and conditions.

**Delivery Order Limitations:** In the event that this contract permits delivery orders, a delivery order may only be issued during the time this Contract is in effect. Any delivery order issued within one year of the expiration of this Contract shall be effective for one year from the date the delivery order is issued. No delivery order may be extended beyond one year after this Contract has expired.

**Fixed Period Contract:** This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within ninety (90) calendar days.

**Fixed Period Contract with Renewals:** This Contract becomes effective upon Vendor's receipt of the notice to proceed and part of the Contract more fully described in the attached specifications must be completed within \_\_\_\_\_ days.

Upon completion, the vendor agrees that maintenance, monitoring, or warranty services will be provided for one year thereafter with an additional \_\_\_\_\_ successive one year renewal periods or multiple renewal periods of less than one year provided that the multiple renewal periods do not exceed \_\_\_\_\_ months in total. Automatic renewal of this Contract is prohibited.

**One Time Purchase:** The term of this Contract shall run from the issuance of the Award Document until all of the goods contracted for have been delivered, but in no event will this Contract extend for more than one fiscal year.

**Other:** See attached.

**4. NOTICE TO PROCEED:** Vendor shall begin performance of this Contract immediately upon receiving notice to proceed unless otherwise instructed by the Agency. Unless otherwise specified, the fully executed Award Document will be considered notice to proceed.

**5. QUANTITIES:** The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

**Open End Contract:** Quantities listed in this Solicitation are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

**Service:** The scope of the service to be provided will be more clearly defined in the specifications included herewith.

**Combined Service and Goods:** The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

**One Time Purchase:** This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.

**6. PRICING:** The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification.

**7. EMERGENCY PURCHASES:** The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute a breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One Time Purchase contract.

**8. REQUIRED DOCUMENTS:** All of the items checked below must be provided to the Purchasing Division by the Vendor as specified below.

**BID BOND:** All Vendors shall furnish a bid bond in the amount of five percent (5%) of the total amount of the bid protecting the State of West Virginia. The bid bond must be submitted with the bid.

**PERFORMANCE BOND:** The apparent successful Vendor shall provide a performance bond in the amount of \_\_\_\_\_. The performance bond must be received by the Purchasing Division prior to Contract award. On construction contracts, the performance bond must be 100% of the Contract value.

**LABOR/MATERIAL PAYMENT BOND:** The apparent successful Vendor shall provide a labor/material payment bond in the amount of 100% of the Contract value. The labor/material payment bond must be delivered to the Purchasing Division prior to Contract award.

In lieu of the Bid Bond, Performance Bond, and Labor/Material Payment Bond, the Vendor may provide certified checks, cashier's checks, or irrevocable letters of credit. Any certified check, cashier's check, or irrevocable letter of credit provided in lieu of a bond must be of the same amount and delivered on the same schedule as the bond it replaces. A letter of credit submitted in lieu of a performance and labor/material payment bond will only be allowed for projects under \$100,000. Personal or business checks are not acceptable.

**MAINTENANCE BOND:** The apparent successful Vendor shall provide a two (2) year maintenance bond covering the roofing system. The maintenance bond must be issued and delivered to the Purchasing Division prior to Contract award.

**INSURANCE:** The apparent successful Vendor shall furnish proof of the following insurance prior to Contract award and shall list the state as a certificate holder:

**Commercial General Liability Insurance:** In the amount of \$1,000,000.00  
\_\_\_\_\_ or more.

**Builders Risk Insurance:** In an amount equal to 100% of the amount of the Contract.

The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether or not that insurance requirement is listed above.

**LICENSE(S) / CERTIFICATIONS / PERMITS:** In addition to anything required under the Section entitled Licensing, of the General Terms and Conditions, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits prior to Contract award, in a form acceptable to the Purchasing Division.

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The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications prior to Contract award regardless of whether or not that requirement is listed above.

**9. WORKERS' COMPENSATION INSURANCE:** The apparent successful Vendor shall comply with laws relating to workers compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.

**10. LITIGATION BOND:** The Director reserves the right to require any Vendor that files a protest of an award to submit a litigation bond in the amount equal to one percent of the lowest bid submitted or \$5,000, whichever is greater. The entire amount of the bond shall be forfeited if the hearing officer determines that the protest was filed for frivolous or improper purpose, including but not limited to, the purpose of harassing, causing unnecessary delay, or needless expense for the Agency. All litigation bonds shall be made payable to the Purchasing Division. In lieu of a bond, the protester may submit a cashier's check or certified check payable to the Purchasing Division. Cashier's or certified checks will be deposited with and held by the State Treasurer's office. If it is determined that the protest has not been filed for frivolous or improper purpose, the bond or deposit shall be returned in its entirety.

**11. LIQUIDATED DAMAGES:** Vendor shall pay liquidated damages in the amount of

N/A

for N/A

This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy.

**12. ACCEPTANCE:** Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.

**13. FUNDING:** This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available.

**14. PAYMENT:** Payment in advance is prohibited under this Contract. Payment may only be made after the delivery and acceptance of goods or services. The Vendor shall submit invoices, in arrears.

- 15. TAXES:** The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
- 16. CANCELLATION:** The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may also cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules §§ 148-1-6.1.e.
- 17. TIME:** Time is of the essence with regard to all matters of time and performance in this Contract.
- 18. APPLICABLE LAW:** This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code or West Virginia Code of State Rules is void and of no effect.
- 19. COMPLIANCE:** Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances.
- 20. PREVAILING WAGE:** Vendor shall be responsible for ensuring compliance with prevailing wage requirements and determining when prevailing wage requirements are applicable.
- 21. ARBITRATION:** Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.
- 22. MODIFICATIONS:** This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any change to existing contracts that adds work or changes contract cost, and were not included in the original contract, must be approved by the Purchasing Division and the Attorney General's Office (as to form) prior to the implementation of the change or commencement of work affected by the change.
- 23. WAIVER:** The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.

**24. SUBSEQUENT FORMS:** The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.

**25. ASSIGNMENT:** Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments. Notwithstanding the foregoing, Purchasing Division approval may or may not be required on certain agency delegated or exempt purchases.

**26. WARRANTY:** The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.

**27. STATE EMPLOYEES:** State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.

**28. BANKRUPTCY:** In the event the Vendor files for bankruptcy protection, the State of West Virginia may deem this Contract null and void, and terminate this Contract without notice.

**29. PRIVACY, SECURITY, AND CONFIDENTIALITY:** The Vendor agrees that it will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the Agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the Agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/default.html>.

**30. YOUR SUBMISSION IS A PUBLIC DOCUMENT:** Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

**DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.**

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to

include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

**31. LICENSING:** In accordance with West Virginia Code of State Rules § 148-1-6.1.e, Vendor must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agency or political subdivision. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.

**32. ANTITRUST:** In submitting a bid to, signing a contract with, or accepting a Award Document from any agency of the State of West Virginia, the Vendor agrees to convey, sell, assign, or transfer to the State of West Virginia all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to Vendor.

**33. VENDOR CERTIFICATIONS:** By signing its bid or entering into this Contract, Vendor certifies (1) that its bid or offer was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid or offer for the same material, supplies, equipment or services; (2) that its bid or offer is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this Solicitation in its entirety; understands the requirements, terms and conditions, and other information contained herein. Vendor's signature on its bid or offer also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency. The individual signing this bid or offer on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or offer or any documents related thereto on Vendor's behalf; that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

**34. PURCHASING CARD ACCEPTANCE:** The State of West Virginia currently utilizes a Purchasing Card program, administered under contract by a banking institution, to process payment for goods and services. The Vendor must accept the State of West Virginia's Purchasing Card for payment of all orders under this Contract unless the box below is checked.  
 Vendor is not required to accept the State of West Virginia's Purchasing Card as payment for all goods and services.



**35. VENDOR RELATIONSHIP:** The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, etc. and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing.

Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

**36. INDEMNIFICATION:** The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

**37. PURCHASING AFFIDAVIT:** In accordance with West Virginia Code § 5A-3-10a, all Vendors are required to sign, notarize, and submit the Purchasing Affidavit stating that neither the Vendor nor a related party owe a debt to the State in excess of \$1,000. The affidavit must be submitted prior to award, but should be submitted with the Vendor's bid. A copy of the Purchasing Affidavit is included herewith.

**38. ADDITIONAL AGENCY AND LOCAL GOVERNMENT USE:** This Contract may be utilized by other agencies, spending units, and political subdivisions of the State of West Virginia; county, municipal, and other local government bodies; and school districts ("Other Government Entities"). Any extension of this Contract to the aforementioned Other Government Entities must be on the same prices, terms, and conditions as those offered and agreed to in this Contract, provided that such extension is in compliance with the applicable laws, rules, and ordinances of the Other Government Entity. If the Vendor does not wish to extend the prices, terms, and conditions of its bid and subsequent contract to the Other Government Entities, the Vendor must clearly indicate such refusal in its bid. A refusal to extend this Contract to the Other Government Entities shall not impact or influence the award of this Contract in any manner.

**39. CONFLICT OF INTEREST:** Vendor, its officers or members or employees, shall not presently have or acquire an interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

**40. REPORTS:** Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at [purchasing\\_requisitions@wv.gov](mailto:purchasing_requisitions@wv.gov).

**41. BACKGROUND CHECK:** In accordance with W. Va. Code § 15-2D-3, the Director of the Division of Protective Services shall require any service provider whose employees are regularly employed on the grounds or in the buildings of the Capitol complex or who have access to sensitive or critical information to submit to a fingerprint-based state and federal background inquiry through the state repository. The service provider is responsible for any costs associated with the fingerprint-based state and federal background inquiry.

After the contract for such services has been approved, but before any such employees are permitted to be on the grounds or in the buildings of the Capitol complex or have access to sensitive or critical information, the service provider shall submit a list of all persons who will be physically present and working at the Capitol complex to the Director of the Division of Protective Services for purposes of verifying compliance with this provision. The State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check.

Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

**42. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS:** Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment,

or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.

b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open hearth, basic oxygen, electric furnace, Bessemer or other steel making process. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:

c. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or

d. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

**43. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL:** In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a "substantial labor surplus area", as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products. This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all

**bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.**

**CERTIFICATION AND SIGNATURE PAGE**

By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

\*\*       
Dräger Medical, Inc.

(Company)

      
Timothy S. Rugel, Sr. Manager of Financial Operations

(Authorized Signature) (Representative Name, Title)

                          
(215) 721-5400    (215) 721-5808    2/24/16

(Phone Number) (Fax Number) (Date)



\*\* EXCEPTIONS AND CLARIFICATIONS ARE NOTED IN THIS RFQ RESPONSE AND IN A SEPARATE DOCUMENT INCLUDED WITH VENDOR'S RESPONSES FOR THIS SOLICITATION.

REQUEST FOR QUOTATION  
CRFQ 0506 WEH160000014  
WEH160000003 Telemetry System

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**SPECIFICATIONS**

- 1. PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of West Virginia Department of Health and Human Resources (WVDHHR), Bureau for Behavioral Health and Health Facilities (BHBF), Welch Community Hospital to establish a contract for the one time purchase of one time purchase of fifteen (15) bedside monitors, ten (10) medical surgical wearable patient monitors, and two (2) information centers. Vendor is to provide installation and in-service training for medical staff.

NOTE: This request is covered in part or in whole by federal funds. All bidders will be required to acknowledge and adhere to Attachment 1-Provisions Required for Federally Funded Procurements. Delivery Orders issued from contract awarded as a result of this solicitation may be funded in whole or in part with Federal Funds and thus this solicitation and its resulting awarded contract are subject to the requirements of Attachment 1: Provisions required for federally Funded Procurements.

- 2. DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.

**2.1 "Contract Item"** means one time purchase of fifteen (15) bedside monitors, ten (10) medical surgical wearable patient monitors, and two (2) information centers as more fully described by these specifications.

**2.2 "Contract Services"** means to provide installation and in-service training of medical staff as more fully described in these specifications.

**2.3 "Pricing Page"** means the pages, contained in wvOASIS or attached as Exhibit A, upon which Vendor should list its proposed price for the Contract Items.

**2.4 "Solicitation"** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division..

- 3. GENERAL REQUIREMENTS:**

**3.1 Mandatory Contract Item Requirements:** Contract Item must meet or exceed the mandatory requirements listed below.

**REQUEST FOR QUOTATION  
CRFQ 0506 WEH1600000014  
WEH1600000003 Telemetry System**

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**3.1.1 Bedside Monitors (15)** must meet or exceed the mandatory requirements listed below. Bedside monitors proposed for this opportunity shall comply with the following specifications:

**3.1.1.1 Measurement Features:**

- 3.1.1.1.1** Must have electrocardiogram (ECG) monitoring using five (5) electrodes. **MEETS**
- 3.1.1.1.2** Must have twelve (12)-lead ECG monitoring with five (5) electrodes. **MEETS**
- 3.1.1.1.3** Must have multi-lead arrhythmia and ST segment analysis at the bedside on all available leads. **MEETS**
- 3.1.1.1.4** Must have QT/QTc (Q-wave T-wave/Q-wave T-wave interval correction) interval monitoring. **MEETS**
- 3.1.1.1.5** Must have capnography extensions to extend measurement capability by adding mainstream or side stream carbon dioxide (CO<sub>2</sub>), a pressure and an additional pressure or temperature measurement plus optional cardiac output. **MEETS**
- 3.1.1.1.6** Must have pulse oximetry technologies for accurate performance even in cases with low perfusion. **MEETS**
- 3.1.1.1.7** Must have pulse pressure variation (PPV) that can be calculated from beat to beat arterial pressure waves. **MEETS**

**3.1.1.2 Usability Features:**

- 3.1.1.2.1** Must have menu hierarchy for access to all basic monitoring tasks. **MEETS**
- 3.1.1.2.2** Must have patient management with tabular and graphic trends. **MEETS**
- 3.1.1.2.3** Must have ventilation, hemodynamic and oxygenation calculations. **MEETS**
- 3.1.1.2.4** Must have a drug calculator. **MEETS**

**REQUEST FOR QUOTATION  
CRFQ 0506 WEH160000014  
WEH160000003 Telemetry System**

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- 3.1.1.2.5** Must have settings profile functionality. **MEETS**
- 3.1.1.2.6** Must have automatic alarm limits. **MEETS**
- 3.1.1.2.7** Must have basic event surveillance for automatic detection of patient status deterioration. **MEETS**
- 3.1.1.2.8** Must have capability to silence alarms from bedside. **MEETS**
- 3.1.1.2.9** Must have capability to assign a monitor and a telemetry device to same patient. **MEETS**
- 3.1.1.2.10** Must have multiple input devices: Touchscreen, mouse, and keyboard. **MEETS**
- 3.1.1.2.11** Must have a minimum of a ten (10) inch to a maximum twelve (12) inch flat panel display with wide viewing angle, large numerics, permanently visible alarm limits and up to six real-time waves. **EXCEEDS C500 display has 17" display**
- 3.1.1.2.12** Must have graphical measurement windows showing which measurements are being used by which device. **MEETS**

**3.1.1.3 Intended Use:**

- 3.1.1.3.1** The monitors must be able to be used for monitoring, recording and alarming of multiple physiological parameters of adults and pediatrics in a hospital environment. **MEETS**

**3.1.1.4 Modularity:**

- 3.1.1.4.1** Shall have the ability to function as stand-alone or networked. **MEETS**

**3.1.1.5 Upgradability:**

- 3.1.1.5.1** Shall have the ability to be updated as practices and technologies advance. **MEETS**

**3.1.1.6 Main Components:**



**REQUEST FOR QUOTATION  
CRFQ 0506 WEH1600000014  
WEH1600000003 Telemetry System**

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- 3.1.1.6.1** The monitors must have color Liquid Crystal Display (LCD) displays with a wide viewing angle, providing high resolute waveform and data presentation. **MEETS**
- 3.1.1.6.2** The user interface must be designed for operation. **MEETS**
- 3.1.1.6.3** Must have keys with icons allowing monitoring task to be performed directly on the monitor screen. **MEETS**
- 3.1.1.6.4** The monitors must display a minimum of six (6) measurement waves simultaneously. **MEETS - up to 10 waves simultaneously.**
- 3.1.1.6.5** The twelve (12)-lead ECG monitoring must display twelve (12) real-time ECG waves, with a rhythm strip and all ST values. **MEETS**
- 3.1.1.6.6** Must have multiple input devices such as mouse, track ball or barcode reader. **MEETS**
- 3.1.1.6.7** Must have mounting options for flexible space saving placement of the monitor. **MEETS**

**3.1.1.7 Applications and Features:**

- 3.1.1.7.1** The monitor must have multi-lead arrhythmia detection analysis on the patient's ECG waveform at the bedside. It must analyze for ventricular arrhythmias, calculate heart rate and generate alarms, including asystole, bradycardia, and ventricular fibrillation. **MEETS**
- 3.1.1.7.2** Shall have a minimum of twelve (12) leads of ST segment analysis that can be performed at bedside measuring ST elevation and depression generating alarms and events. Must have ability to trend ST changes, set high and low alarm limits, and set both ST and isoelectric measurement points. **MEETS**
- 3.1.1.7.3** Must have QT/QTc interval monitoring that provides the measured QT interval, the calculated heart-rate, corrected QTc value and a QTc value, which tracks variation in the QT interval in relation to a baseline value. **MEETS**
- 3.1.1.7.4** Must have twelve (12) -level ECG capability with twelve (12) real-time ECG waveforms that can be displayed simultaneously. **MEETS**
- 3.1.1.7.5** Must have pulse oximetry technology to perform accurately even in cases of low perfusion. **MEETS**

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- 3.1.1.7.6** Must have choice of mainstream, side-stream and mainstream CO<sub>2</sub> monitoring for high quality measurements with intubated and non-intubated patients. **MEETS**
- 3.1.1.7.7** Must have drug calculator to help manage intravenous (IV) drug infusions by calculating drug dose, rate, amount, volume, concentration, and standardized rate. **MEETS**
- 3.1.1.7.8** Drug calculator must have ability to include a list of commonly used drugs. **MEETS**
- 3.1.1.7.9** Must have basic event surveillance that automatically detects changes in patient's condition and stores an electronic record providing you with a minimum twenty (20) minutes of data sampled every twelve (12) seconds. **MEETS**
- 3.1.1.7.10** Events must be stored in a database for review and documented in a report or in a recording. **MEETS**
- 3.1.1.7.11** Screen layouts must be adjustable, allowing flexible display of measurement information. **MEETS**
- 3.1.1.7.12** Previous/next screen function must provide access to a minimum ten (10) most recently modified screens. **MEETS**
- 3.1.1.7.13** Temperature, height and weight must have option of configuration metric or imperial units. **MEETS**
- 3.1.1.7.14** Pressure and gas measurements must have option to be displayed in both KPa (kilopascal) or displayed in mmHg (millimeter of Mercury). **MEETS**
- 3.1.1.7.15** The trends database must store a minimum of sixteen (16) measurement memories to a maximum of thirty-two (32). The measurement information must have the ability to be sampled at an interval of twelve (12) seconds, one (1) minute, or five (5) minutes, and stored for a minimum of forty-eight (48) hours. **MEETS**
- 3.1.1.7.16** Tabular trends (vital signs) must show dates for a minimum of sixteen (16) measurement memories in a tabular form. **MEETS**
- 3.1.1.7.17** The monitor must have capability to be portable for in-hospital transport. **MEETS**
- 3.1.1.7.18** Monitor must not exceed a maximum weight of ten and a half (10 ½) kilograms (kg). **MEETS**

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- 3.1.1.7.19** The monitor must operate a minimum of four (4) hours on battery power. **Monitor up to 3 ½ hours on battery.**
- 3.1.1.7.20** The monitor must allow the transition from bedside monitoring to transport with no need to disconnect patient cables or adjust any settings. **MEETS**
- 3.1.1.7.21** Admit, discharge and transfer information must be shared between the networked monitor and information center. **MEETS**
- 3.1.1.7.22** Printers must have ability to print the following patient reports:
  - 3.1.1.7.22.1** Event review and episodes reports **MEETS**
  - 3.1.1.7.22.2** Oxycardio Respirogram (OxyCRG) reports- **DOES NOT MEET**
  - 3.1.1.7.22.3** Twelve (12) -lead ECG reports **MEETS**
  - 3.1.1.7.22.4** Alarm limits reports **MEETS**
  - 3.1.1.7.22.5** Vital sign reports **MEETS**
  - 3.1.1.7.22.6** Graphic trends **MEETS**
  - 3.1.1.7.22.7** Cardiac output reports **MEETS**
  - 3.1.1.7.22.8** Wedge procedure reports **MEETS**
  - 3.1.1.7.22.9** Calculation reports **MEETS**
  - 3.1.1.7.22.10** Drug calculation reports **MEETS**
  - 3.1.1.7.22.11** Real-time wave reports **MEETS**
- 3.1.1.7.23** Report templates must have ability to be tailored to hospital's specific requirements. **MEETS**
- 3.1.1.7.24** Monitor must have ability to print on locally or centrally-connected printers. **MEETS**
- 3.1.1.7.25** Alarm limits must be permanently visible on main screen. **MEETS**
- 3.1.1.7.26** Alarm limits must provide graphic depiction of alarm limits in relation to the currently monitored measurement values and alarm limits must be adjustable. **MEETS**

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**3.1.1.7.27** When alarm limits are exceeded, must have multiple ways of alerting staff. **MEETS**

**3.1.1.7.28** Alarms must have ability to be paused for a period of one (1), two (2), three (3), five (5), ten (10) minutes, or indefinitely. **MEETS – except for 10 Minutes**

**3.1.1.7.29** Monitors must have ability to be part of a wired or wireless hospital network system. **MEETS**

**3.1.1.8 Clinical Calculation Set.**

**3.1.1.8.1** Must have clinical calculation sets that include hemodynamic, oxygenation and ventilation. **MEETS**

**3.1.1.9 Information Centers (2)**

**3.1.1.9.1** Must have a minimum nineteen inch (19”) to a maximum twenty-four inch (24”) non-touch display. **MEETS**

**3.1.1.9.2** Must have information center universal serial bus (USB) recorder. **MEETS**

**3.1.1.9.3** Must have an information center printer. **MEETS**

**3.1.1.9.4** Main screen displays must have waveforms and parameters for a minimum of eight (8) patients. **MEETS**

**3.1.1.9.5** Main screen must have back lighting to aid alarm recognition. **MEETS**

**3.1.1.9.6** Must have volume indicator on main screen. **MEETS**

**3.1.1.9.7** Must have a minimum two (2) channel recorder to a maximum four (4) channel recorder. **MEETS – 2 Channel recorder is thermal paper and 4 channel is laser printer.**

**3.1.1.9.8** Must have a clinical review application to provide a detailed retrospective analysis of patient’s condition. **MEETS**

**3.1.1.9.9** Must include all necessary PC hardware and connections. **MEETS**

**3.1.1.9.10** Must have upgradeability. **MEETS**

**3.1.2 Medical Surgical Wearable Patient Monitors** must meet or exceed the mandatory requirements listed below.

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**3.1.2.1 Monitors:**

- 3.1.2.1.1** Must have continuous electrocardiogram (ECG) monitoring with pulse oximetry option. **MEETS All devices have Spo2 standard-licenses per unit to provide monitoring of SpO2.**
- 3.1.2.1.2** Must have color touch screen display. **MEETS- color screen with touch button access below screen.**
- 3.1.2.1.3** Must have automatic sleep mode to conserve battery while maintaining privacy. **MEETS**
- 3.1.2.1.4** Must have ability to view patient status with a single touch. **MEETS**
- 3.1.2.1.5** Must have a minimum (2) channel of real time waveform. **MEETS - scroll to see to ECG vectors & SPO2.**
- 3.1.2.1.6** Must have a minimum four (4) screen formats. **MEETS – scroll to see ECG vectors & Spo2.**
- 3.1.2.1.7** Must have flexible monitoring parameters. **MEETS**
- 3.1.2.1.8** Must have wide variety of measurements including ECG, SPO<sub>2</sub> and blood pressure. **MEETS - Blood Pressure via patient monitor.**
- 3.1.2.1.9** Must have ability to use disposable or rechargeable batteries. **MEETS – rechargeable.**
- 3.1.2.1.10** Must have battery status display on device and information center. **MEETS**

**3.1.2.2 Alarms:**

- 3.1.2.2.1** Must display alarms for ECG, SPO<sub>2</sub> and non-invasive blood pressure. **MEETS**
- 3.1.2.2.2** Must have one touch review of current alarm settings, alarm histories, vital trends or activate monitor from sleep mode. **MEETS - activate monitor from sleep mode – Does not meet one touch review of alarm settings, alarm histories, & vital trend.**

**3.1.2.3 Hospital Acquired Infections:**

- 3.1.2.3.1** Must have connectors that reduce collection of soils and liquids. **MEETS**

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- 3.1.2.3.2** The device must be smooth to allow wiping and support cleaning by a variety of standard low to high-level disinfectants. **MEETS**
- 3.1.2.3.3** Device must withstand periodic sterilization. **MEETS**– as per cleaning instructions.
- 3.1.2.3.4** Must have reusable lead sets. **MEETS** - Devices also support single use (disposable) lead sets.

**3.1.3 Information Center Description** must meet or exceed the mandatory requirements listed below.

- 3.1.3.1** Must have main screen for displaying real-time waves and parameters for a minimum of ten (10) patients. **MEETS**
- 3.1.3.2** Must have separate patient window for viewing detailed real-time or stored data for individual patient. **MEETS**
- 3.1.3.3** Must have central review station for reviewing a minimum of seventy-two (72) hours of stored patient monitoring data and a minimum of one hundred (100), thirty (30) second alarm records and saved strips, with a minimum of four (4) waves per event. **MEETS** –strips are 20 seconds long.
- 3.1.3.4** Must support the telemetry system. **MEETS**
- 3.1.3.5** Must support telemetry patient monitor. **MEETS**
- 3.1.3.6** Must support cable-less measurements. **MEETS** – monolead ECG wire available in 3, 5, 6 lead sets.
- 3.1.3.7** Must support wearable patient monitor. **MEETS**
- 3.1.3.8** Must have web server that permits viewing of stored and viewable patient data from browser equipped personal computers (PCs) by way of hospital's information center. **MEETS**
- 3.1.3.9** Must have name and patient identification information from hospital information center when clinical data server is present. **MEETS** – EMR software solutions are available.
- 3.1.3.10** Must have real-time and stored patient monitoring data which includes full disclosure wave forms and parameters, alarms, multi-lead arrhythmia, ST segments events and trends. **MEETS**
- 3.1.3.11** Must have configurable central reports for one (1) or more patients that can be generated on demand or on a scheduled internal basis. **MEETS** - not for scheduled internal basis.

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- 3.1.3.12** Must support printing of a predefined set of reports. **MEETS**
- 3.1.3.13** Must have tabular and graphical trend review. **MEETS**
- 3.1.3.14** Must support device locator option which remotely identifies the location of the telemetry devices. **MEETS – find feature identifies location of device.**
- 3.1.3.15** Must support communication with wired and wireless patient monitor.  
**MEETS**
- 3.1.3.16 Patient Monitoring Data:**
  - 3.1.3.16.1** Must have patient data (waves, parameters, and alarms) obtained from patient monitors – (hard wired, wireless, telemetry) connected to the clinical network. **MEETS**
- 3.1.3.17 Patient Data Display:**
  - 3.1.3.17.1** Must have patient monitoring data viewed on main screen and in more detail on a separate patient window. **MEETS**
  - 3.1.3.17.2** The main screen must display real-time waveforms, numeric and alarms for a minimum of ten (10) patients. **MEETS**
  - 3.1.3.17.3** Must have display a minimum of thirty-two (32) waveforms in either single or dual column formats. **MEETS**
  - 3.1.3.17.4** Must have patient window directly accessible from main screen with greater data detail. **MEETS**
- 3.1.3.18 Alarm Response:**
  - 3.1.3.18.1** Must have color coding – capability to visually identify a patient in alarm and its severity on the main screen. **MEETS**
  - 3.1.3.18.2** Must have multi-level, audible alarm tones that indicate alarms and their severity. **MEETS**
  - 3.1.3.18.3** Must have ability to review most recent alarm and print strip immediately. **MEETS**
  - 3.1.3.18.4** Must have ability to modify alarms with password protection.  
**MEETS**
  - 3.1.3.18.5** Must have ability to turn off alarm. **MEETS**

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**3.1.3.19 Cables Measurements:**

**3.1.3.19.1** Measurement must be displayed on information center monitoring telemetry, recording and alarming arterial oxygen saturation, pulse rate, blood pressure (adult and pediatric). **MEETS**

**3.1.3.20 Recording and Printing:**

**3.1.3.20.1** Must have a two (2) Channel USB recorder that can record a minimum of one (1) and/or a maximum of two (2) real-time or delayed waveforms. **MEETS**

**3.1.3.20.2** Must have a minimum of fifty millimeter (50 mm) wall thermal array recorder that provides high resolution, high quality waveforms. **MEETS**

**3.1.3.20.3** Must print grid and waveforms simultaneously to assure accurate registration. **MEETS**

**3.1.3.20.4** Recorder must have capability to record a minimum of two waveforms and a minimum of three lines of annotations. **MEETS**

**3.1.3.21 User Configuration:**

**3.1.3.21.1** Monitoring controls, display formats, alarm response and patient data must have ability to be configured to user performances with configuration tools. **MEETS**

**3.1.3.21.2** Must have unit-wide configurations that are in password protected applications that can be modified for individual patients. **MEETS**

**3.1.3.22 On-Line Help:**

**3.1.3.22.1** Must have on-line help available for both clinical application and service functions. **MEETS - also toll free support.**

**3.1.3.23 Arrhythmia Monitoring:**

**3.1.3.23.1** Must have multi-lead arrhythmia monitoring on user selected primary and secondary leads. **MEETS**

**3.1.3.23.2** Must have arrhythmia detector of the following alarms:

**3.1.3.23.2.1** Asystole **MEETS**

**3.1.3.23.2.2** Ventricular fibrillation **MEETS**



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- 3.1.3.23.2.3 Ventricular tachycardia MEETS**
- 3.1.3.23.2.4 Ventricular bradycardia MEETS**
- 3.1.3.23.2.5 Extreme bradycardia MEETS**
- 3.1.3.23.2.6 Extreme tachycardia MEETS**
- 3.1.3.23.2.7 Pacer not captive MEETS**
- 3.1.3.23.2.8 Pacer not pacing MEETS**
- 3.1.3.23.2.9 Premature ventricular contraction (PVC)-min MEETS**
- 3.1.3.23.2.10 Low heart rate MEETS**
- 3.1.3.23.2.11 High heart rate MEETS**
- 3.1.3.23.2.12 Irregular heart rate MEETS**
- 3.1.3.23.2.13 Non-sustained V-Tach MEETS**
- 3.1.3.23.2.14 Supraventricular Tach MEETS**
- 3.1.3.23.2.15 Ventricular rhythm MEETS**
- 3.1.3.23.2.16 Run PVCs MEETS**
- 3.1.3.23.2.17 Pair PVCs MEETS**
- 3.1.3.23.2.18 Multiform PVCs MEETS**
- 3.1.3.23.2.19 R on T PVC MEETS**
- 3.1.3.23.2.20 Pause MEETS**
- 3.1.3.23.2.21 Missed beat MEETS**
- 3.1.3.23.2.22 Ventricular begeminy MEETS**
- 3.1.3.23.2.23 Ventricular trigemini MEETS**
- 3.1.3.23.2.24 Arterial fibrillation DOES NOT MEET**

**3.1.3.24 Patient Data Review:**

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**3.1.3.24.1** Must have a minimum of ninety-six (96) hours of full disclosure waves, alarms, events, ST segments and trends that can be reviewed by selecting patient of interest and launching desired review application. **MEETS – up to 120 hour option is available.**

**3.1.3.24.2** Must have strip function that provides detailed waveforms from wave event and alarm review applications and can be sent for patient's length of stay. **MEETS**

**3.1.3.25 Wave Review:**

**3.1.3.25.1** Must have continuous full disclosure a minimum of four (4) configurable waves per patient. **MEETS**

**3.1.3.25.2** Must have one (1) – sixty (60) minute wave duration per screen. **MEETS – 10 minute window.**

**3.1.3.25.3** Must have timeline, tabulation, trend and event navigators for fast searches and greater context. **MEETS**

**3.1.3.25.4** Must have strip reports. **MEETS**

**3.1.3.26 Alarm Review:**

**3.1.3.26.1** Must have a minimum of (30) seconds (30s) compressed waveforms of alarm or saved strip events. **MEETS 20 second strip events.**

**3.1.3.26.2** Must have a minimum of four (4) waveforms per event. **MEETS**

**3.1.3.26.3** Must have simultaneous display of alarm events. **MEETS**

**3.1.3.26.4** Must have search by alarm severity. **MEETS**

**3.1.3.26.5** Must have interval measurement. **MEETS**

**3.1.3.27 Event Review:**

**3.1.3.27.1** Must have ten (10) configurable groups with a minimum of five (5) alarm criteria per group. **MEETS**

**3.1.3.27.2** Must have strip delayed for verification of event criteria. **MEETS**

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**3.1.3.27.3** Must have total occurrences of events calculated and displayed in one (1), four (4), eight (8), twelve (12), and twenty-four (24) hour time scales. **MEETS**

**3.1.3.28 Trend Review:**

**3.1.3.28.1** Must have tabular display of physiological parameters. **MEETS**

**3.1.3.28.2** Must have graphical presentation at a minimum of one (1) minute resolution using bivariate trend plots. **MEETS**

**3.1.3.28.3** Must have ten (10) configurable groups with a minimum of five (5) bivariate trend plots. **MEETS**

**3.1.3.28.4** Must have exact parameters displayed for cursor time location. **MEETS**

**3.1.3.28.5** Must have simultaneous display of trend plots. **MEETS**

**3.1.3.28.6** Must have trends displayed in one (1), four (4), eight (8), twelve (12), and twenty-four (24) hour time scales. **MEETS**

**3.1.3.29 Twelve (12) Lead Review:**

**3.1.3.29.1** Must have retrospective review of twelve (12) derived leads. **MEETS**

**3.1.3.29.2** Must have 2.5 to 10 second snippets. **MEETS**

**3.1.3.29.3** Must have 3 x 4, 6 x 2 and 12 x 1 (row by column) display and reports. **MEETS**

**3.1.3.30 Information Center:**

**3.1.3.30.1** Must include PC with the following standard components:

**3.1.3.30.1.1** Must have DVD/DC ROM and disk drive. **MEETS**

**3.1.3.30.1.2** Must have audio cord and speaker. **MEETS**

**3.1.3.30.1.3** Must have keyboard. **MEETS**

**3.1.3.30.1.4** Must have mouse. **MEETS**

**3.1.3.30.1.5** Must have operating system software which is compatible with Windows XP or later (to insure compatibility with

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Agency's current operating system). Central Station uses  
Linux platform.

**3.1.3.30.1.6 Software must have capability for monitoring a minimum  
of ten (10) patients. MEETS**

**3.1.3.30.1.7 Must have uninterruptible power supply (UPS). MEETS**

**3.1.3.30.1.8 Must have external speakers. MEETS**

**3.1.3.31 Waveform Display:**

**3.1.3.31.1 Screen resolution must a minimum of 1280 x 1024. MEETS**

**3.1.3.31.2 Vertical refresh rate must be a minimum of 60 Hz. MEETS**

**3.1.3.31.3 Must have video-cable connector. MEETS**

**3.1.3.31.4 Must have a minimum color depth of twenty-four (24) -bit true color.  
MEETS**

**3.1.3.32 Display Formats:**

**3.1.3.32.1 Must have single column: 4 x 1, 6 x 1, 8 x 1. MEETS**

**3.1.3.32.2 Must have at least a 7.0 second wave trace at 24 mm/s. MEETS**

**3.1.3.32.3 Must have a minimum 14.0 second wave trace at 12.5 mm/s.  
MEETS**

**3.1.3.32.4 Must have ability of dual column 2 x 2, 3 x 2, 4 x 2, 5 x 2, 6 x 2, 8 x  
2. MEETS**

**3.1.3.32.5 Dual column must have a minimum 3.3 second wave trace at 25  
mm/s. MEETS**

**3.1.3.32.6 Dual column must have a minimum 6.6 second wave trace at 12.5  
mm/s. MEETS**

**3.1.4 Equipment must have a minimum one (1) year warranty. MEETS**

**3.1.5 Must include manual/CDs for trouble shooting equipment problems. MEETS**

**3.1.6 Must include all installation labor and supplies. MEETS**

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- 3.1.7** Must provide on-site staff education for all of the nursing staff (approximately 100) for instruction for equipment use and care. **MEETS - On site staff education is done in advance and also provided during the go live of the project.**

**4. CONTRACT AWARD:**

- 4.1 Contract Award:** The Contract is intended to provide Agencies with a purchase price for the Contract Items. The Contract shall be awarded to the Vendor that provides the Contract Items meeting the required specifications for the lowest overall total cost as shown on the Pricing Pages.
- 4.2 Pricing Page:** Vendor should complete the Pricing Page by providing a Unit Price for the Commodity or Service Lines on the Request for Quotation. Vendor should complete the Pricing Page in full as failure to complete the Pricing Page in its entirety may result in Vendor's bid being disqualified.

Vendor should type or electronically enter the information into the Pricing Page to prevent errors in the evaluation.

**Please see completed pricing options attached.**

- 5. PERFORMANCE:** Vendor and Agency shall agree upon a schedule for performance of Contract Services and Contract Services Deliverables, unless such a schedule is already included herein by Agency. In the event that this Contract is designated as an open-end contract, Vendor shall perform in accordance with the release orders that may be issued against this Contract.
- 6 PAYMENT: Payment:** Agency shall pay Unit Price for the Commodity or Service Lines as listed on the Request for Quotation, as shown on the Pricing Pages, for all Contract Services performed and accepted under this Contract. Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.
- 7 DELIVERY AND RETURN:**
- 7.1 Shipment and Delivery:** Vendor shall ship the Contract Items immediately after being awarded this Contract and receiving a purchase order or notice to proceed. Vendor shall deliver the Contract Items within ninety (90) calendar days after receiving a purchase order or notice to proceed. Contract Items must be delivered to Agency at Welch Community Hospital, 454 McDowell Street, Welch, WV.
- 7.2 Late Delivery:** The Agency placing the order under this Contract must be notified in writing if the shipment of the Contract Items will be delayed for any reason. Any

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delay in delivery that could cause harm to an Agency will be grounds for cancellation of the Contract, and/or obtaining the Contract Items from a third party. Vendor shall not be liable for cover costs.

Any Agency seeking to obtain the Contract Items from a third party under this provision must first obtain approval of the Purchasing Division.

**7.3 Delivery Payment/Risk of Loss:** Vendor shall deliver the Contract Items F.O.B. destination to the Agency's location.

**7.4 Return of Unacceptable Items:** Per Vendor's Return Policy included in this RFQ, If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall either make arrangements for the return within five (5) days of being notified that items are unacceptable, or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. Per Vendor's policy, the returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.

### CHANGES, CANCELLATION AND RETURN AND REPAIR

Customer orders accepted by DMI under this Agreement are not subject to change or cancellation except upon written agreement of the parties; except that DMI may change the manufacture and/or design of its Products if, in the judgment of DMI, such change does not alter the general function of the Products.

Products delivered by DMI are not returnable by Customer except as follows (the following also applies to factory repairs): All Products to be returned or repaired must have prior authorization by DMI and a valid Return Material Authorization ("RMA") number must appear on the shipping label, packing slip, purchase order, and any other related paperwork. Products received without such authorization will be refused at DMI's receiving dock and returned immediately to Customer. When requesting authorization to return material, the following information must be provided:

1. Customer purchase order number and date.
2. DMI sales order number and shipping date (returns only).
3. Quantity, DMI Product number, and description of material to be returned.
4. Reason for return or repair.
5. Contact DMI at 1-800-4-Drager for RMA number

The following are the only accepted reasons for return of material:

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1. Warranty repairs (covers Products within their warranty period).
2. Customer order error.
3. DMI order or shipping error.
4. Products delivered damaged.

Products returned for warranty repairs are subject to the terms of the DMI warranty. Products to be returned that are not under warranty must have been purchased within thirty (30) days of request for return, returned within fourteen (14) days after request, and approved for return as stated previously. Products must be unused and in DMI shipping containers. Returned Products, with the exception of returns which are (a) under warranty, (b) returned due to DMI error or (c) delivered damaged, are subject to a twenty percent (20%) restocking charge.

The following Products are not eligible for return:

1. Sterile material, unless shipped in error by DMI.
2. Products that have been used.
3. Specially ordered or manufactured products.
4. Products that have been altered or abused by Customer.
5. Products that are known to be contaminated with communicable diseases.

Upon receipt of authorized returned Products, an inspection of the Products will be conducted by DMI and appropriate action taken. DMI's decision regarding disposition of returned Products is final. All Products to be returned (including any in need of factory repair) shall be shipped, freight and insurance prepaid, to the following address unless otherwise advised by DMI:

DrägerService®  
3135 Quarry Road  
Telford, PA 18969  
(Include Return Material Authorization Number.)

7.4 It is the responsibility of Customer to disinfect, pack, insure, and ship equipment to DMI at Customer's sole expense.

**7.5 Return Due to Agency Error:** Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

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**8 TRAVEL:** Vendor shall be responsible for all mileage and travel costs, including travel time, associated with performance of this Contract. Any anticipated mileage or travel costs may be included in the flat fee or hourly rate listed on Vendor's bid, but such costs will not be paid by the Agency separately.

**9 FACILITIES ACCESS:** Performance of Contract Services may require access cards and/or keys to gain entrance to Agency's facilities. In the event that access cards and/or keys are required:

**9.1** Vendor must identify principal service personnel which will be issued access cards and/or keys to perform service.

**9.2** Vendor will be responsible for controlling cards and keys and will pay replacement fee, if the cards or keys become lost or stolen.

**9.3** Vendor shall notify Agency immediately of any lost, stolen, or missing card or key.

**9.4** Anyone performing under this Contract will be subject to Agency's security protocol and procedures.

**9.5** Vendor shall inform all staff of Agency's security protocol and procedures.

**10 VENDOR DEFAULT:**

**10.1** The following shall be considered a vendor default under this Contract.

**10.1.1** Failure to perform Contract Services in accordance with the requirements contained herein.

**10.1.2** Failure to comply with other specifications and requirements contained herein.

**10.1.3** Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.

**10.1.4** Failure to remedy deficient performance upon request.

**10.2** The following remedies shall be available to Agency upon default.

**10.2.1** Immediate cancellation of the Contract.

**10.2.2** Immediate cancellation of one or more release orders issued under this Contract.



**REQUEST FOR QUOTATION  
CRFQ 0506 WEH160000014  
WEH160000003 Telemetry System**

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**10.2.3** Unless otherwise expressly excluded in this RFQ response or in the Exceptions provided by Vendor included in this RFQ, Any other remedies available in law or equity.

**Please see Dräger Monitoring Project Template Sample attached.**

**11 MISCELLANEOUS:**

**11.1 Contract Manager:** During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

**Contract Manager:** Jeff Ritchie  
**Telephone Number:** 315-679-0268  
**Fax Number:** (215) 721-5811  
**Email Address:** jeff.ritchie@draeger.com

# Exported Template Tasks

#	Name	Description	Job Role: Name	Duration	Start	Comp
1	Project Initiation Phase 1	Project Initiation and Preparation DMI Phase 1		37 Days	0	37
2	Sales to Implementation Turnover Meeting	Review of roles, responsibilities and project expectations of customer contacts and Draeger project resources.	TIS	1 Day	0	1
3	Project Assignment for PM	2014 UPDATE: Assign task to project manager and set the project status to CURRENT. PM should receive the assignment email.	Project Manager	1 Day	0	1
4	SALES ORDER REVIEW - Review Orders and Contract Terms and Conditions- Establish Milestones	Understand of scope, limitations and contract obligations. INITIATE SALES ORDER REVIEW PROCESS	Project Manager	1 Day	0	1
5	Develop Preconfiguration (Optional)	Optional activity based on pre configuration process.	TIS	1 Day	0	1
6	Initial Customer Contact	Bollerplate email template in document repository must be sent.	Project Manager	0 Days	20	20
7	Schedule Charter Meeting	Scheduling the Charter must take place no greater than 20 days from initiating the project this will be a Milestone Task	Project Manager	0 Days	20	20
8	Project Charter Meeting w/ Customer - On Site	Conduct charter meeting to understand the customer's expectations and to formally meet the Customer's project team.	TIS	5 Days	0	5
9	Preliminary Walk Through Site Evaluation (Optional)	If feasible may be performed during the same visit as the Charter Meeting. This activity will determine network requirements, cabling requirements, equipment locations, Clinical requirements, etc.	TIS	5 Days	0	5
10	Create Preliminary Project Plan	Develop project plan based on Scope of Work and any agreed upon timelines. High level milestones are identified. Team members review and agree with project plan. PM calls meeting(s) to make final revision	Project Manager	30 Days	2	32
11	Verify / Modify Delivery Date	Verify delivery date to customer based on the pre configuration process and/or customer target dates for implementation	Project Manager	5 Days	32	37
12	Prepare Project Documentation i.e. Issues, Risks, etc.	Prepare all templates and lists related to the project documentation from Document Repository.	Project Manager	5 Days	2	7
13	BASELINE- Initiation Phase Complete	Create a baseline with the name: Initiation Phase Complete	Project Manager	1 Day	0	1
14	Project Planning Phase 2	Project Detailed Planning DMI Phase 2		32 Days	0	32
15	Preliminary Walk Through Site Evaluation	Determine network requirements, cabling requirements, equipment locations, etc.	TIS	5 Days	1	6
16	Start Development of Detailed Project Plan	Working with the customer, Draeger develops tasks to complete a detailed project plan.	Project Manager	15 Days	0	15
17	Clinical Planning	Provide workflow recommendations for clinical assessment	CIS	11 Days	0	11
18	Clinical Workflow Assessment	Document Clinical WFA	CIS	5 Days	0	5
19	Clinical Gap Analysis Documentation	Document Clinical WFA current and future state	CIS	5 Days	0	5



# Exported Template Tasks (cont'd)

#	Name	Description	Job Role: Name	Duration	Start	Comp
20	SCHEDULE ON-SITE - Report to Customer - WFA Results - On Site	Consolidate network requirements, clinical requirements, implementation requirements.	TIS	5 Days	6	11
21	Clinical Super User Sandbox Orientation	Clinical Supers are oriented/trained to the sandox options for decisions.	CIS	1 Day	0	1
22	Develop Prototype/Sandbox	Gather requirements and develop the on-site prototype / sandbox configuration with the customer.	CIS	1 Day	0	1
23	Order Sandbox Equipment - Demo Process	Order the finalized sandbox equipment using the customers equipment or the Demo Request Process	Project Manager	1 Day	0	1
24	Validate Prototype with SU	Validate prototype options on site with the Super Users	CIS	4 Days	0	4
25	Technical Planning			17 Days	0	17
26	Technology Site Assessment - Gap Analysis	Technology requirements based on Current to Future state of Draeger solution.	TIS	17 Days	0	17
27	Create Network Design Document		TIS	10 Days	0	10
28	Infinity Network Configurations	Create network configuration settings for all Draeger Equipment.	TIS	10 Days	0	10
29	Required network hardware	Specify network hardware to meet Draeger device network requirements	TIS	10 Days	0	10
30	Develop Custom KVM/VideoExt Solution		TIS	10 Days	0	10
31	Develop network diagram	Design network diagram based on network hardware and Draeger device requirements	TIS	10 Days	0	10
32	Define wiring requirements	Identify number of drops per location, new versus existing. Consider future expansion requirements (new construction)	TIS	10 Days	0	10
33	Determine equipment location, mounting and power	Update floor plans to reflect above tasks	TIS	10 Days	0	10
34	Wireless			16 Days	0	16
35	Present Site Evaluation to Customer	Communicate results of evaluation to customer	Project Manager	5 Days	11	16
36	Wireless Validation Survey		TIS	5 Days	0	5
37	Finalize Project Plan	Final Iteration of Project Plan (Signoff and Baseline Required) Any changes to live date after this point require another Baseline and signoff.	Project Manager	5 Days	0	5
38	Confirm Install Support (resources)		Project Manager	5 Days	10	15
39	Create Communication Plan	Determine method of communication, i.e. email, phone, fequency, escalatation, etc. Ensure all appropriate parties are included in communication plan	Project Manager	5 Days	2	7
40	Obtain Customer Signoff on SOW and Project Plan	Meet with customer to review scope of work and signoff on project plan	Project Manager	10 Days	22	32

# Exported Template Tasks (cont'd)

#	Name	Description	Job Role: Name	Duration	Start	Comp
41	BASELINE - Project Planning Complete	Completion of the Planning Phase. Project Status must now be changed to CURRENT. This will release all the task assignments to the resources for acceptance.		0 Days	0	0
42	Project Realization Phase 3			50 Days	0	50
43	Customer Kickoff Meeting - On Site	Review sales order/project scope, roles responsibilities, timeline expectations, risks, communication plan, stakeholders, contract T&Cs, etc.	TIS	2 Days	0	2
44	Confirm Delivery of Equipment at customer site		Project Manager	5 Days	0	5
45	Check Site Readiness prior to Equipment Installation	Verify actions are complete to bring site to readiness	TIS	5 Days	0	5
46	Inventory		TSR	5 Days	0	5
47	Track Order Issues onsite		TIS	5 Days	0	5
48	CAS education mtg - gather defaults		CIS	5 Days	0	5
49	Customer Performs Asset Management Inventory			5 Days	0	5
50	Programming/Configuration	Equipment is programmed according to Network Configuration Documentation	TSR	5 Days	5	10
51	Training schedule confirmed	Training Dates/Times agreed to, expectations set, Mangement buy in provide attendee list	CIS	5 Days	5	10
52	Training Room Environment	Confirm, secure location, equipment is setup and working. Environment should reflect Customers purchased equipment. Location should be lockable.	TSR	5 Days	10	15
53	Install Network/Telemetry Equipment	Coordinate installation of Network/Tele componenets with responsible team members	TIS	20 Days	5	25
54	Install Mounting	Coordinate installation of mounts, rails installed by Customer Team Member(s), actual mounts installed by Drager Team Member(s)	TIS	10 Days	5	15
55	Install Patient Monitors	Mount configured Monitors at specified locations, configured with Clinical Defaults, perform cable management	CIS	15 Days	10	25
56	Confirm all work completed	All Tasks in Buld Phase are complete- notify PM	TIS	5 Days	25	30
57	Test Phase			15 Days	10	25
58	Test Network	Verify Network functionality per device network functions- i.e. remote view, ping tests, multicast traffic etc.	TIS	15 Days	10	25
59	Test Custom Configurations (i.e. Explorer applications)		TIS	10 Days	10	20
60	Test Interfaces (ADT, LAB, scheduling etc)		TIS	10 Days	10	20
61	Test Patient Monitors	Test and calibrate monitors according to Monitor installation documents	TSR	15 Days	10	25
62	Customer Training			1 Day	15	16

# Exported Template Tasks (cont'd)

#	Name	Description	Job Role: Name	Duration	Start	Comp
63	Train Super Users (Optional)	Conduct extra SU training only with agreement for additional hours. SU Training occurs with the Sandbox/Prototype.	CIS	1 Day	15	16
64	Document Number of SU and EU Trained	Send the number of Super Users and End Users being trained to the Project Manager for addition to Project Custom data (Order Details Group). USE THE ATTASK TASK UPDATE STATUS TO COMMUNICATE TO THE PM.	CIS	1 Day	15	16
65	Clinical Go Live			20 Days	30	50
66	Equipment Deployment		TSR	1 Day	30	31
67	Removal of Old Equipment			1 Day	30	31
68	Start Clinical Use/Go Live		Project Manager	3 Days	30	33
69	Implementation to Support Turnover	Include Site Documentation, FSS completion	Project Manager	10 Days	40	50
70	Live Onsite Support		Project Manager	3 Days	30	33
71	BASELINE- Realization Phase Complete	Realization Phase is completed. Customer go live is completed and resources are released. ISW is presented to the customer for sign off.		0 Days	0	0
72	Project Close Phase 4			70 Days	33	103
73	INVOICE REQUEST_ProjectName_Sales order Number	Invoice Request to account this must occur with 5 business days of Go-Live	Project Manager	1 Day	101	102
74	Identify/Resolve Open Issues		Project Manager	10 Days	33	43
75	Lessons Learned		Project Manager	5 Days	50	55
76	Post-Live 90-Day Followup (TIS)		TIS	1 Day	102	103
77	Post-Live 90-Day Followup (CIS)		CIS	1 Day	102	103
78	Post-Live 90-Day Followup (PM)		Project Manager	1 Day	102	103
79	BASELINE - Project Close Phase Complete	Project documentation is completed. ISW is signed by the customer and the Project invoice has been requested.		0 Days	0	0

Description/Equipment/One Time Purchase	UNSPSC	Quantity	Cost Per Unit	Total Cost
3.1.1 Bedside monitors (Proposal # 136071426)	42181719	15	\$15,773.98	\$236,609.72
3.1.2 Medical surgical wearable patient monitors (Proposal # 136071142)	42181719	10	\$ 3,544.00	\$ 35,440.05
3.1.3 Information center (Proposal # 136071148)	42181719	2	\$15,480.02	\$ 30,960.05
3.1.4 Warranty Standard 1 year - Included	42181719	1	\$ 0.00	\$ 0.00
3.1.5 Manual/CDs - Included	55101521	1	\$ 0.00	\$ 0.00
3.1.6 Installation (Proposal # 136071154)	81111809	1	\$17,480.87	\$ 17,480.87
3.1.7 In-service medical staff - Included	86000000	1	\$ 0.00	\$ 0.00

**TOTAL PROPOSAL****\$320,490.69**

**Evaluation and Award Criteria:** Contract will be awarded to the Vendor meeting the required specifications for the lowest overall Total Cost.

**Draeger Medical, Inc.**  
Vendor Name (Printed)

**3135 Quarry Road, Telford, PA 18969**  
Purchase Order Address

**P.O. Box 536432, Pittsburgh, PA 15253-5903**  
Vendor Remit-To Address:

**Timothy S. Rugel, Sr. Mgr. of Financial Operations**  
Vendor Authorized Representative (Printed)  
Date

  
Signature

**(215) 721-5400**  
Telephone

**(215) 721-5811**  
Fax

**Tim.Rugel@draeger.com**  
E-mail



## Quotation

**Customer no.**  
91045730

**Quotation no.** 136071426 | **Date of offer** 02/19/2016

Please reference on inquiries

**Customer**  
WELCH COMMUNITY HOSP  
454 MCDOWELL ST  
WELCH WV 24801-2029

**Payer** 91045730  
WELCH COMMUNITY HOSP  
454 MCDOWELL ST  
WELCH WV 24801-2029

**Your request dated**  
02/19/2016  
[15] IACS R2

**Ship to** 91045730  
WELCH COMMUNITY HOSP  
454 MCDOWELL ST  
WELCH WV 24801-2029

**Your contact person**

JEFF RITCHIE  
Tel.: 315-679-0268  
Fax : 215-721-5811

Dear Customer,

Thank you for the opportunity to provide this quotation.

**Quotation no.:** 136071426  
**Responsible:** JEFF RITCHIE

**Telephone:** 315-679-0268  
**Fax:** 215-721-5811  
**E-mail:** jeff.ritchie@draeger.com

Best regards

Draeger Medical, Inc.

JEFF RITCHIE

**Draeger Medical, Inc.**  
Our Tax ID: 23-1699086  
3135 Quarry Road; Telford, PA 18969  
An Equal Opportunity Employer M / F / V / H  
Telephone 800-437-2437  
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Line	Quant.	Part no.	Description	Unit price USD	Total price Discount % USD
			<p><b>National account: Enterprise Mon T3</b></p> <p>Shipping Charges per above National Account Confirmation no. to customer: Date confirmation to customer: Order-No. from customer: Date order from customer:</p> <p>CUSTOMER IS RESPONSIBLE FOR SUPPLYING, INSTALLING, TERMINATION AND CERTIFICATION OF NETWORK CABLE.</p> <p>UNLESS OTHERWISE NOTED, THE CUSTOMER IS RESPONSIBLE FOR SUPPLYING, INSTALLING AND CONFIGURATION OF ANY NETWORK SWITCHES THAT WILL BE REQUIRED.</p> <p>THE CUSTOMER IS RESPONSIBLE FOR INSTALLATION OF ANY WALL CHANNELS.</p> <p>IMPLEMENTATION FEES ARE NOTED ON QUOTATION #136071154 FOR \$17,480.87.</p> <p>CUSTOMER WILL PROVIDE ALL NETWORKING COMPONENTS FOR WIRED AND WIRELESS NETWORKING TO INCLUDE CABLE PULLING AND TERMINATION. THE COSTS FOR ANY REQUIRED NETWORK ALTERATIONS ARE NOT INCLUDED IN THIS QUOTATION AND ARE THE RESPOSIBILITY OF THE CUSTOMER.</p> <p>The Infinity M540 on this quotation are configured for wireless operation. However this option will require a wireless site survey of the desired coverage area in order to enable the wireless capability. The wireless site survey, unless listed on this quotation, is not included and will be quoted separately when implemented.</p> <p>THIS QUOTE REFLECTS TRADE IN OF 15 Sc SERIES MONITORS VALUED AT \$500 EACH. CREDIT TO BE ISSUED UPON RECEIPT OF UNIT</p>		



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Line	Quant.	Part no.	Description	Unit price USD	Total price Discount % USD
		AT DMI.			
0010	10 EA	MS25510	IACS Monitoring with C500  <b>**Specif.national properties**</b> Target country USA  <b>** Medical Cockpit **</b> Monitoring with C500  <b>** Care Unit **</b> Critical Care Unit/xICU (CC)		
	10 EA	OP90127	<b>**Infinity Acute Care System**</b> Monitoring with C500  <b>** SpO2 Technology **</b> Nellcor OxiMax MCable SpO2 Pod Mount  <b>** System Cables **</b> System cable 3.5m System cable 3.5m	15,300.00	153,000.00
	10 EA	OP90168	<b>*Expanded Monitoring Promotion</b> SW opt 12-Lead ECG Monitoring	0.01	0.10
	10 EA	OP90169	SW option Arrhythmia II	0.01	0.10
	10 EA	OP90170	SW option Multi IBP	0.01	0.10
	10 EA	MS20516	<b>**Additional Software Options*</b> SW option Physiological Calcs  <b>** User Manuals **</b> * Single set of user manual/s * supplied per order.	1,014.00	10,140.00

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Line	Quant.	Part no.	Description	Unit price USD	Total price	
					Discount %	USD
			* IFUs on a DVD ordered. ADDITIONAL MANUAL NOT ORDERED			
			<b>Value IACS Monitoring with C500</b>			163,140.30
0020	5 EA	MS25510	<b>IACS Monitoring with C500</b>			
			<b>**Specif.national properties**</b> Target country USA			
			<b>** Medical Cockpit **</b> Monitoring with C500			
			<b>** Care Unit **</b> Critical Care Unit/xICU (CC)			
	5 EA	OP90127	<b>**Infinity Acute Care System**</b> Monitoring with C500	15,300.00		76,500.00
			<b>** SpO2 Technology **</b> Nellcor OxiMax MCable SpO2 Pod Mount			
			<b>** System Cables **</b> System cable 3.5m System cable 3.5m			
	5 EA	OP90168	<b>*Expanded Monitoring Promotion</b> SW opt 12-Lead ECG Monitoring	0.01		0.05
	5 EA	OP90169	SW option Arrhythmia II	0.01		0.05
	5 EA	OP90170	SW option Multi IBP	0.01		0.05
			<b>** User Manuals **</b> * Single set of user manual/s * supplied per order. * IFUs on a DVD ordered. ADDITIONAL MANUAL NOT ORDERED			
			<b>Value IACS Monitoring with C500</b>			76,500.15



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Line	Quant.	Part no.	Description	Unit price USD	Discount %	Total price USD
0030	15 EA	MP03404	ECG 5-Lead single-p AHA, 1.5m	182.07		2,731.05
0040	15 EA	MP00748	Nellcor Cable 1.2m, 14pin	401.49		6,022.35
0050	15 EA	7262764	SPO2 Nellcor sensor DS100A Adt	274.81		4,122.15
0060	15 EA	MP00913	NBP Cuff S, 17-25/29cm	24.65		369.75
0070	15 EA	MP00916	NBP Cuff M+, 23-33/43cm	24.65		369.75
0080	15 EA	MP00919	NBP Cuff L+, 31-40/55cm	27.20		408.00
0090	15 EA	MP00953	NBP extension hose, adult 3,7m	85.00		1,275.00
0100	8 EA	1979569	Clinical Applicat. Supp.Monitor.8h segm	2,200.00	100.00	0.18
0103	1 EA	MQ00921	3rd Party Hardware	22,000.00		22,000.00
0105	15 EA	1979996	Trade In toward IACS SC Series Monitors	-500.00		-7,500.00
0106	1 EA	1900061	One Time Customer Discount	-33,728.96		-33,728.96
0130	1 EA	1979294	Freight charges mt-m	900.00		900.00

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**Net value excl. Sales Tax** **236,609.72**

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**Final amount** **236,609.72**  
=====

The sale of the products identified herein is expressly subject to the Draeger Medical, Inc. - Terms and Conditions of Sale which are attached hereto and which may also be found at:  
<http://www.draeger.com/termsandconditions>.

Customer is hereby informed that section 1128B(b) of the Social Security Act requires that discounts and other reductions in price or the existence of discount programs be properly disclosed and reflected in the costs claimed or charges made by a provider under



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Line	Quant.	Part no.	Description	Unit price USD	Total price Discount %    USD
			Medicare or a Federal or State Health Program.		
			PLEASE CHECK THIS ORDER CAREFULLY FOR ACCURACY IN PRICING, PART # AND DESCRIPTION. Contact Customer Service immediately if there are any discrepancies. This acknowledgement and note constitutes the entire agreement with respect to the contemplated transaction and supersedes all previous negotiations, proposals, writings, advertisements, or publications.		
			<b>Delivery time</b>		
			Pos. 0010: 11 Week/s after rec. of order *	10 EA	
			Pos. 0020: 11 Week/s after rec. of order *	5 EA	
			Pos. 0030: 11 Week/s after rec. of order *	15 EA	
			Pos. 0040: 11 Week/s after rec. of order *	15 EA	
			Pos. 0050: 11 Week/s after rec. of order *	15 EA	
			Pos. 0060: 11 Week/s after rec. of order *	15 EA	
			Pos. 0070: 11 Week/s after rec. of order *	15 EA	
			Pos. 0080: 11 Week/s after rec. of order *	15 EA	
			Pos. 0090: 11 Week/s after rec. of order *	15 EA	
			Pos. 0100: 11 Week/s after rec. of order *	8 EA	
			Pos. 0103: 11 Week/s after rec. of order *	1 EA	
			Pos. 0105: 11 Week/s after rec. of order *	15 EA	
			Pos. 0130: 11 Week/s after rec. of order *	1 EA	
			* After receipt of order, ready for dispatch ex works, subject to prior sale.		
			Please let us know if you prefer partial delivery.		
			<b>Payment terms:</b> 30 days after invoice date		
			<b>Offer valid until: 04/30/2016</b>		
			<u>Remit to:</u> Draeger Medical Inc. PO Box 536432 Pittsburgh, PA 15253-5906		



## Quotation

**Customer no.**  
91045730

**Quotation no.** 136071142    **Date of offer** 02/19/2016

Please reference on inquiries

**Customer**  
WELCH COMMUNITY HOSP  
454 MCDOWELL ST  
WELCH WV 24801-2029

**Payer** 91045730  
WELCH COMMUNITY HOSP  
454 MCDOWELL ST  
WELCH WV 24801-2029

**Your request dated**

02/19/2016  
[10]M300 Tele R2

**Ship to** 91045730  
WELCH COMMUNITY HOSP  
454 MCDOWELL ST  
WELCH WV 24801-2029

**Your contact person**

JEFF RITCHIE  
Tel.: 315-679-0268  
Fax : 215-721-5811

Dear Customer,

Thank you for the opportunity to provide this quotation.

**Quotation no.:** 136071142  
**Responsible:** JEFF RITCHIE

**Telephone:** 315-679-0268  
**Fax:** 215-721-5811  
**E-mail:** jeff.ritchie@draeger.com

Best regards

Draeger Medical, Inc.

JEFF RITCHIE

**Draeger Medical, Inc.**  
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Please reference on inquiries

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91045730

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Line	Quant.	Part no.	Description	Unit price USD	Total price USD
			<b>National account: Enterprise Mon T3</b>		
			Shipping Charges per above National Account Confirmation no. to customer: Date confirmation to customer: Order-No. from customer: Date order from customer:		
			3.1.2 MEDICAL WEARABLE PATIENT MONITORS - 10 EACH M300 TELEMETRY.		
			ENTERPRISE MONITORING TIER 3 PRICING IS VALID WITH PURCHASE OF \$500,000 OR GREATER.		
			IMPLEMENTATION FEES ARE NOTED ON QUOTATION #136071154 FOR \$17,480.87.		
			CUSTOMER WILL PROVIDE ALL NETWORKING COMPONENTS FOR WIRED AND WIRELESS NETWORKING TO INCLUDE CABLE PULLING AND TERMINATION. THE COSTS FOR ANY REQUIRED NETWORK ALTERATIONS ARE NOT INCLUDED IN THIS QUOTATION AND ARE THE RESPONSIBILITY OF THE CUSTOMER.		
			CUSTOMER IS RESPONSIBLE FOR SUPPLYING, INSTALLING, TERMINATION AND CERTIFICATION OF NETWORK CABLE.		
			UNLESS OTHERWISE NOTED, THE CUSTOMER IS RESPONSIBLE FOR SUPPLYING, INSTALLING AND CONFIGURATION OF ANY NETWORK SWITCHES THAT WILL BE REQUIRED.		
			THE CUSTOMER IS RESPONSIBLE FOR INSTALLATION OF ANY WALL CHANNELS.		
			The wireless site survey pricing is budgetary only and subject to change based on building construction, actual coverage area and other information acquired from the site survey profile. Official pricing will require		

## Quotation

Customer no.  
91045730

Quotation no. 136071142      Date of offer 02/19/2016

Please reference on Inquiries

Payer  
91045730

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Line	Quant.	Part no.	Description	Unit price USD	Total price USD
			an AutoCAD drawing (electronic), hardcopy drawing of coverage areas (marked up) and a completed site survey profile form.		
0010	2 EA	MS18501	Infinity M300		
			<b>**Specif.national properties**</b> Target country USA		
	2 EA	MS25755	<b>** Device **</b> Infinity M300	2,550.00	5,100.00
			<b>** Pulse Oximetry **</b> Draeger / Nellcor Sensors		
	2 EA	MS29558	<b>** M300 Bedside Charger **</b> M300 Bedside Charger	369.75	739.50
	2 EA	MS29560	<b>** Bedside Charger Plug **</b> Plug, NA	11.69	23.38
			<b>Value Infinity M300</b>		<b>5,862.88</b>
0020	1 EA	MS27901	M300 Promotion		
			<b>**Specif.national properties**</b> Target country USA		
	1 EA	OP90117	<b>* Buy 7 get 8 M300 Promotion *</b> Buy 7 get 8 M300 Promotion	20,438.25	20,438.25
			<b>** Device **</b> MultiView		



# Quotation

Customer no.  
91045730

Quotation no. 136071142      Date of offer 02/19/2016

Please reference on inquiries

Payer  
91045730

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Line	Quant.	Part no.	Description	Unit price USD	Total price USD
			<b>** Pulse Oximetry **</b> Draeger / Nellcor Sensors		
	8 EA	OP90400	<b>** M300 Bedside Charger **</b> M300 Bedside Charger	0.10	0.80
	8 EA	OP90412	<b>** Bedside Charger Plug **</b> Plug, NA	0.13	1.04
	1 EA	MS25699	<b>*Infinity M300 CentralCharger*</b> Infinity M300 Central Charger	5,057.50	5,057.50
	1 EA	4321720	<b>** Power Cable **</b> Power Cord, North America	13.43	13.43
			<b>Value M300 Promotion</b>		<b>25,511.02</b>
0030	10 EA	MP03424	EKG 5-adrig TruST AHA, Telem.	130.05	1,300.50
0040	5 EA	MS18683	SPO2 INTERMEDIATE CABLE, 1.2M	149.18	745.90
0050	5 EA	MS13235	SPO2 SENSOR DRÄGER, REUSABLE	163.03	815.15
0070	1 EA	MQ00922	3rd Party Labor Budgetary site assessment	5,555.00	5,555.00
0080	1 EA	1979294	Freight charges mt-m	120.00	120.00
0090	1 EA	1900061	One Time Customer Discount	-4,470.40	-4,470.40
			<b>Net value excl. Sales Tax</b>		<b>35,440.05</b>
			<b>Final amount</b>		<b>35,440.05</b>
<p>The sale of the products identified herein is expressly subject to the Draeger Medical, Inc. - Terms and Conditions of Sale which are attached hereto and which may also be found at:</p>					





# Quotation

Customer no.  
91045730

Quotation no. 136071142      Date of offer 02/19/2016

Please reference on inquiries

Payer  
91045730

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Line	Quant.	Part no.	Description	Unit price USD	Total price USD
			<p><a href="http://www.draeger.com/termsandconditions">http://www.draeger.com/termsandconditions</a>.</p> <p>Customer is hereby informed that section 1128B(b) of the Social Security Act requires that discounts and other reductions in price or the existence of discount programs be properly disclosed and reflected in the costs claimed or charges made by a provider under Medicare or a Federal or State Health Program.</p> <p>PLEASE CHECK THIS ORDER CAREFULLY FOR ACCURACY IN PRICING, PART # AND DESCRIPTION. Contact Customer Service immediately if there are any discrepancies. This acknowledgement and note constitutes the entire agreement with respect to the contemplated transaction and supersedes all previous negotiations, proposals, writings, advertisements, or publications.</p> <p><b>Delivery time</b></p> <p>Pos. 0010: 8 Week/s after rec. of order *    2 EA            Pos. 0020: 8 Week/s after rec. of order *    1 EA            Pos. 0030: 6 Week/s after rec. of order *    10 EA            Pos. 0040: 6 Week/s after rec. of order *    5 EA            Pos. 0050: 6 Week/s after rec. of order *    5 EA            Pos. 0070: 6 Week/s after rec. of order *    1 EA            Pos. 0080: 6 Week/s after rec. of order *    1 EA</p> <p>* After receipt of order, ready for dispatch ex works, subject to prior sale.</p> <p>Please let us know if you prefer partial delivery.</p> <p><b>Payment terms:</b> 30 days after invoice date</p> <p><b>Offer valid until: 03/31/2016</b></p> <p><u>Remit to:</u>            Draeger Medical Inc.            PO Box 536432            Pittsburgh, PA 15253-5906</p>		



## Quotation

**Customer no.**  
91045730

**Quotation no.** 136071148 **Date of offer** 02/19/2016

Please reference on inquiries

**Customer**  
WELCH COMMUNITY HOSP  
454 MCDOWELL ST  
WELCH WV 24801-2029

**Payer** 91045730  
WELCH COMMUNITY HOSP  
454 MCDOWELL ST  
WELCH WV 24801-2029

**Your request dated**

02/19/2016  
[2]ICS WIDE PROMO R2

**Ship to** 91045730  
WELCH COMMUNITY HOSP  
454 MCDOWELL ST  
WELCH WV 24801-2029

**Your contact person**

JEFF RITCHIE  
Tel.: 315-679-0268  
Fax : 215-721-5811

Dear Customer,

Thank you for the opportunity to provide this quotation.

**Quotation no.:** 136071148  
**Responsible:** JEFF RITCHIE  
  
**Telephone:** 315-679-0268  
**Fax:** 215-721-5811  
**E-mail:** jeff.ritchie@draeger.com

Best regards

Draeger Medical, Inc.

JEFF RITCHIE

**Draeger Medical, Inc.**  
Our Tax ID: 23-1699096  
3135 Quarry Road; Telford, PA 18969  
An Equal Opportunity Employer M / F / V / H  
Telephone 800-437-2437  
<http://www.draeger.com>



# Quotation

Customer no.  
91045730

Quotation no. 136071148 | Date of offer 02/19/2016

Please reference on inquiries

Payer  
91045730

Page 2 / 5

Line	Quant.	Part no.	Description	Unit price	Total price	
				USD	Discount %	USD
			<b>National account: Enterprise Mon T3</b>			
			Shipping Charges per above National Account Confirmation no. to customer: Date confirmation to customer: Order-No. from customer: Date order from customer:			
			3.1.3 INFORMATION CENTER = 2 CENTRAL STATIONS PROMO			
			IMPLEMENTATION FEES ARE NOTED ON QUOTATION #136071154 FOR \$17,480.87			
			ENTERPRISE MONITORING TIER 3 PRICING IS VALID WITH PURCHASE OF \$500,000 OR GREATER.			
			CUSTOMER WILL PROVIDE ALL NETWORKING COMPONENTS FOR WIRED AND WIRELESS NETWORKING TO INCLUDE CABLE PULLING AND TERMINATION. THE COSTS FOR ANY REQUIRED NETWORK ALTERATIONS ARE NOT INCLUDED IN THIS QUOTATION AND ARE THE RESPONSIBILITY OF THE CUSTOMER.			
			CUSTOMER IS RESPONSIBLE FOR SUPPLYING, INSTALLING, TERMINATION AND CERTIFICATION OF NETWORK CABLE.			
			UNLESS OTHERWISE NOTED, THE CUSTOMER IS RESPONSIBLE FOR SUPPLYING, INSTALLING AND CONFIGURATION OF ANY NETWORK SWITCHES THAT WILL BE REQUIRED.			
			THE CUSTOMER IS RESPONSIBLE FOR INSTALLATION OF ANY WALL CHANNELS.			
			The wireless site survey pricing is budgetary only and subject to change based on building construction, actual coverage area and other information acquired from the site survey profile. Official pricing will require			



# Quotation

Customer no.  
91045730

Quotation no. 136071148 | Date of offer 02/19/2016

Please reference on inquiries

Payer  
91045730

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Line	Quant.	Part no.	Description	Unit price USD	Discount %	Total price USD
			an AutoCAD drawing (electronic), hardcopy drawing of coverage areas (marked up) and a completed site survey profile form.			
0010	2 EA	MS26800	<b>Infinity Central Station Wide</b>			
			<b>**Specif.national properties**</b> Target country USA			
			<b>** Care Unit **</b> Telemetry/Stepdown (CC) Existing Customer Upgrade MVWS, ICS Gen 1 / 2 CPU			
	2 EA	OP90440	<b>** Promotion **</b> ICS Upgrade	12,400.00		24,800.00
	2 EA	MS18460	<b>** Accessory Kit **</b> ICS Accessories EN	320.97		641.94
	2 EA	MS23562	<b>** UPS **</b> ICS UPS 120 V	1,190.00		2,380.00
	4 EA	MS26806	<b>** Flat Panel Displays **</b> 22" Widescreen Display	669.60		2,678.40
	2 EA	7497683	<b>** Network Recorder Kit **</b> R50N Network Recorder Kit	2,921.20		5,842.40
			<b>Value Infinity Central Station Wide</b>			<b>36,342.74</b>
0020	1 EA	1979294	Freight charges mt-m	120.00		120.00
0030	5 EA	1979569	Clinical Applicat. Supp.Monitor.8h segm	2,200.00	100.00	0.11
0040	1 EA	1900061	One Time Customer Discount	-5,502.80		-5,502.80



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Quotation no. 136071148      Date of offer 02/19/2016

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Payer  
91045730

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Line	Quant.	Part no.	Description	Unit price USD	Total price Discount %    USD
-----					
<b>Net value excl. Sales Tax</b>					<b>30,960.05</b>
-----					
<b>Final amount</b>					<b>30,960.05</b>
=====					=====
<p>The sale of the products identified herein is expressly subject to the Draeger Medical, Inc. - Terms and Conditions of Sale which are attached hereto and which may also be found at: <a href="http://www.draeger.com/termsandconditions">http://www.draeger.com/termsandconditions</a>.</p> <p>Customer is hereby informed that section 1128B(b) of the Social Security Act requires that discounts and other reductions in price or the existence of discount programs be properly disclosed and reflected in the costs claimed or charges made by a provider under Medicare or a Federal or State Health Program.</p> <p>PLEASE CHECK THIS ORDER CAREFULLY FOR ACCURACY IN PRICING, PART # AND DESCRIPTION. Contact Customer Service immediately if there are any discrepancies. This acknowledgement and note constitutes the entire agreement with respect to the contemplated transaction and supersedes all previous negotiations, proposals, writings, advertisements, or publications.</p> <p><b>Delivery time</b>  Pos. 0010: 6 Week/s after rec. of order *    2 EA  Pos. 0020: 6 Week/s after rec. of order *    1 EA  Pos. 0030: 6 Week/s after rec. of order *    5 EA  * After receipt of order, ready for dispatch ex works, subject to prior sale.</p> <p>Please let us know if you prefer partial delivery.</p> <p><b>Payment terms:</b> 30 days after invoice date</p>					



# Quotation

Customer no.  
91045730

Quotation no. 136071148  
Date of offer 02/19/2016

Please reference on Inquiries

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Payer  
91045730

Line	Quant.	Part no.	Description	Unit price USD	Total price Discount % USD
			<p>Offer valid until: 03/31/2016 Remit to: Draeger Medical Inc. PO Box 536432 Pittsburgh, PA 15253-5906</p>		



## Quotation

**Customer no.**  
91045730

**Quotation no.** 136071154  
**Date of offer** 02/19/2016

Please reference on inquiries

**Customer**  
WELCH COMMUNITY HOSP  
454 MCDOWELL ST  
WELCH WV 24801-2029

**Payer** 91045730  
WELCH COMMUNITY HOSP  
454 MCDOWELL ST  
WELCH WV 24801-2029

**Your request dated**  
02/19/2016  
PROJECT MANAGEMENT R2

**Ship to** 91045730  
WELCH COMMUNITY HOSP  
454 MCDOWELL ST  
WELCH WV 24801-2029

**Your contact person**  
  
JEFF RITCHIE  
Tel.: 315-679-0268  
Fax : 215-721-5811

Dear Customer,

Thank you for the opportunity to provide this quotation.

**Quotation no.:** 136071154  
**Responsible:** JEFF RITCHIE  
  
**Telephone:** 315-679-0268  
**Fax:** 215-721-5811  
**E-mail:** jeff.ritchie@draeger.com

Best regards

Draeger Medical, Inc.

JEFF RITCHIE

**Draeger Medical, Inc.**  
Our Tax ID: 23-1699096  
3135 Quarry Road; Telford, PA 18969  
An Equal Opportunity Employer M / F / V / H  
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## Quotation

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91045730

Quotation no. 136071154 | Date of offer 02/19/2016

Please reference on inquiries

Payer  
91045730

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Line	Quant.	Part no.	Description	Unit price USD	Total price USD
			<p><b>National account: DMI LIST PRICE</b></p> <p>Shipping Charges per above National Account Confirmation no. to customer: Date confirmation to customer: Order-No. from customer: Date order from customer:</p> <p>PROJECT MANAGEMENT FEES FOR PRODUCTS ON THE FOLLOWING QUOTATIONS: 136071142 136071148 136071152 136071153</p> <p>CUSTOMER WILL PROVIDE ALL NETWORKING COMPONENTS FOR WIRED AND WIRELESS NETWORKING TO INCLUDE CABLE PULLING AND TERMINATION. THE COSTS FOR ANY REQUIRED NETWORK ALTERATIONS ARE NOT INCLUDED IN THIS QUOTATION AND ARE THE RESPONSIBILITY OF THE CUSTOMER.</p> <p>CUSTOMER IS RESPONSIBLE FOR SUPPLYING, INSTALLING, TERMINATION AND CERTIFICATION OF NETWORK CABLE.</p> <p>UNLESS OTHERWISE NOTED, THE CUSTOMER IS RESPONSIBLE FOR SUPPLYING, INSTALLING AND CONFIGURATION OF ANY NETWORK SWITCHES THAT WILL BE REQUIRED.</p> <p>THE CUSTOMER IS RESPONSIBLE FOR INSTALLATION OF ANY WALL CHANNELS.</p> <p>The wireless site survey pricing is budgetary only and subject to change based on building construction, actual coverage area and other information acquired from the site survey profile. Official pricing will require an AutoCAD drawing (electronic), hardcopy drawing of coverage areas (marked up) and a completed site survey profile form.</p>		





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Payer  
91045730

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Line	Quant.	Part no.	Description	Unit price USD	Total price USD
0010	1 EA	MQ00134	Implementation Services	17,480.87	17,480.87
<b>Net value excl. Sales Tax</b>					<b>17,480.87</b>
<b>Final amount</b>					<b>17,480.87</b>
<p>The sale of the products identified herein is expressly subject to the Draeger Medical, Inc. - Terms and Conditions of Sale which are attached hereto and which may also be found at: <a href="http://www.draeger.com/termsandconditions">http://www.draeger.com/termsandconditions</a>.</p> <p>Customer is hereby informed that section 1128B(b) of the Social Security Act requires that discounts and other reductions in price or the existence of discount programs be properly disclosed and reflected in the costs claimed or charges made by a provider under Medicare or a Federal or State Health Program.</p> <p><b>PLEASE CHECK THIS ORDER CAREFULLY FOR ACCURACY IN PRICING, PART # AND DESCRIPTION.</b> Contact Customer Service immediately if there are any discrepancies. This acknowledgement and note constitutes the entire agreement with respect to the contemplated transaction and supersedes all previous negotiations, proposals, writings, advertisements, or publications.</p> <p><b>Delivery time</b> Pos. 0010: 6 Week/s after rec. of order *    1 EA * After receipt of order, ready for dispatch ex works, subject to prior sale.</p> <p>Please let us know if you prefer partial delivery.</p>					



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Quotation no. 136071154  
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Payer  
91045730

Line	Quant.	Part no.	Description	Unit price USD	Total price USD
			<p><b>Payment terms:</b> 30 days after invoice date</p> <p><b>Offer valid until:</b> 03/31/2016</p> <p><b>Remit to:</b> Draeger Medical Inc. PO Box 536432 Pittsburgh, PA 15253-5906</p>		

## WV STATE GOVERNMENT

### HIPAA BUSINESS ASSOCIATE ADDENDUM

This Health Insurance Portability and Accountability Act of 1996 (hereafter, HIPAA) Business Associate Addendum ("Addendum") is made a part of the Agreement ("Agreement") by and between the State of West Virginia ("Agency"), and Business Associate ("Associate"), and is effective as of the date of execution of the Addendum.

The Associate performs certain services on behalf of or for the Agency pursuant to the underlying Agreement that requires the exchange of information including protected health information protected by the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), as amended by the American Recovery and Reinvestment Act of 2009 (Pub. L. No. 111-5) (the "HITECH Act"), any associated regulations and the federal regulations published at 45 CFR parts 160 and 164 (sometimes collectively referred to as "HIPAA"). The Agency is a "Covered Entity" as that term is defined in HIPAA, and the parties to the underlying Agreement are entering into this Addendum to establish the responsibilities of both parties regarding HIPAA-covered information and to bring the underlying Agreement into compliance with HIPAA.

Whereas it is desirable, in order to further the continued efficient operations of Agency to disclose to its Associate certain information which may contain confidential individually identifiable health information (hereafter, Protected Health Information or PHI); and

Whereas, it is the desire of both parties that the confidentiality of the PHI disclosed hereunder be maintained and treated in accordance with all applicable laws relating to confidentiality, including the Privacy and Security Rules, the HITECH Act and its associated regulations, and the parties do agree to at all times treat the PHI and interpret this Addendum consistent with that desire.

NOW THEREFORE: the parties agree that in consideration of the mutual promises herein, in the Agreement, and of the exchange of PHI hereunder that:

1. **Definitions.** Terms used, but not otherwise defined, in this Addendum shall have the same meaning as those terms in the Privacy, Security, Breach Notification, and Enforcement Rules at 45 CFR Part 160 and Part 164.
  - a. **Agency Procurement Officer** shall mean the appropriate Agency individual listed at: <http://www.state.wv.us/admin/purchase/vrc/agencyli.html>.
  - b. **Agent** shall mean those person(s) who are agent(s) of the Business Associate, in accordance with the Federal common law of agency, as referenced in 45 CFR § 160.402(c).
  - c. **Breach** shall mean the acquisition, access, use or disclosure of protected health information which compromises the security or privacy of such information, except as excluded in the definition of Breach in 45 CFR § 164.402.
  - d. **Business Associate** shall have the meaning given to such term in 45 CFR § 160.103.
  - e. **HITECH Act** shall mean the Health Information Technology for Economic and Clinical Health Act. Public Law No. 111-05. 111<sup>th</sup> Congress (2009).

- f. **Privacy Rule** means the Standards for Privacy of Individually Identifiable Health Information found at 45 CFR Parts 160 and 164.
- g. **Protected Health Information or PHI** shall have the meaning given to such term in 45 CFR § 160.103, limited to the information created or received by Associate from or on behalf of Agency.
- h. **Security Incident** means any known successful or unsuccessful attempt by an authorized or unauthorized individual to inappropriately use, disclose, modify, access, or destroy any information or interference with system operations in an information system.
- i. **Security Rule** means the Security Standards for the Protection of Electronic Protected Health Information found at 45 CFR Parts 160 and 164.
- j. **Subcontractor** means a person to whom a business associate delegates a function, activity, or service, other than in the capacity of a member of the workforce of such business associate.

## 2. Permitted Uses and Disclosures.

- a. **PHI Described.** This means PHI created, received, maintained or transmitted on behalf of the Agency by the Associate. This PHI is governed by this Addendum and is limited to the minimum necessary, to complete the tasks or to provide the services associated with the terms of the original Agreement, and is described in Appendix A.
- b. **Purposes.** Except as otherwise limited in this Addendum, Associate may use or disclose the PHI on behalf of, or to provide services to, Agency for the purposes necessary to complete the tasks, or provide the services, associated with, and required by the terms of the original Agreement, or as required by law, if such use or disclosure of the PHI would not violate the Privacy or Security Rules or applicable state law if done by Agency or Associate, or violate the minimum necessary and related Privacy and Security policies and procedures of the Agency. The Associate is directly liable under HIPAA for impermissible uses and disclosures of the PHI it handles on behalf of Agency.
- c. **Further Uses and Disclosures.** Except as otherwise limited in this Addendum, the Associate may disclose PHI to third parties for the purpose of its own proper management and administration, or as required by law, provided that (i) the disclosure is required by law, or (ii) the Associate has obtained from the third party reasonable assurances that the PHI will be held confidentially and used or further disclosed only as required by law or for the purpose for which it was disclosed to the third party by the Associate; and, (iii) an agreement to notify the Associate and Agency of any instances of which it (the third party) is aware in which the confidentiality of the information has been breached. To the extent practical, the information should be in a limited data set or the minimum necessary information pursuant to 45 CFR § 164.502, or take other measures as necessary to satisfy the Agency's obligations under 45 CFR § 164.502.

### 3. Obligations of Associate.

- a. **Stated Purposes Only.** The PHI may not be used by the Associate for any purpose other than as stated in this Addendum or as required or permitted by law.
- b. **Limited Disclosure.** The PHI is confidential and will not be disclosed by the Associate other than as stated in this Addendum or as required or permitted by law. Associate is prohibited from directly or indirectly receiving any remuneration in exchange for an individual's PHI unless Agency gives written approval and the individual provides a valid authorization. Associate will refrain from marketing activities that would violate HIPAA, including specifically Section 13406 of the HITECH Act. Associate will report to Agency any use or disclosure of the PHI, including any Security Incident not provided for by this Agreement of which it becomes aware.
- c. **Safeguards.** The Associate will use appropriate safeguards, and comply with Subpart C of 45 CFR Part 164 with respect to electronic protected health information, to prevent use or disclosure of the PHI, except as provided for in this Addendum. This shall include, but not be limited to:
  - i. Limitation of the groups of its workforce and agents, to whom the PHI is disclosed to those reasonably required to accomplish the purposes stated in this Addendum, and the use and disclosure of the minimum PHI necessary or a Limited Data Set;
  - ii. Appropriate notification and training of its workforce and agents in order to protect the PHI from unauthorized use and disclosure;
  - iii. Maintenance of a comprehensive, reasonable and appropriate written PHI privacy and security program that includes administrative, technical and physical safeguards appropriate to the size, nature, scope and complexity of the Associate's operations, in compliance with the Security Rule;
  - iv. In accordance with 45 CFR §§ 164.502(e)(1)(ii) and 164.308(b)(2), if applicable, ensure that any subcontractors that create, receive, maintain, or transmit protected health information on behalf of the business associate agree to the same restrictions, conditions, and requirements that apply to the business associate with respect to such information.
- d. **Compliance With Law.** The Associate will not use or disclose the PHI in a manner in violation of existing law and specifically not in violation of laws relating to confidentiality of PHI, including but not limited to, the Privacy and Security Rules.
- e. **Mitigation.** Associate agrees to mitigate, to the extent practicable, any harmful effect that is known to Associate of a use or disclosure of the PHI by Associate in violation of the requirements of this Addendum, and report its mitigation activity back to the Agency.

**f. Support of Individual Rights.**

- i. Access to PHI.** Associate shall make the PHI maintained by Associate or its agents or subcontractors in Designated Record Sets available to Agency for inspection and copying, and in electronic format, if requested, within ten (10) days of a request by Agency to enable Agency to fulfill its obligations under the Privacy Rule, including, but not limited to, 45 CFR § 164.524 and consistent with Section 13405 of the HITECH Act.
- ii. Amendment of PHI.** Within ten (10) days of receipt of a request from Agency for an amendment of the PHI or a record about an individual contained in a Designated Record Set, Associate or its agents or subcontractors shall make such PHI available to Agency for amendment and incorporate any such amendment to enable Agency to fulfill its obligations under the Privacy Rule, including, but not limited to, 45 CFR § 164.526.
- iii. Accounting Rights.** Within ten (10) days of notice of a request for an accounting of disclosures of the PHI, Associate and its agents or subcontractors shall make available to Agency the documentation required to provide an accounting of disclosures to enable Agency to fulfill its obligations under the Privacy Rule, including, but not limited to, 45 CFR § 164.528 and consistent with Section 13405 of the HITECH Act. Associate agrees to document disclosures of the PHI and information related to such disclosures as would be required for Agency to respond to a request by an individual for an accounting of disclosures of PHI in accordance with 45 CFR § 164.528. This should include a process that allows for an accounting to be collected and maintained by Associate and its agents or subcontractors for at least six (6) years from the date of disclosure, or longer if required by state law. At a minimum, such documentation shall include:

  - the date of disclosure;
  - the name of the entity or person who received the PHI, and if known, the address of the entity or person;
  - a brief description of the PHI disclosed; and
  - a brief statement of purposes of the disclosure that reasonably informs the individual of the basis for the disclosure, or a copy of the individual's authorization, or a copy of the written request for disclosure.
- iv. Request for Restriction.** Under the direction of the Agency, abide by any individual's request to restrict the disclosure of PHI, consistent with the requirements of Section 13405 of the HITECH Act and 45 CFR § 164.522, when the Agency determines to do so (except as required by law) and if the disclosure is to a health plan for payment or health care operations and it pertains to a health care item or service for which the health care provider was paid in full "out-of-pocket."
- v. Immediate Discontinuance of Use or Disclosure.** The Associate will immediately discontinue use or disclosure of Agency PHI pertaining to any individual when so requested by Agency. This includes, but is not limited to, cases in which an individual has withdrawn or modified an authorization to use or disclose PHI.

- g. Retention of PHI.** Notwithstanding section 4.a. of this Addendum, Associate and its subcontractors or agents shall retain all PHI pursuant to state and federal law and shall continue to maintain the PHI required under Section 3.f. of this Addendum for a period of six (6) years after termination of the Agreement, or longer if required under state law.
- h. Agent's, Subcontractor's Compliance.** The Associate shall notify the Agency of all subcontracts and agreements relating to the Agreement, where the subcontractor or agent receives PHI as described in section 2.a. of this Addendum. Such notification shall occur within 30 (thirty) calendar days of the execution of the subcontract and shall be delivered to the Agency Procurement Officer. The Associate will ensure that any of its subcontractors, to whom it provides any of the PHI it receives hereunder, or to whom it provides any PHI which the Associate creates or receives on behalf of the Agency, agree to the restrictions and conditions which apply to the Associate hereunder. The Agency may request copies of downstream subcontracts and agreements to determine whether all restrictions, terms and conditions have been flowed down. Failure to ensure that downstream contracts, subcontracts and agreements contain the required restrictions, terms and conditions may result in termination of the Agreement.
- j. Federal and Agency Access.** The Associate shall make its internal practices, books, and records relating to the use and disclosure of PHI, as well as the PHI, received from, or created or received by the Associate on behalf of the Agency available to the U.S. Secretary of Health and Human Services consistent with 45 CFR § 164.504. The Associate shall also make these records available to Agency, or Agency's contractor, for periodic audit of Associate's compliance with the Privacy and Security Rules. Upon Agency's request, the Associate shall provide proof of compliance with HIPAA and HITECH data privacy/protection guidelines, certification of a secure network and other assurance relative to compliance with the Privacy and Security Rules. This section shall also apply to Associate's subcontractors, if any.
- k. Security.** The Associate shall take all steps necessary to ensure the continuous security of all PHI and data systems containing PHI. In addition, compliance with 74 FR 19006 Guidance Specifying the Technologies and Methodologies That Render PHI Unusable, Unreadable, or Indecipherable to Unauthorized Individuals for Purposes of the Breach Notification Requirements under Section 13402 of Title XIII is required, to the extent practicable. If Associate chooses not to adopt such methodologies as defined in 74 FR 19006 to secure the PHI governed by this Addendum, it must submit such written rationale, including its Security Risk Analysis, to the Agency Procurement Officer for review prior to the execution of the Addendum. This review may take up to ten (10) days.
- l. Notification of Breach.** During the term of this Addendum, the Associate shall notify the Agency and, unless otherwise directed by the Agency in writing, the WV Office of Technology immediately by e-mail or web form upon the discovery of any Breach of unsecured PHI, or within 24 hours by e-mail or web form of any suspected Security Incident, intrusion or unauthorized use or disclosure of PHI in violation of this Agreement and this Addendum, or potential loss of confidential data affecting this Agreement. Notification shall be provided to the Agency Procurement Officer at [www.state.wv.us/admin/purchase/vrc/agencyli.htm](http://www.state.wv.us/admin/purchase/vrc/agencyli.htm) and,

unless otherwise directed by the Agency in writing, the Office of Technology at [incident@wv.gov](mailto:incident@wv.gov) or <https://apps.wv.gov/ot/ir/Default.aspx>.

The Associate shall immediately investigate such Security Incident, Breach, or unauthorized use or disclosure of PHI or confidential data. Within 72 hours of the discovery, the Associate shall notify the Agency Procurement Officer, and, unless otherwise directed by the Agency in writing, the Office of Technology of: (a) Date of discovery; (b) What data elements were involved and the extent of the data involved in the Breach; (c) A description of the unauthorized persons known or reasonably believed to have improperly used or disclosed PHI or confidential data; (d) A description of where the PHI or confidential data is believed to have been improperly transmitted, sent, or utilized; (e) A description of the probable causes of the improper use or disclosure; and (f) Whether any federal or state laws requiring individual notifications of Breaches are triggered.

Agency will coordinate with Associate to determine additional specific actions that will be required of the Associate for mitigation of the Breach, which may include notification to the individual or other authorities.

All associated costs shall be borne by the Associate. This may include, but not be limited to costs associated with notifying affected individuals.

If the Associate enters into a subcontract relating to the Agreement where the subcontractor or agent receives PHI as described in section 2.a. of this Addendum, all such subcontracts or downstream agreements shall contain the same incident notification requirements as contained herein, with reporting directly to the Agency Procurement Officer. Failure to include such requirement in any subcontract or agreement may result in the Agency's termination of the Agreement.

- m. **Assistance in Litigation or Administrative Proceedings.** The Associate shall make itself and any subcontractors, workforce or agents assisting Associate in the performance of its obligations under this Agreement, available to the Agency at no cost to the Agency to testify as witnesses, or otherwise, in the event of litigation or administrative proceedings being commenced against the Agency, its officers or employees based upon claimed violations of HIPAA, the HIPAA regulations or other laws relating to security and privacy, which involves inaction or actions by the Associate, except where Associate or its subcontractor, workforce or agent is named as an adverse party.

#### 4. Addendum Administration.

- a. **Term.** This Addendum shall terminate on termination of the underlying Agreement or on the date the Agency terminates for cause as authorized in paragraph (c) of this Section, whichever is sooner.
- b. **Duties at Termination.** Upon any termination of the underlying Agreement, the Associate shall return or destroy, at the Agency's option, all PHI received from, or created or received by the Associate on behalf of the Agency that the Associate still maintains in any form and retain no copies of such PHI or, if such return or destruction is not feasible, the Associate shall extend the protections of this Addendum to the PHI and limit further uses and disclosures to the purposes that make the return or destruction of the PHI infeasible. This shall also apply to all agents and subcontractors of Associate. The duty of the Associate and its agents



and subcontractors to assist the Agency with any HIPAA required accounting of disclosures survives the termination of the underlying Agreement.

- c. **Termination for Cause.** Associate authorizes termination of this Agreement by Agency, if Agency determines Associate has violated a material term of the Agreement. Agency may, at its sole discretion, allow Associate a reasonable period of time to cure the material breach before termination.
- d. **Judicial or Administrative Proceedings.** The Agency may terminate this Agreement if the Associate is found guilty of a criminal violation of HIPAA. The Agency may terminate this Agreement if a finding or stipulation that the Associate has violated any standard or requirement of HIPAA/HITECH, or other security or privacy laws is made in any administrative or civil proceeding in which the Associate is a party or has been joined. Associate shall be subject to prosecution by the Department of Justice for violations of HIPAA/HITECH and shall be responsible for any and all costs associated with prosecution.
- e. **Survival.** The respective rights and obligations of Associate under this Addendum shall survive the termination of the underlying Agreement.

#### 5. General Provisions/Ownership of PHI.

- a. **Retention of Ownership.** Ownership of the PHI resides with the Agency and is to be returned on demand or destroyed at the Agency's option, at any time, and subject to the restrictions found within section 4.b. above.
- b. **Secondary PHI.** Any data or PHI generated from the PHI disclosed hereunder which would permit identification of an individual must be held confidential and is also the property of Agency.
- c. **Electronic Transmission.** Except as permitted by law or this Addendum, the PHI or any data generated from the PHI which would permit identification of an individual must not be transmitted to another party by electronic or other means for additional uses or disclosures not authorized by this Addendum or to another contractor, or allied agency, or affiliate without prior written approval of Agency.
- d. **No Sales.** Reports or data containing the PHI may not be sold without Agency's or the affected individual's written consent.
- e. **No Third-Party Beneficiaries.** Nothing express or implied in this Addendum is intended to confer, nor shall anything herein confer, upon any person other than Agency, Associate and their respective successors or assigns, any rights, remedies, obligations or liabilities whatsoever.
- f. **Interpretation.** The provisions of this Addendum shall prevail over any provisions in the Agreement that may conflict or appear inconsistent with any provisions in this Addendum. The interpretation of this Addendum shall be made under the laws of the state of West Virginia.
- g. **Amendment.** The parties agree that to the extent necessary to comply with applicable law they will agree to further amend this Addendum.
- h. **Additional Terms and Conditions.** Additional discretionary terms may be included in the release order or change order process.

AGREED:

Name of Agency: Welch Community Hospital Name of Associate: Draeger Medical, Inc.

Signature: \_\_\_\_\_

Signature: 


Title: C.E.O.

Title: Sr. Mgr. of Financial Operations

Date: \_\_\_\_\_

Date: 2-29-16

Form - WVBA-012004  
Amended 06.26.2013

APPROVED AS TO FORM THIS 26<sup>th</sup>  
DAY OF Jan 20 13  
  
Patrick Morrissey  
Attorney General  
BY \_\_\_\_\_

Appendix A

(To be completed by the Agency's Procurement Officer prior to the execution of the Addendum, and shall be made a part of the Addendum. PHI not identified prior to execution of the Addendum may only be added by amending Appendix A and the Addendum, via Change Order.)

Name of Associate: Draeger Medical, Inc.

Name of Agency: WVDHHR/BHHFF/Welch Community Hospital

Describe the PHI (do not include any actual PHI). If not applicable, please indicate the same.

Any and all personally identifiable information including but not limited to patient name, address, date of birth, Social Security Number, telephone number, and insurance information.

Any and all protected health information including but not limited to patient diagnosis, lab test, radiological exams, physical health exams, and/or treatment procedures.

STATE OF WEST VIRGINIA  
Purchasing Division

**PURCHASING AFFIDAVIT**

**MANDATE:** Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

**EXCEPTION:** The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

**DEFINITIONS:**

**"Debt"** means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

**"Employer default"** means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

**"Related party"** means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

**AFFIRMATION:** By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

**WITNESS THE FOLLOWING SIGNATURE:**

Vendor's Name: Draeger Medical, Inc.

Authorized Signature: [Signature] Date: 2-27-16

State of Pennsylvania

County of Bucks, to-wit:

Taken, subscribed, and sworn to before me this      day of February, 2016.

My Commission expires Nov. 27, 2016.

[Signature]

**AFFIX SEAL HERE**

**NOTARY PUBLIC**

COMMONWEALTH OF PENNSYLVANIA  
Notarial Seal  
Lori K. Hacker, Notary Public  
West Rockhill Twp., Bucks County  
My Commission Expires Nov. 27, 2016  
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Purchasing Affidavit (Revised 08/01/2015)

## Infinity® Acute Care System patient monitoring solution

To streamline workflow and support decision making, Dräger created the Infinity Acute Care System. This easy-to-use system teams the Infinity M540 mobile monitor with the Dräger Medical Cockpit\*. The monitor moves with the patient on transport\*, integrates monitoring, anesthesia and ventilation data on a single screen at the bedside, and broadcasts it to the hospital network.



### STREAMLINES CLINICAL WORKFLOW

The Infinity Acute Care System patient monitor is a breakthrough in patient transport, connectivity and configurability. This fully networked solution allows a single monitor to follow the patient during the entire care pathway to minimize the possibility of missing events on transport. Real-time surveillance is continuous – both at the bedside and on transport throughout the hospital campus.

At the same time, this innovative solution brings data to the point of need and opens the flow of patient information throughout the hospital and beyond to support time-critical decision making and a complete patient record.

The patient monitoring system includes:

- Infinity M540 mobile monitor: Acquires patient data at the bedside and on transport, without having to disconnect patient cables
- Dräger Medical Cockpit: Provides a large, clear view of your patient's real-time vital signs at the point of care, together with comprehensive patient data – such as images, historical data and other networked clinical information. Available in two sizes: C500 (17"/43.18 cm) and C700 (20"/50.8 cm)

### CONNECTIVITY ENABLES VIEWING OF ANESTHESIA AND VENTILATION DATA

Recent advances in connectivity enable us to bring waveforms and data from Dräger anesthesia devices and ventilators (as well as selected data from third-party devices) to a monitoring workstation that gives you a single, consolidated picture of your patient's condition.

New connectivity capabilities:

- Monitors O<sub>2</sub>, N<sub>2</sub>O, CO<sub>2</sub>, and anesthesia agents (with automatic agent identification in selected Dräger-to-Dräger workstations) on a single display
- Monitors a wide range of anesthesia-specific parameters, including Bispectral Index (BIS) and Neuromuscular Transmission (NMT) via external device connectivity
- Broadcasts data from anesthesia and ventilator devices and relevant patient data to the Infinity Network
- Monitors a wide variety of ventilation parameters for patients, from neonatal to adult

When coupled with a Dräger ventilator, the Infinity Acute Care System integrates respiratory information from the ventilator with hemodynamic data from the Infinity M540. The result is advanced application support of lung recruitment and comprehensive, configurable trends of respiratory and physiological responses to therapies.

### INFINITY M540 MOBILE MONITOR

#### Portable

undocks easily, without the need to disconnect patient cables

#### Wireless

once undocked, automatically sends data wirelessly to the Infinity Network via industry-standard Wi-Fi®

#### Water-resistant

splash-resistant and submersible for protection against fluids\*  
\* Tested by submersing unit in 30 cm (11.8") of water for 10 minutes

#### 180° flip screen

automatically flips for proper visual orientation when docked at either side of the patient



### INFINITY M500 DOCKING STATION

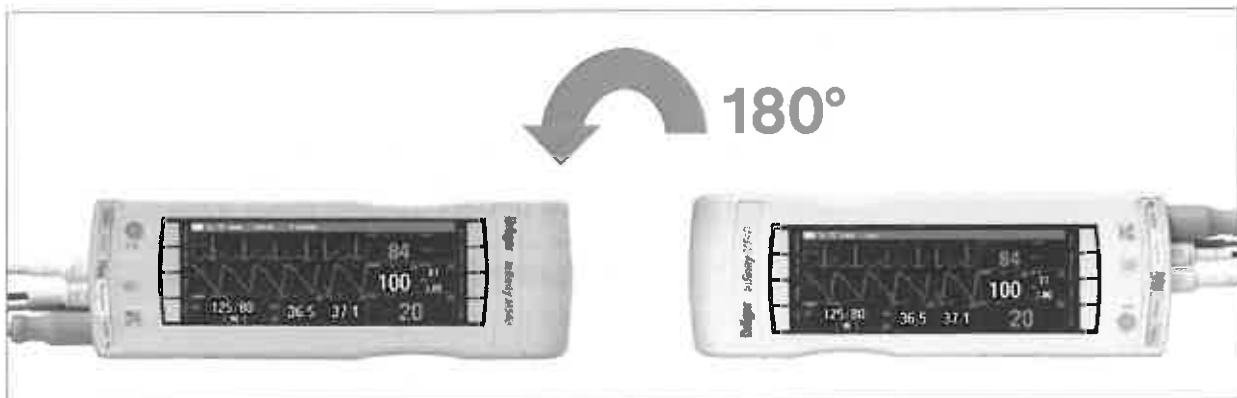
#### System networking

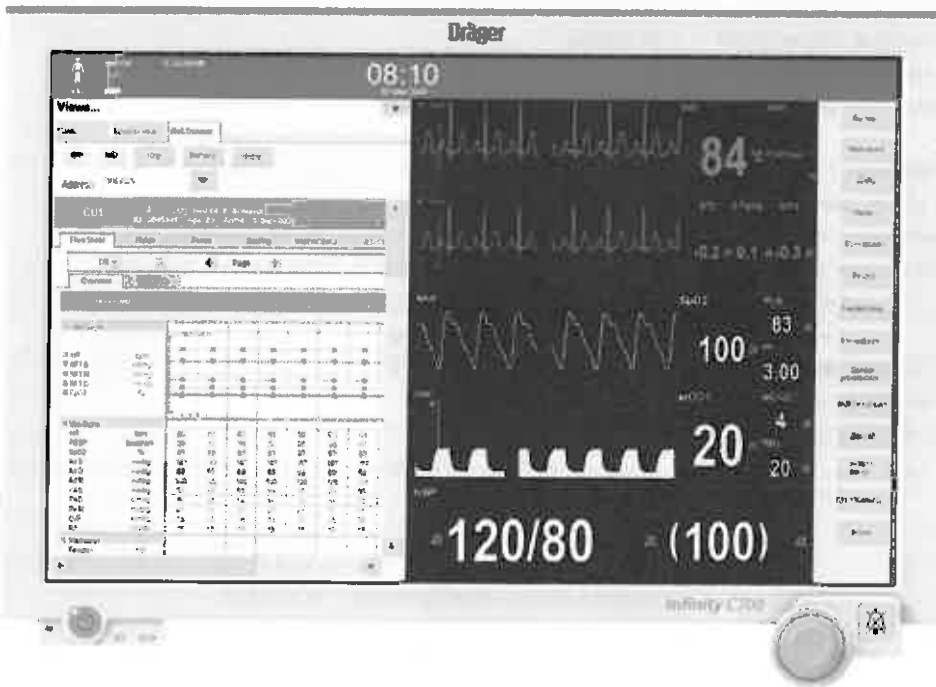
provides system networking and communication between the M540 and Medical Cockpit® via the P2500 Power Supply

#### Recharging

powers the M540 when docked, recharging the internal battery for transport

### 180° FLIP SCREEN





**INFINITY MEDICAL COCKPIT**

**360° alarm light** makes alarms visible from anywhere in the room

**Integrated information** provides easy access to vital signs data, clinical applications, the hospital network, and the intranet

**Widescreen display** large 20" (C700) or 17" (C500) touch-screen display makes information easy to see from any angle

**Infection-resistant** fan-free, easy-to-clean design reduces risk of cross-contamination

**New multi-tab design** provides a highly configurable interface for fast and easy navigation through clinically relevant information

**BRINGS DATA TO THE POINT OF NEED**

Having all the information you need in one place saves time and supports decision making. The Infinity Acute Care System lets you view the data you need at the bedside on a single touch-screen display – including patient history, diagnostic images and lab results – together with real-time hemodynamic information. Plus, the system automatically notifies you when lab results are ready.

If patient demographic information is available, it automatically populates on the display at the push of a button\*. The Medical Cockpit stores trend data and sends real-time waveform data to the Infinity CentralStation for viewing and storage in full disclosure format.

Expand system capabilities with integrated IT applications via a Web interface or Citrix®. And view Web-based images at the point of care side-by-side with real-time hemodynamic information.

**SAVES TIME AND EFFORT ON TRANSPORT**

The patient monitoring system's intelligent Pick and Go® data management technology saves time before and after each transport. Simply undock the M540 and it automatically switches to wireless mode – no need to change monitors or cables.

Patient safety is supported on transport with full parameter monitoring, alarms, and event and trend storage. On transport, the M540 broadcasts patient data wirelessly to the Infinity Network – where it can be accessed at the Infinity CentralStation and by remote viewing devices. When the monitor is docked in a new location, the data from the previous Medical Cockpit follows the patient to the new location, providing up to 96 hours of continuous trend data and backfilling all data collected during transport.

**SUPPORTS ALL PATIENT TYPES AND ACUITY LEVELS**

Your patient's condition can change in a heartbeat. With the Infinity Acute Care System, you can easily adapt monitoring to your patient's changing acuity. For example, you can add MPod® and MCable® accessories and Dräger consumables to support additional parameters as needed.

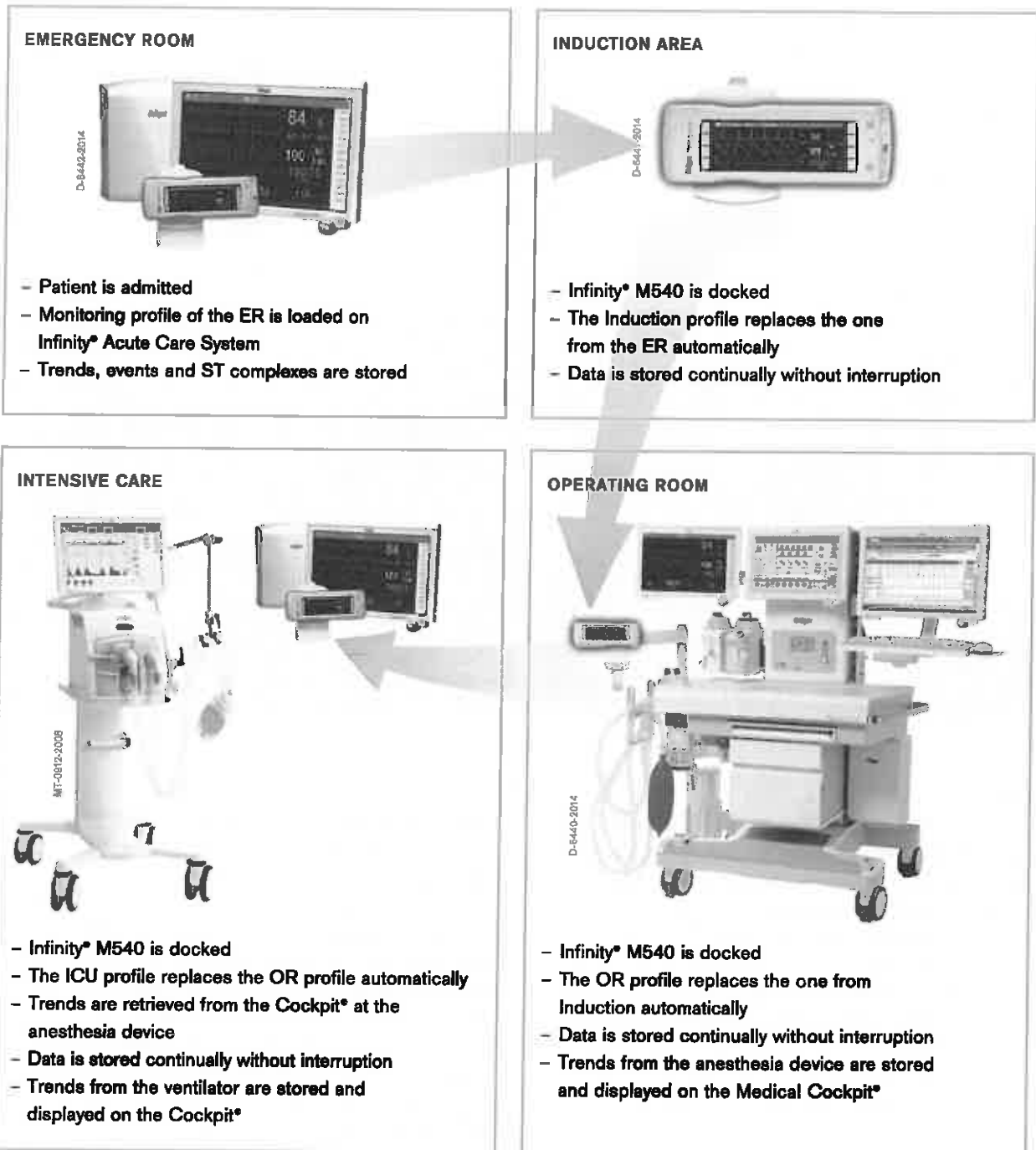
**NEW ADVANCES IN DEVICE CONNECTIVITY WITH INFINITY ACUTE CARE SYSTEM**

	<b>Dräger-Dräger connectivity</b>	<b>Third-party connectivity</b>
<b>Emergency Room</b>	Dräger Oxylog® 3000+	
<b>Operating Room</b>	Dräger Perseus® A500 Dräger Zeus® IE Dräger Primus® Dräger Primus® IE Dräger Apollo®	Covidien BIS Vista IDMed ToFScan Merck T of Watch SX
<b>Intensive Care</b>	Dräger V-series (Evita® V300, Evita® V500) Dräger Savina® 300 Dräger Evita® family (2D, 4, XL) Dräger Carina®	Maquet Servo-i Edwards Vigilance II SvO <sub>2</sub> /CCO Edwards Vigileo SvO <sub>2</sub> /CCO Edwards EV1000 SvO <sub>2</sub> /CCO
<b>Neonatal Care</b>	Dräger Babylog® VN500	

\* Requires Infinity® Gateway



## Patient Transport, Connectivity and Configurability – Hospital-wide



Hospital-wide implementation of Pick and Go technology streamlines clinical workflow and helps increase patient safety by providing continuous monitoring and data collection.

# Supports acute care



## EMERGENCY ROOM

- Automatically populates Admit/Discharge/Transfer from Hospital Information System via Infinity Gateway
- Saves time by switching seamlessly from bedside to wireless monitoring on transport
- Scalable parameters adapt to changes in patient acuity level
- Offers 12-lead ECG and ST complex data at the Infinity CentralStation and remotely via Infinity Symphony Suite
- Uses Masimo rainbow® SET® technology to monitor additional parameters on the M540

## OPERATING ROOM

- Integrates monitoring and anesthesia data on a single workstation
- Case summary report allows users to print all relevant reports with one keystroke
- Supports noninvasive Masimo rainbow SET® PVI® technology for intraoperative fluid management
- Includes ESU filtering and OR mode to optimize settings and alarms for the OR workflow
- Simplifies pre-op assessment, OR scheduling, intraoperative documentation and PACU/Recovery communications with Dräger's Innovian® and ICM solutions
- Exports data to patient information management systems for a more complete patient record

# all environments



## INTENSIVE CARE

- Integrates monitoring and ventilation data on a single workstation
- Key clinical parameters provide minimally invasive techniques for fluid optimization
- Interfaces to devices from other manufacturers
- IACS exports data, settings, modes and parameters from ventilator to Infinity Network
- Configurable "show-all" feature gives you fast access to the ventilator parameters you want to see



## NEONATAL CARE

- Uses neonatal-specific algorithms, including life-threatening alarms such as bradycardia, desaturation and apnea
- Supports baby-centric NICU workflow by consolidating information from the monitor
- Babylog® VN500 ventilator, and lab results on the Medical Cockpit
- Reduces nuisance alarms through configurable alarm validation settings

Apollo, Babylog, Carina, Evita, Infinity, Innovian, Medical Cockpit, MCable, MPOd, Oxylog, Perseus, Primus, Pick and Go, Savina and Zeus are trademarks of Dräger.

Citrix is a registered trademark of Citrix Systems, Inc.

PVI and rainbow SET are registered trademarks of Masimo Corporation.

Wi-Fi is a registered trademark of the Wi-Fi Alliance.

Other trademarked names and terms used herein are the intellectual property of their respective owners.

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23558 Lübeck, Germany

[www.draeger.com](http://www.draeger.com)

**Manufacturer:**

Dräger Medical GmbH  
Moislinger Allee 53–55  
23558 Lübeck, Germany  
The quality management system at Dräger Medical GmbH is certified according to ISO 13485, ISO 9001 and Annex II.3 of Directive 93/42/EEC (Medical devices).

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## Infinity® CentralStation

Having fast access to vital patient data from anywhere in the hospital can enhance patient care management and clinical workflow – enabling rapid assessment, decision support and clinical reporting.



### FEATURES

- Displays real-time waveforms, parameters, and alarm status of Infinity bedside and patient-worn monitors
- Simultaneously monitors up to 64 bedside monitors (32 on Main Screen and 32 in Surveillance Mode)
- Surveillance mode allows for alarm notifications on the ICS and single-click access to remote view of alarming bedside monitors
- Single or dual 22-inch (511 mm) widescreen displays with optional touch interface, keyboard, and mouse
- Accessible data includes alarm events, stored waveforms, trends, ST points, and laboratory values
- Clinical tools to support advanced analysis: ST segment analysis, Full and Event Disclosure with ECG calipers, 12-lead rest ECG analysis, and trend display
- Up to 120 hours of graphical and tabular trends; 72 hours standard
- Up to 120 hours of Full Disclosure/Event Disclosure including hemodynamic, respiratory, and EEG; 2 hours standard
- Up to 16 waveforms and 1,000 arrhythmia or alarm events stored per patient
- HL7 interface for patient admission and laboratory values (requires Infinity Gateway)
- Alarm adjustment at patient monitor or central station
- Sophisticated server includes quiet fan operation, integrated and external speakers (required), and RAID option for operating system and database
- Ability to view up to 600 patients across the Infinity Network
- Intranet access to view information conveniently where you need it (requires Infinity Symphony)
- Choice of Dräger or IEC-compliant audio alarm patterns
- Electronic "white board" for entering notes using standard text entry

D-71806-2012



**Infinity® CentralStation**  
Powerful system puts information at your fingertips, from critical care through step-down environments

**TECHNICAL DATA****CENTRAL PROCESSING UNIT (CPU)**

Processor	Intel® Processor
Storage	1 GB RAM, DVD-RW/CD-RW 2 x 500 GB hard drives (standard) up to 2 additional hard drives (optional for RAID setup)
Disk array	SAS RAID 1 (optional for operating system and/or database in locked drive bay)
Software updates	DVD
Connections	1 IEEE 1284 parallel port, 2 asynchronous RS-232 ports, 5 USB 2.0 ports (2 front, 3 rear), 2 GB LAN connections
Network connectivity	Infinity Network
Video output	Dual DisplayPort (DMS59) 512 MB graphic card, 1680 x 1050 @ 60Hz, fanless
Audio output	External and internal (backup) speakers standard
Alarm grades	Low, Medium, High; audible and visual indications
Patients per CPU	32 patients using two displays 16 patients using one display Up to 32 additional patients in Surveillance (background) mode
<b>Physical Specifications</b>	
Size	(H x W x D) 426.7 x 218.4 x 508.0 mm (16.8 x 8.6 x 20 in)
Weight	12.7 kg (28 lbs)
<b>Electrical Specifications</b>	
Power consumption	115V/230V 4.0A/2.0A
BTU output	Up to 460W
<b>Environmental Specifications</b>	
Cooling	Passive heatsink moved across 1-120 mm fan. SCA drive array and power supply cooled by dedicated 92 mm fans.
Temperature range	Operating: 0 °C to 45 °C (32 °F to 113 °F) Non-operating: -20 °C to 50 °C (-4 °F to 122 °F)
Altitude	Operating: 3500 m (11,000 ft) Non-operating: 10600 m (35,000 ft)
Acoustic noise	<46 dBA
<b>User Controls</b>	
Input	Device controls, USB-compatible keyboard, and USB-compatible optical mouse are provided in country specific kit. Optional Dräger-supplied touch screens available

**Standards/Compliances**

FCC Class B CISPR 11 UL 60950-1 and IEC60601-1-2 EMC for medical equipment. UL/CSA/CE Certification as required per Original Equipment Manufacturers (OEM). Infinity CentralStation is CE marked in accordance with the requirements of the 93/42/EEC Medical Device Directive.

**DISPLAYS**

Type	22" wide (511 mm) TFT active matrix LCD, hard-coated
Digital input	15 pin D-Sub, DVI-D
Active display area (H x W)	385 x 519 mm (15.2 x 20.2 in)
Touch screen (optional)	Resistive Touch technology, USB controller
Native resolution	1680 x 1050
Viewing angle	178° to 178°

**Physical Specifications**

Size (H x W x D)	385 x 513 x 180 mm (15.2 x 20.2 x 7.1 in)
Weight	5.7 kg (12.6 lbs)
VESA mount	100 x 100 mm (3.9 x 3.9 in)

**Electrical Specifications**

Power consumption	<50W
Power input	100 – 250 Vac, 1.4A – 0.7A, 60/50 Hz, universal
Power output	DC 12V

**Environmental Specifications**

Temperature range	Operating: 10 °C to 40 °C (50 °F to 104 °F) Non-operating: -20 °C to 60 °C (-4 °F to 140 °F)
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**Standards**

Compliance	FCC (Class B), CE (Class B), UL (CUS) (UL60950-1 / CSA C22.2), RoHS, CCC, GOST-R
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**UNINTERRUPTIBLE POWER SUPPLY (620VA, 120V, 220V)**

Connections	Infinity CentralStation
-------------	-------------------------

**Physical Specifications**

Size (H x W x D)	168 x 119 x 368 mm (6.6 x 4.7 x 14.5 in)
Weight	12.3 kg (27 lbs)

**Electrical Specifications**

Waveform type	Stepped approximation to a sine wave
Input voltage	115, 220, 230, 240 VAC ±20 % (nominal, user selectable)
Input frequency (Hz)	50 to 60 Hz ±3 % (auto sensing)
Surge energy rating	320 joules
Battery recharge	5.50 hours
Back-up time	15.7/5.5 minutes (half/full loaded)
Internal batteries	Maintenance free lead-acid battery with suspended electrolyte - leakproof
Indicators	LED for replace battery, overload, on battery

**Environmental**

Temperature range	Operating: 0 °C to 40 °C (32 °F to 104 °F) Non-operating: -15 °C to 45 °C (5 °F to 113 °F)
Altitude	Operating and non-operating: 3000 m (10,000 ft)

**Standards**

Compliance	CE, GOST, VCCI, VDE
------------	---------------------

**CONTINUING TECHNICAL DATA****UNINTERRUPTIBLE POWER SUPPLY (750VA JAPAN)**

Connections	Infinity CentralStation
<b>Physical Specifications</b>	
Size (H x W x D)	157 x 137 x 358 mm (6.2 x 5.4 x 14.1 in)
Weight	13.2 kg (29 lbs)
<b>Electrical Specifications</b>	
Waveform type	Sine wave
Input voltage	100 V
Input frequency (Hz)	50 to 60 Hz ±3 % (auto sensing)
Surge energy rating	340 joules
Battery recharge	3 hours
Back-up time	16.4/4.8 minutes (half/full loaded)
Internal batteries	Maintenance free lead-acid battery with suspended electrolyte - leakproof
Indicators	LED for replace battery, overload, on battery
<b>Environmental</b>	
Temperature range	Operating: 0 °C to 40 °C (32 °F to 104 °F) Non-operating: -15° C to 45 °C (5 °F to 113 °F)
Altitude	Operating and non-operating: 3000 m (10,000 ft)
<b>Standards</b>	
Compliance	C-tick, CE, EN50091

Infinity and TruST are trademarks of Draeger.  
Intel is a registered trademark of Intel Corporation in the U.S. and/or other countries.

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[Canada.Support@draeger.com](mailto:Canada.Support@draeger.com)

**Manufacturer:**

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The quality management system at  
Draeger Medical, Inc. is certified  
according to ISO 13485 and ISO 9001.



## Infinity<sup>®</sup> M300 Patient-Worn Monitor

Managing the care of ambulatory patients is challenging because you need to balance mobility with patient safety. The innovative Infinity M300 patient-worn monitor provides continuous surveillance of telemetry patients using the hospital's existing Wi-Fi<sup>®</sup> network. The unit's color screen and audible alarms let you assess and respond to your patient's status on the spot.



### CONTINUOUS MOBILE MONITORING, HOSPITAL-WIDE\*

Only Dräger offers a Wi-Fi-based, durable, lightweight patient-worn monitor that provides continuous surveillance to support patient safety. What's more, the Infinity M300 delivers exceptional value by integrating with the hospital's existing wireless network. This industry-leading solution includes:

- Built-in color screen with waveforms and vital sign values, providing local surveillance to augment monitoring at the Infinity CentralStation
- Visible and audible alarms that immediately alert you to changes in the patient's condition
- Integrated Arrhythmia Classification Expert (ACE<sup>®</sup>) and pacemaker detection algorithms
- Built-in SpO<sub>2</sub>, eliminating the need for an additional pulse oximetry device or module
- Wi-Fi CERTIFIED™ technology for reliable data transfer on standard wireless networks
- Support for WPA2 encryption using 802.11 b/g
- Continuous monitoring at the Infinity M300, even when patient is outside of the network coverage area

- Integrated rechargeable battery eliminating the cost and effort of changing disposable batteries
- Convenient bedside charging with no need to disconnect ECG leads and no interruption in monitoring
- Central charging of up to 10 M300s simultaneously

\*At the patient site or via the Infinity CentralStation where wireless network coverage exists

### IMPROVED PATIENT SAFETY AND SECURITY

Unlike traditional telemetry devices, Infinity M300 provides patient-proximity monitoring in addition to surveillance at the Infinity CentralStation. This local monitoring at the Infinity M300—which includes visible waveforms and parameters as well as audible alarms—continues even if the patient moves outside of the network coverage area. This gives you immediate access to real-time data on which to base clinical decisions.

Infinity M300 also supports patient safety by enabling hospitals to place patients in the department where they will receive the best care, as opposed to being limited to a telemetry floor. Infinity M300 enables patients to increase mobility more quickly, while still being continuously monitored.

Data is transmitted safely and securely in any Wi-Fi coverage area using WPA2 AES 128bit, 802.11i.

Dräger's patient-worn monitors undergo rigorous drop testing to ensure durability in real-world clinical use. The Infinity M300 will continue to monitor patients even after it has been submerged in up to one meter of water for 30 minutes.

#### EFFICIENCY AND SUSTAINABILITY

Infinity M300 is a cost-effective alternative to traditional telemetry systems. Rather

than requiring a separate proprietary network for patient data, the Infinity M300 uses the hospital's existing Wi-Fi network—which can reduce the cost and complexity of patient monitoring. Your IT staff will only have to purchase, implement, and maintain one network rather than two. And because Infinity M300 uses a standard Wi-Fi network, there is no need for expensive, proprietary network troubleshooting and repair tools.

In addition, Infinity M300 offers sustainability by supporting 'green'

initiatives. The unit's rechargeable battery eliminates the need to continually replace and dispose of batteries, which results in fewer batteries in landfills. There are fewer access points to deploy and replace, which again means less scrap in our landfills.

Only Infinity M300 ensures patient safety via continuous monitoring using the hospital's existing Wi-Fi network, visible and audible alarms, and integrated SpO<sub>2</sub>—all in one compact, durable patient-worn monitor.



Because the Infinity M300 is Wi-Fi CERTIFIED by the Wi-Fi Alliance®, it provides peace of mind by offering proven interoperability, standards-based security and easy installation.

Infinity and ACE are registered trademarks of Dräger.

Wi-Fi and Wi-Fi Alliance are registered trademarks and Wi-Fi CERTIFIED is a trademark of the Wi-Fi Alliance.



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## Reference Case: Continuous mobile patient monitoring

Significantly lower investment costs, increased telemetry coverage, and efficient project implementation. According to the management team at Memorial Medical Center in Springfield, Illinois, the new Infinity<sup>®</sup> M300 patient-worn monitoring system offers a wide range of advantages. Above all, the hospital staff values the fact that Dräger's advanced telemetry solution utilizes the hospital's existing Wi-Fi infrastructure resulting in significant cost savings.



Changes were needed at Memorial Medical Center. The previous telemetry system was outdated and offered no Wi-Fi capabilities. Telemetry patients were restricted to specific units that were wired for telemetry. Unfortunately, some specialty units such as psychiatry, OB and rehab were not wired, so there were times that patients were not able to be placed in the care unit best suited to their individual needs. This resulted in a suboptimal use of bed space and prevented efficient workflow.

Today, Memorial Medical Center uses a total of 120 Infinity M300 patient-worn monitors running on the hospital's existing wireless network all throughout the hospital. As a result, telemetry patients can be monitored in any care unit and during transport, which gives them flexibility as they regain mobility during rehabilitation.

The coverage area for telemetry monitoring in the hospital is now 450,000 square feet, compared to 75,000 square feet with the previous telemetry system. This expanded coverage not only provides a significant economic advantage, it also offers clear gains in terms of patient safety, says Deidra Glisson, RN, Director of Nursing Operations.

"No matter where a patient is, we always have an eye on their ECG. This increases their safety."

### NEAR THE TOP 10% IN PATIENT SATISFACTION

According to Senior Vice President and Chief Operating Officer Doug Rahn, Memorial Medical Center is on a sound economic foundation. In patient satisfaction surveys,

the hospital has consistently ranked "near the top 10 percentile nationwide," says Rahn.

The role of technology is inseparably linked to hospital operations, according to Dr. David Graham, MD, Senior Vice President and Chief Information Officer. He has noticed a significant change over the last several years: investments are allocated less frequently to construction infrastructure or aesthetic aspects of the hospital, and much more to technology and IT. Dr. Graham states, "Technology is essential for the way we care for our patients in a rapidly changing environment."

According to Dr. Graham, intelligent technology investments yield cost savings, reduce surpluses and inefficiencies, and allow a hospital to deliver high quality care to more patients in a shorter amount of time. That's why Dr. Graham is convinced that "technology is closely connected to our bottom line."

For example, electronic patient records, which can be accessed via mobile devices, have been available since 2010. Physicians use tablet PCs for data retrieval at the patient's bedside and anywhere inside or outside of the hospital. The data processing center was recently

At your side in

**Memorial**  
MEDICAL CENTER 



Michael McKee in front of the Infinity M300 charging station. He was part of the project team that selected Dräger's telemetry solution.

restructured, and in 2008 \$800,000 was invested into the expansion of the hospital's wireless network, with 500 new access points installed to support wireless medical technology as well as patient and staff Internet access.

#### CLEAR REQUIREMENT: USE WIRELESS LAN

When the management team at Memorial Medical Center began searching for a provider for the new telemetry system, a clear requirement was that the new system needed to use the hospital's existing in-house wireless LAN infrastructure. They did not want to install a proprietary telemetry system because a great deal of money had recently been invested in a state-of-the-art wireless network.

Donna Crompton, RN, System Director, Clinical Informatics, states that only three providers – including Dräger – were able to offer a wireless solution. But Dräger was the only manufacturer that could integrate its telemetry system into the hospital's existing wireless network, which was exactly what Memorial Medical Center was looking for.

"When we took a look at manufacturers, we recognized that several were still encumbered by an outdated way of thinking. But we wanted to have the opportunity to use the investments we had already made," says Dr. Graham. This combined with the fact that several units at the hospital offered positive feedback on the Dräger bedside monitors

in use was also a decisive factor. According to Crompton, "We had already established a very good working relationship with Dräger." As a result, Dräger was awarded the contract for the new telemetry system.

#### NO INTERRUPTIONS IN PATIENT CARE

Another advantage of the Dräger telemetry solution was a significantly shorter implementation time. Deploying an additional telemetry network with the same coverage area could have taken years; the Dräger project took less than a year and a half. The transition was completed seamlessly via integration into the hospital's existing Wi-Fi system.

"There were no interruptions in patient care," says Dr. Graham. "Not a single patient room needed to be closed."

What made the hospital management team even happier was that by using the existing infrastructure, the coverage of the telemetry system was not only extended to include the three units which were not previously covered, it was also expanded to include the hospital's entire Wi-Fi network coverage area.

The range of the hospital's telemetry monitoring quickly grew to five times its previous size. For Crompton, this is an additional benefit that doesn't cost a cent.



Additional access points ensure complete coverage.

That's because the additional range is "a present that will be given again and again."

Crompton estimates that installing a telemetry system from a different provider, which would have required a separate telemetry network, would have cost at least an additional \$400,000.

Infinity M300 monitors replaced the existing telemetry devices in the hospital's telemetry and medical surgical nursing units. In addition, patients are now monitored in the maternity, psychiatric and rehab units – which previously were unavailable for telemetry monitoring.

Patients are continuously monitored in their rooms, during transport and in all areas of the hospital where wireless coverage is available. Deidra Glisson, RN, Director of Nursing Operations explains, "This monitoring option now allows us to help our patients become mobile a bit more quickly." "In the past if the ECG signal were lost in an elevator, the nurses would no longer have visibility to the patient's vital signs. Now they simply look at the built-in color screen of the Infinity M300 to see the values or identify the cause of any alarms."

Glisson believes it is possible that increased mobility could have a positive effect on a patient's recovery time.

#### "SMOOTH IMPLEMENTATION"

From a technical perspective, the implementation of the Infinity M300 solution was seamless. Dräger supported Memorial Medical Center throughout all phases of the implementation. According to Crompton, who is a member of the project team, "Dräger looked over the construction plans with us during the initial phase, assisted us in the surveying process, gave us equipment recommendations, and worked closely with our biomedical technology and IT staff to ensure that we had the correct technology."

The implementation of the Infinity M300 solution has received positive feedback. According to Dr. Graham, the implementation went "smoothly" and the assistance from Dräger was "exceptional". The focus was on security: network management tools that are unique to standards-based network systems allow the prioritization of data on the wireless system to ensure that, for example, life-critical vital signs information has priority over administrative data. Feedback from the departments that now have the Dräger telemetry system has also been positive.

"Our nursing staff is very pleased with the new wireless solution," says Crompton. The new devices are smaller and more mobile than the previous ones, making monitoring easier for nurses and patients alike.

Finally, the telemetry system has freed up more working space for clinicians. While the previous system required a room of its own with a separate air conditioning system, Dräger helped the hospital design the installation so the Infinity M300 system servers could be housed in an existing server room.



"This provided us with additional space and allowed us to re-design the nurses' station to operate even more efficiently," says Crompton.

Nurses and care personnel rapidly became proficient with the Infinity M300 devices, says Glisson. Online training helped with the launch and clinicians generally grasped how to operate the M300 very quickly.

#### ALL-IN-ONE MONITOR

The clinicians at Memorial Medical Center have also had positive experiences with the integrated pulse oximetry (SpO<sub>2</sub>) monitoring in the Infinity M300. This enables caregivers to monitor the oxygenation of a patient's hemoglobin, without the patient having to carry an additional SpO<sub>2</sub> device with them everywhere they go.

Monitoring with the new Dräger system also offers clear advantages in emergency situations. In the past, if an alarm sounded, alarm details were only available at the central station and not at the patient site because the old telemetry devices did not have sound capabilities. This delayed patient care while the nurse tracked down the reason for the alarm, reports Crompton.

Today, while staff still uses printed ECG output at the nurses' station, they are not dependent on it. If the patient complains that he doesn't feel well, the physician can view the heart rhythms directly on the mobile device. Crompton explains, "The nurses in the intensive care unit report that they appreciate the capability of being able to view the ECG immediately when responding to a Rapid Response call or a Code situation of a patient who has remote monitoring. While all of the technical equipment they need in an urgent situation can be pushed into the room, they can

view the ECG simply by pushing a button and instantly make an initial assessment. This makes a big difference."

#### "CLEAR FINANCIAL AND PATIENT CARE ADVANTAGE"

What's the bottom line at Memorial Medical Center? Rahn sees the new Infinity M300 telemetry system from Dräger as an enormous technical advance for his hospital.

"When Dräger provided us with the opportunity to continue working with our existing wireless network instead of being locked into the platform of a different provider, this flexibility was astounding to us, and opened up many possibilities for reducing costs." Rahn is convinced that the monitoring system is a huge technical advancement for the hospital. "It gives us a great deal of flexibility in coordinating patient care. It provides us with the latest information on our patients, regardless of where they are in the hospital. And we can continue to expand our wireless monitoring based on the flexibility of the system."

The hospital's Chief Operating Officer also sees economic benefits: "There was a clear financial advantage because we did not need to double our infrastructure. That's why I knew we would be able to save money over the long term."

When Memorial Medical Center invests in technology, it also checks its profitability over a specific time period. This includes taking into account the impact on market share and competition. When it comes to the Dräger telemetry solution, Dr. Graham is convinced that the hospital's growing market share is in no small part a result of being able to seamlessly monitor patients with higher acuity levels in several units in the hospital. "We've received a significant return on our investment in the first year," concludes Dr. Graham.



Alarm details are available at the central station and on the mobile device.



Nurses respond to visible and audible alarms.



Doug Rahn, Senior Vice President and Chief Operating Officer

**Doug Rahn, Senior Vice President and Chief Operating Officer, sees the new Infinity M300 telemetry system from Dräger as an enormous technical advance for his hospital. It makes optimal use of hospital space flexible and delivers up-to-date information for telemetry patients, no matter where they may be. Doug Rahn: "When Dräger came to the negotiating table and provided us with the opportunity to**

**continue working with our existing wireless network instead of being locked into the platform of a different provider, this flexibility was astounding to us, and opened up many possibilities for reducing costs." Doug Rahn is convinced that the hospital saved money with this option at the outset, and in ongoing service and maintenance costs.**

**Dr. David Graham, MD, Senior Vice President and Chief Information Officer, emphasizes the importance of technology – not only for patient safety but also for the cost effectiveness of modern hospital operations. Providers must adapt to the technical conditions at the customer's site and develop an affordable integration plan. The solution needs to take the hospital's existing investments into account in order to ensure a faster ROI. Dr. Graham feels Dräger filled this role perfectly during the launch of the Infinity M300 at the Memorial Medical Center.**

**Donna Crompton, RN, System Director, Clinical Informatics, was a member of the project team which selected and implemented the new telemetry solution. Dräger was the only provider whose telemetry solution could be used with the existing WLAN infrastructure. Above all, she valued the support from Dräger throughout all levels of the implementation – from planning to after sales support. Donna Crompton estimates that the Dräger solution cost about \$400,000 less than the solutions from other suppliers.**

**Deldra Glisson, RN, Director of Nursing Operations, reports that the nursing staff is very happy with the seamless monitoring of patients. She has also noticed an increase in patient safety because monitoring is not interrupted at any point during the hospital stay, including during transport. Glisson also does not rule out the possibility of positive effects on a patient's recovery time and length of stay with the Infinity M300 – because the quality of care increases thanks to continuous monitoring as patients increase mobility.**



Dr. David Graham, MD, Senior Vice President and Chief Information Officer



Donna Crompton, RN, System Director, Clinical Informatics



Deldra Glisson, RN, Director of Nursing Operations



**About the Memorial Medical Center**

Memorial Medical Center, a 500-bed acute care hospital in Springfield, Illinois, is part of the Memorial Health System, a network of three hospitals in Springfield, the capital of Illinois, Taylorville and Lincoln.

Memorial Medical Center offers a wide range of medical services, and specializes in cardiology, orthopedics, surgery, urology and is a Level 1 Trauma Center. The intensive care units and OR capacity have been expanded over the last several years to meet increased demands. Memorial Medical Center now commands a 60 percent market share in the region.

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according to ISO 13485 and ISO 9001.



## Integrating Patient Data with Infinity® Gateway

Disparate information systems throughout your hospital network provide valuable clinical information, but they can also introduce complexity. Having the ability to exchange patient data supports clinical decision making, reduces manual entry, and helps ensure a complete patient record.



### MAKE THE MOST OF YOUR CLINICAL DATA

Infinity Gateway is a comprehensive suite of software applications, interfaces and data access tools that facilitates the exchange of patient information between the Dräger Infinity Network and your existing hospital systems. This enables you to bring networked information – such as near-real-time and historical patient data, full and event disclosure data\*, lab results and more – to the point of need. It also enables you to export data from Dräger monitoring devices and connected therapy devices, including ventilators and anesthesia machines, to third-party systems such as paging and alarm systems, electronic medical records (EMR), hospital information systems (HIS), lab information systems (LIS), and clinical information systems (CIS).

\*Available through Infinity Symphony

### SUPPORT PATIENT SAFETY WITH TIMELY, BETTER INFORMED DECISION MAKING

When you have to search for data from diverse sources, decision making can be inefficient and fragmented. Manual entry of data takes you away from direct patient care and can introduce errors into the patient record.

With Dräger, the information you need can come to you – even if it resides on multiple information systems. For example, Infinity Gateway makes it possible to display near-real-time patient monitoring, respiratory, and lab values on any PC that has access to the hospital network. This includes visual alarms, vital signs, waveforms, full view of 12-lead ECGs, and trends in graphical and tabular format.

Infinity Gateway also supports automated import of HIS admission data to the patient monitor, as well as import and export of laboratory data. 12-lead rest ECG data reports can be sent automatically to your ECG management system or cardiology database, eliminating manual data entry.

In addition, a Time Master feature synchronizes the time of day for all Infinity devices on all the monitoring units for which Infinity Gateway is configured so that patient data is correlated for review and in the patient record.

When you have easy access to patient information and automated data collection, it's easier to make timely, informed clinical decisions. You can spend less time looking for or entering patient data, and more time connecting with your patients.





**CUSTOM APPLICATIONS SUPPORT CLINICAL RESEARCH**  
 Dräger's Infinity Gateway WinAccess API data access tools are powerful and versatile enough to support clinical research projects. You can develop custom applications using any Dräger monitoring, ventilation or anesthesia data that is available on the network. Using these custom applications designed using our developers toolkit, data can be collected and analyzed in aggregate or patient-specific formats.

**LEVERAGE INFORMATION SYSTEMS ACROSS THE HOSPITAL**  
 Because patient care generates clinical data that exists in diverse applications, managing this data can be a real challenge. Hospital IT staff need effective ways to electronically exchange healthcare data among diverse systems, while maintaining the integrity of the data. The push to consolidate patient information into an Electronic Medical Record (EMR), and the need to invest in technologies that can satisfy government initiatives such as demonstrating Meaningful Use, can add complexity to the healthcare IT infrastructure.



At Dräger, we understand that you have to make your existing technology investments work harder than ever. Our robust, flexible data feeds allow you to interface Dräger monitoring, ventilation\*\* and anesthesia\*\* data with any compatible device or software that accepts the HL7 interface. This approach goes beyond standard interfaces and provides the capability to customize or adapt HL7 feeds so that interfaces work as you need them to.

In addition to supporting in-house clinical research projects the WinAccess API developers toolkit makes it possible to interface with third-party or custom applications – such as intake and assessment systems, telemonitoring systems, and patient locator solutions. Medical information systems developers worldwide have added clinical value using this tool.

By using HL7 and WinAccess API, you can easily integrate patient data into a variety of hospital information systems, including patient records, paging systems, research applications and more.

\*\*Dräger ventilation and anesthesia devices must be connected to the Infinity patient monitor

**DELIVER EXCELLENCE AND EFFICIENCY HOSPITAL-WIDE**

To run an effective healthcare facility, you must continually balance competing priorities such as patient safety, staff satisfaction, healthcare regulations, and costs. Empowering clinicians with the right data at the right time helps improve patient care.

Effective management and consolidation of patient data can also support continuity of care and reduce expenses associated with manually managing data and duplication of tests when information is invisible to a caregiver. With this in mind, we designed Infinity Gateway to move data quickly and reliably among diverse information systems – which can benefit patients, clinicians, and your bottom line.

This data consolidation can have a profound impact on clinical efficiency. For example, when a new patient comes in during the night, a doctor can connect to the system from home and review the vital signs in near-real-time and give consulting advice. If a physician wants to follow the condition of a critically ill patient from home or while traveling, that information is easily available via a device connected to the hospital network.

As a result, your clinicians can always be connected to relevant information about their patients – anytime, anywhere.

**HL7 PROTOCOL INTERFACES**

**Hospital Information Systems: HL7 ADT**

**Clinical Information Systems: HL7 Vital Signs**

**Laboratory Information Systems: HL7 Lab Import & HL7 Lab Export**

**Dräger customers are using the HL7 protocol interface to share data with diverse EMR, LIS, CIS, and HIS solutions, including:**

- Cerner Millennium®
- CPSI™ Medical Practice EMR
- Allscripts™ Eclypsis
- EpicCare
- Healthcare Management Systems Inc® EDIS
- Keane Optimum™
- Picis EMR

**NOTE:** Dräger's Infinity monitoring solutions can interface to any compatible device that accepts HL7 interfaces. Gateway's HL7 protocol interfaces support at least 100,000 patient records and 60 transactions (HL7 messages) per minute.

**PAGING PROTOCOL INTEGRATION**

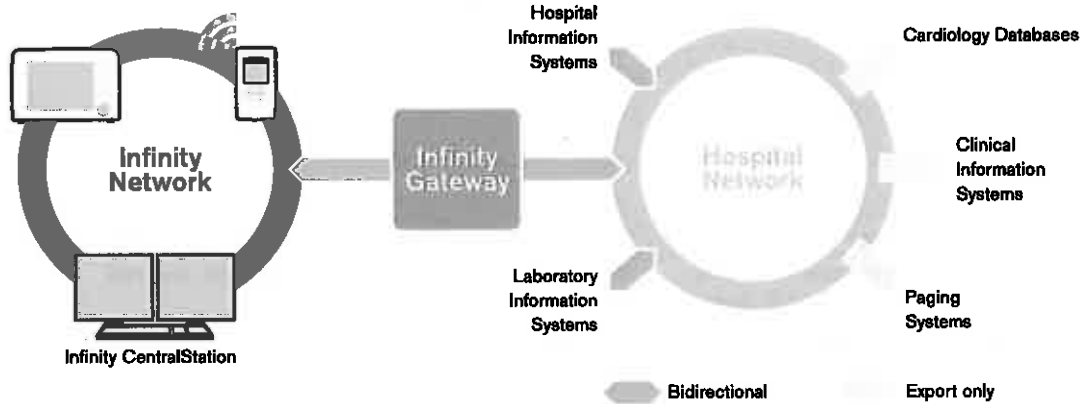
**Compatible with TAP 1.7 and ESPA 4.4.4 systems including:**

- Ackermann
- Cisco
- DAKS/OScAR-Pron

**NOTE:** additional TAP 1.7 and ESPA 4.4.4 paging systems may be compatible; check with your local Dräger representative for more information.

"Now there is a wealth of clinical information available for use at the touch of a button. We can access anything that the network can offer – not just at our desks, but at the patient's bedside. And because our system allows us to use our hospital laptops at home when we are on call, we can see our unit bed-by-bed with very accurate information."

- Dr. Serge Tsoumakos, Consultant, Cardiac-Thoracic Anesthesiologist, Derriford Hospital, Plymouth, England



**COMMERCIAL THIRD-PARTY INTEGRATION\***

Clinical solution providers have recognized the value of Dräger's Infinity Gateway tools, and are delivering diverse value-added integrated solutions that provide a wide variety of resources. Some examples include: geo-localization of patients when their M300 telemetry monitor alarms, remote decision support tools, dynamic fluid responsiveness assessment tools, and cardiac management systems. Custom applications taking advantage of the Infinity Gateway WinAccess API developer tools include export of 12-lead ECG pdf reports for electronic records, automated daily reporting of all active patients in pdf format, and the ability to send specified alarms (i.e., only serious and life threatening) to an external system.

Examples of third-party integrations using the Infinity Gateway include:

- Aeroscout®
- BetterCare™
- CliniCom™
- MetaVision®
- c.o.p.r.a.
- SRAclinic
- Dräger ICM®
- Connexall®

NOTE: \*All solutions may not be available in all markets. Contact vendor for more information. Support for custom integrations can be obtained from the respective vendors.

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 Dräger Medical GmbH is certified  
 according to ISO 13485, ISO 9001  
 and Annex II.3 of Directive 93/42/EEC  
 (Medical devices).

## Infinity® OneNet: leading-edge networking of patient monitoring data

Until now, patient monitoring required its own separate communication infrastructure – because that was the only way to ensure the integrity of vital patient data. But maintaining multiple networks is costly and cumbersome, and some proprietary network technologies don't comply with today's safety and security standards. Dräger offers a better way: Infinity OneNet.



D 802683-2011

### A SMARTER WAY TO NETWORK VITAL PATIENT DATA

As a leader in innovative technologies, Dräger pioneered Infinity OneNet, a breakthrough networking solution that enables life-critical patient data to be sent and received safely and securely over an existing hospital network. OneNet makes it possible for hospitals to link together data from Dräger point-of-care devices and access that data hospital-wide and beyond. This innovative approach leverages the investments you've made in your wired and wireless network infrastructure and saves the expense of building, supporting and maintaining multiple separate networks.

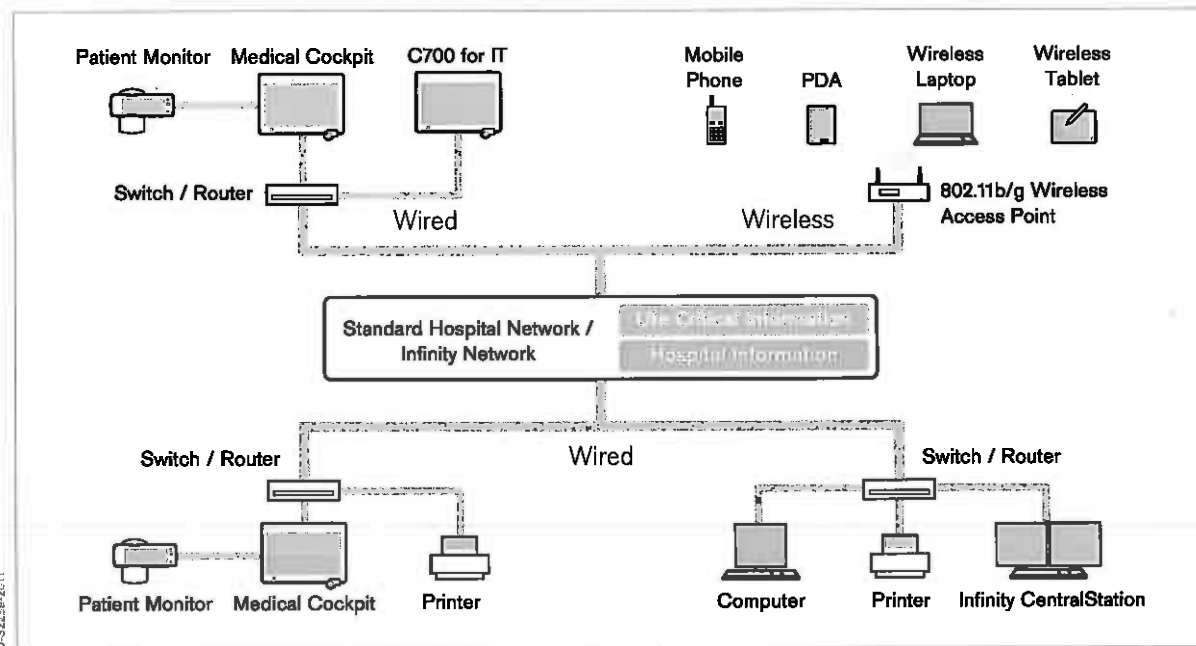
### ONE NETWORK RATHER THAN TWO

Because Infinity OneNet is a shared infrastructure concept, it offers compelling benefits for the hospital:

- Prioritizes life-critical information provided by point-of-care devices and ensures Quality of Service (QoS)
- Saves the cost and effort of building, installing and maintaining a second communication network for patient monitoring data
- Ensures data security by utilizing the latest encryption standard, WPA2 (IEEE 802.11i)
- Leverages the hospital's existing network architecture
- Offers consulting services to analyze the hospital network and make recommendations for improving network stability, performance and security

To deliver Infinity OneNet, Dräger works closely with certified industry-leading networking experts to provide network reliability assessments which optimize Quality of Service, performance and security in your wired and wireless network.

We design our OneNet solutions in such a way that makes it easy for forward-thinking hospitals to adopt the new ISO/IEC 80001 standard. The goal of this standard is to address risk management, safety, effectiveness, and system security of healthcare data networks that incorporate medical devices.



Infinity OneNet is an open shared infrastructure network design that integrates patient monitoring systems into the hospital's wired and wireless network, rather than requiring that the hospital purchase, install and maintain a separate network.

OneNet uses only industry standards such as IEEE 802.11b/g Wi-Fi, IEEE 802.11i for Security, IEEE 802.3 Ethernet (TCP/IP and UDP), IEEE 802.1p/Q (VLAN and QoS) and IEEE 802.11e.

Infinity is a registered trademark of Dräger.

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www.draeger.com

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 Fax +1 215 723 5935  
 info.usa@draeger.com

Manufacturer:  
 Dräger Medical GmbH  
 23542 Lübeck, Germany  
 The quality management system at Dräger Medical GmbH is certified according to ISO 13485, ISO 9001 and Annex II.3 of Directive 3/42/EEC (Medical devices).

March 11, 2016

**VIA FEDERAL EXPRESS**

Ms. April Battle, Buyer 22  
State of West Virginia  
Department of Administration, Purchasing Division  
2019 Washington Street East  
Charleston, WV 25305-0130

**RE: CRFQ #0506 WEH160000014 - Telemetry System**

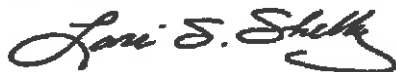
Dear April:

Enclosed are the following documents for Solicitation CRFQ 0506 WEH160000014:

1. signed Addendum Number 1;
2. signed Addendum Number 2;
3. revised Exceptions to the State of West Virginia Request for Quotation Terms and Conditions. The only change is the language highlighted in yellow at the top of page one. These exceptions shall supersede the exceptions previously submitted; and
4. revised Welch CRFQ Specifications. These specifications shall supersede the specifications previously submitted;
5. Infinity® Medical Cockpit Brochure;
6. Infinity® M300 Patient-worn Monitor Brochure;
7. Infinity® M540 Monitor Brochure; and
8. Infinity® M540 Monitor-Infinity® M500 Docking Station Brochure;

Please consider these documents part of Draeger Medical, Inc.'s Response which was delivered via Federal Express on February 25, 2016. Thank you for your attention to this matter.

Sincerely,



Lori S. Shelly  
Contracts/RFP Administrator  
Contracts Administration  
Tel +1-215-660-2287  
Fax +1-215-721-5808  
E-mail: [lori.shelly@draeger.com](mailto:lori.shelly@draeger.com)

03/14/16 09:40:10  
WV Purchasing Division

**SOLICITATION NUMBER: CRFQ 0506 WEH1600000014**

**Addendum Number: 1**

---

The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

**Applicable Addendum Category:**

- Modify bid opening date and time**
- Modify specifications of product or service being sought**
- Attachment of vendor questions and responses**
- Attachment of pre-bid sign-in sheet**
- Correction of error**
- Other**

**Description of Modification to Solicitation:**

To extend the bid opening date from March 1, 2016, at 1:30 PM EST, to March 8, 2016, at 1:30 PM EST.

**Additional Documentation:** Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

**Terms and Conditions:**

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.



**ADDENDUM ACKNOWLEDGEMENT FORM**  
**SOLICITATION NO.: WEH1600000014**

**Instructions:** Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

**Acknowledgment:** I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

**Addendum Numbers Received:**

(Check the box next to each addendum received)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6  |
| <input type="checkbox"/> Addendum No. 2            | <input type="checkbox"/> Addendum No. 7  |
| <input type="checkbox"/> Addendum No. 3            | <input type="checkbox"/> Addendum No. 8  |
| <input type="checkbox"/> Addendum No. 4            | <input type="checkbox"/> Addendum No. 9  |
| <input type="checkbox"/> Addendum No. 5            | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Draeger Medical, Inc.

\_\_\_\_\_  
Company

  
\_\_\_\_\_  
Authorized Signature

3-1-16  
\_\_\_\_\_  
Date

**NOTE:** This addendum acknowledgment should be submitted with the bid to expedite document processing.  
Revised 6/8/2012

**SOLICITATION NUMBER: CRFQ 0506 WEH1600000014**

**Addendum Number: 2**

---

**The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.**

**Applicable Addendum Category:**

- Modify bid opening date and time**
- Modify specifications of product or service being sought**
- Attachment of vendor questions and responses**
- Attachment of pre-bid sign-in sheet**
- Correction of error**
- Other**

**Description of Modification to Solicitation:**

- 1) To provide the responses to questions submitted by vendors.**
- 2) To provide floor plans of the facility.**
- 3) To extend the bid opening date from March 8, 2016, at 1:30 PM EST, to March 16, 2016, at 1:30 PM EST.**
- 4) To schedule a Non Mandatory Walk Through of the facility on March 9 ,2016, at 1:00 PM EST. The facility is located at 454 McDowell Street, Welch WV 24801**

**Additional Documentation:** Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

**Terms and Conditions:**

- 1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.**
- 2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.**

# ATTACHMENT A

**ADDENDUM ACKNOWLEDGEMENT FORM**  
**SOLICITATION NO.: WEH1600000014**

**Instructions:** Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

**Acknowledgment:** I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

**Addendum Numbers Received:**

(Check the box next to each addendum received)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6  |
| <input checked="" type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7  |
| <input type="checkbox"/> Addendum No. 3            | <input type="checkbox"/> Addendum No. 8  |
| <input type="checkbox"/> Addendum No. 4            | <input type="checkbox"/> Addendum No. 9  |
| <input type="checkbox"/> Addendum No. 5            | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Draeger Medical, Inc.

\_\_\_\_\_  
Company

  
\_\_\_\_\_  
Authorized Signature

3-11-16  
\_\_\_\_\_  
Date

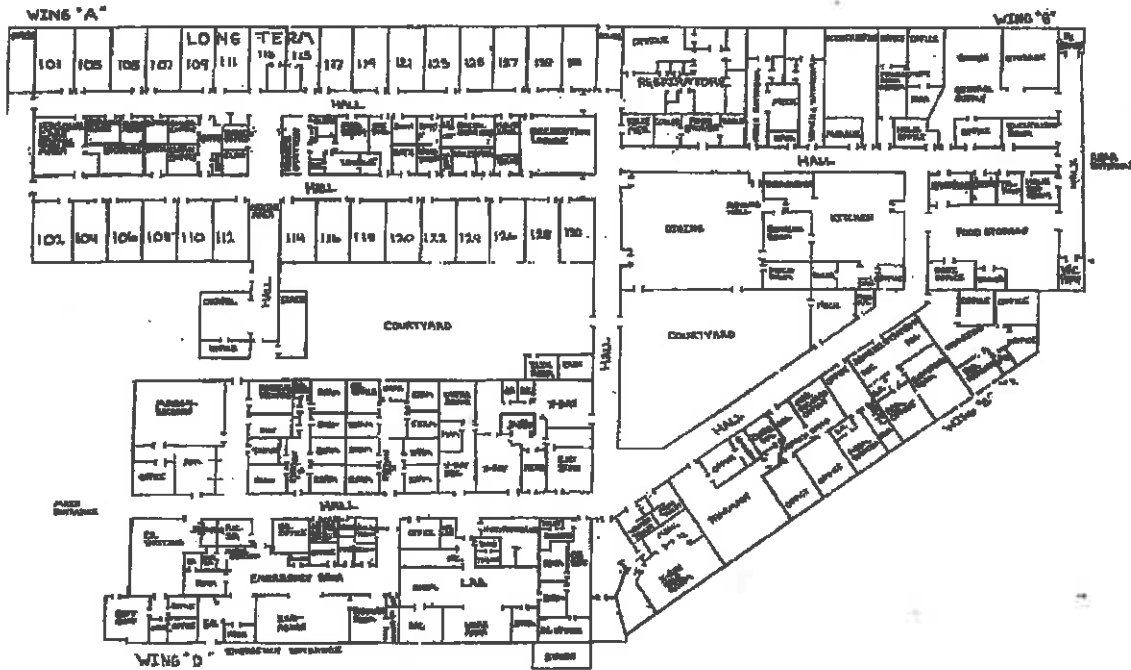
**NOTE:** This addendum acknowledgment should be submitted with the bid to expedite document processing.  
Revised 6/8/2012

**Addendum 2**

**CRFQ 0506 WEH1600000014**

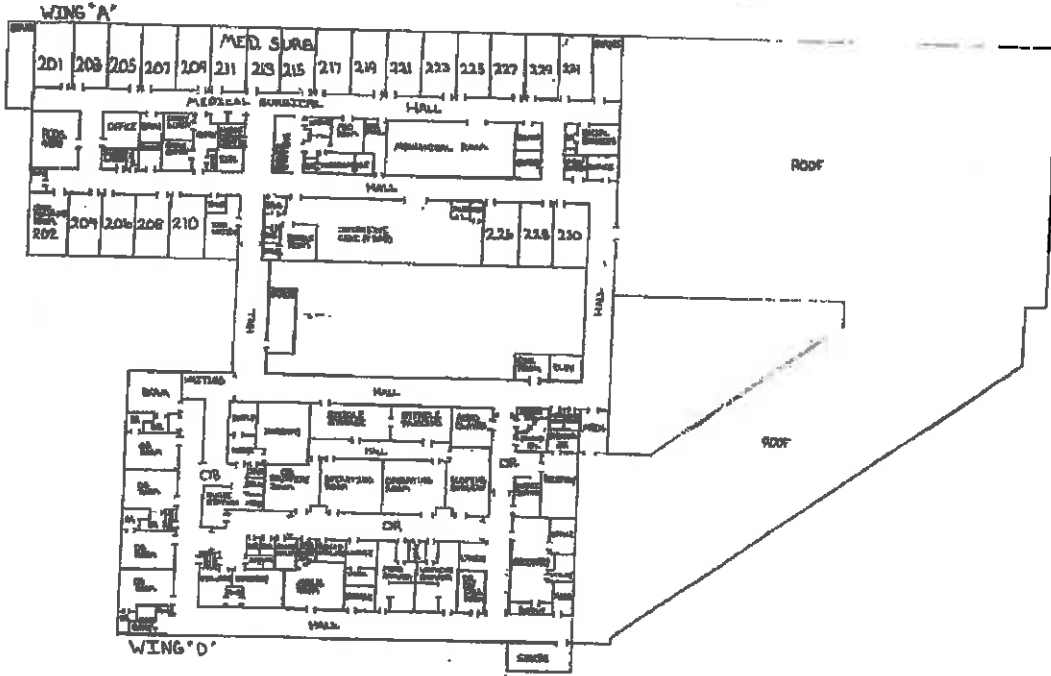
**Q.1 The RFP is specific to section 3.1.1.19 Cableless measurements  
Does this mean that the RFP is asking for cableless Blood Pressure measurements?**

**A.1 No. This means that the readings will show on the bedside monitor as well as on the central monitor at the Nurses Station.**



FIRST FLOOR

NEIGH COMMUNITY HHS  
 FIRST FLOOR PLANS 1/2  
 SCALE: 1/8" = 1'-0" 4-2020(1)



SECOND FLOOR

WELCH COMMUNITY CTR.  
 SECOND FLOOR PLANNING  
 SCALE: 1/4" = 1'-0" (200/20)

**DMI Exceptions to the State of West Virginia Request for Quotation**  
**Please contact DMI to review and negotiate mutually agreeable terms.**

Solicitation No. CRFQ 0506 WEH160000014

26- Medical; Proc Folder:160151; Descript: Telemetry

1. **Section 25. Assignment.** Add the following language to the end of the first sentence:

“...unless it is to a parent, affiliate or subsidiary as part of a merger or consolidation without the prior written consent of the other party.”

2. **Section 26 Warranty.** This section shall be replaced in its entirety with the following:

“Vendor warrants that the Products manufactured by Vendor and sold hereunder shall be free from defects in material or workmanship under normal use and service for the warranty period. Unless otherwise set forth in a separate warranty statement covering the Products to be provided by Vendor, the warranty period shall commence on the date that the Products are delivered to Customer and shall continue for twelve (12) consecutive months except for the following: (a) Vendor’s workplace infrastructure products (“WI Products”) consisting of the Ponta, Agila, Movita, Gemina and Pendula are warranted for a period of two (2) years from the delivery date, (b) Bearing and brake assemblies related to WI Products are warranted for a period of seven (7) years from the delivery date, (c) Used/refurbished Vendor Products are warranted for a period of ninety (90) days from the delivery date, (d) All sensors, accessories, complementary products and spare parts are warranted for ninety (90) days from the delivery date, (e) Factory repairs and service exchange replacements are warranted for ninety (90) days from the delivery date, (f) Expendable/disposable/consumable goods are warranted at time of delivery only, and (g) Information systems/software will operate in all material respects in conformity with Vendor’s published specifications, under normal use, for a period of ninety (90) days from the earlier of implementation sign-off or first productive use as set forth in the applicable license. Vendor makes no warranty for any third party or other products other than those Products expressly covered under the terms of this Agreement. Customer’s sole warranty for any third party products, if any, is the original manufacturer’s warranty, which DMI agrees to pass on to Customer, as applicable.

No warranty extended by Vendor shall apply to any Products: (a) which have been damaged by accident, misuse, abuse, negligence, improper application or alteration or by a force majeure occurrence or by Customer’s failure to maintain the recommended operating environment and line conditions; (b) which are defective due to unauthorized attempts to repair, relocate, maintain, service, add to or modify the Products by Customer or any third party or due to the attachment and/or use of non-Vendor supplied equipment without Vendor’s prior written approval; (c) which failed due to causes from within non-DMI supplied equipment; and/or (d) which have been damaged from the use of operating or cleaning supplies or consumable parts not approved by Vendor. Vendor’s obligation under this warranty is limited to the repair or replacement of or credit for, at Vendor’s option, defective parts. Vendor may effectuate such repair at Customer’s facility, and Customer shall furnish Vendor safe and sufficient access for such repair. Repair or replacement may be with parts or products that are new, used or refurbished. Repairs or replacements shall not interrupt, extend or prolong the term of the warranty. Customer shall, upon Vendor’s request, return the non-complying Product or part to Vendor pursuant to the terms of Vendor’s



Return Policy. Customer shall pay Vendor its normal charges for service and parts for any inspection, repair or replacement that is not, in Vendor's sole judgment, required by noncompliance with the warranty set forth in this Section 26.

This warranty is made on condition that immediate written notice of any noncompliance be given to Vendor and Vendor's inspection reveals that the Customer's claim is valid under the terms of this warranty.

**VENDOR MAKES NO WARRANTY OTHER THAN THE ONE SET FORTH HEREIN OR THAT WHICH MAY BE PROVIDED IN A SEPARATE WARRANTY COVERING THE APPLICABLE PRODUCT. SUCH WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND SUCH CONSTITUTES THE ONLY WARRANTY MADE WITH RESPECT TO THE PRODUCTS AND ANY DEFECT, DEFICIENCY OR NONCOMFORMITY IN ANY PRODUCT, SERVICE OR OTHER ITEM FURNISHED UNDER THIS AGREEMENT."**

3. **Section 36 Indemnification.** Add the following at the end of (1) after the word Contract:

"on behalf of Vendor"

4. **Section 43. Preference for use of Domestic Aluminum, Glass, and Steel.** This section shall be removed in its entirety since it does not apply to the product quoted by the Vendor.

**The following sections shall be added to the General Terms and Conditions section:**

**1. Acceptance.**

"Unless otherwise agreed by Vendor in writing, all Products delivered by Vendor to Customer hereunder shall be deemed to have been accepted by Customer the earlier of (i) the date Customer signs an acceptance certificate provided by Vendor for any Products, (ii) the date Customer first uses the Products for patient use, or (iii) thirty (30) days after delivery of the Products to Customer."

**2. LIMITATION OF LIABILITY AND DISCLAIMER.**

Excluding third party claims for personal injury or death arising as a result of a proven defect in a Vendor Product, in no event shall Vendor's liability to Customer hereunder exceed the actual loss or damage sustained by Customer, up to the purchase price of the Products.

**VENDOR SHALL NOT BE LIABLE FOR ANY LOSS OF USE, REVENUE OR ANTICIPATED PROFITS, LOSS OF STORED, TRANSMITTED OR RECORDED DATA, OR FOR ANY INCIDENTAL, UNFORESEEN, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT OR THE SALE OR USE OF THE PRODUCTS. THE FOREGOING IS A SEPARATE, ESSENTIAL TERM OF THIS**

**AGREEMENT AND SHALL BE EFFECTIVE UPON THE FAILURE OF ANY REMEDY,  
EXCLUSIVE OR NOT.**

REQUEST FOR QUOTATION  
CRFQ 0506 WEH160000014  
WEH160000003 Telemetry System

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**SPECIFICATIONS**

- 1. PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of West Virginia Department of Health and Human Resources (WVDHHR), Bureau for Behavioral Health and Health Facilities (BHBF), Welch Community Hospital to establish a contract for the one time purchase of one time purchase of fifteen (15) bedside monitors, ten (10) medical surgical wearable patient monitors, and two (2) information centers. Vendor is to provide installation and in-service training for medical staff.

NOTE: This request is covered in part or in whole by federal funds. All bidders will be required to acknowledge and adhere to Attachment 1-Provisions Required for Federally Funded Procurements. Delivery Orders issued from contract awarded as a result of this solicitation may be funded in whole or in part with Federal Funds and thus this solicitation and its resulting awarded contract are subject to the requirements of Attachment 1: Provisions required for federally Funded Procurements.

- 2. DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.
- 2.1 “Contract Item”** means one time purchase of fifteen (15) bedside monitors, ten (10) medical surgical wearable patient monitors, and two (2) information centers as more fully described by these specifications.
- 2.2 “Contract Services”** means to provide installation and in-service training of medical staff as more fully described in these specifications.
- 2.3 “Pricing Page”** means the pages, contained in wvOASIS or attached as Exhibit A, upon which Vendor should list its proposed price for the Contract Items.
- 2.4 “Solicitation”** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.
- 3. GENERAL REQUIREMENTS:**
- 3.1 Mandatory Contract Item Requirements:** Contract Item must meet or exceed the mandatory requirements listed below.

**REQUEST FOR QUOTATION  
CRFQ 0506 WEH1600000014  
WEH1600000003 Telemetry System**

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**3.1.1 Bedside Monitors (15)** must meet or exceed the mandatory requirements listed below. Bedside monitors proposed for this opportunity shall comply with the following specifications:

**3.1.1.1 Measurement Features:**

**3.1.1.1.1** Must have electrocardiogram (ECG) monitoring using five (5) electrodes. **IACS MEETS spec - see IACS spec sheet or Instructions for Use (IFU)**

**3.1.1.1.2** Must have twelve (12)-lead ECG monitoring with five (5) electrodes. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

Must have multi-lead arrhythmia and ST segment analysis at the bedside on all available leads. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

Must have QT/QTc (Q-wave T-wave/Q-wave T-wave interval correction) interval monitoring. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

Must have capnography extensions to extend measurement capability by adding mainstream or side stream carbon dioxide (CO<sub>2</sub>), a pressure and an additional pressure or temperature measurement plus optional cardiac output. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

Must have pulse oximetry technologies for accurate performance even in cases with low perfusion. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

Must have pulse pressure variation (PPV) that can be calculated from beat to beat arterial pressure values. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**3.1.1.2 Usability Features:**

**3.1.1.2.1** Must have menu hierarchy for access to all basic monitoring tasks. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**REQUEST FOR QUOTATION  
CRFQ 0506 WEH1600000014  
WEH1600000003 Telemetry System**

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- 3.1.1.2.2** Must have patient management with tabular and graphic trends. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.2.3** Must have ventilation, hemodynamic and oxygenation calculations. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.2.4** Must have a drug calculator. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.2.5** Must have settings profile functionality. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.2.6** Must have automatic alarm limits. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.2.7** Must have basic event surveillance for automatic detection of patient status deterioration. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.2.8** Must have capability to silence alarms from bedside. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.2.9** Must have capability to assign a monitor and a telemetry device to same patient. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.2.10** Must have multiple input devices: Touchscreen, mouse, and keyboard. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.2.11** Must have a minimum of a ten (10) inch to a maximum twelve (12) inch flat panel display with wide viewing angle, large numerics, permanently visible alarm limits and up to six real-time waves. **EXCEEDS C500 display has 17” display- see IACS spec sheet or Instructions for Use (IFU) – smaller sizes are available**

**REQUEST FOR QUOTATION  
CRFQ 0506 WEH1600000014  
WEH1600000003 Telemetry System**

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**3.1.1.2.12** Must have graphical measurement windows showing which measurements are being used by which device. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**3.1.1.3 Intended Use:**

**3.1.1.3.1** The monitors must be able to be used for monitoring, recording and alarming of multiple physiological parameters of adults and pediatrics in a hospital environment. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**3.1.1.4 Modularity:**

**3.1.1.4.1** Shall have the ability to function as stand-alone or networked. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**3.1.1.5 Upgradability:**

**3.1.1.5.1** Shall have the ability to be updated as practices and technologies advance. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**3.1.1.6 Main Components:**

**3.1.1.6.1** The monitors must have color Liquid Crystal Display (LCD) displays with a wide viewing angle, providing high resolute waveform and data presentation. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**3.1.1.6.2** The user interface must be designed for operation. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**3.1.1.6.3** Must have keys with icons allowing monitoring task to be performed directly on the monitor screen. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**3.1.1.6.4** The monitors must display a minimum of six (6) measurement waves simultaneously. **IACS EXCEEDS spec – see IACS spec sheet or Instructions for Use (IFU) - up to 10 waves simultaneously.**

**3.1.1.6.5** The twelve (12)-lead ECG monitoring must display twelve (12) real-time ECG waves, with a rhythm strip and all ST values. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**3.1.1.6.6** Must have multiple input devices such as mouse, track ball or barcode reader. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**REQUEST FOR QUOTATION  
CRFQ 0506 WEH1600000014  
WEH1600000003 Telemetry System**

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**3.1.1.6.7** Must have mounting options for flexible space saving placement of the monitor. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**3.1.1.7 Applications and Features:**

**3.1.1.7.1** The monitor must have multi-lead arrhythmia detection analysis on the patient's ECG waveform at the bedside. It must analyze for ventricular arrhythmias, calculate heart rate and generate alarms, including asystole, bradycardia, and ventricular fibrillation. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**3.1.1.7.2** Shall have a minimum of twelve (12) leads of ST segment analysis that can be performed at bedside measuring ST elevation and depression generating alarms and events. Must have ability to trend ST changes, set high and low alarm limits, and set both ST and isoelectric measurement points. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**3.1.1.7.3** Must have QT/QTc interval monitoring that provides the measured QT interval, the calculated heart-rate, corrected QTc value and a QTc value, which tracks variation in the QT interval in relation to a baseline value. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**3.1.1.7.4** Must have twelve (12) -level ECG capability with twelve (12) real-time ECG waveforms that can be displayed simultaneously. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**3.1.1.7.5** Must have pulse oximetry technology to perform accurately even in cases of low perfusion. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**3.1.1.7.6** Must have choice of mainstream, side-stream and mainstream CO<sub>2</sub> monitoring for high quality measurements with intubated and non-intubated patients. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**3.1.1.7.7** Must have drug calculator to help manage intravenous (IV) drug infusions by calculating drug dose, rate, amount, volume, concentration, and standardized rate. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**

**REQUEST FOR QUOTATION  
CRFQ 0506 WEH1600000014  
WEH1600000003 Telemetry System**

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- 3.1.1.7.8** Drug calculator must have ability to include a list of commonly used drugs. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**
- 3.1.1.7.9** Must have basic event surveillance that automatically detects changes in patient’s condition and stores an electronic record providing you with a minimum twenty (20) minutes of data sampled every twelve (12) seconds. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**
- 3.1.1.7.10** Events must be stored in a database for review and documented in a report or in a recording. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**
- 3.1.1.7.11** Screen layouts must be adjustable, allowing flexible display of measurement information. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**
- 3.1.1.7.12** Previous/next screen function must provide access to a minimum ten (10) most recently modified screens. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**
- 3.1.1.7.13** Temperature, height and weight must have option of configuration metric or imperial units. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**
- 3.1.1.7.14** Pressure and gas measurements must have option to be displayed in both KPa (kilopascal) or displayed in mmHg (millimeter of Mercury). **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**
- 3.1.1.7.15** The trends database must store a minimum of sixteen (16) measurement memories to a maximum of thirty-two (32). The measurement information must have the ability to be sampled at an interval of twelve (12) seconds, one (1) minute, or five (5) minutes, and stored for a minimum of forty-eight (48) hours. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**
- 3.1.1.7.16** Tabular trends (vital signs) must show dates for a minimum of sixteen (16) measurement memories in a tabular form. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**
- 3.1.1.7.17** The monitor must have capability to be portable for in-hospital transport. **IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)**



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- 3.1.1.7.18** Monitor must not exceed a maximum weight of ten and a half (10 ½) kilograms (kg). IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU) – M540 monitor weighs 2 lbs.
- 3.1.1.7.19** The monitor must operate a minimum of four (4) hours on battery power. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU) -4 hours w power save mode.
- 3.1.1.7.20** The monitor must allow the transition from bedside monitoring to transport with no need to disconnect patient cables or adjust any settings. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.7.21** Admit, discharge and transfer information must be shared between the networked monitor and information center. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.7.22** Printers must have ability to print the following patient reports:
  - 3.1.1.7.22.1** Event review and episodes reports IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
  - 3.1.1.7.22.2** Oxycardio Respirogram (OxyCRG) reports- DOES NOT MEET - Parameter may not be needed at this facility.
  - 3.1.1.7.22.3** Twelve (12) -lead ECG reports IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
  - 3.1.1.7.22.4** Alarm limits reports IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
  - 3.1.1.7.22.5** Vital sign reports IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
  - 3.1.1.7.22.6** Graphic trends IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
  - 3.1.1.7.22.7** Cardiac output reports IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
  - 3.1.1.7.22.8** Wedge procedure reports IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
  - 3.1.1.7.22.9** Calculation reports IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)

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- 3.1.1.7.22.10** Drug calculation reports IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.7.22.11** Real-time wave reports IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.7.23** Report templates must have ability to be tailored to hospital's specific requirements. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.7.24** Monitor must have ability to print on locally or centrally-connected printers. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.7.25** Alarm limits must be permanently visible on main screen. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.7.26** Alarm limits must provide graphic depiction of alarm limits in relation to the currently monitored measurement values and alarm limits must be adjustable. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.7.27** When alarm limits are exceeded, must have multiple ways of alerting staff. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.7.28** Alarms must have ability to be paused for a period of one (1), two (2), three (3), five (5), ten (10) minutes, or indefinitely. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU) – except for 10 Minutes
- 3.1.1.7.29** Monitors must have ability to be part of a wired or wireless hospital network system. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.8 Clinical Calculation Set.**
  - 3.1.1.8.1** Must have clinical calculation sets that include hemodynamic, oxygenation and ventilation. IACS MEETS spec – see IACS spec sheet or Instructions for Use (IFU)
- 3.1.1.9 Information Centers (2)**
  - 3.1.1.9.1** Must have a minimum nineteen inch (19”) to a maximum twenty-four inch (24”) non-touch display. Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)

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- 3.1.1.9.2** Must have information center universal serial bus (USB) recorder. Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)
  - 3.1.1.9.3** Must have an information center printer. Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)
  - 3.1.1.9.4** Main screen displays must have waveforms and parameters for a minimum of eight (8) patients. Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)
  - 3.1.1.9.5** Main screen must have back lighting to aid alarm recognition. Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)
  - 3.1.1.9.6** Must have volume indicator on main screen. Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)
  - 3.1.1.9.7** Must have a minimum two (2) channel recorder to a maximum four (4) channel recorder. Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU) – 2 Channel recorder is thermal paper and 4 channel is laser printer.
  - 3.1.1.9.8** Must have a clinical review application to provide a detailed retrospective analysis of patient's condition. Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)
  - 3.1.1.9.9** Must include all necessary PC hardware and connections. Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)
  - 3.1.1.9.10** Must have upgradeability. Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)
- 3.1.2 Medical Surgical Wearable Patient Monitors** must meet or exceed the mandatory requirements listed below.
- 3.1.2.1 Monitors:**
    - 3.1.2.1.1** Must have continuous electrocardiogram (ECG) monitoring with pulse oximetry option. M300 MEETS spec – see M300 spec sheet or Instructions for Use (IFU) - All devices have Spo2 standard-licenses per unit to provide monitoring of SpO2.

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- 3.1.2.1.2** Must have color touch screen display. **M300 MEETS spec – see M300 spec sheet or Instructions for Use (IFU) - color screen with touch access buttons below screen.**
- 3.1.2.1.3** Must have automatic sleep mode to conserve battery while maintaining privacy. **M300 MEETS spec – see M300 spec sheet or Instructions for Use (IFU)**
- 3.1.2.1.4** Must have ability to view patient status with a single touch. **M300 MEETS spec – see M300 spec sheet or Instructions for Use (IFU)**
- 3.1.2.1.5** Must have a minimum (2) channel of real time waveform. **M300 MEETS spec – see M300 spec sheet or Instructions for Use (IFU)-**
- 3.1.2.1.6** Must have a minimum four (4) screen formats. **M300 MEETS spec – see M300 spec sheet or Instructions for Use (IFU) – scroll to see ECG vectors & Spo2.**
- 3.1.2.1.7** Must have flexible monitoring parameters. **M300 MEETS spec – see M300 spec sheet or Instructions for Use (IFU)**
- 3.1.2.1.8** Must have wide variety of measurements including ECG, SPO<sub>2</sub> and blood pressure. **M300 MEETS spec – see M300 spec sheet or Instructions for Use (IFU) - Blood Pressure via patient monitor.**
- 3.1.2.1.9** Must have ability to use disposable or rechargeable batteries. **M300 MEETS spec – see M300 spec sheet or Instructions for Use (IFU) – rechargeable.**
- 3.1.2.1.10** Must have battery status display on device and information center. **M300 MEETS spec – see M300 spec sheet or Instructions for Use (IFU)**

**3.1.2.2 Alarms:**

- 3.1.2.2.1** Must display alarms for ECG, SPO<sub>2</sub> and non-invasive blood pressure. **M300 MEETS spec – see M300 spec sheet or Instructions for Use (IFU) – for ECG & SPo2 - Does not display NIBP**
- 3.1.2.2.2** Must have one touch review of current alarm settings, alarm histories, vital trends or activate monitor from sleep mode. **M300 MEETS spec – see M300 spec sheet or Instructions for Use (IFU) - activate monitor from sleep mode – M300 Does not meet one touch review of alarm settings, alarm histories, & vital trend.**

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**Central Station provides review of current alarm settings, alarm histories & vital trends.**

**3.1.2.3 Hospital Acquired Infections:**

- 3.1.2.3.1** Must have connectors that reduce collection of soils and liquids. M300 MEETS spec – see M300 spec sheet or Instructions for Use (IFU)
- 3.1.2.3.2** The device must be smooth to allow wiping and support cleaning by a variety of standard low to high-level disinfectants. M300 MEETS spec – see M300 spec sheet or Instructions for Use (IFU)
- 3.1.2.3.3** Device must withstand periodic sterilization. M300 MEETS spec – see M300 spec sheet or Instructions for Use (IFU) – as per cleaning instructions.
- 3.1.2.3.4** Must have reusable lead sets. M300 MEETS spec – see M300 spec sheet or Instructions for Use (IFU) - Devices also support single use (disposable) lead sets.

**3.1.3 Information Center Description** must meet or exceed the mandatory requirements listed below.

- 3.1.3.1** Must have main screen for displaying real-time waves and parameters for a minimum of ten (10) patients. Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU) – Single or Dual Screen display options provide 12 patients, 16 patients . Dual Screen Option offers up to 32 patients
- 3.1.3.2** Must have separate patient window for viewing detailed real-time or stored data for individual patient. Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)
- 3.1.3.3** Must have central review station for reviewing a minimum of seventy-two (72) hours of stored patient monitoring data and a minimum of one hundred (100), thirty (30) second alarm records and saved strips, with a minimum of four (4) waves per event. Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU) - Standard *additional* hours of stored Patient information are 96 hours & 120 Hours. –strips are 20 seconds long.
- 3.1.3.4** Must support the telemetry system. Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)
- 3.1.3.5** Must support telemetry patient monitor. Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)

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- 3.1.3.6** Must support cable-less measurements. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU) – Draeger offers monolead ECG wire available in 3, 5, 6 lead sets.**
- 3.1.3.7** Must support wearable patient monitor. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.8** Must have web server that permits viewing of stored and viewable patient data from browser equipped personal computers (PCs) by way of hospital's information center. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.9** Must have name and patient identification information from hospital information center when clinical data server is present. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU) – EMR software solutions are available.**
- 3.1.3.10** Must have real-time and stored patient monitoring data which includes full disclosure wave forms and parameters, alarms, multi-lead arrhythmia, ST segments events and trends. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.11** Must have configurable central reports for one (1) or more patients that can be generated on demand or on a scheduled internal basis. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU) - Does not meet for scheduled internal basis.**
- 3.1.3.12** Must support printing of a predefined set of reports. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.13** Must have tabular and graphical trend review. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.14** Must support device locator option which remotely identifies the location of the telemetry devices. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU) – find feature identifies location of device.**
- 3.1.3.15** Must support communication with wired and wireless patient monitor. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.16 Patient Monitoring Data:**
- 3.1.3.16.1** Must have patient data (waves, parameters, and alarms) obtained from patient monitors – (hard wired, wireless, telemetry) connected

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to the clinical network. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.17 Patient Data Display:**

- 3.1.3.17.1** Must have patient monitoring data viewed on main screen and in more detail on a separate patient window. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.17.2** The main screen must display real-time waveforms, numeric and alarms for a minimum of ten (10) patients. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.17.3** Must have display a minimum of thirty-two (32) waveforms in either single or dual column formats. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.17.4** Must have patient window directly accessible from main screen with greater data detail. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.18 Alarm Response:**

- 3.1.3.18.1** Must have color coding – capability to visually identify a patient in alarm and its severity on the main screen. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.18.2** Must have multi-level, audible alarm tones that indicate alarms and their severity. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.18.3** Must have ability to review most recent alarm and print strip immediately. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.18.4** Must have ability to modify alarms with password protection. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.18.5** Must have ability to turn off alarm. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

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**3.1.3.19 Cables Measurements:**

**3.1.3.19.1** Measurement must be displayed on information center monitoring telemetry, recording and alarming arterial oxygen saturation, pulse rate, blood pressure (adult and pediatric). **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.20 Recording and Printing:**

**3.1.3.20.1** Must have a two (2) Channel USB recorder that can record a minimum of one (1) and/or a maximum of two (2) real-time or delayed waveforms. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.20.2** Must have a minimum of fifty millimeter (50 mm) wall thermal array recorder that provides high resolution, high quality waveforms. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.20.3** Must print grid and waveforms simultaneously to assure accurate registration. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.20.4** Recorder must have capability to record a minimum of two waveforms and a minimum of three lines of annotations. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.21 User Configuration:**

**3.1.3.21.1** Monitoring controls, display formats, alarm response and patient data must have ability to be configured to user performances with configuration tools. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.21.2** Must have unit-wide configurations that are in password protected applications that can be modified for individual patients. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.22 On-Line Help:**

**3.1.3.22.1** Must have on-line help available for both clinical application and service functions. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU) - also toll free support.**



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**3.1.3.23 Arrhythmia Monitoring:**

**3.1.3.23.1** Must have multi-lead arrhythmia monitoring on user selected primary and secondary leads. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.23.2** Must have arrhythmia detector of the following alarms:

**3.1.3.23.2.1** Asystole **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.23.2.2** Ventricular fibrillation **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.23.2.3** Ventricular tachycardia **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.23.2.4** Ventricular bradycardia **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.23.2.5** Extreme bradycardia **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.23.2.6** Extreme tachycardia **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.23.2.7** Pacer not captive **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.23.2.8** Pacer not pacing **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.23.2.9** Premature ventricular contraction (PVC)-min **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.23.2.10** Low heart rate **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

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- 3.1.3.23.2.11 High heart rate Infinity Central Station (ICS)  
MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.23.2.12 Irregular heart rate Infinity Central Station (ICS)  
MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.23.2.13 Non-sustained V-Tach Infinity Central Station (ICS)  
MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.23.2.14 Supraventricular Tach Infinity Central Station (ICS)  
MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.23.2.15 Ventricular rhythm Infinity Central Station (ICS)  
MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.23.2.16 Run PVCs Infinity Central Station (ICS) MEETS  
spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.23.2.17 Pair PVCs Infinity Central Station (ICS) MEETS  
spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.23.2.18 Multiform PVCs Infinity Central Station (ICS)  
MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.23.2.19 R on T PVC Infinity Central Station (ICS) MEETS  
spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.23.2.20 Pause Infinity Central Station (ICS) MEETS spec –  
see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.23.2.21 Missed beat Infinity Central Station (ICS) MEETS  
spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.23.2.22 Ventricular bigeminy Infinity Central Station (ICS)  
MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.23.2.23 Ventricular trigemini Infinity Central Station (ICS)  
MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

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**3.1.3.23.2.24 Arterial fibrillation DOES NOT MEET**

**3.1.3.24 Patient Data Review:**

- 3.1.3.24.1** Must have a minimum of ninety-six (96) hours of full disclosure waves, alarms, events, ST segments and trends that can be reviewed by selecting patient of interest and launching desired review application. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU) – up to 120 hour option is available.**
- 3.1.3.24.2** Must have strip function that provides detailed waveforms from wave event and alarm review applications and can be sent for patient's length of stay. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.25 Wave Review:**

- 3.1.3.25.1** Must have continuous full disclosure a minimum of four (4) configurable waves per patient. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.25.2** Must have one (1) – sixty (60) minute wave duration per screen. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)– 10 minute window.**
- 3.1.3.25.3** Must have timeline, tabulation, trend and event navigators for fast searches and greater context. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.25.4** Must have strip reports. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.26 Alarm Review:**

- 3.1.3.26.1** Must have a minimum of (30) seconds (30s) compressed waveforms of alarm or saved strip events. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU) 20 second strip events.**
- 3.1.3.26.2** Must have a minimum of four (4) waveforms per event. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

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**3.1.3.26.3** Must have simultaneous display of alarm events. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.26.4** Must have search by alarm severity. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.26.5** Must have interval measurement. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.27 Event Review:**

**3.1.3.27.1** Must have ten (10) configurable groups with a minimum of five (5) alarm criteria per group. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.27.2** Must have strip delayed for verification of event criteria. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.27.3** Must have total occurrences of events calculated and displayed in one (1), four (4), eight (8), twelve (12), and twenty-four (24) hour time scales. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.28 Trend Review:**

**3.1.3.28.1** Must have tabular display of physiological parameters. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.28.2** Must have graphical presentation at a minimum of one (1) minute resolution using bivariate trend plots. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.28.3** Must have ten (10) configurable groups with a minimum of five (5) bivariate trend plots. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.28.4** Must have exact parameters displayed for cursor time location. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

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**3.1.3.28.5** Must have simultaneous display of trend plots. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.28.6** Must have trends displayed in one (1), four (4), eight (8), twelve (12), and twenty-four (24) hour time scales. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.29 Twelve (12) Lead Review:**

**3.1.3.29.1** Must have retrospective review of twelve (12) derived leads. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.29.2** Must have 2.5 to 10 second snippets. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.29.3** Must have 3 x 4, 6 x 2 and 12 x 1 (row by column) display and reports. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.30 Information Center:**

**3.1.3.30.1** Must include PC with the following standard components:

**3.1.3.30.1.1** Must have DVD/DC ROM and disk drive. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.30.1.2** Must have audio cord and speaker. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.30.1.3** Must have keyboard. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.30.1.4** Must have mouse. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.30.1.5** Must have operating system software which is compatible with Windows XP or later (to insure compatibility with Agency's current operating system). **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or**

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**Instructions for Use (IFU) - Infinity Central Station  
uses Linux platform.**

**3.1.3.30.1.6** Software must have capability for monitoring a minimum of ten (10) patients. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU) - ICS will monitor 12, 16 and up to 32 Patients.**

**3.1.3.30.1.7** Must have uninterruptible power supply (UPS). **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.30.1.8** Must have external speakers. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.31 Waveform Display:**

**3.1.3.31.1** Screen resolution must a minimum of 1280 x 1024. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.31.2** Vertical refresh rate must be a minimum of 60 Hz. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.31.3** Must have video-cable connector. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.31.4** Must have a minimum color depth of twenty-four (24) -bit true color. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.32 Display Formats:**

**3.1.3.32.1** Must have single column: 4 x 1, 6 x 1, 8 x 1. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.32.2** Must have at least a 7.0 second wave trace at 24 mm/s. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

**3.1.3.32.3** Must have a minimum 14.0 second wave trace at 12.5 mm/s. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**

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- 3.1.3.32.4** Must have ability of dual column 2 x 2, 3 x 2, 4 x 2, 5 x 2, 6 x 2, 8 x 2. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.32.5** Dual column must have a minimum 3.3 second wave trace at 25 mm/s. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.3.32.6** Dual column must have a minimum 6.6 second wave trace at 12.5 mm/s. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
  
- 3.1.4** Equipment must have a minimum one (1) year warranty. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.5** Must include manual/CDs for trouble shooting equipment problems. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.6** Must include all installation labor and supplies. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU)**
- 3.1.7** Must provide on-site staff education for all of the nursing staff (approximately 100) for instruction for equipment use and care. **Infinity Central Station (ICS) MEETS spec – see ICS spec sheet or Instructions for Use (IFU) - On site staff education is done in advance and also provided during the go live of the project.**

**4. CONTRACT AWARD:**

- 4.1 Contract Award:** The Contract is intended to provide Agencies with a purchase price for the Contract Items. The Contract shall be awarded to the Vendor that provides the Contract Items meeting the required specifications for the lowest overall total cost as shown on the Pricing Pages.
- 4.2 Pricing Page:** Vendor should complete the Pricing Page by providing a Unit Price for the Commodity or Service Lines on the Request for Quotation. Vendor should complete the Pricing Page in full as failure to complete the Pricing Page in its entirety may result in Vendor's bid being disqualified.

Vendor should type or electronically enter the information into the Pricing Page to prevent errors in the evaluation.

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**Please see completed pricing options attached.**

- 5. PERFORMANCE:** Vendor and Agency shall agree upon a schedule for performance of Contract Services and Contract Services Deliverables, unless such a schedule is already included herein by Agency. In the event that this Contract is designated as an open-end contract, Vendor shall perform in accordance with the release orders that may be issued against this Contract.
- 6 PAYMENT: Payment:** Agency shall pay Unit Price for the Commodity or Service Lines as listed on the Request for Quotation, as shown on the Pricing Pages, for all Contract Services performed and accepted under this Contract. Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.
- 7 DELIVERY AND RETURN:**

**7.1 Shipment and Delivery:** Vendor shall ship the Contract Items immediately after being awarded this Contract and receiving a purchase order or notice to proceed. Vendor shall deliver the Contract Items within ninety (90) calendar days after receiving a purchase order or notice to proceed. Contract Items must be delivered to Agency at Welch Community Hospital, 454 McDowell Street, Welch, WV.

**7.2 Late Delivery:** The Agency placing the order under this Contract must be notified in writing if the shipment of the Contract Items will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the Contract, and/or obtaining the Contract Items from a third party. Vendor shall not be liable for cover costs.

Any Agency seeking to obtain the Contract Items from a third party under this provision must first obtain approval of the Purchasing Division.

**7.3 Delivery Payment/Risk of Loss:** Vendor shall deliver the Contract Items F.O.B. destination to the Agency's location.

**7.4 Return of Unacceptable Items:** Per Vendor's Return Policy included in this RFQ, If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall either make arrangements for the return within five (5) days of being notified that items are unacceptable, or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. Per Vendor's policy, ~~The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.~~



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**CHANGES, CANCELLATION AND RETURN AND REPAIR**

Customer orders accepted by DMI under this Agreement are not subject to change or cancellation except upon written agreement of the parties; except that DMI may change the manufacture and/or design of its Products if, in the judgment of DMI, such change does not alter the general function of the Products.

Products delivered by DMI are not returnable by Customer except as follows (the following also applies to factory repairs): All Products to be returned or repaired must have prior authorization by DMI and a valid Return Material Authorization ("RMA") number must appear on the shipping label, packing slip, purchase order, and any other related paperwork. Products received without such authorization will be refused at DMI's receiving dock and returned immediately to Customer. When requesting authorization to return material, the following information must be provided:

1. Customer purchase order number and date.
2. DMI sales order number and shipping date (returns only).
3. Quantity, DMI Product number, and description of material to be returned.
4. Reason for return or repair.
5. Contact DMI at 1-800-4-Drager for RMA number

The following are the only accepted reasons for return of material:

1. Warranty repairs (covers Products within their warranty period).
2. Customer order error.
3. DMI order or shipping error.
4. Products delivered damaged.

Products returned for warranty repairs are subject to the terms of the DMI warranty. Products to be returned that are not under warranty must have been purchased within thirty (30) days of request for return, returned within fourteen (14) days after request, and approved for return as stated previously. Products must be unused and in DMI shipping containers. Returned Products, with the exception of returns which are (a) under warranty, (b) returned due to DMI error or (c) delivered damaged, are subject to a twenty percent (20%) restocking charge.

The following Products are not eligible for return:

1. Sterile material, unless shipped in error by DMI.
2. Products that have been used.
3. Specially ordered or manufactured products.
4. Products that have been altered or abused by Customer.
5. Products that are known to be contaminated with communicable

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diseases.

Upon receipt of authorized returned Products, an inspection of the Products will be conducted by DMI and appropriate action taken. DMI's decision regarding disposition of returned Products is final. All Products to be returned (including any in need of factory repair) shall be shipped, freight and insurance prepaid, to the following address unless otherwise advised by DMI:

DrägerService®  
3135 Quarry Road  
Telford, PA 18969  
(Include Return Material Authorization Number.)

7.4 It is the responsibility of Customer to disinfect, pack, insure, and ship equipment to DMI at Customer's sole expense.

**7.5 Return Due to Agency Error:** Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

**8 TRAVEL:** Vendor shall be responsible for all mileage and travel costs, including travel time, associated with performance of this Contract. Any anticipated mileage or travel costs may be included in the flat fee or hourly rate listed on Vendor's bid, but such costs will not be paid by the Agency separately.

**9 FACILITIES ACCESS:** Performance of Contract Services may require access cards and/or keys to gain entrance to Agency's facilities. In the event that access cards and/or keys are required:

**9.1** Vendor must identify principal service personnel which will be issued access cards and/or keys to perform service.

**9.2** Vendor will be responsible for controlling cards and keys and will pay replacement fee, if the cards or keys become lost or stolen.

**9.3** Vendor shall notify Agency immediately of any lost, stolen, or missing card or key.

**9.4** Anyone performing under this Contract will be subject to Agency's security protocol and procedures.

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9.5 Vendor shall inform all staff of Agency's security protocol and procedures.

**10 VENDOR DEFAULT:**

10.1 The following shall be considered a vendor default under this Contract.

10.1.1 Failure to perform Contract Services in accordance with the requirements contained herein.

10.1.2 Failure to comply with other specifications and requirements contained herein.

10.1.3 Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.

10.1.4 Failure to remedy deficient performance upon request.

10.2 The following remedies shall be available to Agency upon default.

10.2.1 Immediate cancellation of the Contract.

10.2.2 Immediate cancellation of one or more release orders issued under this Contract.

10.2.3 Unless otherwise expressly excluded in this RFQ response or in the Exceptions provided by Vendor included in this RFQ, Any other remedies available in law or equity.

**Please see Dräger Monitoring Project Template Sample attached.**

**11 MISCELLANEOUS:**

11.1 **Contract Manager:** During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

**Contract Manager:** Jeff Ritchie  
**Telephone Number:** 315-679-0268  
**Fax Number:** (215) 721-5811  
**Email Address:** jeff.ritchie@draeger.com

## Infinity® Medical Cockpit®

Bring relevant clinical data to the point of care with the Infinity® Medical Cockpit®, the central display component of the Infinity® Acute Care System™ (IACS). It lets you integrate real-time patient data and IT applications at the bedside – bringing comprehensive information to the point of care.



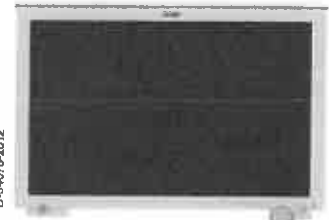
### FEATURES

- Offers choice of sizes: Infinity C700 with a 20" display or Infinity C500 with a 17" display
- Integrates real-time patient data and networked clinical applications at the point of care
- Provides easy navigation via touch screen and rotary knob
- Supports hygienic environments with fan-less design

The Dräger Infinity Medical Cockpit provides centralized viewing and control of patient data from vital signs monitors and ventilators – as well as convenient access to the hospital network, relevant clinical information, data management and other Web-based applications.

A Dräger-standardized user interface allows intuitive operation via a touch screen and backlight-guided rotary control knob. To support workflow, the screen can be set to automatically dim at night for the comfort of the patient. An integrated alarm bar provides 360-degree visibility, making it easy to identify which device is alarming. Support of a plug-and-play keyboard and mouse make it easy to use IT applications. To improve hygienic aspects and reduce noise and dust in the clinical environment, the Medical Cockpit is designed without the need for a cooling fan.

Dräger currently offers two Medical Cockpits as part of IACS: the Infinity C500 and Infinity C700. The Infinity C500 Medical Cockpit has a 17" display that uses analog resistive touch-screen technology. The Infinity C700 has a 20" widescreen display and offers a large viewing angle and extended screen configuration capabilities. Its resistive touch-screen technology provides high image clarity on a sturdy all-glass panel.



Infinity® C700 Medical Cockpit®



Infinity® C500 Medical Cockpit®

## TECHNICAL DATA

### PRODUCT SPECIFICATIONS

#### Connectors

Input/output ports	<ul style="list-style-type: none"> <li>- 3 external RS232 (9-pin) connectors</li> <li>- 4 USB ports (on the back panel)</li> <li>- 2 USB ports (one on each side panel)</li> <li>- 1 DVI for digital video output (secondary display – same image as Medical Cockpit®)</li> <li>- 2 RJ 45 Ethernet connectors</li> </ul>
System connector	Connector for system cable (22 pins)

#### Physical Attributes

Dimensions (H × W × D)	C500: 322 × 416 × 122 mm (12.68 × 16.38 × 4.8 in) C700: 374 × 489 × 136 mm (14.72 × 19.25 × 5.35 in)
Weight (without mounting)	C500: 7 kg (15.43 lbs) C700: 9 kg (19.84 lbs)
Cooling	Convection
User interface	Touch screen, rotary knob and/or via keyboard and mouse
CPU	Intel® Celeron® M 723 ULV
Memory	1 GB (1 × SO-DIMM DDR-3)
Maximum power consumption	C500: < 65 Watt C700: < 100 Watt
Mount interface	VESA 100

#### Display Specifications

Screen resolution (max)	C500: 1440 × 900 C700: 1680 × 1050  <b>Note: secondary display must also match screen resolution of the respective Medical Cockpit® used.</b>
Colors	C500: 16.7 million colors C700: 16.7 million colors
Contrast ratio	C500: 500:1 C700: 800:1
Horizontal viewing angle	C500: ≥ 150° C700: ≥ 160°
Display type	C500: 431.8 mm (17.0 in) TFT widescreen LCD C700: 510.5 mm (20.1 in) TFT widescreen LCD
Alarm bar	Integrated into front bezel, 360-degree viewing angle

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**ENVIRONMENTAL REQUIREMENTS**


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**Temperature**

Operating	0 °C to 40 °C (32 °F to 104 °F)
Storage	- 20 °C to 60 °C (- 4 °F to 140 °F)

**Relative humidity**

Operating	10 % to 95 % (non-condensing)
Storage and transportation	5 % to 95 % (non-condensing)

**Atmospheric pressure**

Operating	525 to 795 mmHg (70 to 106 kPa)
Storage and transportation	375 to 795 mmHg (50 to 106 kPa)

**Standards**

EN 55011: Class B

IEC 60601-1:2005 AMD 1 2012 Medical Safety

IEC 60601-1-1 Medical Electrical System

IEC 60601-1-2 EMC (Electromagnetic Compatibility), overall standard

EN 60529: IP21

1500 VAC RMS Ethernet isolation (EN60601)

1500 VAC dielectric, creepage and clearance: 4 and 2.5 mm respectively

Ethernet 10/100 isolation according to IEC 60601-1-1, supports auto detection, Packaged drop and vibration according to ISTA procedure 1

IEC 60601-1-8 standard applies to many components in the system

Liquid ingress protection	IP21 per IEC 60529
Operational shock	10 g, half-sine, 11 ms, 600 total shocks, per IEC 60068-2-29
Random vibration	1.04 g rms, broadband, 10 to 500 Hz, 6 hours, per IEC 60068-2-64

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**ORDERING INFORMATION**


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Infinity® C500 (2nd Generation)	MK31501
Infinity® C700 (2nd Generation)	MK31701

Please see the respective IACS data sheets for power supply information. Infinity® C500/C700 Medical Cockpits® are sold as part of a monitoring system. Order via MS25510 and MS25520.

For a list of available languages, contact your Dräger sales representative.

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Intel® and Celeron® are registered trademarks of Intel Corporation.  
Infinity® and Medical Cockpit® are trademarks of Dräger.  
This product may not be approved for Market Release in all countries.

**CORPORATE HEADQUARTERS**  
Drägerwerk AG & Co. KGaA  
Moislinger Allee 53–55  
23558 Lübeck, Germany

[www.draeger.com](http://www.draeger.com)

**Manufacturer:**  
Dräger Medical GmbH  
Moislinger Allee 53–55  
23558 Lübeck, Germany

**As of August 2015:**  
Dräger Medical GmbH changes  
to Drägerwerk AG & Co. KGaA.

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AND EUROPE NORTH**  
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Fax +49 451 882 2080  
[info@draeger.com](mailto:info@draeger.com)

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Fax +507 377 9130  
[contactcsa@draeger.com](mailto:contactcsa@draeger.com)

## Infinity® M300 Patient-worn Monitor

Infinity<sup>®</sup> M300 provides the performance of a full size patient monitor, packaged in a patient-worn telemetry device for adult and pediatric patients. Built-in ACE<sup>®</sup> (Arrhythmia Classification Expert) and pacer detection algorithms enhance ECG processing and help to reduce false alarms.



Infinity M300 provides continuous standalone monitoring – even if the patient inadvertently moves out of the network coverage area. Two-way communication between Infinity M300 and the Infinity CentralStation facilitates wireless data exchange and signal integrity. Working together, the Infinity CentralStation and Infinity M300 enhance patient care management by providing fast data access, rapid assessment, decision support and clinical reporting.

### FEATURES

- 3- to 6-wire ECG monitoring with TruST™ 12-lead
- Vital information access in color
- Alarms alerts and controls to support the telemetry workflow
- SpO<sub>2</sub> – ready in every device
- True battery management solution
- Wireless networking using commercial WiFi components

### TECHNICAL DATA

#### SUPPORTED PARAMETERS

#### ECG

Available leads	3-wire: I, II, III
Adult/Pediatric	5-wire: I, II, III, aVR, aVL, aVF, V 6-wire: I, II, III, aVR, aVL, aVF, V, V+
Leads analyzed	6-wire with Infinity TruST 12-lead: I, II, III, aVR, aVL, aVF, dV1, V2, dV2, dV3, dV4, V5, dV6
Detected events/rhythms	Any two user-selected ECG leads (simultaneously), or any one user-selected ECG lead
HR level alarm adjustment range	Asystole, Ventricular Fibrillation, Ventricular Tachycardia, Bradycardia, Ventricular Run, Accelerated Idioventricular Rhythm, Supraventricular Tachycardia, Ventricular Couplet, Ventricular Bigeminy, Tachycardia, Pause, Artifact, PVC/min
Measurement range	20 to 300 bpm
Accuracy	15 to 300 bpm
Degree of protection against electrical shock	± 2 bpm or ± 1%, whichever is greater
	Type CF



D-19722-2309

**Infinity M300**  
Patient-worn telemetry device



## CONTINUING TECHNICAL DATA

Defibrillation protection	In accordance per IEC 60601-2-27
Bandwidth or resolution	Filter Monitoring: 0.5 – 40 Hz
Sweep speed	25 mm/sec ± 10%
QRS detection	Amplitude: 0.5 – 5.0 mV Duration: 40 – 120 ms
Electrosurgery and cautery	Not intended for use during ESU

**Pacemaker**

Detection leads	I and (II or III)
Detection amplitude	± 2 to ± 900 mV
Detection width	0.1 to 2.0 ms
Precautions	Contains a tiny magnet which generates an extremely low static magnetic field of approximately 2 gauss at 12.7 mm (0.5 in) distance. Please refer to the manufacturer's Instructions for Use of any third party medical devices in the patient vicinity for compatibility.

**ST Segment Analysis**

Leads analyzed	3-wire: I, II, or III 5-wire: I, II, III, aVR, aVL, aVF, V 6-wire: I, II, III, aVR, aVL, aVF, V, V+ 6-wire with Infinity TruST 12-lead: I, II, III, aVR, aVL, aVF, dV1, V2, dV2, dV3, dV4, V5, dV6
ISO point	Default: - 28 msec
ST measurement point	Default: +80 msec
ST complex	Length: 900 msec (250 samples) Frequency response: 0.05 to 40 Hz
Update interval	15 seconds
ST level alarm adjustment range	-15.0 to 15.0 mm, -1.5 to 1.5 mV
ST accuracy	± 0.1 mm (± 0.01 mV)
ST measurement range	-15.0 to 15.0 mm, -1.5 to 1.5 mV
ST resolution	0.1 mm, 0.01 mV

**Pulse Oximetry (optional)**

Parameter display	Percentage of functional (oxygen-saturated) hemoglobin (%SpO <sub>2</sub> ); pulse rate
Measuring method	Absorption-spectrophotometry
Measurement and display range	SpO <sub>2</sub> : 1 – 100% Pulse rate: 30 – 250 bpm
Calibration range	70 – 100%
Display update period	2 seconds nominal
Maximum hold from previous update	30 seconds (in the event of artifact or other error)
SpO <sub>2</sub> Alarm Adjustment Range	20 to 100%
Pulse Rate Alarm Adjustment Range	30 to 240 bpm

**SpO<sub>2</sub> accuracy<sup>1,2,3,4</sup>**

0 to 69% not specified  
70 to 100% sensor-specific as follows:  
**Masimo® LNOP® Sensors**  
LNOP adt, LNOP Pdt, LNOP neo, LNOP DCI, LNOP TC-I, LNOP DCIP, LNOP YI: ± 3%  
Pulse Rate Accuracy: ± 3 bpm or ± 3% (whichever is greater)  
Low Perfusion Accuracy, SpO<sub>2</sub>: ± 2%  
Low Perfusion Accuracy, Pulse Rate: ± 3 bpm or ± 3% (whichever is greater)

**Masimo® LNCS® Sensors**  
LNCS DCI®, LNCS DCIP, LNCS Adtx, LNCS Pdt, LNCS Inf: ± 2%  
Pulse Rate Accuracy: ± 3 bpm or ± 3% (whichever is greater)  
Low Perfusion Accuracy, SpO<sub>2</sub>: ± 2%  
Low Perfusion Accuracy, Pulse Rate: ± 3 bpm or ± 3% (whichever is greater)

**Nellcor® Sensors**  
OxiMAX® MAX-A, OxiMAX MAX-AL, OxiMAX MAX-P, DS100A: ± 3%

**Dräger Sensors**  
MS16444 Disposable Foam Pedi,  
MS16445 Disposable Foam Adt,  
MS16449 Disposable Vinyl Adt,  
MS16448 Disposable Vinyl Pedi,  
MS19235 Reusable Sensor: ± 2%

**Notes:**

<sup>1</sup> Since pulse oximeter measurements are statistically distributed, only about two-thirds of those measurements can be expected to fall within ± 1 Arms of the value measured by a co-oximeter.

<sup>2</sup> These accuracies have been validated using blood samples obtained from healthy adult volunteers during induced hypoxia studies in the range of 70-100% SpO<sub>2</sub> against a laboratory co-oximeter and ECG monitor.

<sup>3</sup> SpO<sub>2</sub> accuracies are expressed as ± „X“ digits between indicated saturation levels. Accuracy of the SpO<sub>2</sub> measurement is specified within 1 Arms of the value measured by a co-oximeter.

<sup>4</sup> The pulse rate accuracy has been validated on healthy adult volunteers during induced hypoxia studies in the range of 70-100% SpO<sub>2</sub> against a laboratory co-oximeter and ECG monitor. This variation equals ± 1 Arms of the pulse rate value measured by the ECG monitor.

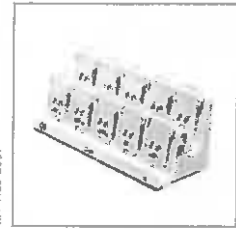
**User Interface**

Controls	6 function keys: alarm pause, view screen, staff alert, record/mark event, up/down scroll
Alarms	Audible & visible alarm indication (user controlled) 3 severity levels: Life threatening, Serious, Advisory

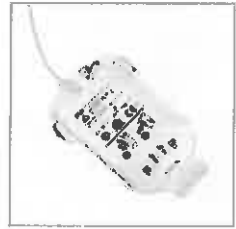
**Display**

Size/viewing area	5.08 x 5.08 cm (2 x 2 in) diagonal LCD
Resolution	220 x 176 pixels

<b>Communications</b>	
Network	IEEE 802.11b/g
Wireless encryption	WEP, WPA2 - Personal Mode
Radio power output	30 mW maximum
<b>Physical Specifications</b>	
Size (H x W x D)	142.2 x 76.2 x 30.5 mm (5.6 x 3 x 1.2 in)
Weight	276.4 g (9.75 oz) with battery
Cooling	Convection
Connections	ECG, Communication port for SpO <sub>2</sub> or Programming Cable, Bedside Charger, Central Charger
<b>Electrical Specifications</b>	
Power source	Rechargeable 3.75 V lithium ion battery, available from Dräger
Battery operating time	ECG only: 17 to 19 hours ECG + continuous SpO <sub>2</sub> : 14 to 16 hours Operation time varies according to use of display, alarm alerts, and wireless environment (roaming)
Battery recharging time	Using Bedside Charger to 100%, approximately: 0 to 25% = 2 hours 0 to 50% = 4 hours 0 to 75% = 6 hours 0 to 100% = 8 hours Using Central Charger to 100%, approximately: 0 to 25% = 40 minutes 0 to 50% = 1.5 hours 0 to 75% = 2 hours 0 to 100% = 3 hours
<b>Environmental Requirements</b>	
<b>Temperature</b>	
Operating	0° C to 40° C (32° F to 104° F)
Storage	-20° C to 60° C (- 4° F to 140° F)
<b>Humidity (non condensing)</b>	
Operating	10% to 85%
Storage	10% to 85%
<b>Atmospheric pressure</b>	
Operating	64.7 to 106 kPa
Storage	50 to 106 kPa
Free fall	IEC 60068-2-32, Procedure 1 Height of fall: 1 m Number of falls: 1 on each of six surfaces
Protection against water ingress	IPX7, temporary immersion
<b>Standards</b>	
Compliances	IEC 60601-1 + A1 + A2, IEC 60601-1-2, IEC 60601-2-27, IEC 60601-2-49, ANSI/AAMI EC13(R).



MT-1132-2007

**Central Charger**

MT-1146-2007

**Bedside Charger**

**CONTINUING TECHNICAL DATA****INFINITY M300 CENTRAL CHARGER****Physical Specification**

Size (H x W x D)	520.7 x 215.9 x 190.5 mm (20.5 x 8.5 x 7.5 in)
Weight	6.5 kg (14.4 lb)
Cooling	Convection
Connections	Up to ten (10) Infinity M300 devices

**Electrical Specifications**

Input voltage	92 – 264 VAC
Input frequency (Hz)	50/60 Hz
Protection class	Class 1
Mode of operation	Continuous

**Environmental Requirements**

<b>Temperature</b>	
Operating	10° C to 45° C (50° F to 113° F)
Storage	- 40° C to 70° C (- 40° F to 158° F)

**Humidity (non condensing)**

Operating	10% to 95%
Storage	10% to 95%

**Atmospheric pressure**

Operating	70 kPa to 106 kPa
Storage	50 kPa to 106 kPa

Protection against water ingress	IPX1, dripping water
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**Standards**

Compliances	IEC 60601-1, IEC 60601-1-2
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**ORDERING INFORMATION**

Infinity M300	MS18501
Contact Dräger for ordering details.	

**INFINITY M300 BEDSIDE CHARGER****Physical Specifications**

Size (H x W x D)	45.72 x 162.56 x 99.06 mm (1.8 x 6.4 x 3.9 in)
Weight	224 g (7.9 oz)
Cooling	Convection
Connections	One (1) Infinity M300

**Electrical Specifications**

Input voltage	92 – 264 VAC
Input frequency (Hz)	50/60 Hz ± 5%
Protection class	Class 2
Mode of operation	Continuous

**Environmental Requirements**

<b>Temperature</b>	
Operating	0° C to 40° C (32° F to 104° F)
Storage	- 20° C to 60° C (- 4° F to 140° F)

**Humidity (non condensing)**

Operating	10% to 85%
Storage	10% to 85%

**Atmospheric pressure**

Operating	64.7 kPa to 106 kPa
Storage	50 kPa to 106 kPa

Protection against water ingress	IPX4, splashing water
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Free fall	IEC 60068-2-32, Procedure 1
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**Standards**

Compliances	IEC 60601-1, IEC 60601-1-2
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The Infinity M300 complies with the Medical Device Directive (MDD) 93/42 EEC and bears the CE mark

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Dräger Medical Systems, Inc. is certified according to ISO 13485,  
ISO 9001 and Annex II.3 of Directive  
93/42/EEC (Medical devices).

## Infinity® M540 monitor

Now you can streamline workflow and support patient safety with a single monitor that accompanies the patient from admission to discharge. The ergonomic Infinity M540 provides continuous monitoring at the bedside and on transport throughout the hospital\* – either as a standalone monitor\*\* or as part of the Infinity Acute Care System.



### FEATURES

- Continuously captures and displays hemodynamic monitoring data at the bedside and on transport in the hospital and in a land ambulance\*\*\*
- Transmits vital signs data both wired (when docked) and wirelessly (on transport)
- Automatically backfills vital signs data collected on transport into the Dräger Medical Cockpit® upon docking
- Easy configuration for profile and transport volume settings
- Offers a number of options to customize and optimize the acquisition and display of patient data and associated alarms

#### INFINITY M540 PATIENT MONITOR

With a highly visible touch screen, The M540 displays real-time monitoring information and moves seamlessly from bedside to transport. During transport, the monitor stores trends and events for viewing at the Dräger Medical Cockpit (if used as part of IACS) or the Infinity CentralStation (if used as standalone) when returned to the docking station. You can add or remove patient cables or modules – giving you the flexibility to address changing patient acuity levels.

Optimized for intra-hospital transport, the ergonomic M540 is lightweight, sturdy and water resistant – making transport less disruptive to the patient and improving clinician efficiency. Simply undock the M540 and go – without having to disconnect or reconnect the patient. The monitor provides seamless

information whether docked or on transport and broadcasts patient data wirelessly while on transport. This functionality requires the wireless option and Medical Cockpit or Infinity CentralStation. Once redocked, the M540 automatically backfills trends, events and patient demographics into the Medical Cockpit – supporting a more complete patient record and reducing the risk of missed events.

#### INFINITY M500 DOCKING STATION

Infinity M500 charges the M540's built-in battery and makes monitoring data accessible to the Medical Cockpit at the bedside. When used in a standalone configuration, the M500 charges the M540, connects the M540 to the Infinity Network, and stores default profile settings that can be adopted on another M540 upon docking.



D-18701-2008

**Infinity® M540 monitor and  
Infinity® M500 docking station**  
Designed for quick, one-handed  
docking/undocking



D-16741-2010



D-16749-2010



The 180° auto-flip screen provides proper visual orientation and the freedom to dock the monitor on the left or right

\* The M540 monitor is intended for use in any hospital care environment with the exception of hyperbaric chambers and environments containing MRI equipment.

\*\* Software version VG2.1 or above for M540 and firmware version 4.0 or above for M500 are required for use as a standalone monitor.

\*\*\* Not approved for land ambulance use in the US or Canada.

**TECHNICAL DATA****MONITORING CAPABILITIES****Adult, pediatric, and neonatal applications<sup>1</sup>****ECG****Acquires up to 12 leads<sup>2</sup>**

Available leads:	3-lead wire set: I, II, III (user-selectable) 5-lead wire set: I, II, III, aVR, aVL, aVF, V 6-lead wire set: I, II, III, aVR, aVL, aVF, V, V+ 10-lead wire set: I, II, III, aVR, aVL, aVF, V1-V6 TruST® derived 12-lead on: I, II, III, aVR, aVL, aVF, dV1, V2, dV3, dV4, V5, dV6
Measurement range	15 to 300 beats per minute (bpm)
Accuracy	±2 bpm or ±1% (whichever is greater)
Resolution	1 bpm
Frequency ranges	Monitoring filter: 0.5 to 40 Hz OR Mode/ESU filter: 0.5 to 16 Hz (pacemaker detection disabled) Diagnostic ECG bandwidth: 0.05 to 150 Hz OFF filter: 0.05 to 40 Hz (M540 display limited to 40 Hz)

**QRS detection range**

Amplitude	0.5 to 5 mV p-p RTI (peak to peak with respect to input)
Duration	Adult: 70 to 120 ms Pediatric/Neonatal: 40 to 120 ms
Alarms	User selectable upper and lower limits

**Pacemaker detection (adult/pediatric)**

Sensing leads:	Leads: I, II or III
Amplitude (a)	±2 to ±700 mV
Width (d)	0.2 to 2.0 ms
Rise/Fall times (min)	0.1 d <sub>p</sub> , ≤100µs
Overshoot (min)	0.025 to 0.25 a <sub>p</sub> , <2 mV
Recharge time constant	4 to 100 ms

**ST (adult/pediatric)**

Sensing leads	Any ECG lead available based on lead set used
ST complex length	828 ms (-260 ms to 568 ms from fiducial point)
Sample rate	250 samples/s
Isoelectric measurement point	Adjustment range: -260 ms to 40 ms Default: QRS onset -28 ms
ST measurement point	Adjustment range: -28 ms to 568 ms Default: QRS offset +80 ms
Update interval	15 s ± 1 s, 1 normal beat required
Measuring range	-15.0 mm to 15.0 mm (-1.50 to 1.50 mV)
Measuring accuracy	+ or -1.0 mm (0.1 mV)
Resolution	+ or -1.0 mm (0.1 mV)
Alarms	User selectable upper and lower limits
Event duration	Off, 15, 30, 45, 60 s (default 60 s)

**Arrhythmia**

Basic arrhythmia	Astole, Ventricular Fibrillation, Ventricular Tachycardia, Artifact
<b>Note: Bradycardia is available as a low heart rate alarm for neonates.</b>	
Full arrhythmia	Basic plus Ventricular Run, Accelerated Idioventricular Rhythm, Supra-Ventricular Tachycardia, Couplet, Bigeminy, Tachycardia, Bradycardia, Pause, PVC/min.

<sup>1</sup> Arrhythmia and ST Analysis are for adult and pediatric patients only.<sup>2</sup> All 12-leads can be viewed via two screens with 6-leads each; 12-lead monitoring is an option

<b>PVC/mIn</b>	
Measurement range	0 to 300 bpm
Resolution	1 bpm
Accuracy	±5 bpm or ±10% of the rate, whichever is greater
Response time	<4 seconds

**Diagnostic ECG<sup>3</sup>**

Diagnostic program	Glasgow Interpretive ECG
Interpretation base	Age, gender, race, medication, clinical classification
Report formats	13 different report formats available
Report languages	English, French, German, Italian, Portuguese, Spanish, Swedish
Export	Infinity CentralStation can be configured to automatically export 12-lead reports
Reports provided by	Infinity CentralStation with Rest ECG Option enabled

Note: Printed Rest-ECG reports on the Infinity CentralStation meet diagnostic bandwidth requirements

**Respiration rate**

Sensing leads	I, II (user-selectable)
Measuring method	Impedance pneumography
Auxiliary current	<10 µA for any active electrode
Bandwidth	(-3 dB) 0.25 to 3.5 Hz
Detection threshold	0.2 Ω – 4.0 Ω in manual mode (user adjustment) 0.3 Ω – 1.5 Ω in auto mode (automatic adjustment)
Measuring range	0 to 155 breaths per minute
Resolution	1 breath per minute
Measuring accuracy	±1 breath per minute, or ±2% of the rate value, whichever is greater
Apnea detection interval times	Off, 10, 15, 20, 25, and 30 s
Alarms	User-selectable upper and lower respiration rate

**Pulse Oximetry (SpO<sub>2</sub>)**

Displayed parameters	Saturation (fraction of oxyhemoglobin to functional hemoglobin) and pulse (rate and curve), perfusion index (Masimo SET® only); SpHb™, SpOC™, SpMet®, SpCO®, PVI® (with Masimo rainbow SET®)
Measuring method	Absorption spectrophotometry
Measuring range	SpO <sub>2</sub> : 1 to 100% Pulse rate: 26 to 239 bpm

**SpO<sub>2</sub> Algorithm (Infinity® MCable®-Masimo rainbow SET®)**

Masimo rainbow SET® (Signal Extraction Technology®)

Masimo provides the industry gold-standard for motion tolerant pulse oximetry\* and is known for accuracy during low perfusion. See additional product datasheet for complete and more detailed specifications.

\*As documented in Masimo's peer reviewed studies located on [www.masimo.com](http://www.masimo.com).

**SpO<sub>2</sub> Algorithm (Infinity® MCable®-Nellcor™ Oximax™)**

Nellcor Oximax

See product datasheet for complete and more detailed specifications.

**Non-Invasive Blood Pressure (NIBP)**

Parameter display	Systolic, Diastolic, Mean
Measuring method	Oscillometric via step deflation
Modes of operation	Manual (single measurement), Interval, Continuous, or Venous Stasis
Interval times	Off, 1, 2, 2.5, 3, 5, 10, 15, 20, 25, 30, 45, 60, 120, and 240 min
Static cuff accuracy	±3 mmHg (±0.4 kPa)
Resolution	1 mmHg (0.1 kPa)

<sup>3</sup> Diagnostic ECG requires the presence of an Infinity Medical Cockpit running IACS software connected to the M540 and also the presence of an Infinity CentralStation for analysis and reports.

**CONTINUING TECHNICAL DATA****Measuring range (default)**

Heart rate	30 to 240 bpm
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**Adult**

Systolic	30 to 250 mmHg (4 to 33.3 kPa)
Mean	30 to 230 mmHg (4 to 30.6 kPa)
Diastolic	10 to 210 mmHg (1.3 to 28 kPa)

**Pediatric**

Systolic	30 to 170 mmHg (4 to 22.6 kPa)
Mean	30 to 150 mmHg (4 to 20 kPa)
Diastolic	10 to 130 mmHg (1.3 to 17.3 kPa)

**Neonatal**

Systolic	30 to 130 mmHg (4 to 17.3 kPa)
Mean	30 to 110 mmHg (4 to 14.7 kPa)
Diastolic	10 to 100 mmHg (1.3 to 13.3 kPa)

**Cuff Pressure**

Default inflation pressure	Adult: 160 ±5 mmHg (21.3 ±0.66 kPa) Pediatric: 130 ±5 mmHg (17.3 ±0.66 kPa) Neonatal: 110 ±5 mmHg (14.7 ±0.66 kPa)
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Inflation pressure after a valid measurement (Accurate within ±5 mmHg or ±0.66 kPa)	Adult: Previous NBP Systolic +25 mmHg (3.3 kPa) Pediatric: Previous NBP Systolic +25 mmHg (3.3 kPa) Neonatal: Previous NBP Systolic +25 mmHg (3.3 kPa)
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Maximum inflation pressure	Adult: 265 ±5 mmHg (35.3 ±0.66 kPa) Pediatric: 180 ±5 mmHg (24 ±0.66 kPa) Neonatal: 140 ±5 mmHg (18.6 ±0.66 kPa)
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Minimum inflation pressure	Adult: 110 ±5 mmHg (14.7 ±0.66 kPa) Pediatric: 90 ±5 mmHg (12 ±0.66 kPa) Neonatal: 80 ±5 mmHg (10.6 ±0.66 kPa)
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Connector	Quick-release connector with single airway
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**Invasive Blood Pressure**

Measuring method	Resistive strain gauge transducer
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Resolution	1 mmHg (0.1 kPa)
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Measuring range	-50 to 400 mmHg (-6.6 to 53.3 kPa)
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Dynamic range	-250 to 600 mmHg (-33.3 to 80 kPa)
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Frequency ranges	User selectable DC to 8 Hz, DC to 16 Hz
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Accuracy	±1 mmHg or ±3% (whichever is greater) exclusive of transducer
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IBP Update interval	4 s
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Response time (at 90% of pressure change)	14 beats +2 s (ART, LV, GP1, GP2, GP3, GP4) 8 beats +2 s (PA, RV) 16 s (CVP, RA, LA, ICP)
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Transducer specifications	Transducers with a resistance of 200 to 3,000 Ω and an equivalent pressure sensitivity of 5µV/V/mmHg ±10%
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**Carbon dioxide**

Displayed parameters	End-tidal CO <sub>2</sub> (etCO <sub>2</sub> ), inspired CO <sub>2</sub> (inCO <sub>2</sub> ), respiration rate (RRc)
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**Measurement range**

CO <sub>2</sub>	0 – 100 mmHg (0 to 13.3 kPa or 0 to 13.2 Vol.-% at sea level) CO <sub>2</sub> , partial pressure
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RRc	0 to 150 bpm
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For further details, please see datasheet for Infinity® MCable®-Mainstream CO<sub>2</sub>

**Temperature**

Parameter display	Temperatures: Ta, Tb, ΔT, T1a, T1b, ΔT1
Measurement range	Ta, Tb, T1a, T1b: 0°C to 50°C (32°F to 122°F) ΔT, ΔT1: 0°C to 39°C (0°F to 102.2°F)
Resolution	0.1°C (0.1°F)
Absolute temperature Accuracy <sup>1</sup>	±0.1°C (±0.2°F)
Delta temperature Accuracy <sup>2</sup>	±0.2°C (±0.4°F)
Probe accuracy	±0.1°C (±0.2°F)
Average update time	<2.5 s
Response time	23 to 44°C (73.4 to 111.2°F), ±0.2°C (±0.4°F) within 150 s
Response time with 2°C temperature change	Reusable GP probes with cover within 60 s Disposable GP probes within 30 s Reusable / disposable skin probes within 15 s

**DISPLAY PRODUCT SPECIFICATIONS**

Display type	Color Liquid Crystal Display (LCD), Advanced Touch Screen
Size	158 mm (6.2 in) diagonal
Viewing area	149 mm × 54 mm (5.9 in × 2.1 in)
Resolution	640 × 240 (1/2 VGA)
Brightness	80 cd/m <sup>2</sup> minimum during battery operation; 120 cd/m <sup>2</sup> minimum when powered via M500

**User Interface**

Controls	Touch screen plus 3 fixed push-button keys, 8 control keys
Alarms	<b>Audible<sup>3</sup> and visible alarm indication</b> Alarm levels: High, Medium, Low 45 dB (A); full volume is > 70 dB (A)
Alarm bar	High (Life Threatening): Flashes red Medium (Serious): Flashes yellow Low: Does not light or flash

**Information Management Capabilities**

Trend storage	Up to 72 hours of parameter information
Trend data resolution	Up to 30 s

**PHYSICAL SPECIFICATIONS****Infinity® M540 Monitor**

Dimensions (H × W × D)	89 × 259 × 43 mm (3.5 × 10.2 × 1.7 in)
Weight	Less than 920 grams (2.0 lbs)
Cooling	Conduction when docked, convection when undocked
Connections	ECG, CO <sub>2</sub> , Hemo, Temperature/Auxiliary, SpO <sub>2</sub> , NIBP-input

**Infinity® M500 Docking station**

Dimensions (H × W × D)	195 × 101 × 107 mm (7.7 × 4.0 × 4.2 in)
Weight	1,200 grams (2.6 lbs)
Cooling	Convection
Connections	System Cable, Nurse Call (only as part of IACS)
Mount interface	VESA 75

**ELECTRICAL SPECIFICATIONS****Monitor**

Power source	Internal lithium ion battery or external power from docking station
Battery pack	Li-ion: 3.75 VDC, 4,400 mAh
Protection class	Internally powered (per IEC 60601-1)
Mode of operation	Continuous (with power coupling via docking station)
Patient leakage current	<10 μA (at both 110 V/60 Hz and 220 V/50 Hz)

<sup>1</sup> Accuracy exclusive of probe<sup>2</sup> Audible indication only when not docked



**CONTINUING TECHNICAL DATA****Infinity® M540 Battery Specifications**

Battery operating time	Normal operation: approximately 3 hours Power save mode: approximately 4 hours
Note: Battery operating time varies with device configuration. The battery time specified above is under the following load conditions: Wireless enabled; invasive blood pressure (IBP) via the MPod Quad Hemo (4 invasive pressures); continuous 6 lead ECG; SpO <sub>2</sub> with Nellcor MCable or Masimo SET MCable; two continuous temperature probes; NIBP with 15 minute interval mode enabled.	
Battery Recharging Time	100% capacity: approximately 6.5 hours for completely discharged battery 70% capacity: approximately 4 hours for completely discharged battery

**Communications**

Network	802.3 100 BaseT Ethernet when connected to docking station. Optically isolated connection between monitor and docking station 10 Mbps
Note: M540 hardware includes 802.11b/g Wireless Ethernet radio	

**Infinity® M500 docking station**

DC input	+24 VDC nominal, 1.5 A (+18 to +30 VDC)
Protection class	For use with specified Class I power supply
Mode of operation	Continuous
Power output	Provides power to Infinity® M540 via direct contact charging

**Environmental Requirements****Infinity® M540 monitor and Infinity® M500 docking station****Atmospheric pressure**

Operating	485 to 795 mmHg (64.7 to 106.0 kPa)
Storage	375 to 795 mmHg (50.0 to 106.0 kPa)
Protection against ingress of water**	IPX4 (per IEC 60529, splash-proof) for Infinity® M540 IPX1 (per IEC 60529) for Infinity® M500

**Temperature**

Operating	0 to 40°C* (32 to 104°F)
Storage	-20 to 60°C (-4 to 140°F)

**Humidity (non-condensing)**

Operating	20 to 95%
Storage	20 to 95%

**Standards**

EN1789: Clause 6.

The M540 monitor and M500 docking station comply with Medical Devices Directive (MDD) 93/42/EEC and bear the CE mark.

IEC 60601-1:2005 + A1:2012: and applicable particular and collateral standards with applicable regional and national deviations

IEC 60601-1-2:2007: Electromagnetic compatibility

IEC 60601-1-8:2006 + A1:2012: Alarm Systems

IEC 60601-2-27:2011: Electrocardiographic Monitoring Equipment

IEC 60601-2-30:2009 + A1: 2013: Automatic non-invasive blood pressure monitoring equipment

IEC 60601-2-34:2011: Invasive blood pressure monitoring equipment

ISO 80601-2-55:2011: Respiratory and gas monitoring

ISO 80601-2-56:2009: Temperature

ISO 80601-2-61:2011: Pulse oximeter equipment

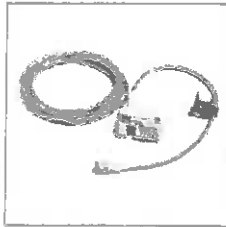
IEC 60601-2-49: Multifunction patient monitoring equipment

IEC 60068-2-27: Shock and vibration

IEC 60068-2-32: Free fall

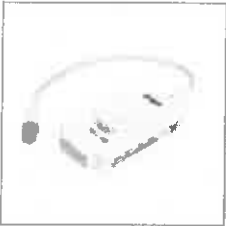
\* At ambient temperatures above 35°C (95°F) the battery may not be charging even while docked in the Infinity M500 Docking Station

\*\*The M540 is protected against the ingress of water when submerged to 30 cm (11.8 inches) of water, for 10 minutes.



D-10811-2010

Infinity® MCable®-  
Mainstream CO<sub>2</sub>



D-5655-2011

Infinity® MCable®-  
Masimo rainbow® SET



D-10797-2/103

Infinity® MCable®-  
Dual Hemo



D-10994-2009

Infinity® MPod®-  
Quad Hemo

### INFINITY PS50 POWER SUPPLY

#### Specifications

Input voltage	85 to 264 VAC
Input frequency	47 to 63 Hz
Maximum output power	50 W
Dimensions (H × W × D)	146 × 76 × 43 mm (5.75 × 2.99 × 1.69 in)
Weight	465 g (1.03 lb)

#### Humidity (non-condensing)

Operating	5 to 95%
Storage	5 to 95%

#### Temperature

Operating	0 to 70°C (32 to 158°F)
Storage	-40 to 85°C (-40 to 185°F)

#### Atmospheric pressure

Operating	485 to 795 mmHg (64.7 to 106 kPa)
Storage	375 to 795 mmHg (50 to 106 kPa)

### INFINITY PS120

#### Specifications

Dimensions (W × D × H)	174 × 82 × 40 mm (6.85 × 3.2 × 1.6 in)
Weight	24 ounces, 684 grams excluding the cord
Input voltage	100 VAC to 240 VAC (+/-10%)
Input frequency	47 to 63 Hz
Output voltage	24.5 V
Altitude	0 to 3000 m (10,000 feet)

#### Temperature

Operating	0 to 40°C (32 to 104°F)
Storage	-20 to 85°C (-4 to 185°F)

#### Humidity

Relative humidity	5 to 95% non-condensing
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#### Atmospheric pressure

Atmospheric pressure	70 to 106 kPa (10.15 to 15.37 psi)
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### ORDERING INFORMATION

Infinity® M540 patient monitor with companion Infinity® M500 docking station as part of:

IACS Monitoring with C500	MS25510
Upgrade from Infinity® M540 standalone monitor with C500	
IACS Monitoring with C700	MS25520
Upgrade from Infinity® M540 standalone monitor with C700	
Infinity® M540 and Infinity® M500 docking station (Software version VG2.1 for M540 is required for using M540 as a standalone monitor)	MS26372

Language Support: English, German, French, Spanish, Italian, Dutch, Swedish, Portuguese (Brazilian), Danish, Norwegian, Japanese (Katakana), Russian, Turkish, Polish, Greek, Hungarian, Chinese (Simplified), Czech, Finnish, UK English

Note: language availability may vary. Please see your Dräger representative for more information.

#### Infinity® M540 options

Wireless option (802.11b/g)	MS 16266
SpO <sub>2</sub> Masimo rainbow SET® or Nellcor Oximax Factory-enabled Additional locked option capability: 12-lead monitoring, Multiple IBPs (greater than two); full arrhythmia	

#### Optional pods, modules and hardware accessories

Note: Refer to individual module or pod data sheet for details concerning connection cables and adapters, transducers and mounting accessories

SpO <sub>2</sub> Pod Holder (Fits Masimo SET Pod, and Nellcor Oximax Pod)	MS26266
SpO <sub>2</sub> Pod Holder for Masimo Rainbow SET® MCable	MS26576
Infinity® M500 Transport Dock + Clamp	MS28144

## CONTINUING ORDERING INFORMATION

### Infinity® MPod®-Quad Hemo

The Infinity® MPod®-Quad Hemo provides up to four continuous, invasive blood pressures, temperature and thermodilution cardiac output measurements. A Dräger Medical Cockpit is required for the display of cardiac output parameters.

### Infinity® MCable®-Dual Hemo

The Infinity® MCable®-Dual Hemo provides a consolidated place for management of up to two invasive blood pressures.

### Infinity® MCable®-Masimo SET®

The Infinity® MCable®-Masimo SET® provides accurate and reliable pulse oximetry in virtually all clinical conditions. It performs even in low perfusion and reads through motion as well as helps to reduce false alarms. The Masimo SET supports adult, pediatric and neonatal patients.

### Infinity® MCable®-Masimo rainbow SET®

The Infinity® MCable®-Masimo rainbow SET® enables Masimo's gold-standard\* SET SpO<sub>2</sub> algorithm. The Masimo rainbow SET® MCable connects the Infinity® M540 multi-parameter patient monitor to Masimo rainbow SET® SpO<sub>2</sub> sensors and provides continuous, noninvasive monitoring of functional oxygen saturation of arterial hemoglobin (SpO<sub>2</sub>), pulse and perfusion index. Additional options are available to measure blood constituents and fluid responsiveness (SpHb™, SpOC™, SpCO®, SpMet®, PVI®)

\*As documented in Masimo's peer-reviewed studies found at [www.masimo.com](http://www.masimo.com).

### Infinity® MCable®-Nellcor OxiMax

The Infinity® MCable®-Nellcor OxiMax enables Nellcor's OxiMax SpO<sub>2</sub> algorithm. The Nellcor OxiMax MCable connects the Infinity® M540 multi-parameter patient monitor to Nellcor OxiMax SpO<sub>2</sub> sensors and provides continuous, noninvasive monitoring of functional oxygen saturation of arterial hemoglobin (SpO<sub>2</sub>) and pulse.

### Infinity® MCable®-Mainstream CO<sub>2</sub>

The Infinity® MCable®-Mainstream CO<sub>2</sub> provides measurements of CO<sub>2</sub> in mainstream.

### Infinity® MCable®-Analog/Sync

The Infinity® MCable®-Analog/Sync provides Analog Output of ECG and arterial pressure (ART) and/or QRS Synchronization signals from ECG to an external device.

### Infinity® MCable®-Nurse Call (not supported for Standalone)

The Infinity® MCable®-Nurse Call allows connection of either the M540 or the IACS to a hospital alarm output system. Active life-threatening or serious alarms at the bedside are then sent out to the hospital's alarm output system.

### Accessories

For further information and for accessories information, please refer to the Dräger IACS Accessories Instructions For Use for detailed information on compatibility.

To order pods, cables, MCables and MPods, please see individual product datasheets.

Infinity, MCable, Medical Cockpit, MPod and TruST are trademarks of Dräger.

Masimo, Masimo rainbow SET and Signal Extraction Technology, SpHb, SpOC, SpCO, SpMet, and PVI are trademarks of Masimo Corporation. Nellcor and OxiMax are trademarks of Covidien LP.

This product may not be approved for market release in all countries.

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23558 Lübeck, Germany

[www.draeger.com](http://www.draeger.com)

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#### As of August 2015:

Dräger Medical GmbH changes to Drägerwerk AG & Co. KGaA.

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## Infinity® M540 monitor Infinity M500 docking station

Now you can streamline workflow and support patient safety with a single monitor that accompanies the patient from admission to discharge. The ergonomic Infinity M540 provides continuous monitoring at the bedside and on transport throughout the hospital\* – either as a standalone monitor\*\* or as part of the Infinity Acute Care System.



### FEATURES

- Can be used as a standalone monitor or as the transport component of the Infinity Acute Care System (IACS)
- Continuously captures and displays hemodynamic monitoring data at the bedside and on transport in the hospital and in a land ambulance\*\*\*
- Transmits vital signs data both wired (when docked) and wirelessly (on transport)
- Automatically backfills vital signs data collected on transport into the Dräger Medical Cockpit® upon docking
- Easy configuration for profile and transport volume settings

#### INFINITY M540 PATIENT MONITOR

The M540's highly visible touch screen displays real-time monitoring information, moving seamlessly from bedside to transport. During transport, the monitor stores trends and events for viewing at the Dräger Medical Cockpit (if used as part of IACS) or the Infinity CentralStation (if used as standalone) when returned to the docking station. You can add or remove patient cables or modules – giving you the flexibility to address changing patient acuity levels.

Optimized for intra-hospital transport, the ergonomic M540 is lightweight, sturdy and water resistant – making transport less disruptive to the patient and improving clinician efficiency. Simply undock the M540 and go – without having to disconnect or reconnect the patient. The monitor provides seamless

information whether docked or on transport and broadcasts patient data wirelessly while on transport. This functionality requires the wireless option and Medical Cockpit or Infinity CentralStation. Once redocked, the M540 automatically backfills trends, events and patient demographics into the Medical Cockpit – supporting a more complete patient record and reducing the risk of missed events.

#### INFINITY M500 DOCKING STATION

Infinity M500 charges the M540's built-in battery and makes monitoring data accessible to the Medical Cockpit at the bedside. When used in a standalone configuration, the M500 charges the M540, connects the M540 to the Infinity Network, and stores default profile settings that can be adopted on another M540 upon docking.



**Infinity® M540 monitor and M500 docking station**  
Designed for quick, one-handed docking/undocking



The 180° auto-flip screen provides proper visual orientation and the freedom to dock the monitor on the left or right

\* The M540 monitor is intended for use in any hospital care environment with the exception of hyperbaric chambers and environments containing MRI equipment.

\*\* Software version VQ2.1 or above for M540 and firmware version 4.0 or above for M500 are required for use as a standalone monitor.

\*\*\* Not approved for land ambulance use in the US or Canada.

**TECHNICAL DATA****MONITORING CAPABILITIES****Adult, pediatric, and neonatal applications<sup>1</sup>****ECG**Acquires up to 12 leads<sup>2</sup>

Available leads:	3-lead wire set: I, II, III (user-selectable) 5-lead wire set: I, II, III, aVR, aVL, aVF, V 6-lead wire set: I, II, III, aVR, aVL, aVF, V, V+ 10-lead wire set: I, II, III, aVR, aVL, aVF, V1-V6 TruST <sup>®</sup> derived 12-lead on: I, II, III, aVR, aVL, aVF, dV1, V2, dV3, dV4, V5, dV6
Measurement range	15 to 300 beats per minute (bpm)
Accuracy	±2 bpm or ±1 % (whichever is greater)
Resolution	1 bpm
Frequency ranges	Monitoring filter: 0.5 to 40 Hz OR Mode/ESU filter: 0.5 to 20 Hz (pacer detection disabled) Diagnostic ECG Bandwidth: 0.05 to 150 Hz OFF filter: 0.05 to 150 Hz (M540 display limited to 40 Hz)

**QRS detection range**

Amplitude	0.5 to 5 mV p-p RTI (peak to peak with respect to input)
Duration	Adult: 70 to 120 ms Pediatric/Neonatal: 40 to 120 ms
Alarms	User selectable upper and lower limits

**Pacer detection (adult/pediatric)**

Sensing leads:	Leads: I, II or III
Amplitude (a <sub>p</sub> )	±2 to ±900 mV
Width (d <sub>p</sub> )	0.2 to 2.0 ms
Rise/Fall times (min)	0.1 d <sub>p</sub> , ≤100 μs
Overshoot (min)	0.025 to 0.25 a <sub>p</sub> , <2 mV
Recharge time constant	4 to 100 ms

**ST (adult/pediatric)**

Sensing leads	Any ECG lead available based on lead set used
ST complex length	828 ms (-260 ms to 568 ms from fiducial point)
Sample rate	250 samples/s
Isoclectric measurement point	Adjustment range: -260 ms to 40 ms Default: QRS onset -28 ms
ST measurement point	Adjustment range: -28 ms to 568 ms Default: QRS offset +80 ms
Update interval	15 s ±1 s, 1 normal beat required
Measuring range	-15.0 mm to 15.0 mm (-1.50 to 1.50 mV)
Measuring accuracy	±0.1 mm (±0.01 mV) RTI (with respect to input)
Resolution	±0.1mm (0.01 mV)
Alarms	User selectable upper and lower limits
Event duration	Off, 15, 30, 45, 60 s (default 60 s)

**Arrhythmia**

Basic arrhythmia	Asystole, Ventricular Fibrillation, Ventricular Tachycardia, Artifact
<b>Note: Bradycardia is available as a low heart rate alarm for neonates.</b>	
Full arrhythmia	Basic plus Ventricular Run, Accelerated Idioventricular Rhythm, Supra-Ventricular Tachycardia, Couplet, Bigeminy, achycardia, Bradycardia, Pause, PVC/min.

<sup>1</sup> Arrhythmia and ST Analysis are for adult and pediatric patients only.<sup>2</sup> All 12-leads can be viewed via two screens with 6-leads each; 12-lead monitoring is an option

**PVC/min**

Measurement range	0 to 300 bpm
Resolution	1 bpm
Accuracy	±5 bpm or ±10 % of the rate, whichever is greater
Response time	<4 seconds

**Diagnostic ECG<sup>a</sup>**

Diagnostic program	Glasgow Interpretive ECG
Interpretation base	Age, gender, race, medication, clinical classification
Report formats	13 different report formats available
Report languages	English, French, German, Italian, Portuguese, Spanish, Swedish
Export	Infinity CentralStation can be configured to automatically export 12-lead reports
Reports provided by	Infinity CentralStation with Rest ECG Option enabled

Note: Printed Rest-ECG reports on the Infinity CentralStation meet diagnostic bandwidth requirements.

**Respiration rate**

Sensing leads	I, II (user-selectable)
Measuring method	Impedance pneumography
Auxiliary current	<10 µA for any active electrode
Bandwidth	(-3 dB) 0.25 to 3.5 Hz
Detection threshold	0.2 Ω - 4.0 Ω in manual mode (user adjustment) 0.3 Ω - 1.5 Ω in auto mode (automatic adjustment)
Measuring range	0 to 155 breaths per minute
Resolution	1 breath per minute
Measuring accuracy	±1 breath per minute, or ±2 % of the rate value, whichever is greater
Apnea detection interval times	Off, 10, 15, 20, 25, and 30 s
Alarms	User-selectable upper and lower respiration rate

**Pulse Oximetry (SpO<sub>2</sub>)**

Displayed parameters	Saturation (fraction of oxyhemoglobin to functional hemoglobin) and pulse (rate and curve), perfusion index (Masimo SET <sup>®</sup> only); SpHb, SpOC, SpMet, SpCO, PVI (with Masimo rainbow SET <sup>®</sup> )
Measuring method	Absorption spectrophotometry
Measuring range	SpO <sub>2</sub> : 1 to 100 % Pulse rate: 26 to 239 bpm

**SpO<sub>2</sub> Algorithm (Infinity MCable<sup>®</sup>-Masimo rainbow SET<sup>®</sup>)****Masimo rainbow SET<sup>®</sup> (Signal Extraction Technology<sup>®</sup>)**

Masimo provides the industry gold-standard for motion tolerant pulse oximetry\* and is known for accuracy during low perfusion. See additional product datasheet for complete and more detailed specifications.

\*As documented in Masimo's peer reviewed studies located on [www.masimo.com](http://www.masimo.com).

**SpO<sub>2</sub> Algorithm (Infinity MCable-Nellcor<sup>™</sup> Oximax<sup>™</sup>)****Nellcor Oximax**

See product datasheet for complete and more detailed specifications.

**Non-Invasive Blood Pressure (NIBP)**

Parameter display	Systolic, Diastolic, Mean
Measuring method	Oscillometric via step deflation
Modes of operation	Manual (single measurement), Interval, Continuous, or Venous Stasis
Interval times	Off, 1, 2, 2.5, 3, 5, 10, 15, 20, 25, 30, 45, 60, 120, and 240 min
Static cuff accuracy	±3 mmHg (±0.4 kPa)
Resolution	1 mmHg (0.1 kPa)

<sup>a</sup> Diagnostic ECG requires the presence of an Infinity Medical Cockpit running IACS software connected to the M540 and also the presence of an Infinity CentralStation for analysis and reports.

**CONTINUING TECHNICAL DATA****Measuring range (default)**

Heart rate	30 to 240 bpm
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**Adult**

Systolic	30 to 250 mmHg (4 to 33.3 kPa)
Mean	30 to 230 mmHg (4 to 30.6 kPa)
Diastolic	10 to 210 mmHg (1.3 to 28 kPa)

**Pediatric**

Systolic	30 to 170 mmHg (4 to 22.6 kPa)
Mean	30 to 150 mmHg (4 to 20 kPa)
Diastolic	10 to 130 mmHg (1.3 to 17.3 kPa)

**Neonatal**

Systolic	30 to 130 mmHg (4 to 17.3 kPa)
Mean	30 to 110 mmHg (4 to 14.7 kPa)
Diastolic	10 to 100 mmHg (1.3 to 13.3 kPa)

**Cuff Pressure**

Default inflation pressure	Adult: 160 ±5 mmHg (21.3 ±0.66 kPa) Pediatric: 130 ±5 mmHg (17.3 ±0.66 kPa) Neonatal: 110 ±5 mmHg (14.7 ±0.66 kPa)
Inflation pressure after a valid measurement (Accurate within ±5 mmHg or ±0.66 kPa)	Adult: Previous NBP Systolic +25 mmHg (3.3 kPa) Pediatric: Previous NBP Systolic +25 mmHg (3.3 kPa) Neonatal: Previous NBP Systolic +25 mmHg (3.3 kPa)
Maximum inflation pressure	Adult: 265 ±5 mmHg (35.3 ±0.66 kPa) Pediatric: 180 ±5 mmHg (24 ±0.66 kPa) Neonatal: 140 ±5 mmHg (18.6 ±0.66 kPa)
Minimum inflation pressure	Adult: 110 ±5 mmHg (14.7 ±0.66 kPa) Pediatric: 90 ±5 mmHg (12 ±0.66 kPa) Neonatal: 80 ±5 mmHg (10.6 ±0.66 kPa)
Connector	Quick-release connector with single airway

**Invasive Blood Pressure**

Measuring method	Resistive strain gauge transducer
Resolution	1 mmHg (0.1 kPa)
Measuring range	-50 to 400 mmHg (-6.6 to 53.3 kPa)
Dynamic range	-250 to 600 mmHg (-33.3 to 80 kPa)
Frequency ranges	User selectable DC to 8 Hz, DC to 16 Hz
Accuracy	±1 mmHg or ±3% (whichever is greater) exclusive of transducer
IBP Update interval	4 s
Response time (at 90 % of pressure change)	14 beats + 2 s (ART, LV, GP1, GP2, GP3, GP4) 8 beats + 2 s (PA, RV) 16 s (CVP, RA, LA, ICP)
Transducer specifications	Transducers with a resistance of 200 to 3000 Ω and an equivalent pressure sensitivity of 5µV/V/mmHg ±10 %

**Carbon dioxide**

Displayed parameters	End-tidal CO <sub>2</sub> (etCO <sub>2</sub> ), inspired CO <sub>2</sub> (inCO <sub>2</sub> ), respiration rate (RRc)
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**Measurement range**

CO <sub>2</sub>	0 – 100 mmHg (0 to 13.3 kPa or 0 to 13.2 vol % at sea level) CO <sub>2</sub> , partial pressure
RRc	0 to 150 bpm

For further details, please see datasheet for Infinity MCable-Mainstream CO<sub>2</sub>

**Temperature**

Parameter display	Temperatures: Ta, Tb, ΔT, T1a, T1b, ΔT1
Measurement range	Ta, Tb, T1a, T1b: 0 °C to 50 °C (32 °F to 122 °F) ΔT, ΔT1: 0 °C to 39 °C (0 °F to 102.2 °F)
Resolution	0.1 °C (0.1 °F)
Absolute temperature Accuracy <sup>4</sup>	±0.1 °C (±0.2 °F)
Delta temperature Accuracy <sup>5</sup>	±0.2 °C (±0.4 °F)
Probe accuracy	±0.1 °C (±0.2 °F)
Average update time	< 2.5 s
Response time	23 to 44 °C (73.4 to 111.2 °F), ±0.2 °C (±0.4 °F) within 150 s

**DISPLAY PRODUCT SPECIFICATIONS**

Display type	Color Liquid Crystal Display (LCD), Advanced Touch Screen
Size	158 mm (6.2 in) diagonal
Viewing area	149 mm x 54 mm (5.9 in x 2.1 in)
Resolution	640 x 240 (1/2 VGA)
Brightness	80 cd/m <sup>2</sup> minimum during battery operation; 120 cd/m <sup>2</sup> minimum when powered via M500

**User Interface**

Controls	Touch screen plus 3 fixed push-button keys, 8 control keys
Alarms	Audible <sup>5</sup> and visible alarm indication Alarm levels: High, Medium, Low 45 dB(A); full volume is > 70 dB(A)
Alarm bar	High (Life Threatening): Flashes red Medium (Serious): Flashes yellow Low: Does not light or flash

**Information Management Capabilities**

Trend storage	Up to 72 hours of parameter information
Trend data resolution	Up to 30 s

**PHYSICAL SPECIFICATIONS****Infinity M540 Monitor**

Dimensions (H x W x D)	89 x 259 x 43 mm (3.5 x 10.2 x 1.7 in)
Weight	Less than 920 grams (2.0 lbs)
Cooling	Conduction when docked, convection when undocked
Connections	ECG, CO <sub>2</sub> , Hemo, Temperature/Auxiliary, SpO <sub>2</sub> , NIBP-Input

**Infinity M500 Docking station**

Dimensions (H x W x D)	195 x 101 x 107 mm (7.7 x 4.0 x 4.2 in)
Weight	1200 grams (2.6 lbs)
Cooling	Convection
Connections	System Cable, Nurse Call (only as part of IACS)
Mount Interface	VESA 75

**ELECTRICAL SPECIFICATIONS****Monitor**

Power source	Internal lithium ion battery or external power from docking station
Battery pack	Li-ion: 3.75 VDC, 4400 mAh
Protection class	Internally powered (per IEC 60801-1)
Mode of operation	Continuous (with power coupling via docking station)
Patient leakage current	<10 μA (at both 110 V/60 Hz and 220 V/50 Hz)

<sup>4</sup> Accuracy exclusive of probe<sup>5</sup> Audible indication only when not docked



**CONTINUING TECHNICAL DATA****Infinity M540 Battery Specifications**

Battery operating time	Normal operation: approximately 3 hours Power save mode: approximately 4 hours
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Note: Battery operating time varies with device configuration. The battery time specified above is under the following load conditions: 12-lead ECG, SpO<sub>2</sub>, 2 Temperature probes, NIBP in 15-minute Interval Mode, LCD at Transport (Battery operation), Brightness for normal mode. Power Save mode temporarily disables the LCD.

Battery Recharging Time	100 % capacity: approximately 6.5 hours for completely discharged battery 70 % capacity: approximately 4 hours for completely discharged battery
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**Communications**

Network	802.3 100 BaseT Ethernet when connected to docking station. Optically isolated connection between monitor and docking station 10 Mbps
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Note: M540 hardware includes 802.11b/g Wireless Ethernet radio

**Infinity M500 docking station**

DC input	+24 VDC nominal, 1.5A (+18 to +30VDC)
Protection class	For use with specified Class I power supply
Mode of operation	Continuous
Power output	Provides power to Infinity M540 via direct contact charging

**Environmental Requirements****Infinity M540 monitor and Infinity M500 docking station****Atmospheric pressure**

Operating	485 to 795 mmHg (64.7 to 106.0 kPa)
Storage	375 to 795 mmHg (50.0 to 106.0 kPa)
Protection against ingress of water**	IPX4 (per IEC 60529, splash-proof) for Infinity M540 IPX1 (per IEC 60529) for Infinity M500

**Temperature**

Operating	0 to 40 °C* (32 to 104 °F)
Storage	-20 to 60 °C (-4 to 140 °F)

**Humidity (non-condensing)**

Operating	20 to 95 %
Storage	20 to 95 %

**Standards**

EN1789: 2003, Clause 6.

The M540 monitor and M500 docking station comply with Medical Devices Directive (MDD) 93/42/EEC and bear the CE mark.

IEC 60601-1 (2nd edition) and applicable particular and collateral standards with applicable regional and national deviations

IEC 60601-1-2:2004, Electromagnetic compatibility

CISPR 11, Class B and EN55011 Class B

IEC 60601-2-27:2005, Electrocardiographic Monitoring Equipment

IEC 60601-2-25:2001, Electrocardiographs

IEC 60601-2-30:1999, Automatic non-invasive blood pressure monitoring equipment

IEC 60601-2-34:2000, Invasive blood pressure monitoring equipment

IEC 60601-2-49:2001, Multifunction patient monitoring equipment

IEC 60601-2-51:2003, Recording and analyzing single channel and multichannel electrocardiographs

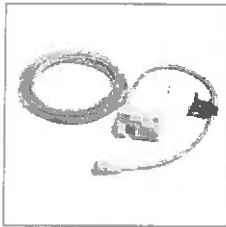
ISO 9919:2006, Pulse oximeter equipment

ISO 21647:2004/TC1:2005, Respiratory gas monitors

EN1060-3:1997, Non-invasive sphygmomanometers, Supplementary Requirements for electro-mechanical blood pressure measuring systems

\* At ambient temperatures above 35 °C (95 °F) the battery may not be charging even while docked in the Infinity M500 Docking Station

\*\* The M540 is protected against the ingress of water when submerged to 30 cm (11.8 inches) of water, for 10 minutes.



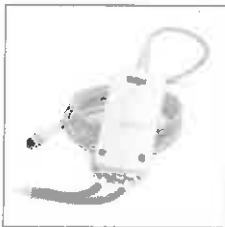
D-19885-2D(7)

**Infinity® MCable®-Mainstream  
CO<sub>2</sub>**



D-5856-2D(1)

**Infinity® MCable®-  
Masimo rainbow® SET**



D-10817-2D(1)

**Infinity® MCable®-  
Dual Hemo**



D-19815-2D(8)

**Infinity® MPod®-Quad  
Hemo**

EN 12470-4:2001, Clinical thermometers for continuous measurement  
IEC 60601-1-8:2006 (Alarms)  
Drop per IEC 60068-2-32: 1975 +A1:1982, +A2:1990, Procedure 1  
– Drop once on each of six surfaces from a height of 1 m (3.2 feet)

#### Power Supply Specifications

<b>Infinity PS50</b>	
Input voltage	85 to 264 VAC
Input frequency	47 to 63 Hz
Maximum output power	50 W
Dimensions (H x W x D)	146 x 76 x 43 mm (5.75 x 2.99 x 1.69 in)
Weight	465 g (1.03 lb)

#### Humidity (non-condensing)

Operating	5 to 95 %
Storage	5 to 95 %

#### Temperature

Operating	0 to 70 °C (32 to 158 °F)
Storage	-40 to 85 °C (-40 to 185 °F)

#### Atmospheric pressure

Operating	485 to 795 mmHg (64.7 to 106 kPa)
Storage	375 to 795 mmHg (50 to 106 kPa)

#### ORDERING INFORMATION

Infinity M540 patient monitor with companion Infinity M500 docking station as part of:

IACS Monitoring with C500	MS25510
IACS Monitoring with C700	MS25520
Infinity M540 and Infinity M500 docking station (Software version VG2.1 for M540 is required for using M540 as a standalone monitor)	MS28372

Language Support: English, German, French, Spanish, Italian, Dutch, Swedish, Portuguese (Brazilian), Danish, Norwegian, Japanese (Katakana), Russian, Turkish, Polish, Greek, Hungarian, Chinese (Simplified), Czech, Finnish, UK English

Note: language availability may vary. Please see your Dräger representative for more information.

#### Infinity M540 options

Wireless option (802.11b/g)	MS 10266
SpO <sub>2</sub> Masimo rainbow SET® or Nellcor OxiMax Factory-enabled	

Additional locked option capability: 12-lead monitoring, Multiple IBPs (greater than two); full arrhythmia

#### Optional pods, modules and hardware accessories

Note: Refer to individual module or pod data sheet for details concerning connection cables and adapters, transducers and mounting accessories

SpO <sub>2</sub> Pod Holder (Fits Masimo SET Pod, and Nellcor OxiMax Pod)	MS28266
SpO <sub>2</sub> Pod Holder for Masimo Rainbow SET® MCable	MS28576
Infinity M500 Transport Dock + Clamp	MS28144

#### Infinity MPod®- Quad Hemo

The Infinity MPod - Quad Hemo provides up to four continuous, invasive blood pressures, temperature and thermodilation cardiac output measurements. A Dräger Medical Cockpit is required for the display of cardiac output parameters.

#### Infinity MCable-Dual Hemo

The Infinity MCable-Dual Hemo provides a consolidated place for management of up to two invasive blood pressures.

**CONTINUING ORDERING INFORMATION****Infinity MCable-Masimo rainbow SET®**

The Infinity MCable-Masimo rainbow SET® enables Masimo's gold-standard\* SET SpO<sub>2</sub> algorithm. The Masimo rainbow SET® MCable connects the Infinity M540 multi-parameter patient monitor to Masimo rainbow SET® SpO<sub>2</sub> sensors and provides continuous, noninvasive monitoring of functional oxygen saturation of arterial hemoglobin (SpO<sub>2</sub>), pulse and perfusion index. Additional options are available to measure blood constituents and fluid responsiveness (SpHb™, SpOC™, SpCO®, SpMet®, PVI®)

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**Infinity MCable-Nellcor OxiMax**

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**Infinity MCable-Mainstream CO<sub>2</sub>**

The Infinity MCable-Mainstream CO<sub>2</sub> provides measurements of CO<sub>2</sub> in mainstream.

**Infinity MCable-Analog/Sync**

The Infinity MCable-Analog/Sync provides Analog Output of ECG and arterial pressure (ART) and/or QRS Synchronization signals from ECG to an external device.

**Infinity MCable-Nurse Call (not supported for Standalone)**

The Infinity MCable-Nurse Call allows connection of either the M540 or the IACS to a hospital alarm output system. Active life-threatening or serious alarms at the bedside are then sent out to the hospital's alarm output system.

**Accessories**

For further information and for accessories information, please refer to the Dräger IACS Accessories Instructions For Use for detailed information on compatibility.

To order pods, cables, MCables and MPods, please see individual product datasheets.

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This product may not be approved for market release in all countries.

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The quality management system at Dräger Medical GmbH is certified according to ISO 13485, ISO 9001 and Annex II.3 of Directive 93/42/EEC (Medical devices).