Operator Workstation (RM)

# VisuNet GXP Remote Monitor (RM) Zone 2/22 (Generation 2020)

## RM-GXP1200-19S-*-T3*

- 19 in (48 cm) display
- Thin Client solution (with VisuNet RM Shell firmware)
- Lightweight design
- Completely modular system for easy field maintainability
- Flush or bezel mounting options
- IP66 rating for each individual component and entire system with housing
- Certified for ATEX and IECEx Zone 2/22
- UL listed for USA and Canada

VisuNet GXP Remote Monitor Zone 2/22 (2020 Generation, Intel® Atom Apollo Lake Processor)

## Function

The VisuNet GXP Remote Monitor (RMGXP1100- 19S*/RM-GXP1200-19S*) is a lightweight modular operator workstation for use in hazardous locations according to ATEX and IECEx Zone 1/21 as well as Class I and II, Divison 2, and Class III. Certification for Class I, Zone 2; Class II, Zone 22; and Class III, Zone 22 is also available.
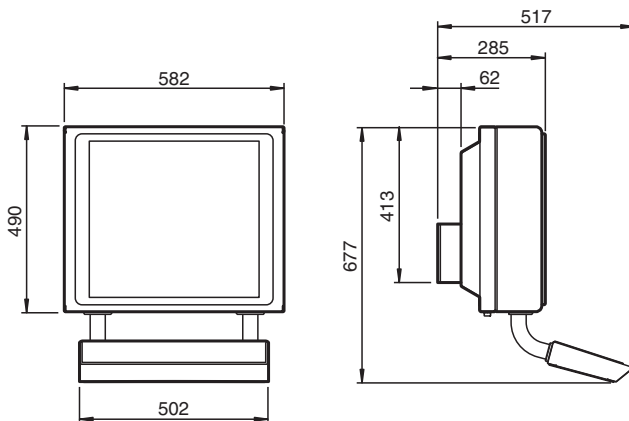The system assembly consists of three core components that are fieldreplaceable by the customer.
The display unit (DPU1100-*/DPU1200- *) is a hazardous-location rated display panel with an optional 10 finger multitouch sensor. The display and touchsensor are optically bonded with the hardened front glass.
The thin client unit (TCU1100-*/ TCU1200-*) is a hazardous-location rated computing unit that runs the latest Pepperl+Fuchs RM Shell firmware. The TCU allows connection to various host systems in the safe area, using standard Ethernet technology.
The power supply units (PSU1100-*/ PSU1200-*) are hazardous-location rated power supplies, providing the TCU and DPU devices with 24 V DC power.
As a standard mounting option, a bezel is available that allows the panel to be mounted into the system housing or into a cabinet (requires mounting kit). The panel can also be flush-mounted into a cabinet from the back with additional mounting brackets.

## Dimensions

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

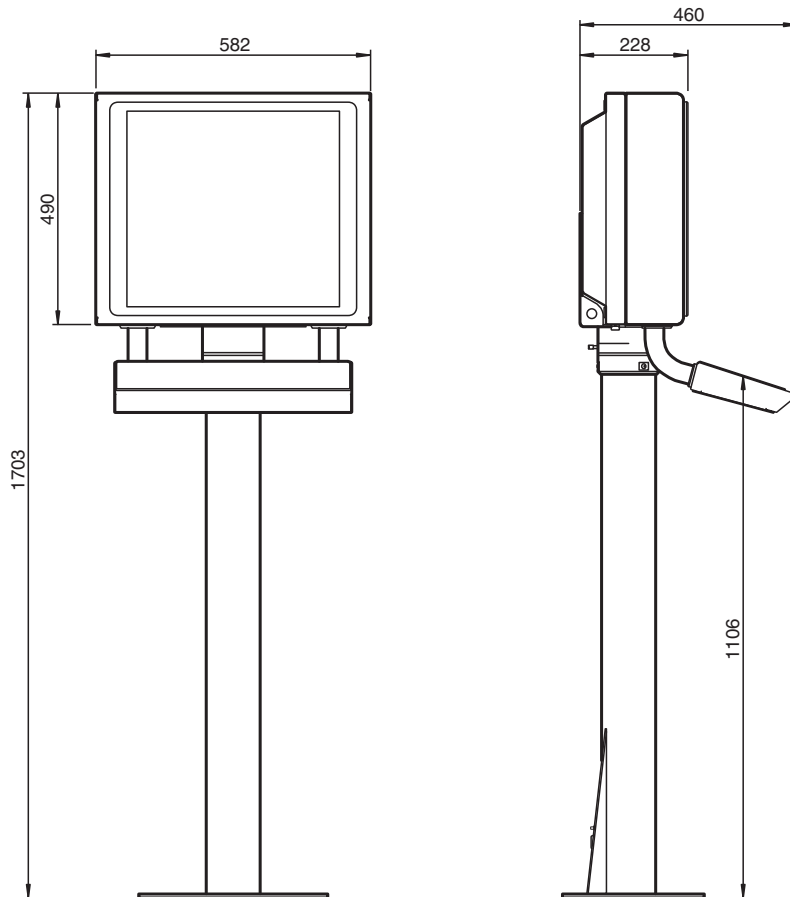Pepperl+Fuchs Group
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## Dimensions



## Technical Data

| General specifications | |
|---|---|
| Type | Remote Monitor |
| **Hardware** | |
| Processor | Intel® Atom Apollo Lake E3930<br>Alternative: Intel® Atom™ Atom Apollo Lake E3940* |
| RAM | 4 GB |
| Mass storage | 32 GByte industrial grade MLC SSD |
| **Supply** | |
| Power consumption | |
|     AC | 115/230 V AC, 0.4 ... 0.7 A, 50/60 Hz |
|     DC | 18 ... 36 V DC , 1.5 ... 3 A |
| **Indicators/operating means** | |
| Display | |
|     Type | Liquid Crystal Display (LCD) with LED backlight |
|     Screen diagonal | 48.26 cm (19 inch) |
|     Resolution | 1280 x 1024 (SXGA) , Aspect ratio 5:4 |
|     Color depth | 24 bit (16.7 M) color |
|     Contrast | 1000:1 |
|     Brightness | 450 cd/m² (nit) |
|     Reading angle | 170° horizontal<br>160° vertical |
|     Life span | back lamp life: 50.000 hrs typical half life , at 25 °C (77 °F) |
| Input devices | |
|     Touch screen | optional: projective capacitive; 10 finger multi-touch, glove friendly |
|     Keyboard | Foil keyboard with different pointing device options available (see EXTA4 datasheet) |

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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## Technical Data

### Interface

| | |
|---|---|
| Interface type | Standard:<br>1 x Ethernet 100/1000BASE-TX (Ex e) or<br>1 x fiber optic 1000BASE-SX (Multimode) or<br>1 x fiber optic 1000BASE-LX (Singlemode),<br>1 x USB 2.0 (Ex e),<br>2 x USB 1.1 (Ex i; intended for Pepperl+Fuchs keyboard and mouse),<br>1 x DC or AC power in (via power supply unit)<br><br>Optional:<br><br>"interface 3": 1 x barcode reader interface for wired 1-D scanners IDM-160-D*, IDM-Z1-160-D-* and base station IDMx61-B-* and IDM-Z1-x61-B-* (Ex i)<br><br>"interface 4": 1 x barcode reader interface for wired 2-D Scanner IDM-Z1-260-D-* (Ex i)<br><br>"interface 5": 1 x RS-232 interface with Power Supply for miscellaneous devices and peripherals (Ex i)<br><br>1 x RS-232 (Ex e)<br>1 x RS-485 (Ex e)<br>1 x Ethernet 100/1000Base-TX (Ex e)<br>Bluetooth v4.0, communication distance up to 30 m in open terrain, transmission power +8 dBm, transmission frequency 2.402 ... 2.48 GHz |

### Directive conformity

| | |
|---|---|
| Electromagnetic compatibility | |
| Directive 2014/30/EU | EN 61326-1:2013 (industrial locations)<br>non-Bluetooth products only |
| Radio and telecommunication terminal equipment | |
| Directive 2014/53/EU | EN 301 328 V2.1.1<br>EN 301 489-1 V2.1.1<br>EN 301 489-17 V3.1.1<br>Bluetooth products only |
| RoHS | |
| Directive 2011/65/EU (RoHS) | EN 50581:2012-09 |

### Software

| | |
|---|---|
| Operating system | VisuNet RM Shell 5.x (based on Microsoft® Windows® 10 IoT Enterprise 2019 LTSC (x64)) |

### Ambient conditions

| | |
|---|---|
| Operating temperature | -20 ... 50 °C (-4 ... 122 °F) |
| Storage temperature | -20 ... 60 °C (-4 ... 140 °F) |
| Relative humidity | 93% at 40°C, non-condensating, according to EN60068-2-78 |
| Altitude | Operating altitude max. 2000 m |
| Shock resistance | 18 shocks 15 g , 11 ms all axis, IEC 60068-2-27 |
| Vibration resistance | 10 ... 150 Hz, +/- 0.075 mm , 1g, 10 cycles per axis according to EN60068-2-6 |

### Mechanical specifications

| | |
|---|---|
| Degree of protection | IP66 (individual components and entire system with housing) |
| Material | Internal:<br>Panel: anodized aluminum (TCU, PSU), powder coated aluminum (DPU)<br>External:<br>Bezel: stainless steel AISI 304 (1.4301)<br>System housing: stainless steel AISI 304 (1.4301), bead blasted, typical surface roughness Ra = 1.6 µm |
| Installation | Flush-mount installation (requires customized mounting kit)<br>Panel-mount installation into system housing with bezel<br>Panel-mount installation into cabinet with Bezel and standard mounting kit |
| Mass | panel with DC: 22 kg , panel with AC: 23 kg , system housing AG1: 19 kg |
| Dimensions | panel with DC: 524 mm x 453 mm x 120 mm<br>panel with AC: 524 mm x 453 mm x 137 mm<br>panel with AG1 housing: 582 mm x 490 mm x 224 mm |
| Note | * see nameplate: 2021 alternative, processor cannot be selected |

### Data for application in connection with hazardous areas

| | |
|---|---|
| EU-type examination certificate | BVS 17 ATEX E 037 X |
| Marking | ⟨Ex⟩ II 3G Ex ec [ib] q IIC T4 IP66 Gc<br>⟨Ex⟩ II 3D Ex tc [ib] IIIC T85 °C IP66 Dc |
| Directive conformity | |

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

## Technical Data

| | |
|---|---|
| Directive 2014/34/EU | EN 60079-0:2012+A11:2013, EN 60079-7:2015, EN 60079-11:2012, EN 60079-31:2014 |
| **International approvals** | |
| UL approval | E492874 |
| Approved for | Class I, Division 2, Groups A, B, C, D T4; Zone 2, Group IIC T4<br>Class II, Division 2, Groups F, G T4; Zone 22, Group IIIB T85<br>Class III; Zone 22, Group IIIA T85 |
| IECEx approval | IECEx BVS 17.0029X |
| Approved for | Ex ec [ib] q IIC T4 IP66 Gc<br>Ex tc [ib] IIIC T85 °C IP66 Dc |
| Standards | IEC 60079-0:2011, IEC 60079-7:2015, IEC 60079-11:2011, IEC 60079-31:2013 |

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## Type Code

| Model | Display Unit | Front Glass & Touch | Interfaces | Power Supply Unit | Interfaces | Module A | Module B | Computing Platform | Housing | Options | |
|---|---|---|---|---|---|---|---|---|---|---|---|

| **Model** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RM-GXP1100-** | VisuNet GXP Remote Monitor System; Zone 1/21 | | | | | | | | | | |
| **RM-GXP1200-** | VisuNet GXP Remote Monitor System; Zone 2/22 | | | | | | | | | | |
| | **Display Unit** | | | | | | | | | | |
| | **19S** | 19 inch, SXGA (1280x1024) | | | | | | | | | |
| | | **Front Glass & Touch** | | | | | | | | | |
| | | **N** | Anti-glare security glass, no touch | | | | | | | | |
| | | **C** | Anti-glare security glass, projective capacitive 10-finger multitouch | | | | | | | | |
| | | | **Interfaces** | | | | | | | | |
| | | | **1-** | 5 x capacitive system front keys | | | | | | | |
| | | | **2-** | 5 x capacitive system front keys and Bluetooth interface | | | | | | | |
| | | | | **Power Supply Unit** | | | | | | | |
| | | | | **D-** | 18 ... 36 V DC | | | | | | |
| | | | | **A-** | 115/230 V AC, 50/60 Hz | | | | | | |
| | | | | | **Interfaces** | | | | | | |
| | | | | | **E** | 1 x 1000BASE-T LAN Ex e, 1x USB Ex e, 2x USB Ex i | | | | | |
| | | | | | **S** | 1 x 1000BASE-SX fiber optic (Multimode), 1x USB Ex e, 2x USB Ex i | | | | | |
| | | | | | **L** | 1 x 1000BASE-LX fiber optic (Singlemode), 1x USB Ex e, 2x USB Ex i | | | | | |
| | | | | | | **Module A** | | | | | |
| | | | | | | **N** | No additional interface module | | | | |
| | | | | | | **1** | 1 x RS-232 Ex e | | | | |
| | | | | | | **2** | 1 x RS-485 Ex e | | | | |
| | | | | | | **3** | 1 x Ex i interface for wired 1-D barcode readers IDM-160-D*, IDM-Z1-160-D-* and base station IDMx61-B-* and IDM-Z1-x61-B-* | | | | |
| | | | | | | **4** | 1 x Ex i interface for 2-D barcode readers IDM-Z1-260-D-* | | | | |
| | | | | | | **5** | 1 x RS-232 Ex i interface for miscellaneous devices and peripherals | | | | |
| | | | | | | **E** | 1 x 1000BASE-T LAN Ex e | | | | |
| | | | | | | | **Module B** | | | | |
| | | | | | | | **N** | No additional interface module | | | |
| | | | | | | | **1** | 1 x RS-232 Ex e | | | |
| | | | | | | | **2** | 1 x RS-485 Ex e | | | |
| | | | | | | | **3** | 1 x Ex i interface for wired 1-D barcode readers IDM-160-D*, IDM-Z1-160-D-* and base station IDMx61-B-* and IDM-Z1-x61-B-* | | | |
| | | | | | | | **4** | 1 x Ex i interface for 2-D barcode readers IDM-Z1-260-D-* | | | |
| | | | | | | | **5** | 1 x RS-232 Ex i interface for miscellaneous devices and peripherals | | | |
| | | | | | | | **E** | 1 x 1000BASE-T LAN Ex e | | | |
| | | | | | | | | **Computing Platform** | | | |
| | | | | | | | | **T3-** | Intel® Atom Apollo Lake E3930, 4 GB RAM, 32 GB SSD, RM Shell 5.x (based on Win 10 IoT) LTSC | | |
| | | | | | | | | | **Housing** | | |
| | | | | | | | | | **NN-** | No bezel, prepared for flush mounting | |
| | | | | | | | | | **S2-** | Bezel; prepared for panel mounting or into AG1 housing | |
| | | | | | | | | | **H2-** | Installed into EX1 AG1 housing (SS304), front opening, for pedestal/ceiling/wall-arm | |
| | | | | | | | | | | **Options** | |
| | | | | | | | | | | **N0-** | Standard, no options |

Example:  RM-GXP1100-19SN1-D-ENNT3-S2-N0

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