

VisuNet GXP

RM-GXP1100-22F

RM-GXP1200-22F

PC-GXP1100-22F

PC-GXP1200-22F

Manual



With regard to the supply of products, the current issue of the following document is applicable: The General Terms of Delivery for Products and Services of the Electrical Industry, published by the Central Association of the Electrical Industry (Zentralverband Elektrotechnik und Elektroindustrie (ZVEI) e.V.) in its most recent version as well as the supplementary clause: "Expanded reservation of proprietorship"

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1 Introduction

1.1 Content of this Document

This document contains information that you need in order to use your product throughout the applicable stages of the product life cycle. These can include the following:

- Product identification
- Delivery, transport, and storage
- Mounting and installation
- Commissioning and operation
- Maintenance and repair
- Troubleshooting
- Dismounting
- Disposal

**Note**

This document does not substitute the instruction manual.

**Note**

For full information on the product, refer to the instruction manual and further documentation on the Internet at www.pepperl-fuchs.com.

The documentation consists of the following parts:

- Present document
- Instruction manual
- Datasheet

Additionally, the following parts may belong to the documentation, if applicable:

- EU-type examination certificate
- EU declaration of conformity
- Attestation of conformity
- Certificates
- Control drawings
- Additional documents

1.2 Target Group, Personnel

Responsibility for planning, assembly, commissioning, operation, maintenance, and dismantling lies with the plant operator.

Only appropriately trained and qualified personnel may carry out mounting, installation, commissioning, operation, maintenance, and dismantling of the product. The personnel must have read and understood the instruction manual and the further documentation.

Prior to using the product make yourself familiar with it. Read the document carefully.

1.3 Symbols Used

This document contains symbols for the identification of warning messages and of informative messages.

Warning Messages

You will find warning messages, whenever dangers may arise from your actions. It is mandatory that you observe these warning messages for your personal safety and in order to avoid property damage.

Depending on the risk level, the warning messages are displayed in descending order as follows:



Danger!

This symbol indicates an imminent danger.

Non-observance will result in personal injury or death.



Warning!

This symbol indicates a possible fault or danger.

Non-observance may cause personal injury or serious property damage.



Caution!

This symbol indicates a possible fault.

Non-observance could interrupt the device and any connected systems and plants, or result in their complete failure.

Informative Symbols



Note

This symbol brings important information to your attention.



Action

This symbol indicates a paragraph with instructions. You are prompted to perform an action or a sequence of actions.

2 Product Description

2.1 Overview

Pepperl+Fuchs VisuNet GXP workstations are ATEX/IECEX certified, UL Listed PCs or thin-client based remote monitors intended for use in potentially explosive atmospheres such as Zones 1/21 and 2/22, Class I/II, Division 2, and Class III. Two display sizes are available—19 inch and 21.5 inch. This manual covers the 21.5 inch models. For information on the 19 inch models, see the product pages at www.pepperl-fuchs.com.

The modular VisuNet GXP consists of three core field-replaceable devices:

- DPU1100-* and DPU1200-* display units with optional 10-finger multi-touch sensors. The displays and touch sensors are optically bonded with the hardened front glass.
- Computing units:
 - TCU1100-* and TCU1200-* thin client units that run the latest Pepperl+Fuchs RM Shell firmware. Using standard Ethernet technology, they allow connection to host systems in the non-Ex area.
 - PCU1100-* and PCU1200-* PC units run an open Microsoft® Windows® operating system that allows installation of any software, including SCADA packages.
- PSU1100-* and PSU1200-* power supply units provide the above devices with 24 V DC power. They are available as DC or wide-range AC versions.

VisuNet GXP components come preassembled in a panel. As a standard mounting option, a bezel is available that allows the panel to be mounted into a system housing or cabinet (mounting kit required). The panel can also be flush mounted into a cabinet from behind with additional mounting brackets.

VisuNet GXP Panel Components

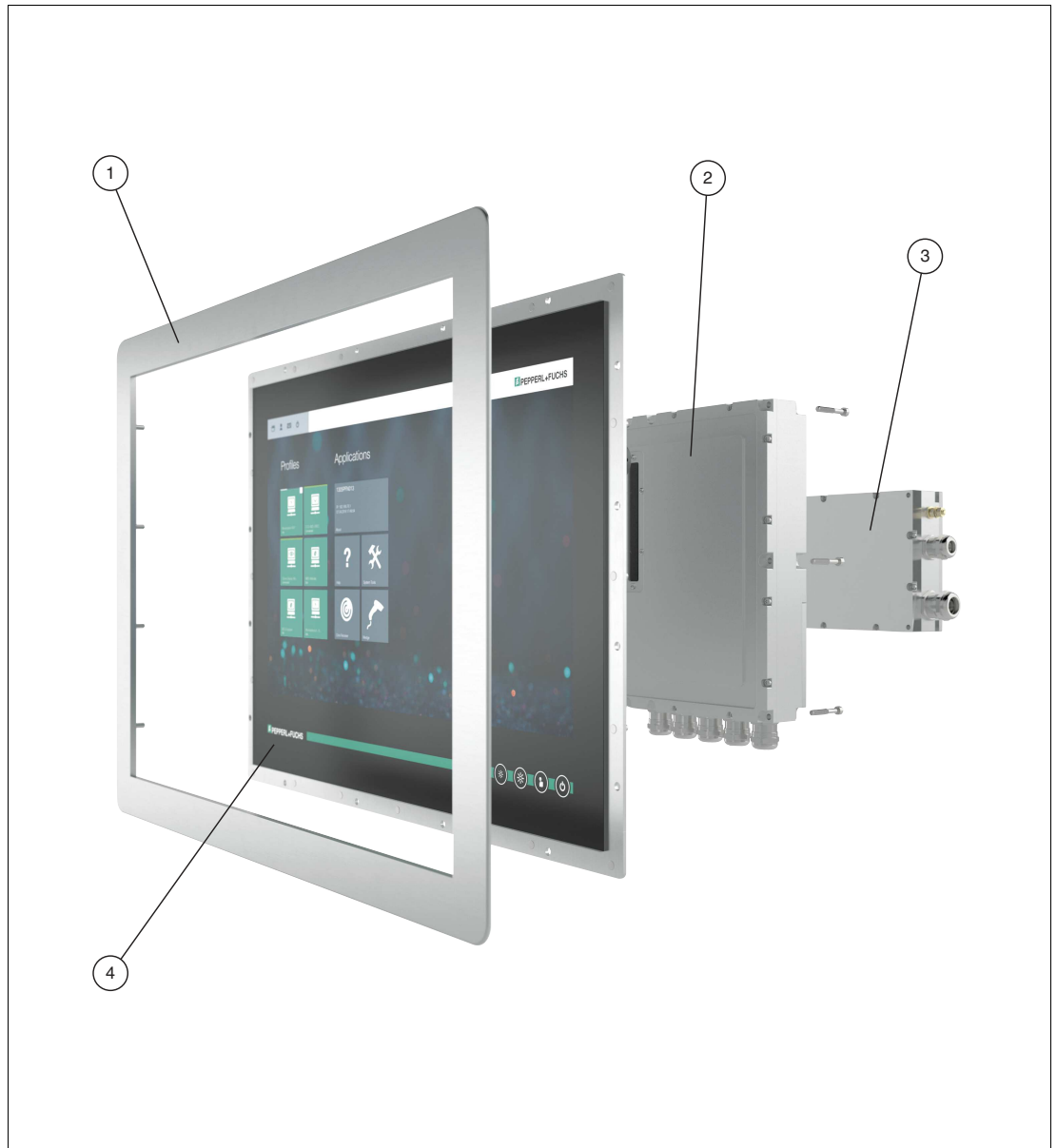


Figure 2.1 VisuNet GXP panel components

1	Bezel for housing and panel mounting
2	Computing unit (TCU or PCU): processor, SSD and memory, Ex circuits, interface modules
3	Power supply unit : DC or AC option, backpacked (panel-mount) or stand-alone (in system enclosure)
4	Display unit : display, touch screen, hardened front glass

The VisuNet GXP system can also be ordered pre-mounted in an AG-XX00 housing, ready for pedestal or wall mounting.

VisuNet GXP Pedestal Mounted with Keyboard/Mouse



Figure 2.2 VisuNet GXP workstation mounted in an AG-XX00 housing on a PEDESTAL-XX00-* pedestal with optional EXTA2-* keyboard/mouse (ordered separately)



Note

For a description of the product model nomenclature, see the VisuNet GXP PC or VisuNet GXP RM product datasheets at www.pepperl-fuchs.com.

For more mounting options and information, see the VisuNet Mounting Options datasheet.

2.2 Technical Specifications

Technical Data RM-GXP*

Hardware	
Processor	Intel® Atom™ Bay Trail E3827 1.75 GHz
RAM	2048 MB DDR3L
Mass storage	32 GByte industrial grade MLC SSD

Software	
Operating system	VisuNet RM Shell 5.x (based on Microsoft® Windows® 10 IoT LTSB)

Technical Data PC-GXP*

Hardware	
Processor	Intel® Atom™ Bay Trail E3845 1.91 GHz
RAM	4096 MB DDR3L
Mass storage	128 GByte industrial grade MLC SSD

Software	
Operating system	Microsoft® Windows® 10 IoT Enterprise x64

Technical Data RM-GXP* and PC-GXP*

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 back-light
Screen diagonal	54.61 cm (21.5 inch)
Resolution	1920 x 1080 pixels (Full HD) Aspect ratio 16:9
Color depth	24 bit (16.7 M) color
Contrast	5000:1 (typically)
Brightness	300 cd/m ²
Reading angle	175° in all directions
Life span	back lamp life: 50.000 hrs typical half life , at 25 °C (77 °F)
Input devices	
Touchscreen	optional: projective capacitive; 10 finger multi-touch, glove friendly
Keyboard	Foil keyboard with different pointing device options available (see EXTA2 datasheet)



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

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

Ambient conditions	
Operating temperature	-20 ... 50 °C (-4 ... 122 °F) Display might react sluggishly below 0 °C
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

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Mechanical specifications	
Degree of protection	IP66 (individual components and entire system with housing)
Material	Internal: Panel: anodized aluminum (TCU, PCU, PSU), powder coated aluminum (DPU) External: Bezel: stainless steel AISI 304 (1.4301) System housing: stainless steel AISI 304 (1.4301), beat blasted, typical surface roughness Ra = 0.8 µm
Installation	Flush-mount installation (requires customized mounting kit) Panel-mount installation into system housing with bezel Panel-mount installation into cabinet with Bezel and standard mounting kit
Mass	Panel (DPU with bezel, TCU, PSU DC): approx. 23 kg Panel (DPU with bezel, TCU, PSU AC): approx. 24 kg System housing (AG-XX00): approx. 11 kg
Dimensions	Panel (DPU with bezel, TCU, PSU DC): 625 mm x 459 mm x 120 mm Panel (DPU with bezel, TCU, PSU AC): 625 mm x 459 mm x 137 mm Panel with system housing: 625 mm x 459 mm x 173 mm Panel cut-out dimensions: 583 mm x 417 mm (installation surface)

Data for application in connection with hazardous areas	
EU-type examination certificate	BVS 17 ATEX E 036 X
Marking	 II 2G Ex eb q ib [ib] IIC T4 IP66 Gb  II 2D Ex tb [ib] IIIC T85°C IP66 Db
Directive conformity	
Directive 2014/34/EU	EN 60079-0:2012+A11:2013, EN 60079-5:2015, EN 60079-7:2015, EN 60079-11:2012, EN 60079-31:2014

International approvals	
UL approval	E492874
IECEx approval	IECEx BVS 17.0029X
Standards	IEC 60079-0:2011, IEC 60079-5:2015, IEC 60079-7:2015, IEC 60079-11:2011, IEC 60079-31:2013



Note

For more technical information, refer to the documentation for the individual components:

- Display Units [DPU1100-J1*](#) and [DPU1200-J2*](#)
- AC Power Supply Units [PSU1100-J1-AC-N0](#) and [PSU1200-J2-AC-N0](#)
- DC Power Supply Units [PSU1100-J1-DC-N0](#) and [PSU1200-J2-DC-N0](#)
- Thin Client Units [TCU1100-J1-*](#) and [TCU1200-J2-*](#)
- Personal Computer Units [PCU1100-*](#) and [PCU1200-*](#)
- [Peripherals](#) such as keyboards or barcode readers

Marking

ATEX	
RM-GXP1100-J1- PC-GXP1100-J1-*	II 2G Ex eb q ib [ib] IIC T4 IP66 Gb II 2D Ex tb [ib] IIIC T85°C IP66 Db
RM-GXP1200-J2- PC-GXP1200-J2-*	II 3G Ex ec [ib] q IIC T4 IP66 Gc II 3D Ex tc [ib] IIIC T85 °C IP66 Dc

IECEX	
RM-GXP1100-J1- PC-GXP1100-J1-*	Ex eb q ib [ib] IIC T4 IP66 Gb Ex tb [ib] IIIC T85°C IP66 Db
RM-GXP1200-J2- PC-GXP1200-J2-*	Ex ec [ib] q IIC T4 IP66 Gc Ex tc [ib] IIIC T85 °C IP66 Dc

UL

PEPPERL+FUCHS 68307 Mannheim, Germany www.pepperl-fuchs.com #F#		
UL LISTED Ind. Convt. Eq. for Haz. Loc. E492874	Class I, Division 2, Groups A, B, C, D; T4 Class II, Division 2, Groups F, G; T4 Class III -20 °C ≤ Ta ≤ 50 °C	Class I Zone 2, Group IIC; T4 Class II Zone 22, Group IIIB; T85°C Class III Zone 22, Group IIIA; T85°C -20 °C ≤ Ta ≤ 50 °C
No user serviceable parts inside this enclosure. Aucune pièce réparable par l'utilisateur.		Non-incendive when installed per control drawing 116-B034

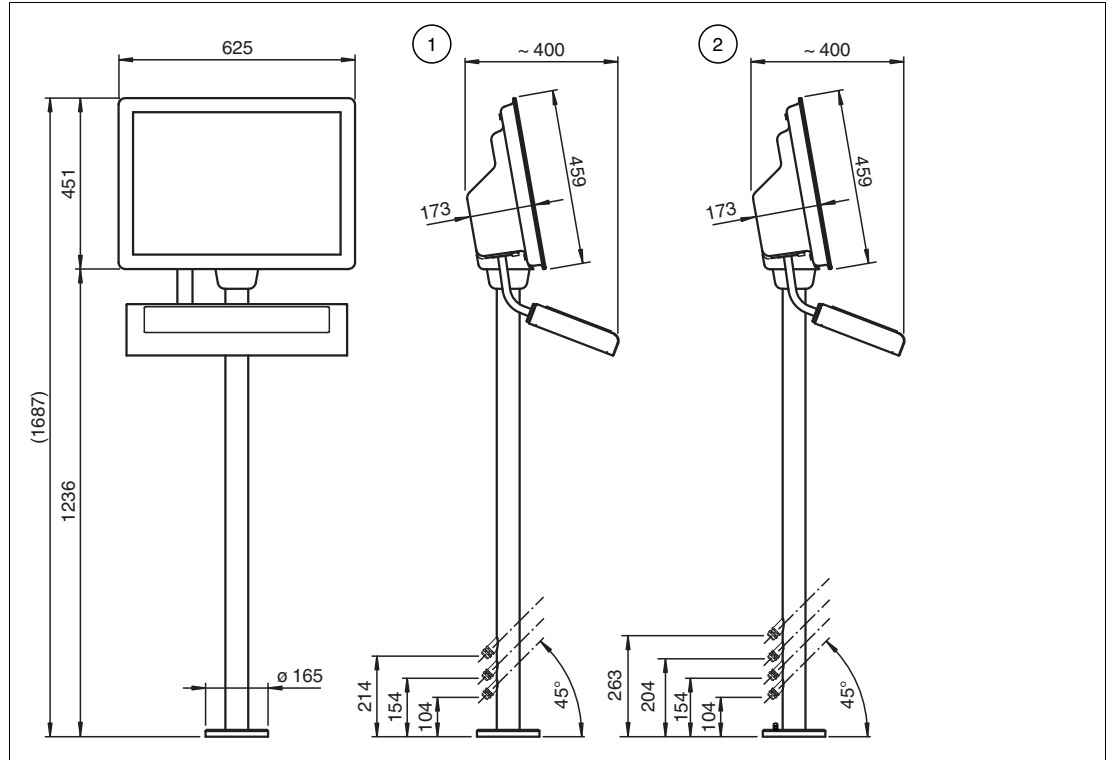
2.3 Dimensions



Note

For more options and information, refer to the VisuNet GXP Mounting Options datasheet.

Pedestal Mount



VisuNet GXP system H1 housing installed into AG-XX00 housing with additional PEDESATAL-XX00-* pedestals and EXTA2-* keyboard inside an -F housing with -G mounting version (1-Arm for mounting to AG-XX00 housing)

1	Shown with PEDESTAL-XX00-124-3-304-TRN-N0
2	Shown with PEDESTAL-XX00-124-4-304-TRN-N0



Note

EXTA2-* keyboard and PEDESTAL-XX00-* pedestals must be ordered separately.

Wall Mount

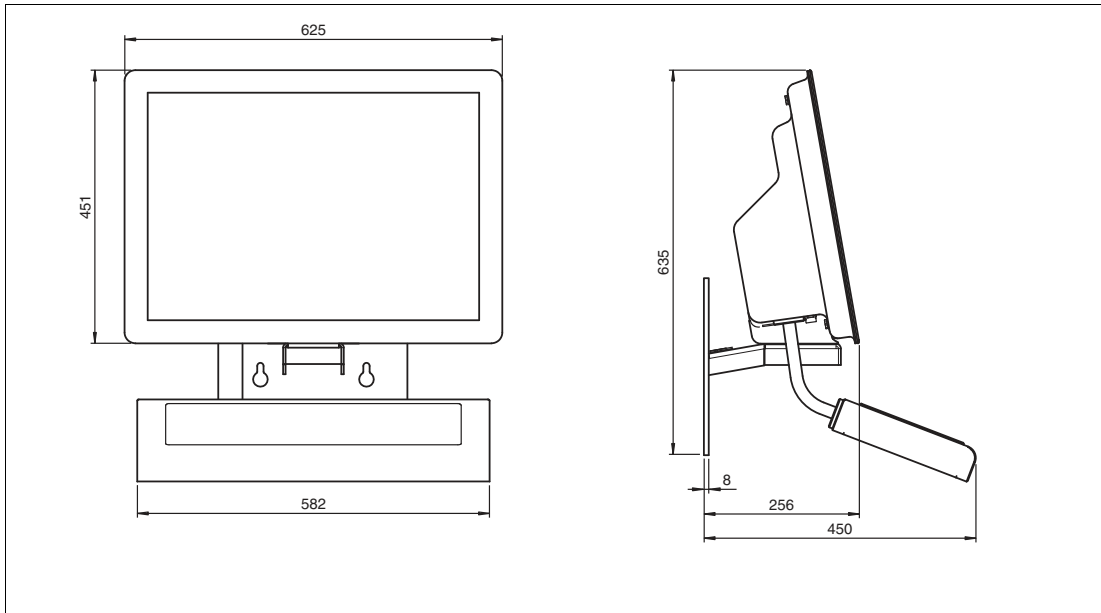


Figure 2.3 VisuNet GXP system H1 housing installed into AG-XX00 housing with additional WALL-BRACKET-XX00-3-304-N0 and EXTA2 keyboard inside an -F housing with -G mounting version (1-Arm for mounting to AG-XX00 housing)

Wall Mount Hole Pattern

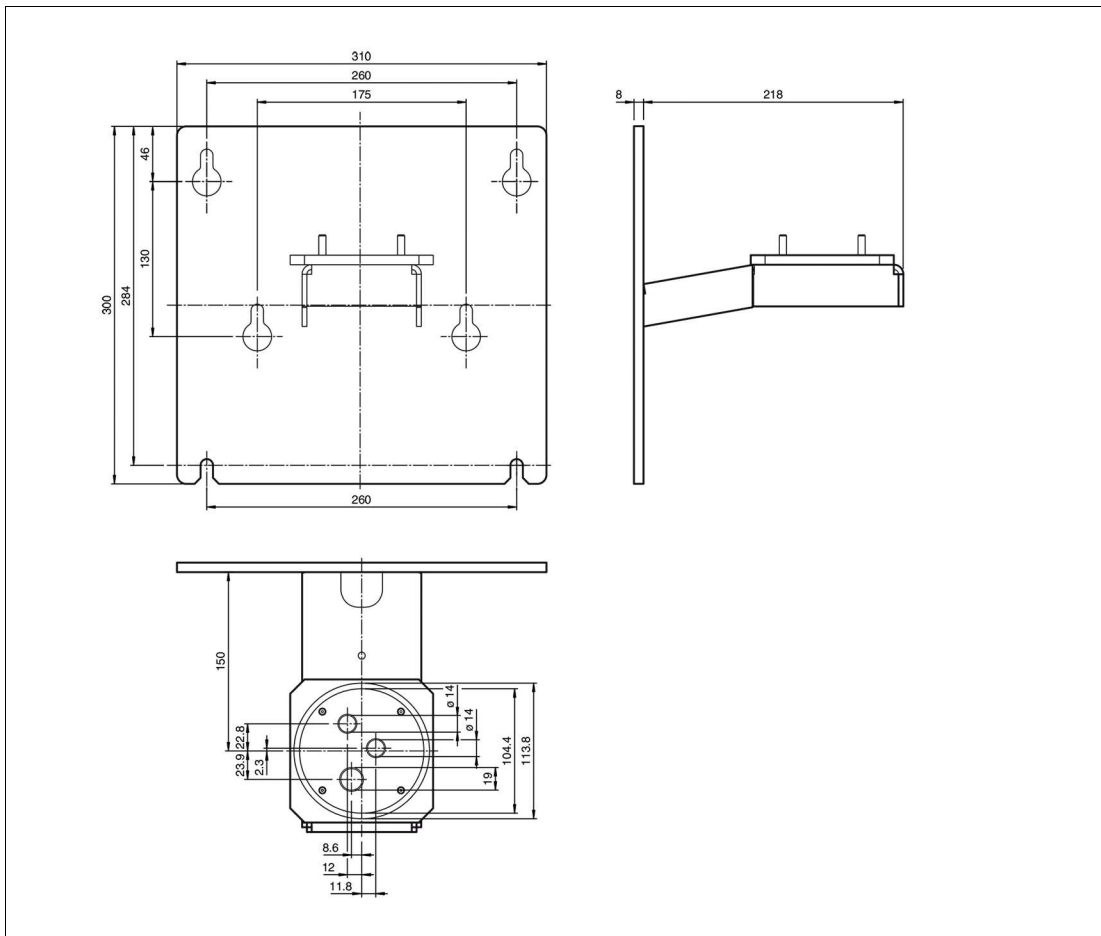


Figure 2.4

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Panel Mount

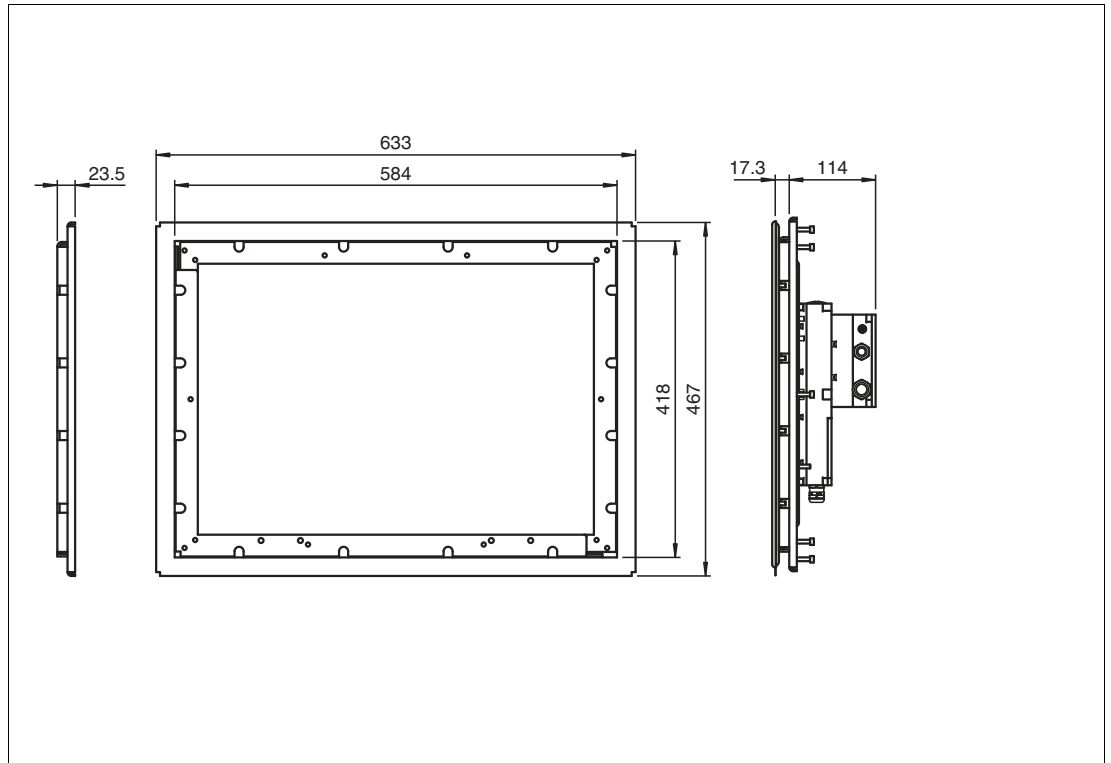


Figure 2.5 VisuNet GXP system S1 housing including bezel, prepared for panel mounting, with KIT-PM-XX00-22F-304-N0 kit for panel mounting

3 Mechanical Installation

3.1 Unpacking



Warning!

Risk of injury

Handling the VisuNet GXP components without gloves may cut fingers, hands, or wrists.

Wear gloves at all times during installation.

The VisuNet GXP comes with its core components preassembled. These components consist of a display unit (DPU), power supply unit (PSU), and thin client unit (TCU) or PC unit (PCU). If the housing option is chosen, the components come pre-mounted into the housing.



Figure 3.1 VisuNet GXP in the box



Caution!

Scratches and damage

GXP components may become scratched or damaged if they are placed onto or slid across hard surfaces.



Warning!

Danger resulting from scratched DPU screen

Scratches in the DPU screen weaken the glass structure. This may result in glass breakage in the event of an explosion. Explosion protection is no longer ensured if a DPU with a scratched screen is used.

NEVER use a DPU with a scratched screen in a hazardous area. If the surface is damaged in any way, return the DPU to Pepperl+Fuchs at once and replace it with a new one. See chapter 3.3.12 for information about removing the DPU.

Using Foam Brackets During Installation

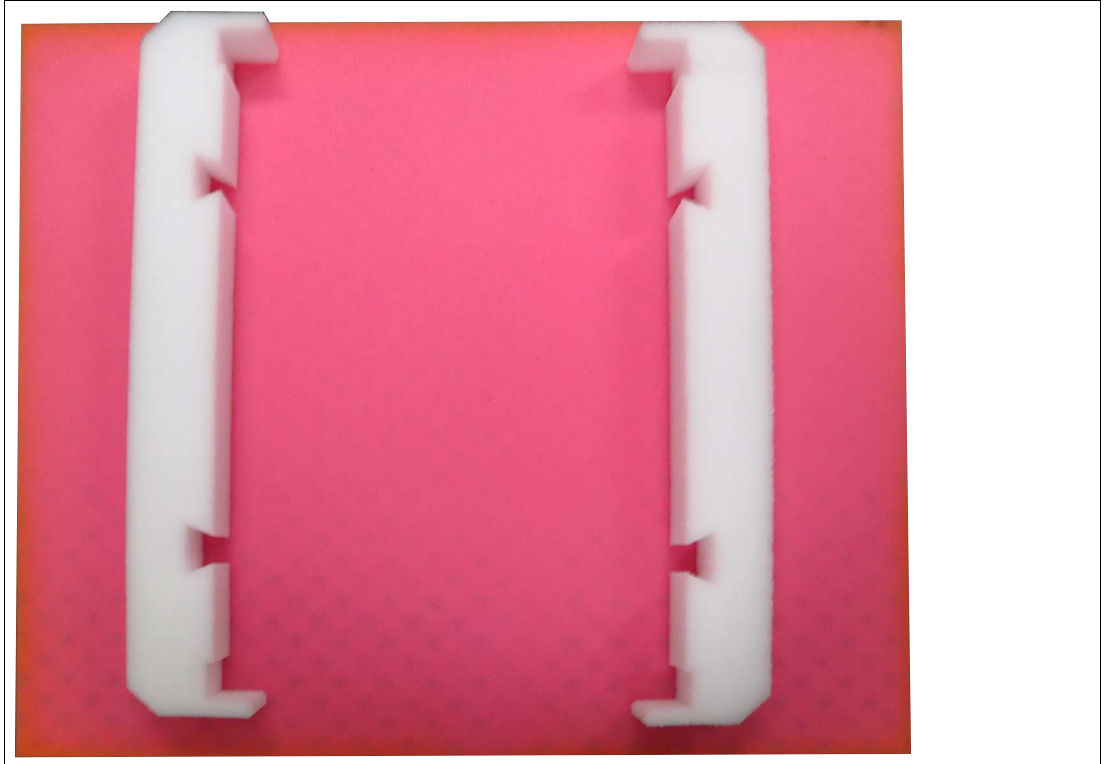


Figure 3.2 To help protect the VisuNet GXP components once they have been removed from the box, use the enclosed foam brackets.

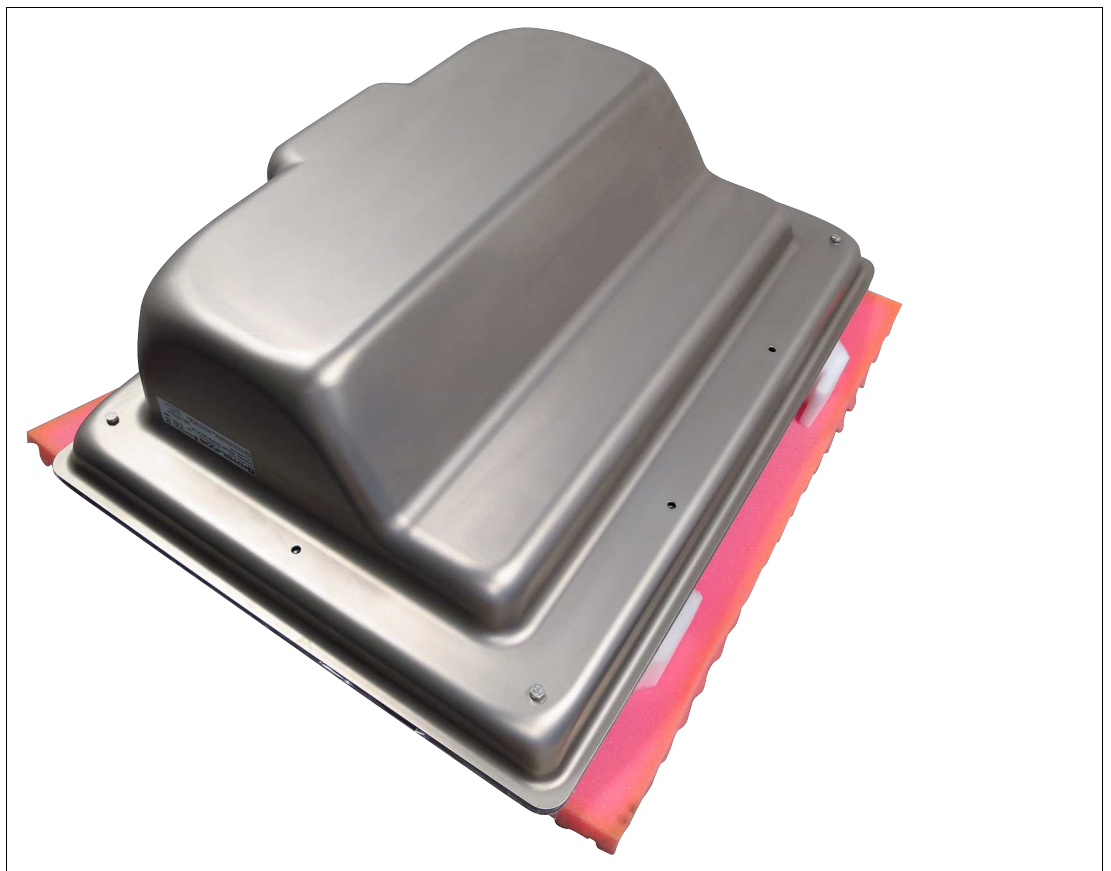


Figure 3.3 To protect the DPU front screen, place the VisuNet GXP face down onto the foam brackets.

3.2 Electrical Installation



Warning!

Danger of Explosion

Cable insulation may become damaged if cables and connection lines are not used in adequate temperature ranges. Thus, short circuits within the cable may occur which in turn may give rise to sparks and/or surface temperatures capable of triggering an ignition.

Only use cables and connection lines which are suitable to be used within a temperature rating of 80 °C if the system components are used within an ambient operating temperature of $T_a > 40$ °C.



Note

Refer to the manuals of the individual VisuNet GXP components for more information on electrical installation and wiring.



Danger!

Explosion hazard from wrong or missing grounding

Wrong or missing grounding can cause sparks. This can ignite the surrounding potentially explosive atmosphere.

- Ground the device. Observe the grounding requirements.
 - Ensure that external ground connections exist, are in good condition, and are not damaged or corroded.
-



Warning!

Risk of electric shock or property damage from inadequate grounding

If you do not ground the device correctly, this could result in potential equalization currents. These currents could hurt operating personnel or cause property damage.

Ground the device via the grounding bolt. Ensure that a correct potential equalization is guaranteed at all times.

When installing the VisuNet GXP system, always ensure a proper grounding of all components, including housing and mounting parts (e.g., pedestal and wall bracket) with a cable diameter of at least 4 mm² in accordance with IEC 60079-14.

The VisuNet GXP is shipped with the following protective earth (PE) wiring connections, if the AG-XX00 housing option is selected:

- PE wire from the DPU PE stud to the AG-XX00 housing PE stud.
- PE wire from the PSU PE stud to the AG-XX00 housing PE stud.

3.3 System Installation

3.3.1 General Installation Information

Observe the following requirements when installing the system components.

- The equipment must be installed by competent personnel in accordance with the instructions. National laws and regulations must be observed.
- The building installation must provide a 20 A overcurrent protection.
- The installer must make a readily accessible disconnect device available.
- The safety of any system incorporating the PSU is the responsibility of the assembler of the system.

Included with Delivery

- Pre-assembled VisuNet PC- or RM-GXP panel (pre-mounted into AG-XX00 housing when "H1" option is selected)
- 2 x protective tubes
- Screws for housing

Items Ordered Separately

- Pedestal that is compatible with AG-XX00 housing (StandardLine or BasicLine pedestal)
- Optional EXTA2-* keyboard



Warning!

Risk of injury

Lifting the device on your own may lead to injury.

Do not attempt to lift the device on your own. Use a crane or have another person help you.



Warning!

Proper installation on the floor

It is the installer's responsibility to select a suitable location with sufficient strength to hold the equipment. It is the installer's responsibility to select the proper screws based on the installation conditions.

3.3.2

Preparing for Pedestal Installation

For floor mounting, the preferred installation option uses PEDESTAL-XX00-* with either 3 or 4 cable glands. The pedestal is shipped with a pre-installed rotating coupling with four bolts and a PE wire, which is attached to the pedestal tube.

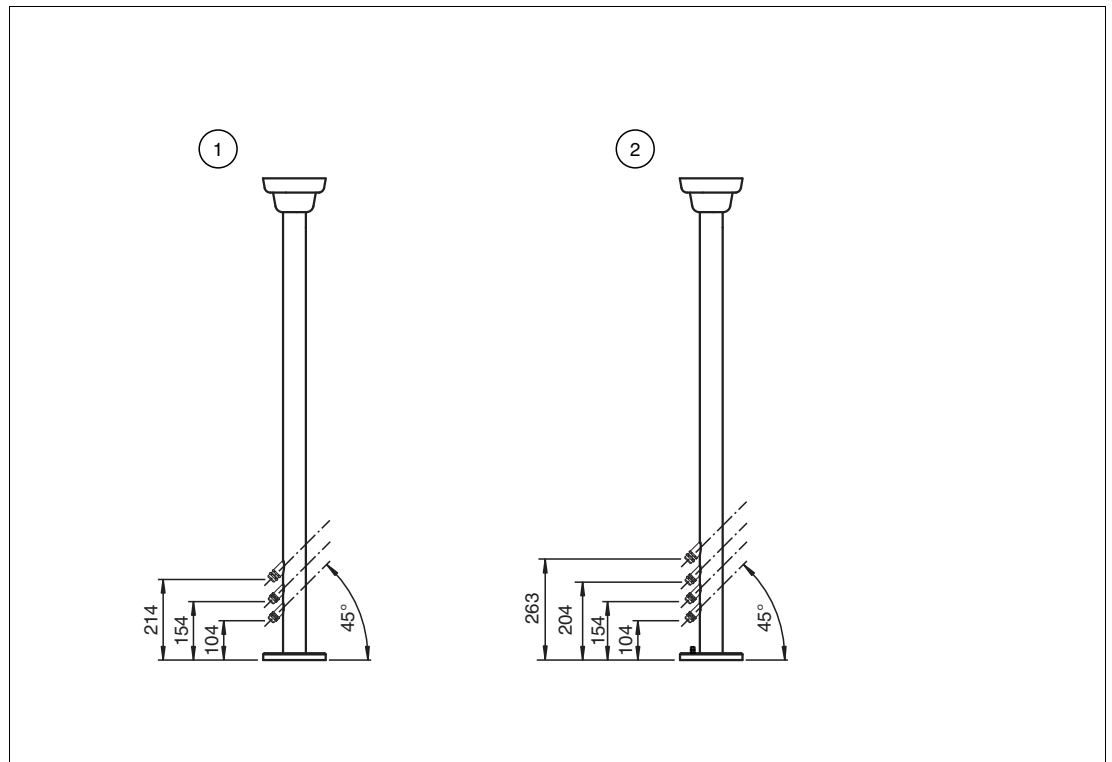


Figure 3.4 Pedestal with optional 3 or 4 cable glands

1	PEDESTAL-XX00-124-3-304-TRN-N0 with 3 cable glands
2	PEDESTAL-XX00-124-4-304-TRN-N0 with 4 cable glands

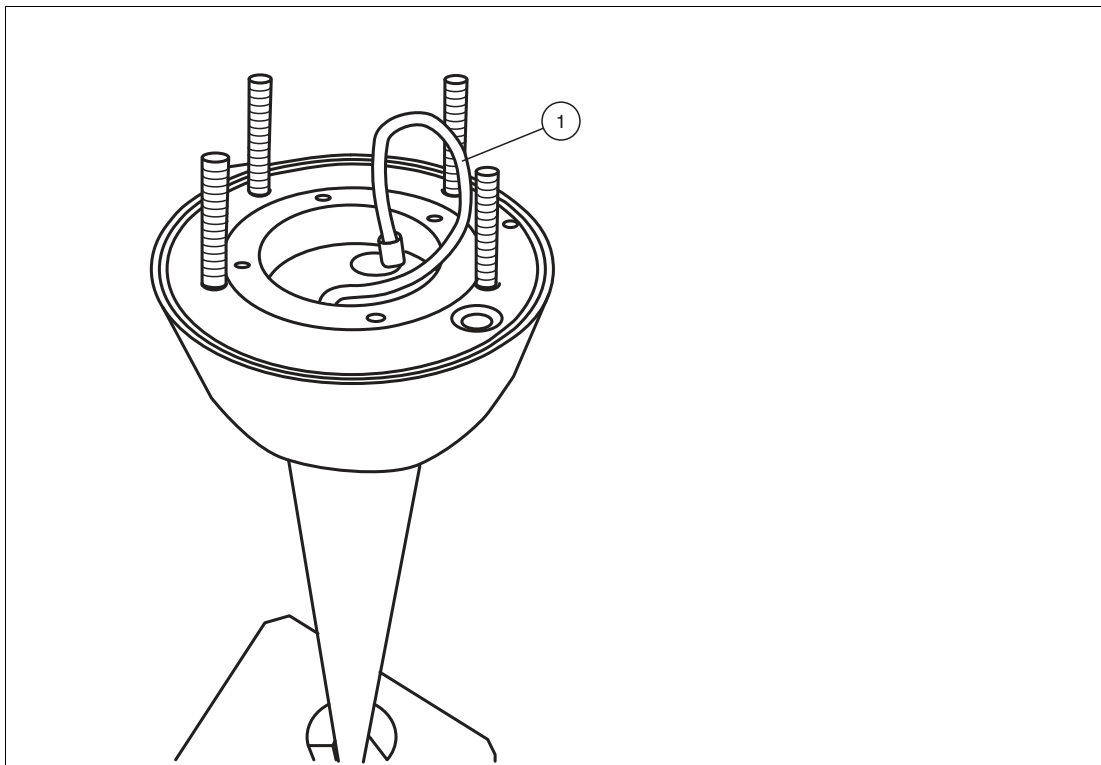


Figure 3.5 Pedestal with PE wire

1 PE wire

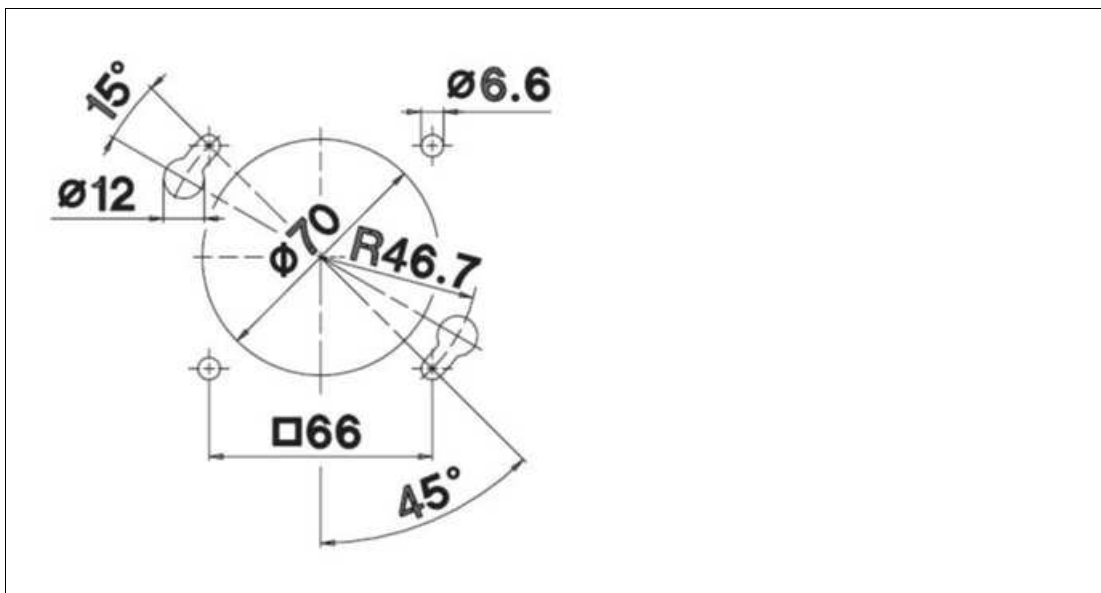
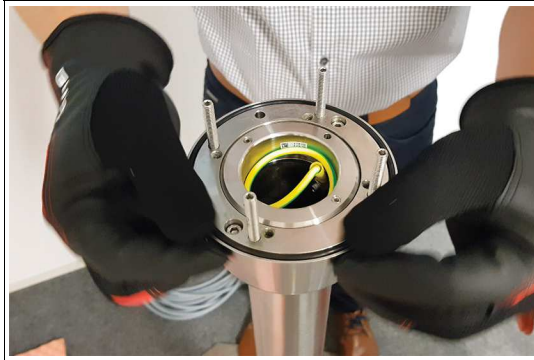


Figure 3.6 Pedestal adapter hole pattern



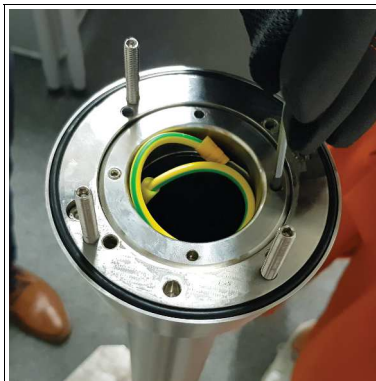
Preparing the Pedestal for Connection to the Housing

1. Align the pedestal so that the cable glands point away from you.
2. The pedestal must be firmly screwed to the floor.
3. Bend the PE wire with a max. radius of 20 mm and place it within the pedestal tube.
4. Place the O-ring and sealant into the channel of the coupling.



Adjusting the Rotation of the Coupling

1. Loosen the worm screws in the inner ring with a hexagon socket wrench.



2. Use an appropriate tool to open the locking ring.



3. Adjust the ease of rotation for your application.
4. Tighten the worm screws in the inner ring with a hexagon socket wrench.

3.3.3 Mounting the Housing onto the Pedestal



Warning!

Risk of injury

Lifting the device on your own may lead to injury.

Do not attempt to lift the device on your own. Use a crane or get another person to help you.



Warning!

Risk of injury

While the device is resting on the pedestal and the nuts have not yet been fixed to the screws, the device may tip over and fall off the pedestal, become damaged, and cause injury.

Make sure to prevent the housing from tipping over by **securing it manually** (e.g., holding on to it) until the nuts have been firmly attached to the screws and the housing is securely attached to the pedestal.

Required Components

- Prepared pedestal that is properly secured to the floor
- VisuNet GXP pre-assembled in an AG-XX00 housing

Required Installation Tools

- 8 mm socket wrench for attaching PE hardware and housing screws
- 10 mm flat wrench for nuts on pedestal set screws
- Open-ended wrench for cable glands (cable gland installation tool)
- Safety gloves
- Loctite® Threadlocker Blue 243®



Attaching Housing to Pedestal

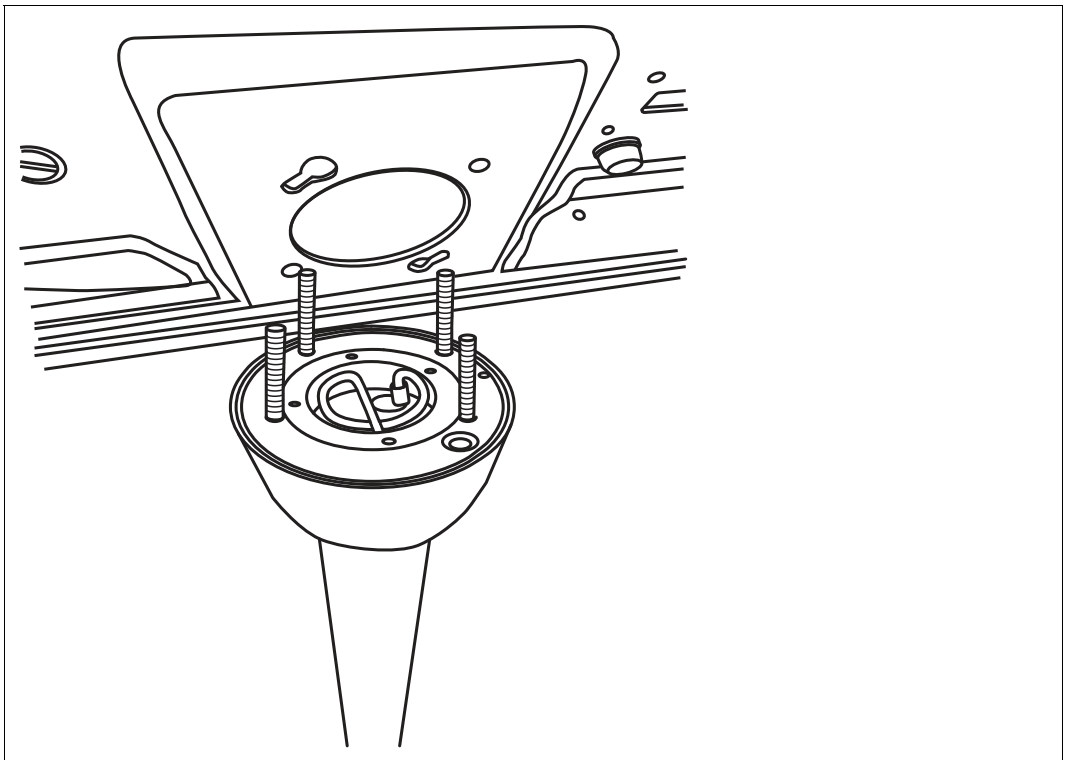
1. Align the pedestal bolts to the hole pattern on the bottom of the housing by rotating the pedestal coupling 90° in relation to the cable glands at the bottom of the pedestal.
2. Carefully place the housing face down on an even, cushioned surface.
3. Remove all screws from the back of the housing.
4. Carefully turn the housing so that the display is facing up.
5. Pull on both lower corners of the display bezel until the display extends away from the housing.

- Slide the display panel about 8 mm to the left to lock the panel mechanism that secures the display. This will allow you to open the housing quickly and safely after it has been secured to the top of the pedestal and will prevent the outer seal from being clamped.



Figure 3.7 Housing prepared for mounting onto pedestal

- Using a crane or with the help of another person**, place the housing onto the pedestal so that the pedestal bolts align with the keyhole slots and the housing rests on the pedestal. Manually secure the housing the entire time so that the DPU does not fall open.





Warning!

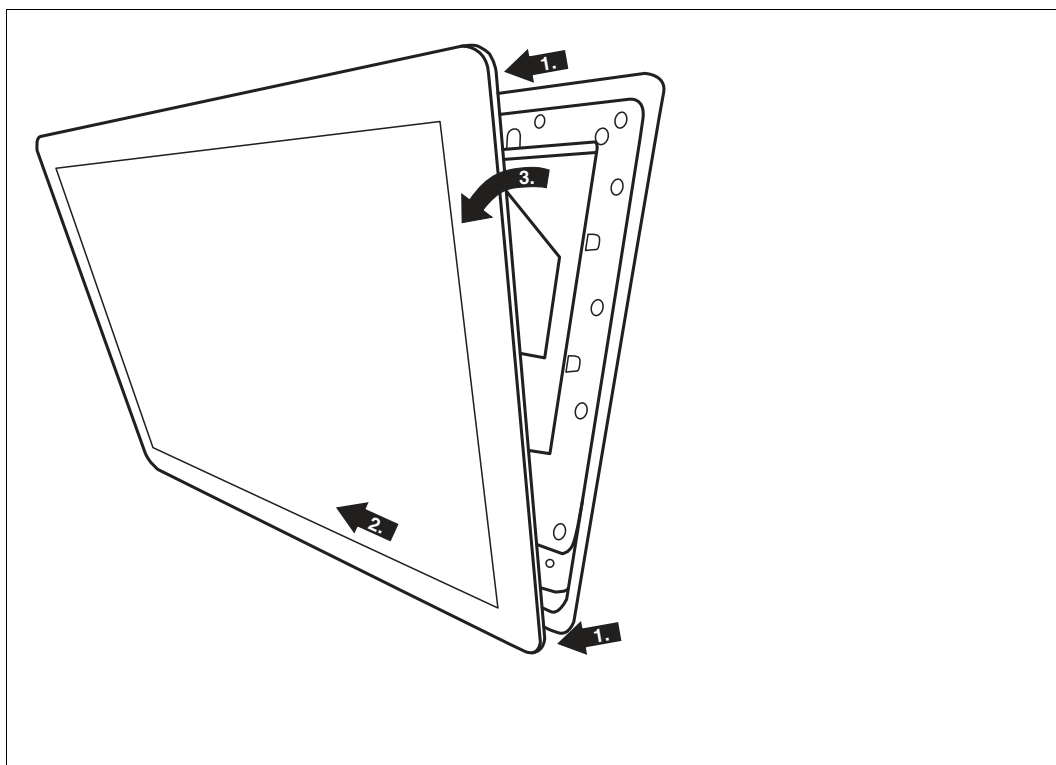
Damage to the PE wire

The PE wire may become damaged if it gets stuck between the pedestal and the housing.

Bend the PE wire in such a way that it does not get stuck between the pedestal and the housing.

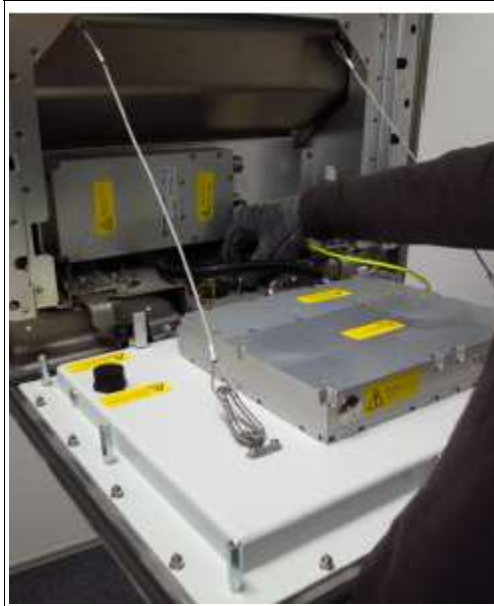
8. While **manually securing the housing** (e.g., by holding on to it), open the housing.

Opening the AG-XX00 Housing

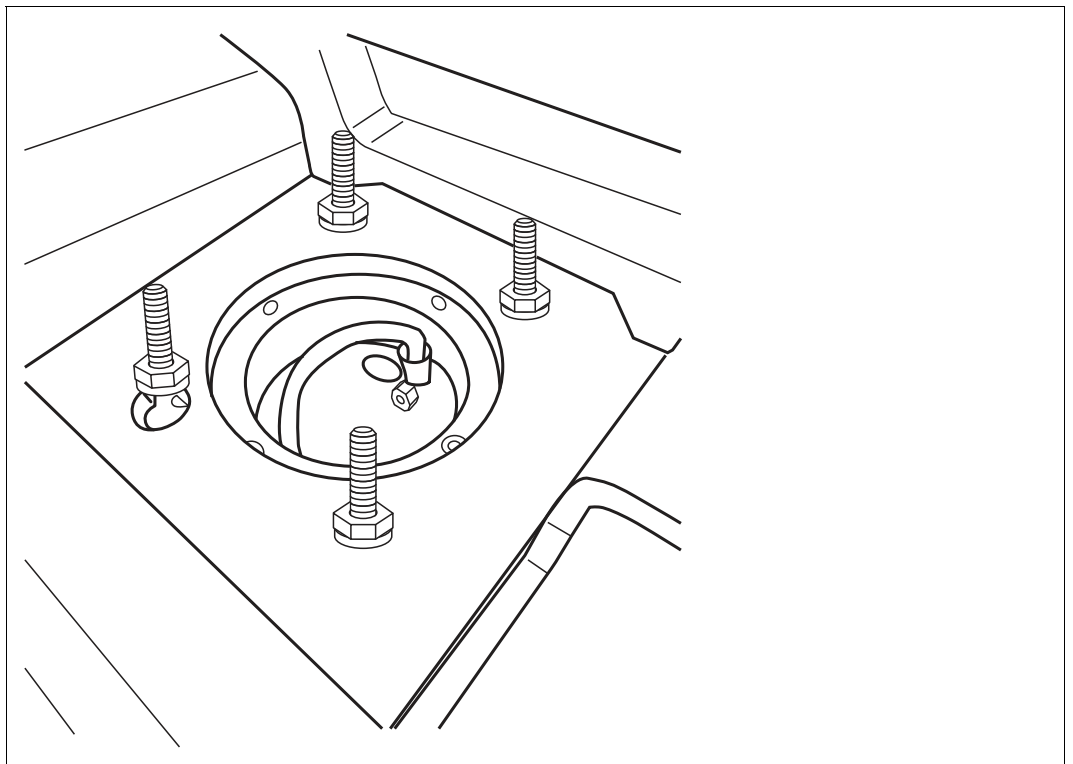


1	Holding the edges of the DPU, slowly and evenly pull the DPU away from the housing.
2	Slide the DPU about 8 mm to the left.
3	Slowly lower the DPU.

9. While continuing to **manually secure the housing** (e.g. by holding on to it), tip the display panel toward you until the display comes to rest at its fully opened position, hanging down at an angle from taut cables.



10. Tighten the M6 U-washers onto the pedestal bolts using a torque of 7.5 Nm.



Note

Optional: Secure the nuts with a medium-strength bolt adhesive such as Loctite® Threadlocker Blue 243®

3.3.4 Installing Cables in the Pedestal



Warning!

Pinched cables

Ensure that cables do not get pinched or damaged during installation.



Note

Refer to the manuals of the individual components for information on electrical installation and wiring.

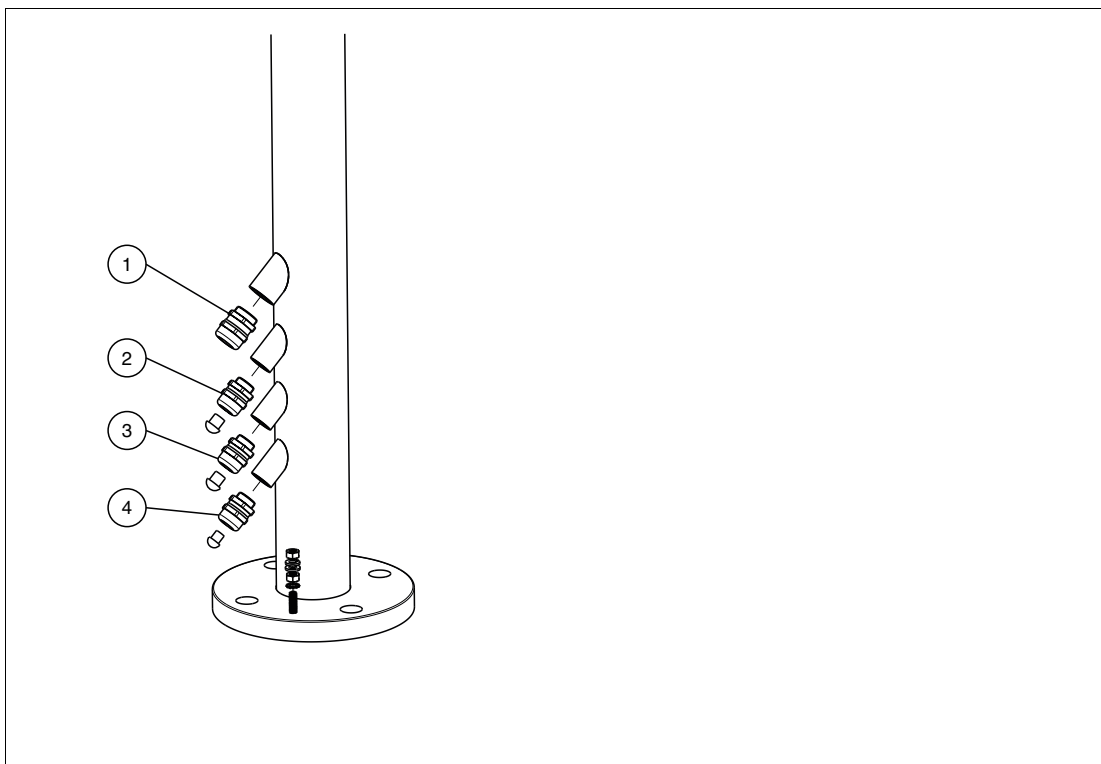
Required Installation Tools

- Cable gland installation tool
- Small cable ties
- Side cutters

All tools should be torque controlled if a torque is specified.

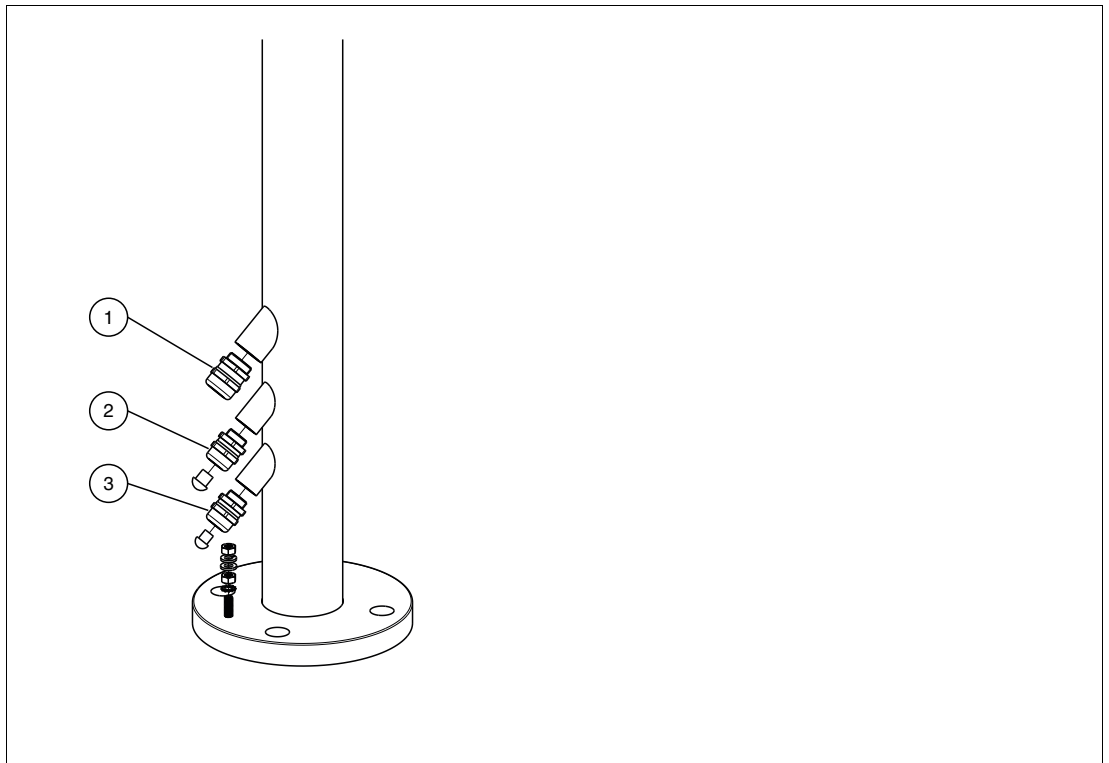
Cable Gland and Opening Overview

Pedestal with Four Cable Glands



1	M20
2	M16
3	M16
4	M16

Pedestal with Three Cable Glands



1	M20
2	M16
3	M16

Opening/Wrench Size, Cable Diameter, and Torque

Opening Size	Wrench Size	Cable Diameter	Torque
M20	24 mm	7 ... 12 mm	10 Nm
M16	20 mm	3 ... 7 mm	5 Nm
M16	20 mm	6 ... 10 mm	5 Nm



Installing Cables

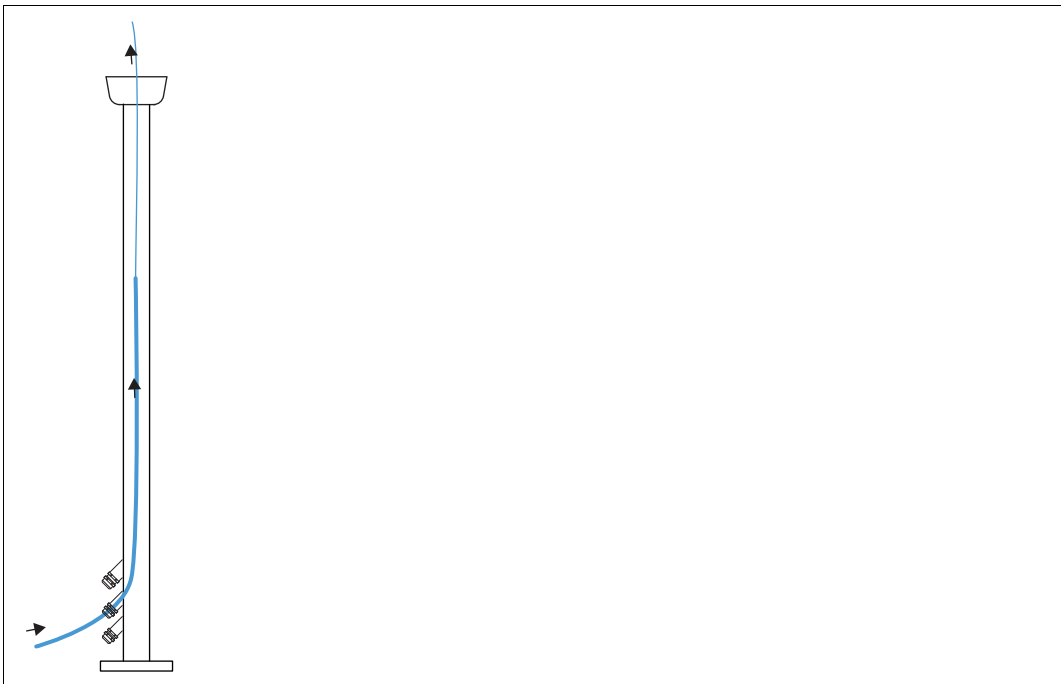
1. Based on how many cables and openings are required (i.e., power and Ethernet), remove the appropriate number of cable glands at the bottom of the pedestal.



2. Put the gland nut and ferrule of the cable gland on the cable and slide them a few meters down the length of the cable away from the pedestal. Keep the nut and ferrule on the cable. They will be tightened in a later installation step.



3. Route the cables through the cable glands, up through the pedestal tube, and out through the top of the pedestal.
4. Pull the cable through the pedestal so that 50 cm of the cable is hanging out of the top of the pedestal.



5. Repeat the preceding steps for each cable that must be routed through the pedestal.
↳ The pedestal is now ready for connection.

3.3.5 Grounding the Housing to the Pedestal

When installing the VisuNet GXP system, always ensure that all components are properly grounded, including housing and mounting parts (e.g., pedestal and wall bracket) with a cable diameter of at least 4 mm² in accordance with IEC 60079-14.

When the AG-XX00 housing option is selected, the VisuNet GXP is shipped with the following PE connections:

- PE wire from the DPU PE stud to the AG-XX00 housing PE stud
- PE wire from the PSU PE stud to the AG-XX00 housing PE stud

If you replace the DPU or PSU, reestablish the PE connection in the same configuration. Tighten the PE hardware to 7.5 Nm.

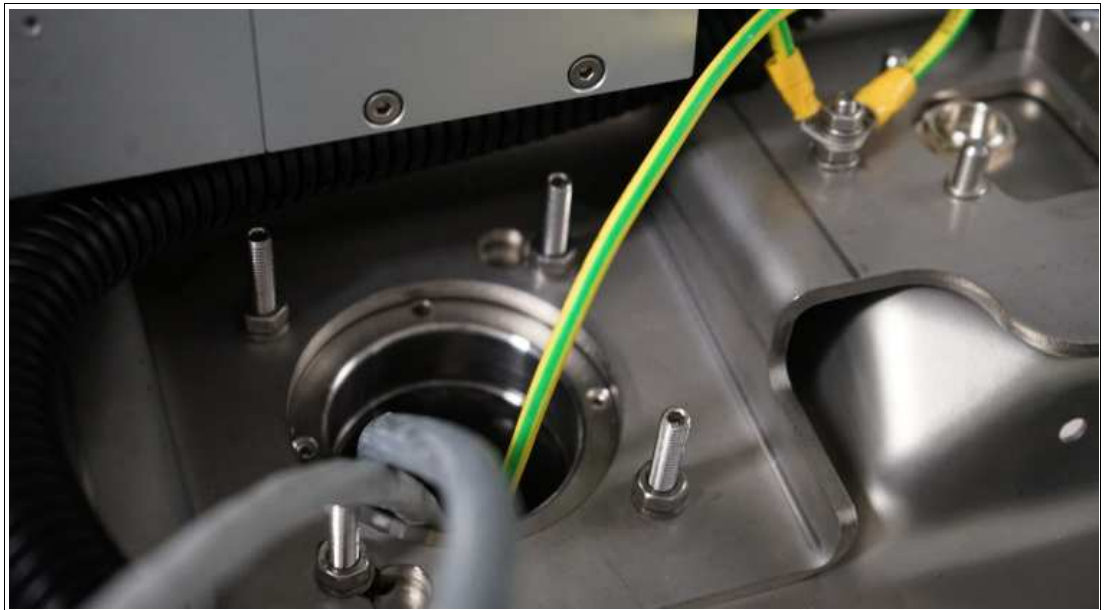


Figure 3.8 Factory-assembled ground connections to the housing



Warning!

Connection to the PE studs
Connection to the PE studs is mandatory.



Warning!

Operator responsibility to verify grounding path
Check the grounding path after completing system installation.



Warning!

Risk of personal injury and equipment damage
Pinched PE wire
Ensure that the PE wire does not become pinched between the pedestal and housing.



Danger!

Explosion hazard from wrong or missing grounding

Wrong or missing grounding can cause sparks. This can ignite the surrounding potentially explosive atmosphere.

- Ground the device. Observe the grounding requirements.
- Ensure that external ground connections exist, are in good condition, and are not damaged or corroded.



Warning!

Risk of electric shock or property damage from inadequate grounding.

If you do not ground the device correctly, this could result in potential equalization currents. These currents could hurt operating personnel or cause property damage.

Ground the device via the grounding bolt. Optionally, ground the device additionally via the terminal X1.1. When both are used, ensure that a correct potential equalization is guaranteed at all times.



Note

Refer to the manuals of the individual components for more information on electrical installation and wiring.



Grounding the AG-XX00 Housing to PEDESTAL-XX00-*

1. Connect the pre-installed PE wire on the pedestal to the PE stud on the AG-XX00 housing.
2. Ground the pedestal with the PE stud on the bottom plate of PEDESTAL-XX00-*.
3. Fasten the hardware with a torque of 7.5 Nm.

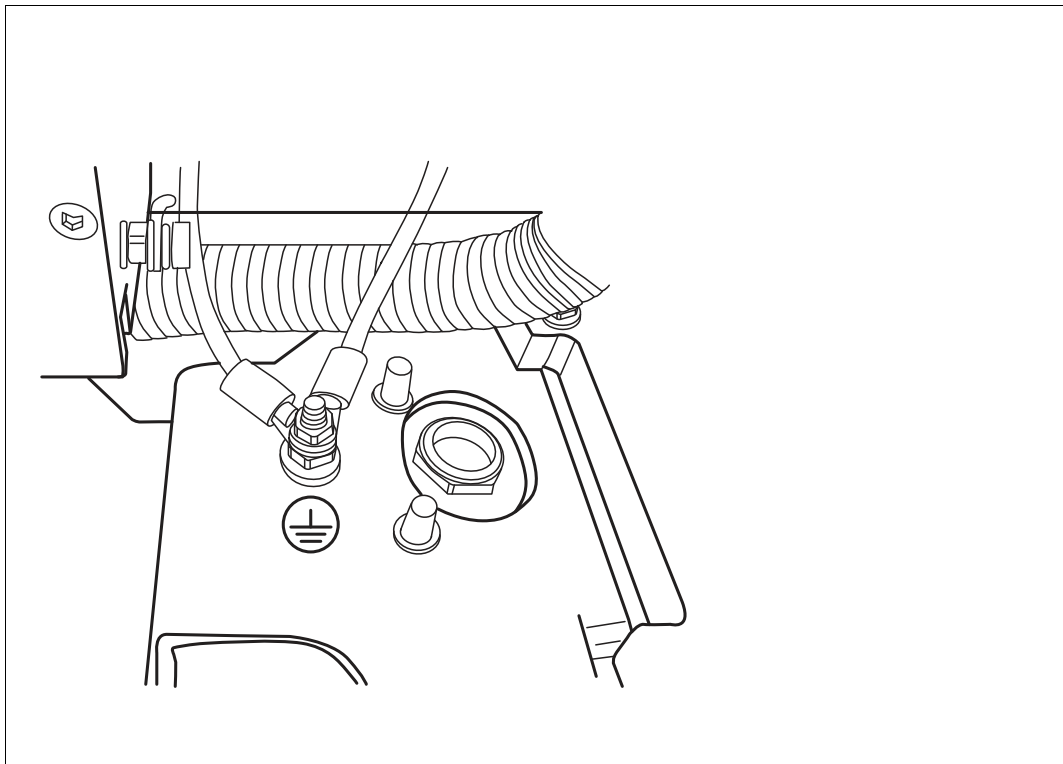


Figure 3.9

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Grounding Concept

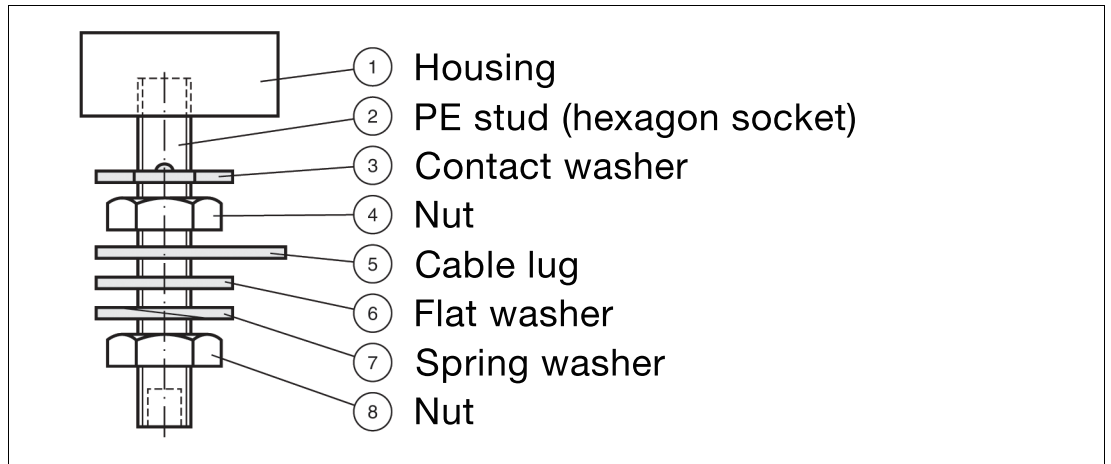


Figure 3.10



Note

For more information on installing the input power and output power cables, refer to the VisuNet GXP PSU manuals.

3.3.6

Wall Mount Installation



Warning!

Proper installation on the wall

It is the installer's responsibility to select a suitable location with sufficient strength to hold the equipment. It is the installer's responsibility to select the proper screws based on the installation conditions.

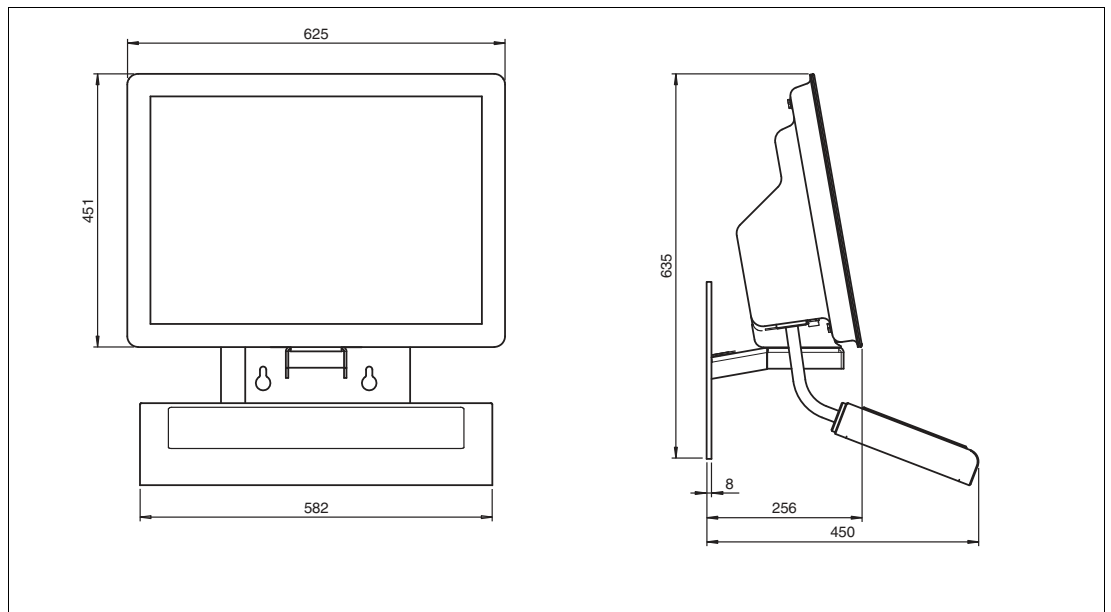


Figure 3.11 VisuNet GXP system H1 housing installed into AG-XX00 housing with additional WALL-BRACKET-XX00-3-304-N0 and EXTA2 keyboard inside an -F housing with -G mounting version (1-Arm for mounting to AG-XX00 housing)

Required Components

- Pre-assembled VisuNet PC- or RM-GXP panel mounted into AG-XX00-* housing (-H1 housing)
- Wall bracket adapter for wall mounting installation compatible with AG-XX00-* housing
- Optional EXTA2-* keyboard/mouse

Required Installation Tools

- 8 mm socket wrench for attaching PE hardware and housing screws
- Safety gloves
- Loctite® Threadlocker Blue 243®



Wall Mounting

1. See the VisuNet GXP Mounting Options datasheet for the hole pattern.
2. Install the bracket to the wall.
3. Connect the PE wire from the field to the PE stud on the wall bracket.
4. Mount the VisuNet GXP to the bolts on the wall bracket. Follow the relevant steps required for mounting the housing to a pedestal. See chapter 3.3.3
5. With the DPU hinged down, route cables through the cable glands in the wall bracket.
 - A cable tie socket could be used to attach the cables.
 - Cables can be routed from the top through the cutout in the wall bracket or from the bottom.



Note

Always consider the allowed bending radii. See the VisuNet GXP TCU/PCU manual for information about wiring the TCU/PCU.

6. Close the housing. See chapter 3.3.11

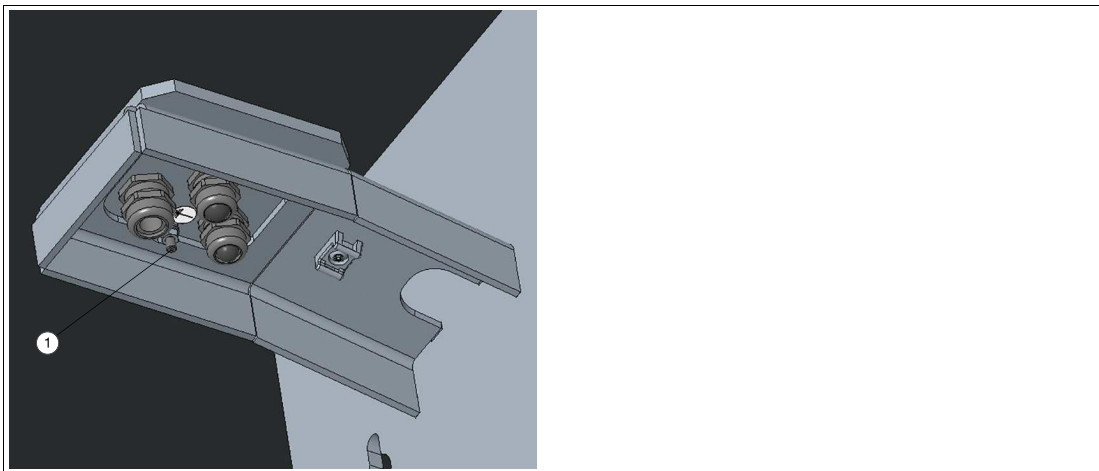


Figure 3.12 Bottom view of wall bracket
1. PE stud



Note

Grounding the AG-XX00 Housing to the Wall Bracket

The AG-XX00 housing is grounded indirectly via the wall bracket. It does not require an additional PE wire between housing and wall bracket.

3.3.7 Mounting the Keyboard

The EXTA2-* is the system keyboard/mouse available with a mounting option for the VisuNet GXP AG-XX00 housing.

Required Components

- VisuNet GXP pre-assembled in AG-XX00 housing
- EXTA2-* keyboard/mouse (screws included)

Required Installation Tools

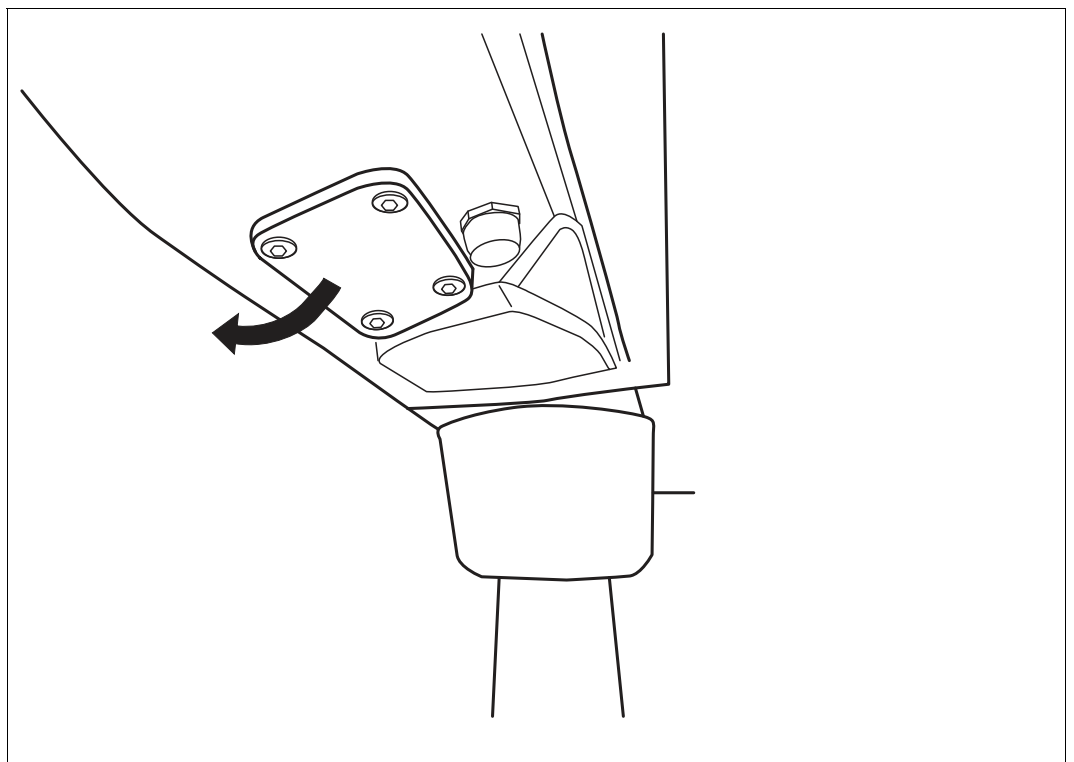
- 3 mm hex wrench for cover screws
- 4 mm hex wrench for keyboard arm
- Loctite® Threadlocker Blue 243®

All tools should be torque controlled if a torque is specified.



Mounting the EXTA2-*-G**-* Keyboard to Housing AG-XX00**

1. Open and remove the four cover plate screws on the bottom-left side of the AG-XX00 housing.



2. Route the keyboard cable with the protective tube through the hole of the AG-XX00 housing.
3. Using the screws and lock washers delivered with the EXTA2-***-G**-* keyboard, attach the keyboard to the AG-XX00 housing.

4. Fasten the four screws with a torque of 6 Nm.



Note

Secure the screws with a medium-strength bolt adhesive, such as Loctite® Threadlocker Blue 243®.

Refer to the TCU/PCU manual for more information on installation and connection.

3.3.8 Mounting the IDM-* Barcode Reader Holder Bracket

SCANNER-HOLDER-U1-XX00-N0 is a holder for the IDM-* handheld barcode reader family. The holder is compatible with the VisuNet GXP AG-XX00 housing.

Required Components

- VisuNet GXP pre-assembled in AG-XX00 housing
- SCANNER-HOLDER-U1-XX00-N0 (screws included)

Required Installation Tools

- Size 8 socket wrench for housing screws
- 3 mm hex wrench for scanner holder screws

All tools should be torque controlled if a torque is specified.

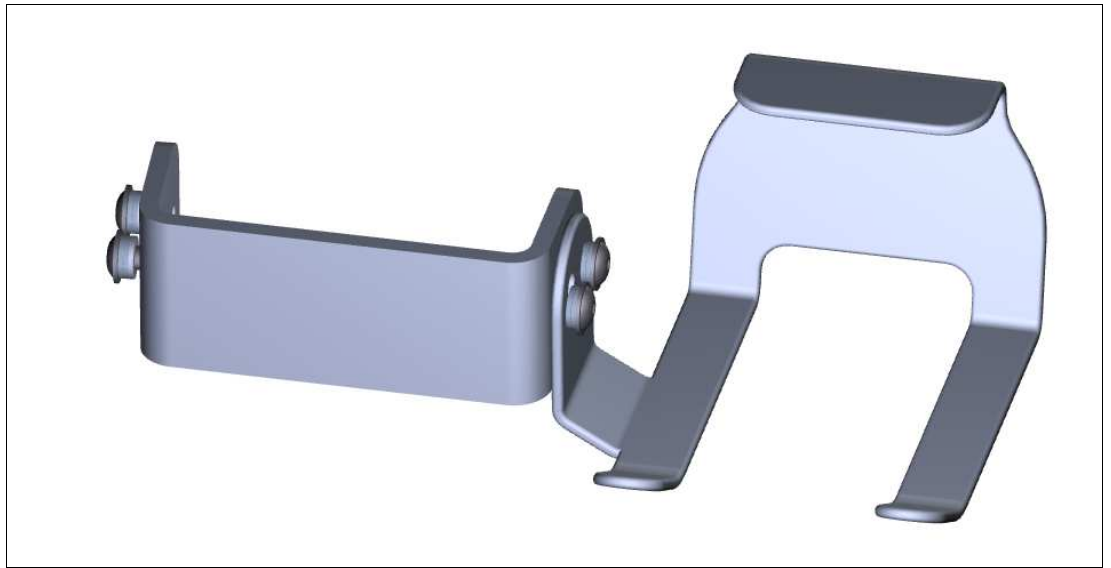
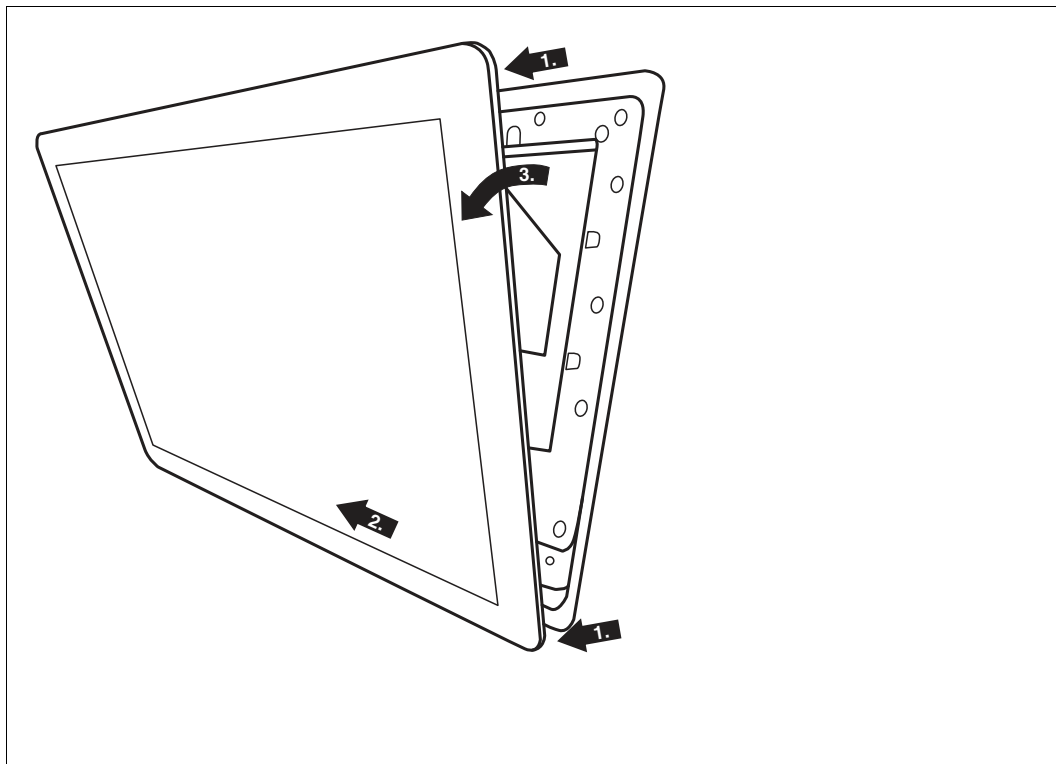


Figure 3.13 SCANNER-HOLDER-U1-XX00-N0 (screws and adapter included)



Mounting SCANNER-HOLDER-U1-XX00-N0 to AG-XX00 Housing

1. Open the housing. See chapter 3.3.3



2. Remove the cover plate on the outside right side of the AG-XX00 housing by opening the wing screw that is located on the inside of the housing.





3. Connect the adapter (included with the scanner holder in delivery) to the scanner holder with the enclosed screws.
4. From the inside-right of the AG-XX00 housing, use a hex key to put the first screw (with lock washer and sealing washer) through one of the drilled holes on the adapter.
5. Press the adapter and scanner holder against the housing from the outside and fasten the screw using a torque of 6 Nm.
6. From the inside of the AG-XX00 housing, use the hex key to put the second screw (with lock washer and sealing washer) through the other drilled hole on the adapter. Fasten the screw using a torque of 6 Nm.

↳ The scanner holder is now attached to the housing.



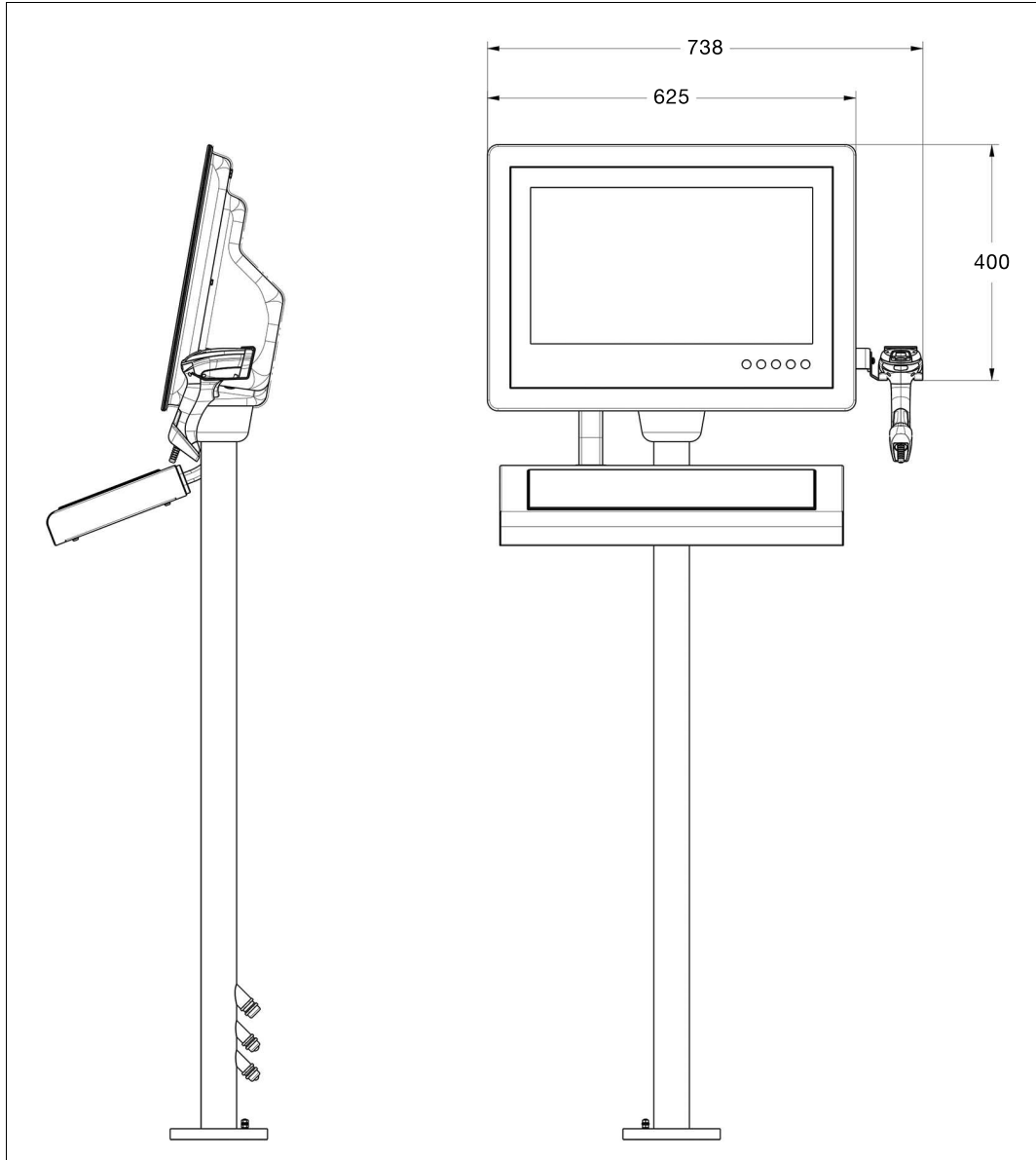


Figure 3.14 Dimensions with scanner holder
Follow the same steps to mount HOLDER-BRACKET-XX00-IDMx61-B-N (#548396). This bracket holds the IDM base station.



Figure 3.15 HOLDER-BRACKET-XX00-IDMx61-B-N (screws and adapter included)

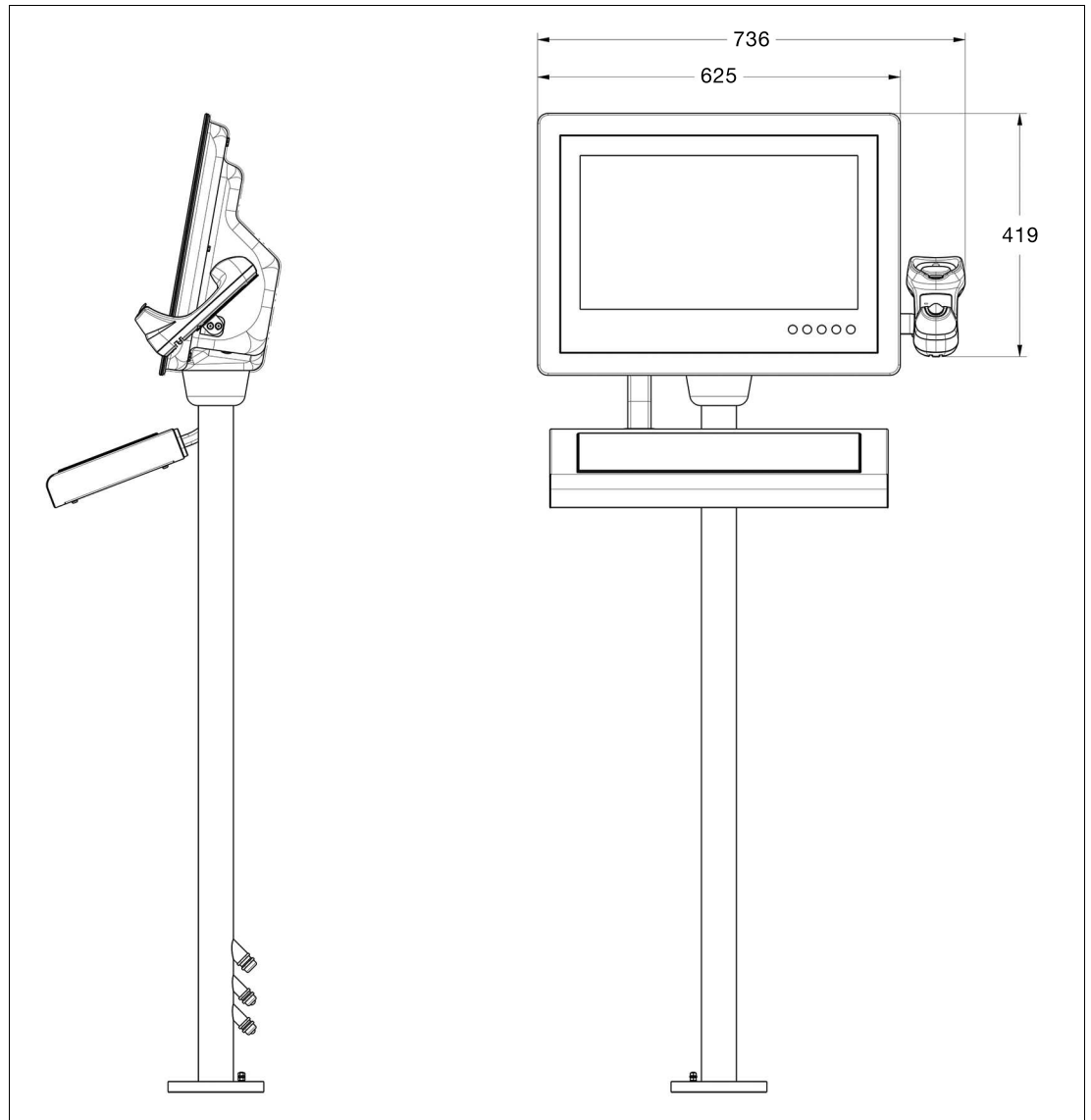


Figure 3.16

3.3.9 Cable Installation for IDM-* Readers and Base Stations

DATL-IDM-DB-S-XX00-N0 and CBL-IDMx60-D-* are used to install IDM-Z1-160-D-1D-J1-*, IDM-160-D-1D-*, IDM-Z1-260-D-2D-J1-S1-N-N0, or IDM-Z1-x61-B-J1-BT-N0 and IDM-x61-* to the VisuNet GXP RM/PC. The cables are compatible with the VisuNet GXP AG-XX00 housing.

Required Components

- S3 or S4 Interface (thin client / PC-unit)
- DATL-IDM-DB-S-XX00-N0
- CBL-IDMx60-D-J1-S-S18-N0 or CBL-IDMx60-D-J1-S-C38-N0
- IDM-Z1-160-D-1D-J1-*, IDM-160-D-1D-*, IDM-Z1-260-D-2D-J1-S1-N-N0, or IDM-Z1-x61-B-J1-BT-N0 and IDM-x61-* in combination with required Bluetooth handheld barcode reader
- Optional Scanner Holder or Holder Brackets

Required Installation Tools

- Flat head screwdriver
- 19 mm socket wrench for counter nut and connector
- Size 2.5 hex wrench for cable tie screws
- Safety gloves

All tools should be torque controlled if a torque is specified.

Cable DATL-IDM-DB-S-XX00-N0



Connector cable for wired 1-D scanner IDM-Z1-160-D-1D-J1-S-*, IDM-160-D-1D-* (S3-Interface required) and 2-D scanner IDM-Z1-260-D-2D-J1-S* (S4-Interface required) 4-wire with ferrules - IDM scanner connection via M12 connector.



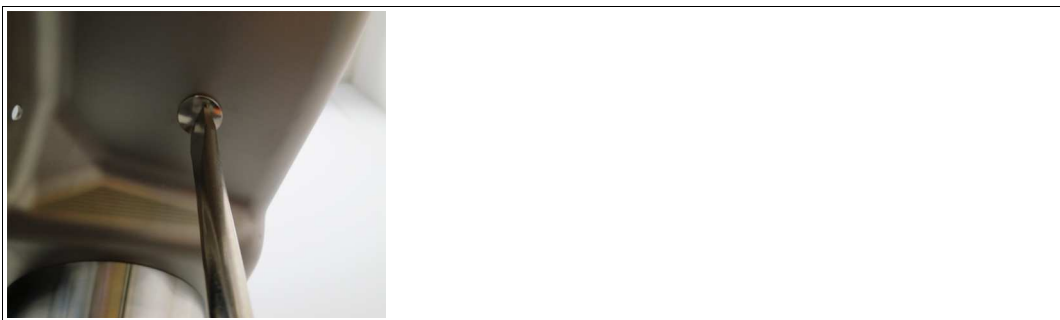
Note

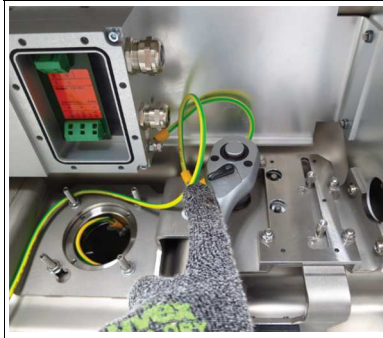
Supports only RS-232 scanner / base station



Installing the Cable DATL-IDM-DB-S-XX00-N0

1. Open the housing. See chapter 3.3.3
2. Remove the plug at the bottom-right side of the housing by holding the screw steady from below with a screwdriver while loosening the screw from above with a wrench.

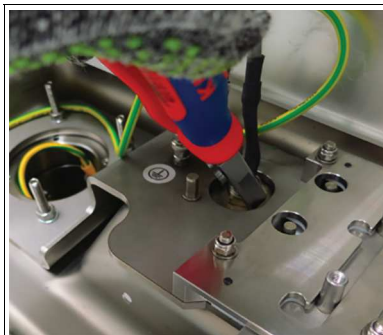




3. Guide the open wire end of the cable DATL-IDM-DB-S-XX00-N0 through the hole.



4. Place the M16 counter nut over the end of the cable.
5. Pull the socket into the housing and tighten it with the M16 counter nut. Tighten the nut with a torque of 5 Nm.



6. Protect the cable from mechanical damage by fastening it with a cable tie.
7. Route the cable through the cable gland on the TCU/PCU. Install the wire ends per the tables below.

Wiring Guide

DATL-IDM-DB-S-XX00-N0 to IDM-Z1-160* and Base Station IDM-Z1-x61-B-N0* Ex i

TCU			Cable		
Terminal	Signal				
	Name	Direction	Assignment	Color coding	Pin M12 connector
Xx.1	Vcc	Supply	Vcc	green	1
Xx.2	GND	Supply	GND	brown	3
Xx.3	-	-	-	-	-
Xx.4	-	-	-	-	-
Xx.5	-	-	-	-	-
Xx.6	RxD	I	TxD	white	4
Xx.7	-	-	-	-	-
Xx.8	-	-	-	-	-

DATL-IDM-DB-S-XX00-N0 to IDM-Z1-260*

TCU			Cable		
Terminal	Signal				
	Name	Direction	Assignment	Color coding	Pin M12 connector
Xx.1	Us	Supply	Vcc	green	1
Xx.2	RxD	I	TxD	white	4
Xx.3	-	-	-	-	-
Xx.4	-	-	-	-	-
Xx.5	GND	Supply	GND	brown	3
Xx.6	-	-	-	-	-
Xx.7	-	-	-	-	-
Xx.8	-	-	-	-	-

Note

For detailed information on electrical installation, refer to the TCU/PCU and IDM* barcode reader manuals.





Connecting the IDM-* Barcode Reader

Connect the plug of the barcode reader to the socket and tighten it firmly.

Coded Plug and Socket

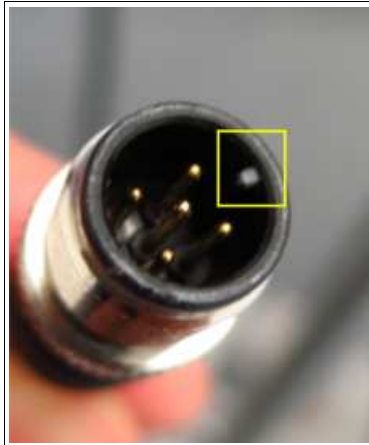


Figure 3.17 The plug and socket are coded. Match the coding on the plug and socket before tightening.

3.3.10 Cable Installation for PSCAN-D-* Handheld Readers

The DATL-PSCAN-D-XX00-N0 cable is used to install PSCAN-D-* handheld barcode readers to the VisuNet GXP RM/PC. The cable is compatible with the VisuNet GXP AG-XX00 housing.

Required Components

- DATL-PSCAN-D-XX00-N0 cable

Required Installation Tools

- Flat head screwdriver
- 19 mm socket wrench for counter nut and connector
- Cable tie

All tools should be torque controlled if a torque is specified.



Installing DATL-PSCAN-D-XX00-N0

1. Open the housing. See chapter 3.3.3
2. Remove the plug at the bottom-right side of the housing by holding the screw steady from below with a screwdriver while loosening the screw from above with a wrench.

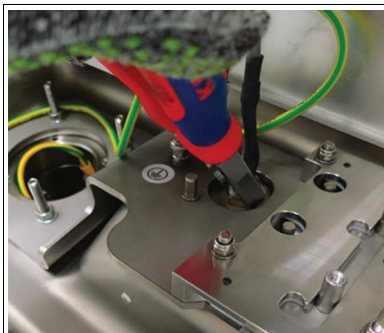




3. Guide the open wire end of the cable through the hole.



4. Place the M16 counter nut over the end of the cable.
5. Pull the socket into the housing and tighten it with the M16 counter nut. Tighten the nut with a torque of 5 Nm.



6. Protect the cable from mechanical damage by fastening it with a cable tie.
7. Route the cable through the cable gland on the TCU/PCU. Install the wire ends per the table below.

Wiring Guide

PSCAN-D* Handheld Reader Ex i

TCU			Cable		
Terminal	Signal		Assignment	Color coding	Pin M12 connector
	Name	Direction			
Xx.1	Us	Supply	Us	yellow	4
Xx.2	GND	Supply	GND	brown/gray	1/5
Xx.3	-	-	-	-	-
Xx.4	TxD	O	RxD	green	3
Xx.5	-	-	-	-	-
Xx.6	RxD	I	TxD	white	2
Xx.7	-	-	-	-	-
Xx.8	-	-	-	-	-



Note

For detailed information on electrical installation, refer to the TCU/PCU and PSCAN-D-* barcode reader manuals.



Connecting the PSCAN-D-* Barcode Reader

Connect the plug of the barcode reader to the socket and tighten it firmly.

Coded Plug and Socket

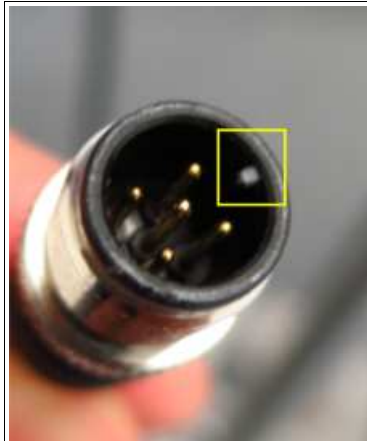


Figure 3.18 The plug and socket are coded. Match the coding on the plug and socket before tightening.

3.3.11 Closing the Housing



Warning!

Risk of injury

Fingers can be injured when the display is moved backed into the housing.

Wear protective gloves and hold the display panel by the frame when moving it.



Warning!

Risk of cable damage

The cables may become damaged during the closing process.

Properly fasten all cables, place them in a protective tube, and push the tube into the pedestal before closing the housing.



Closing the AG-XX00 Housing

1. Slowly lift the DPU into an upright position until the bolts touch the inner frame of the housing.
2. Slide the DPU about 8 mm to the right until the display panel bolts line up with the cutout holes on the inner frame of the housing.
3. Slowly and evenly push both lower corners of the DPU into the housing.

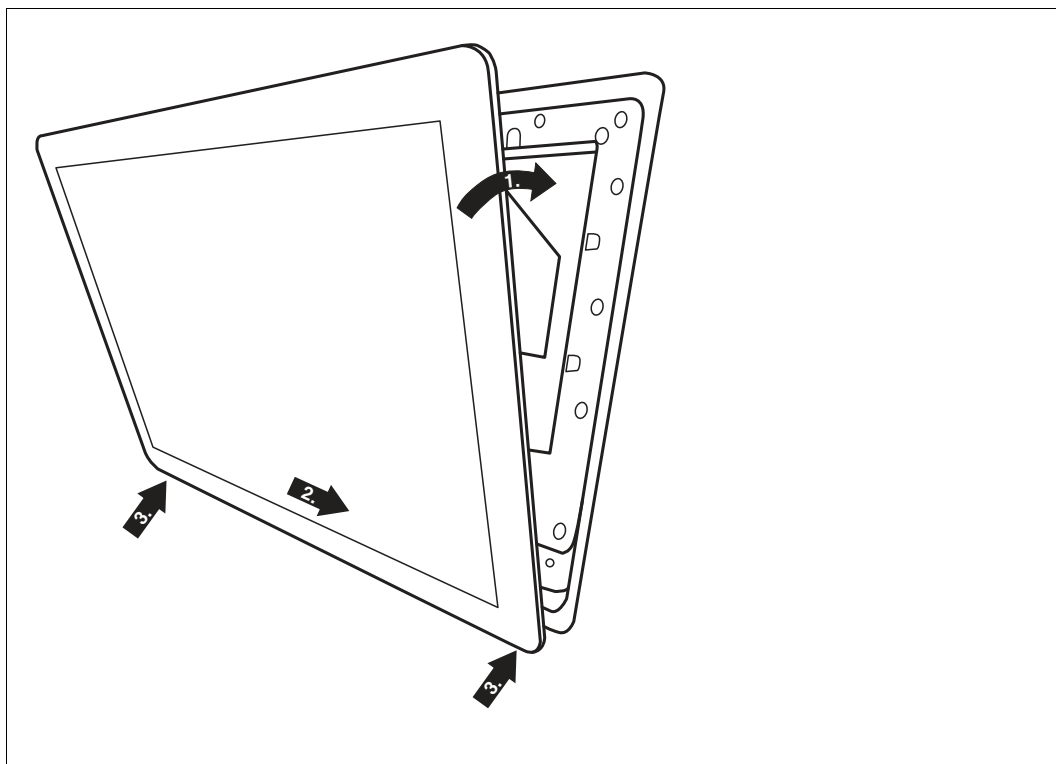
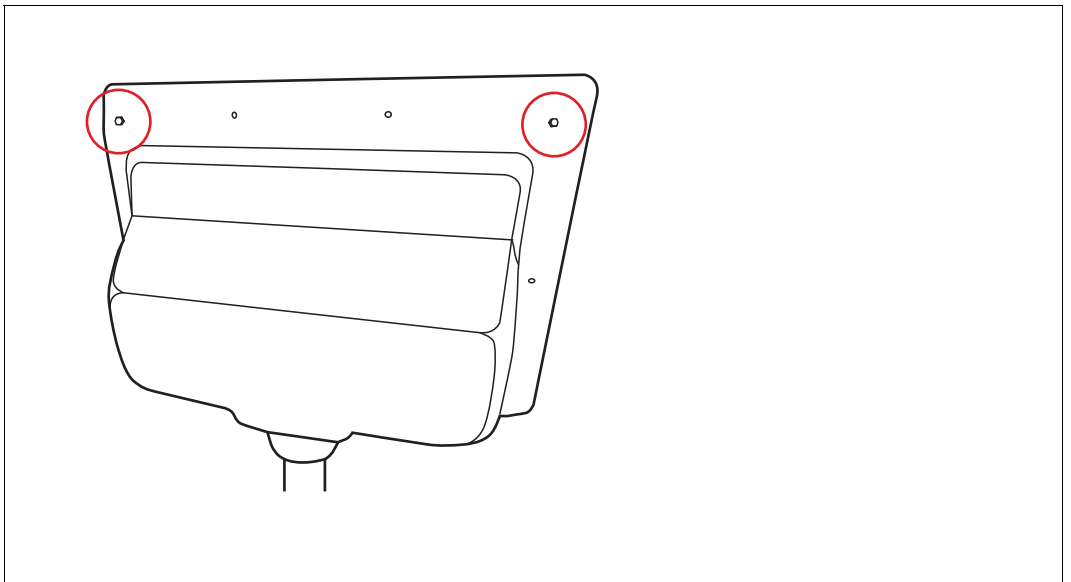




Figure 3.19 Display panel bolts lined up with the cutout holes on the inner frame

4. Press the DPU and housing together at the top end of the system. From the back of the housing, place one screw in the hole at the upper-left corner and one screw in the hole at the upper-right corner of the housing.



5. Tighten the two screws with a torque of 6 Nm.
6. Repeat the previous step with all other screws, following a diagonal pattern.

3.3.12 Dismounting the Display Unit

If repairs are required, the DPU can be dismounted from the TCU/PCU and replaced.



Warning!

Danger of Explosion

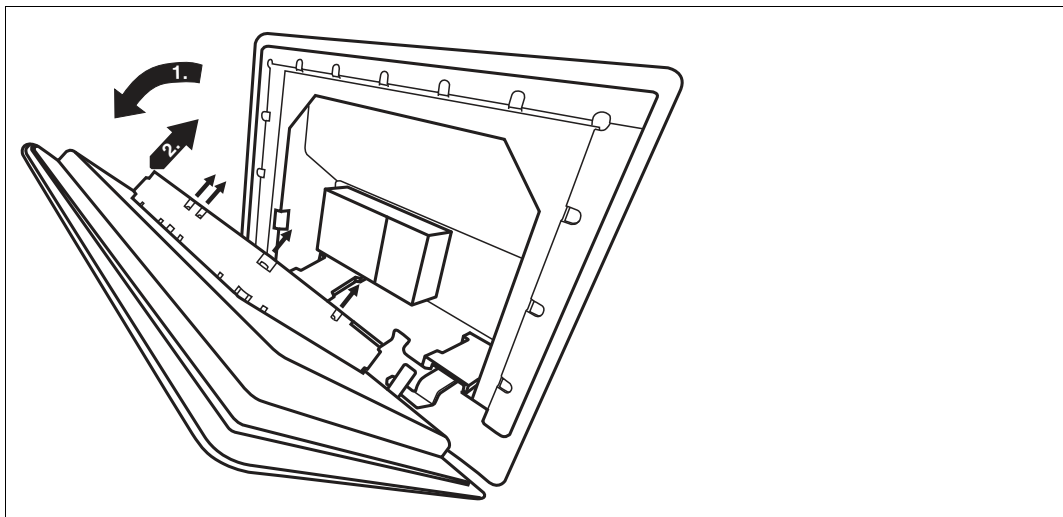
An ignition may be triggered if the TCU/PCU is still energized when its terminal compartment is opened.

Turn off the TCU/PCU and wait 3 minutes after de-energizing before opening the terminal compartment.

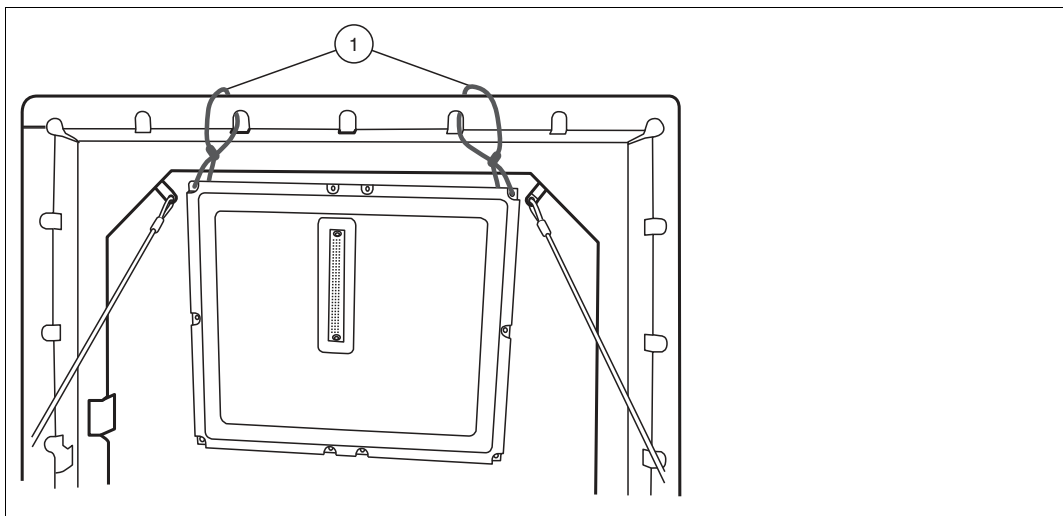


Dismounting the DPU

1. Open the AG-XX00 housing (1). See chapter 3.3.3. After de-energizing (see above), open the terminal compartment of the TCU/PCU. Remove all 10 screws from the back of the TCU/PCU and take it off of the DPU (2).



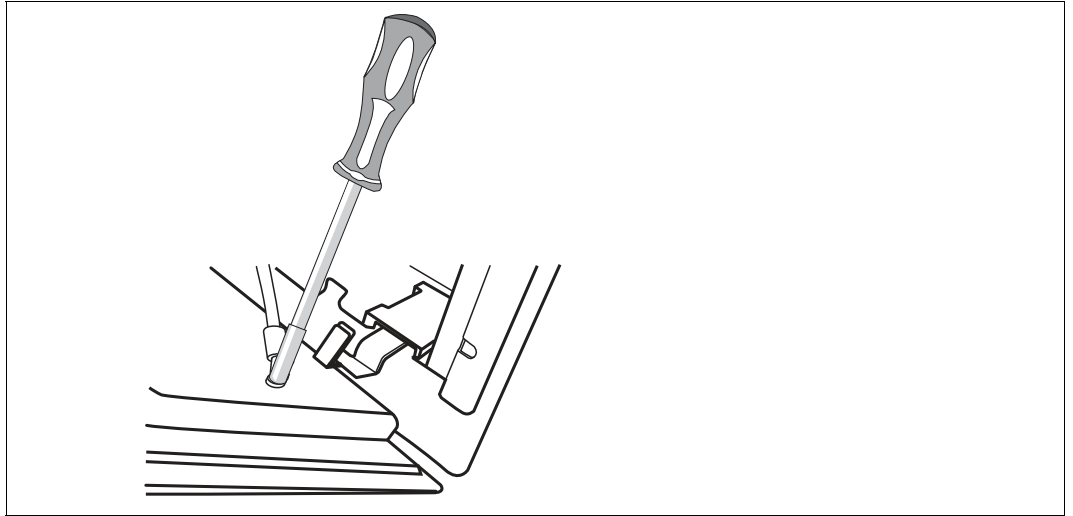
2. To simplify replacement of the DPU, temporarily hold the TCU/PCU in place using cable ties. Put cable ties through both mounting holes at the top-left and top-right corners, and hang the TCU/PCU from the top of the housing frame.



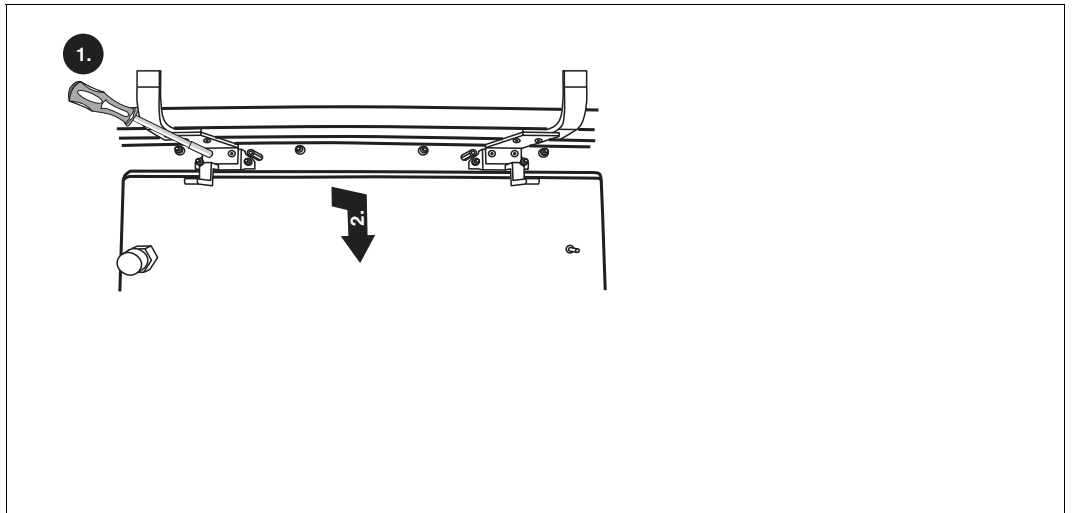
- 1 Cable ties

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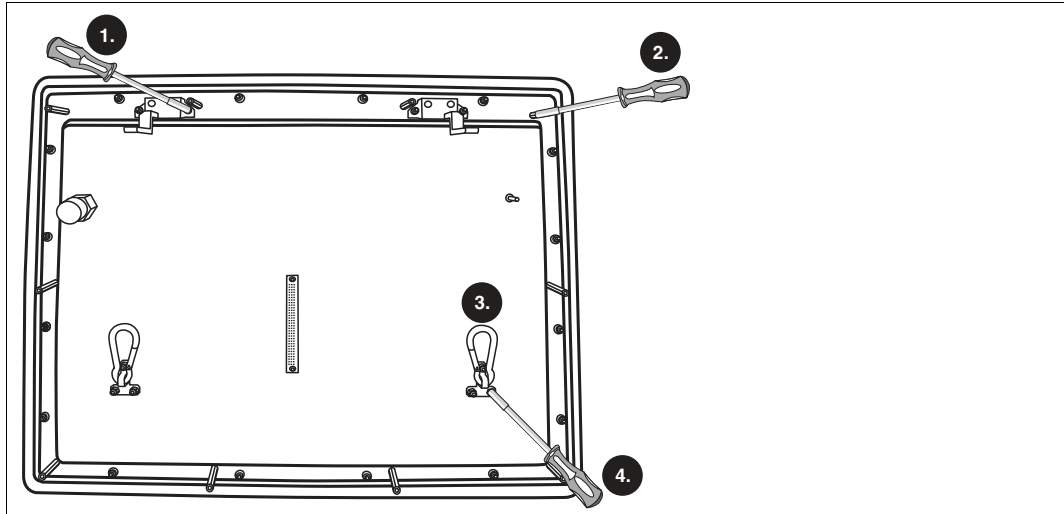
3. Remove the PE wire from the PE stud on the back of the DPU.¹



4. Now the DPU can be removed from the housing. During the removal process, hold the DPU steady so it cannot fall down, preferably with the help of another person. Place the DPU on an even, cushioned surface after removal. To remove the DPU from the housing, take the cables out of the carabiners and remove the 4 screws that hold the angle brackets to the DPU (1). Remove the DPU from the housing (2).



5. Remove the two brackets (1) and the 10 bolts at the top, sides, and bottom of the DPU (2). Remove the carabiners (3) from their brackets, take out the 6 bracket screws (4), and remove the carabiner brackets.



Note

To mount the new DPU, perform the above steps in reverse.

3.3.13 Panel Mount Installation



Warning!

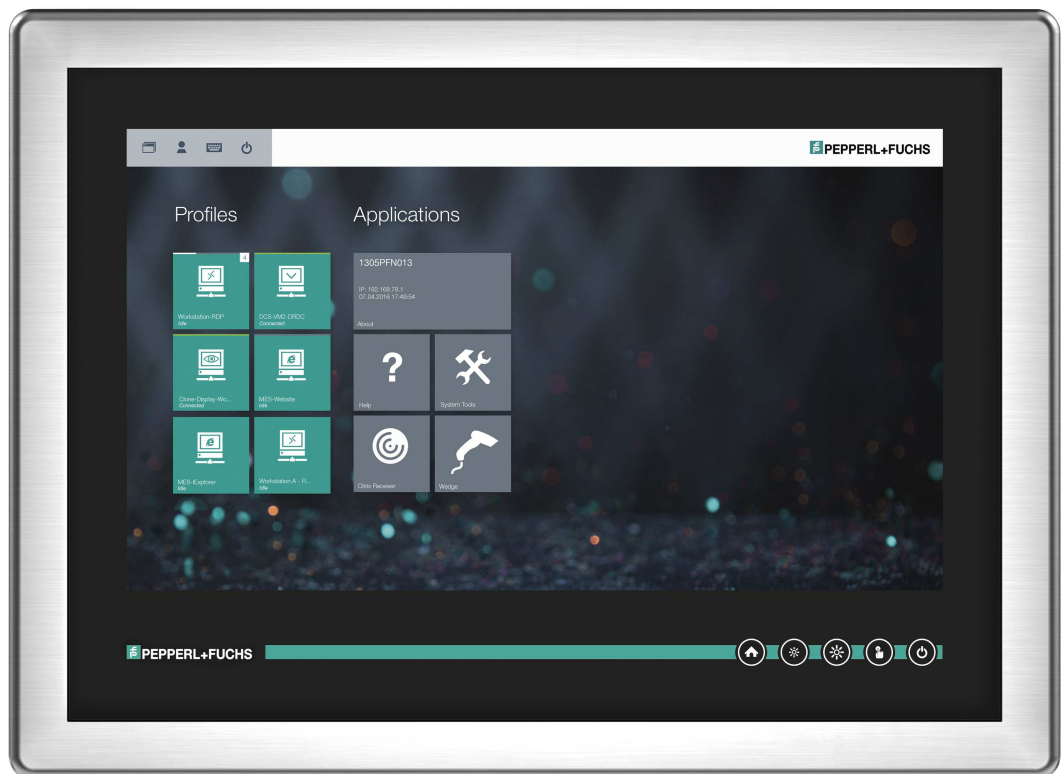
Proper installation

It is the installer's responsibility to select a suitable location with sufficient strength to hold the equipment. It is the installer's responsibility to select the proper screws based on the installation conditions.



Warning!

To assure proper sealing the minimum wall thickness of 1.2 mm needs to be kept and it is absolutely necessary to use the stiffener frame included in the kit for panel mounting. The maximum wall thickness is 10 mm.



Required Components

- VisuNet GXP prepared for panel mounting (S1 option)
- Kit for panel mounting (KIT-PM-XX00-22F-304-N0, #548004), which includes 2 x L-shaped panel mount brackets (1 left, 1 right), 1 x rectangular stiffener frame, 14 x M5 x 25 socket head cap screws (torque 1.8 Nm), and 14 x M5 lock nuts (torque 4 Nm)

Required Installation Tools

- 8 mm socket wrench for mounting nuts
- 4 mm hex wrench for panel mount brackets
- Loctite® Threadlocker Blue 243®

All tools should be torque controlled if a torque is specified.

If the Panel Mount Option (S1) is chosen, you will receive a pre-assembled package consisting of a DPU, a TCU/PCU, and a PSU.

The kit for panel mounting can be ordered separately. For ordering details, see chapter 4.1.



Note

There are two different mounting brackets—they are not identical items.

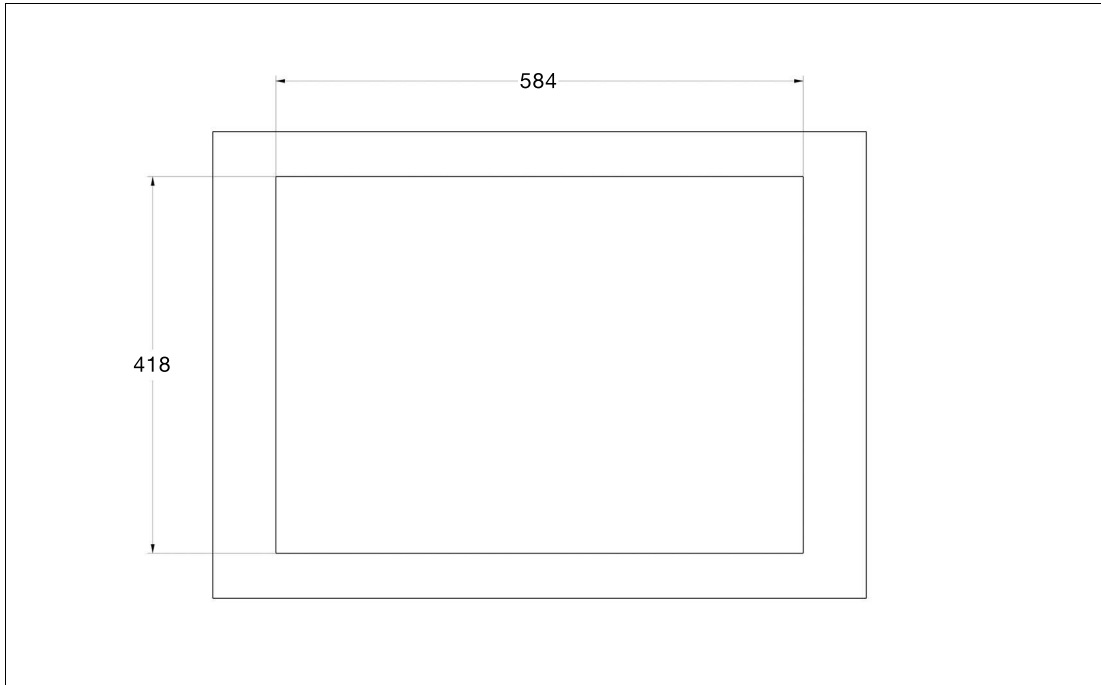
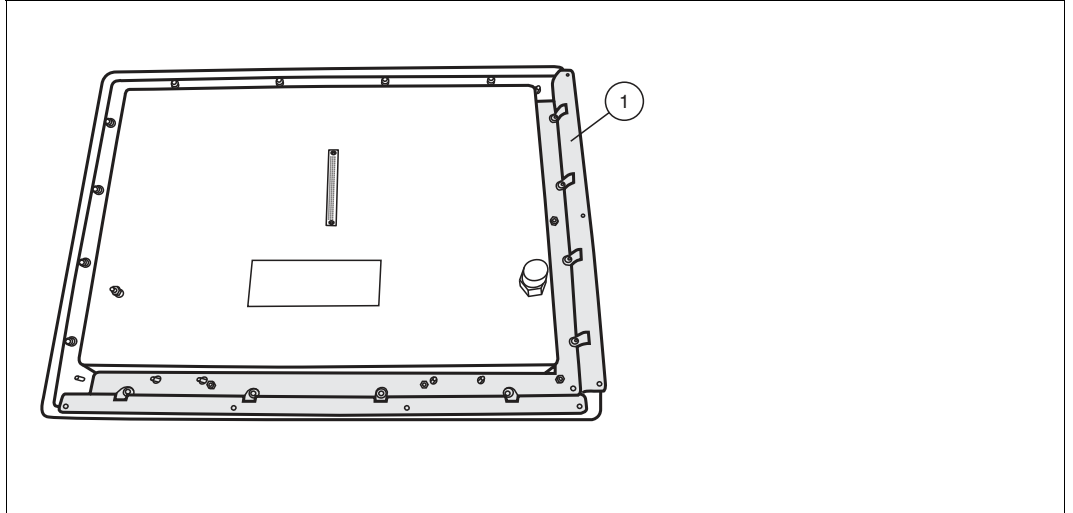


Figure 3.20 Cut out dimensions for panel mounting the VisuNet GXP 21,5"



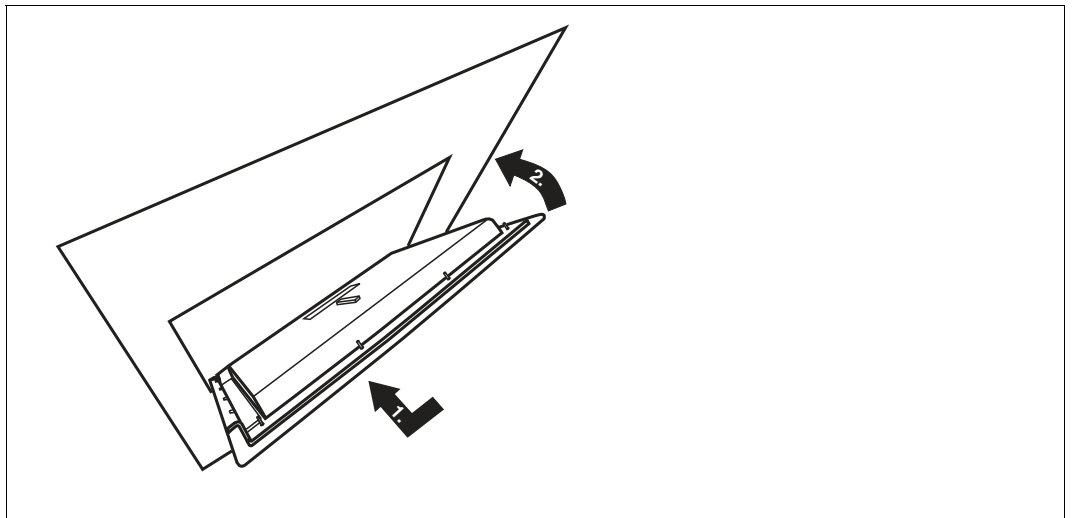
Panel Mounting the GXP

1. Mount the first L-shaped bracket to the back of the display unit. Use the bracket that has four extra holes at the bottom.

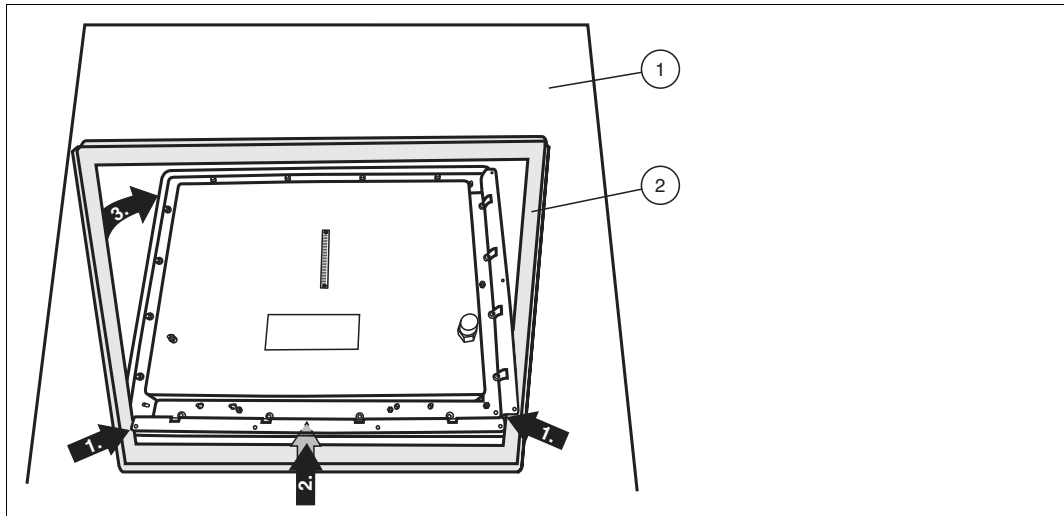


- 1 L-shaped bracket with extra holes at the bottom

2. From the front, place the panel in the cabinet cutout hole (1) and move it to an upright vertical position (2).

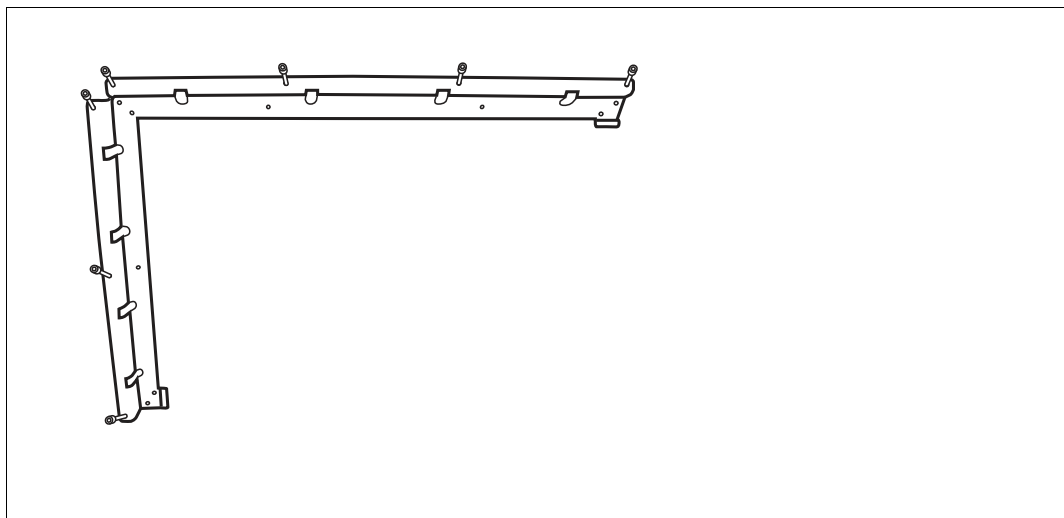


3. From inside the cabinet, add the stiffener frame, position it (1) ... (3), and press it against the back of the cabinet wall.

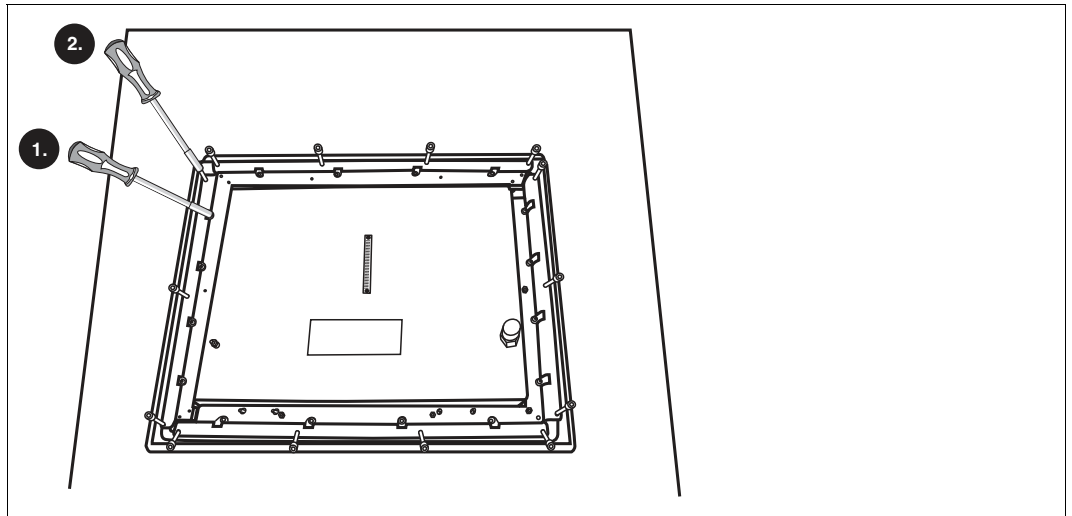


- 1 Cabinet wall (back)
- 2 Stiffener frame

4. Prepare the other L-shaped bracket with the mounting screws.



5. Mount the prepared L-shaped bracket to the display unit housing (1), then affix both L-shaped brackets with all screws to the stiffener frame (2).



6. Tighten all screws in a criss-cross pattern using 1.8 Nm torque for the 14 x M5 x 25 socket head cap screws and 4 Nm for the 10 x M5 lock nuts.

Flush Mount Installation

The VisuNet GXP can also be flush mounted. With this mounting option (-NN), no bezel is installed, and the monitor is recessed into the installation surface. This mounting must be done from the back of the housing, and the fitting is kept inside the surface of the wall. The cutout dimensions and stud location must match those on the GXP exactly.



Figure 3.21 VisuNet GXP flush mounted



Note

For more options and accessories, contact your local Pepperl+Fuchs sales representative.

4 Appendix

4.1 Accessories

Mounting and Installation

Item Number	Type Code	Description
548003	PEDESTAL-XX00-124-3-304-TRN-N0	Swivel pedestal, floor mount Compatible with AG-XX00-* housing 3 cable glands
548306	PEDESTAL-XX00-124-4-304-TRN-N0	Swivel pedestal, floor mount Compatible with AG-XX00-* housing 4 cable glands
548071	WALL-BRACKET-XX00-3-304-N0	Adapter for wall mounting installation Compatible with AG-XX00-* housing
548004	KIT-PM-XX00-22F-304-N0	Kit for panel mounting Compatible with 21.5 inch DPU (option 22F)

Peripherals

Item Number	Type Code	Description
Contact sales for individual configuration	EXTA2 product family	Keyboard and mouse system Mounting options for Zone 1/21 hazardous locations
Contact sales for model selection	IDM-Z1-x60-D-*	Corded 1-D and 2-D handheld reader for Zone 1/21
Contact sales for model selection	IDM-Z1-x61-M-*	Bluetooth 1-D and 2-D handheld reader for Zone 1/21
548333	CBL-IDMx60-D-J1-S-S18-N0	Cable for connecting IDM-Z1-x60-D-* barcode readers to the VisuNet GXP Length: 1.8 m
548334	CBL-IDMx60-D-J1-S-C38-N0	Cable for connecting IDM-Z1-x60-D-* barcode readers to the VisuNet GXP Length: 3.8 m
548267	SCANNER-HOLDER-U1-XX00-N0	Scanner holder compatible with AG-XX00 housing
548396	HOLDER-BRACKET-XX00-IDMx61-B-N	Bracket to mount IDM-Z1-x61-B-J1-BT-N0 base station to AG-XX00 housing



Note

For more options and accessories, contact your local Pepperl+Fuchs sales representative.

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- Surge Protection
- Wireless Solutions
- Level Measurement

Industrial Sensors

- Proximity Sensors
- Photoelectric Sensors
- Industrial Vision
- Ultrasonic Sensors
- Rotary Encoders
- Positioning Systems
- Inclination and Acceleration Sensors
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