VisuNet GXP

RM-GXP1100-19S
RM-GXP1200-19S
PC-GXP1100-19S
PC-GXP1200-19S

Manual



Your automation, our passion.

PEPPERL+FUCHS

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1 History of the Manual 4
2 Introduction 5
2.1 Content of this Document 5
2.2 Target Group, Personnel 5
2.3 Symbols Used 6
3 Product Description 7
3.1 Overview 7
3.2 Technical Specifications 9
3.3 Typecode 13
3.4 Dimensions 15
3.5 Disposal 17
3.6 Nameplates and Labels 17
4 Mechanical Installation 18
4.1 General Installation Requirements 18
4.2 Installation Tools 18
4.3 System Installation 18
4.3.1 Preparation for System Installation 18
4.3.2 Preparing the GXP Panel/Housing 20
4.3.3 Preparing the StandardLine Pedestal 22
4.3.4 Attaching the Pedestal to the Housing 26
4.3.5 Opening the Housing 29
4.3.6 Grounding the Housing to the Pedestal 31
4.3.7 Cable Routing of the DC Power Supply Unit 32
4.3.8 Mounting the Keyboard 33
4.3.9 Mounting the Scanner Holder to the AG1 Housing 35
4.3.10 Installing the Handheld 1-D/2-D Code Reader 41
4.4 Replacing a VisuNet EX1 with the 19-Inch VisuNet GXP 47
4.4.1 Removing VisuNet EX1 from AG1 Housing 48
4.4.2 Installing VisuNet GXP into AG1 Housing 50
4.5 Panel Mount Installation 53
4.6 Wall Mount Installation 56
5 Maintenance 59
6 Appendix 60
6.1 Glove Compatibility 60
6.2 Accessories 60

2026-08

1 History of the Manual

The following editions of the manual have been released:

Version	Comments
03/2022	- Addition UKEx - Adaption EXTA4 keyboard - Minor additional information - Addition IDM Zone 2/22 portfolio mechanical installation
08/2023	- Additonal System installation information (protection from UV and sun-light) - Additional "Maintenance" chapter
11/2023	- Addition Elkhart Lake Thin Client options - Minor corrections
03/2024	- Addition Elkhard Lake PC options - Minor corrections
07/2024	- Addition IGEL OS option for Remote Monitors - Removal Div. 2
10/2025	- Removal UKEx - Addition of reference table for display unit and computing unit code - Update of cable routing instructions - Minor Corrections

2026-08

2 Introduction

2.1 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 further documentation on the Internet at www.pepperl-fuchs.com.

Note

For specific device information such as the year of construction, scan the QR code on the device. As an alternative, enter the serial number in the serial number search at www.pepperl-fuchs.com/device-information.

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
- Functional safety manual
- Cybersecurity documentation
- Other documents

2.2 Target Group, Personnel

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

Only appropriately trained and qualified personnel may carry out mounting, installation, commissioning, operation, maintenance, and dismounting 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.

2.3 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.



Tip

This symbol brings an useful tip to your attention.



Example

This symbol provides an example of the issue described.



Action

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

3 Product Description

3.1 Overview

The Pepperl+Fuchs VisuNet Remote Monitors GXP RM-GXP1100-19S*/RM-GXP1200-19S* and PC-GXP-1100-19S*/PC-GXP-1200-19S* are ATEX/IECEx certified devices intended for use in explosion-hazardous areas, such as Zones 1/21 and 2/22.

The VisuNet GXP serves as a thin client- or PC-based operator workstation that uses standard Ethernet technology to transmit process information from a process control or manufacturing execution system into explosion-hazardous areas.

The assembly consists of several core devices that can be exchanged by the customer:

- The display units DPU1100-* and DPU1200-* are display panels with optional 10-finger multi-touch sensors. The displays and touch-sensors are optically bonded with the hardened front glass.
- The thin client units (TCU) TCU1100-* and TCU1200-* are computing units running the latest Pepperl+Fuchs VisuNet RM Shell firmware or optional pre-installed IGEL OS 12 or IGEL OS 11. They allow connectivity to various host systems in the non-explosion-hazardous area using standard Ethernet technology. The computing units PCU1100-* and PCU1200-* run an open Microsoft® Windows® operating system, allowing installation of any software, such as SCADA packages.
- The power supply units PSU1100-* and PSU1200-* provide the above-listed devices with 24-V DC power. They are available as DC and AC versions.

As the standard mounting option, a bezel is available that allows the panel to be mounted into a system housing or cabinet that must be ordered separately. The panel can also be flush-mounted into a cabinet from behind.

VisuNet GXP Panel Components



Figure 3.1 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
5	**RFID Reader** (optional): supports LEGIC, MIFARE and other media (see RFID20-* manual)

VisuNet GXP Pedestal Mounted with Keyboard/Mouse



Figure 3.2 VisuNet GXP system mounted in AG1 Housing with Pedestal5 -1458-* and EXTA4-* keyboard/mouse (ordered separately)

Note

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

For more mounting options and information, see the technical data "Mounting Options 'StandardLine' and 'BasicLine'".

3.2 Technical Specifications

Technical Data RM-GXP*

Hardware	
Processor	T3: Intel® Atom™ Apollo Lake E3930 Alternative: Intel® Atom™ Atom Apollo Lake E3940[1] T4, T5: Intel® Atom Elkhart Lake x6211E
RAM	T3-, T4-, T5-: 4 GB TJ-, TI-: 4 GB
Mass storage	T3-: 32-GByte industrial grade MLC SSD T4-, T5-: 64-GByte industrial grade MLC SSD TJ-, TI-: 64-GByte industrial grade MLC SSD

1. see nameplate: 2021 alternative, processor cannot be selected

Software	
Operating system	T3-: VisuNet RM Shell 5.x (based on Microsoft® Windows® 10 IoT Enterprise LTSC 2019 (x64)) T4-: VisuNet RM Shell 6 (based on Windows® 10 Enterprise LTSC 2021) T5-: VisuNet RM Shell 6 (based on Windows® 11 IoT Enterprise LTSC 2024) **Optional:** TJ-: IGEL OS 12 (based on Linux, pre-installed without licence) TI-: IGEL OS 11 (based on Linux, pre-installed without licence)

Technical Data PC-GXP*

Hardware	
Processor	P3, P4: Intel® Atom™ Apollo Lake E3940 P5, P6, P7, P8: Intel® Elkhart Lake x6245RE
RAM	P3, P4, P5, P6, P7, P8: 8 GB
Mass storage	P3, P5, P7: 240-GB industrial grade SSD P4, P6, P8: 480-GB industrial grade SSD

Software	
Operating system	P3, P4: Windows® 10 IoT Enterprise 2019 LTSC (x64) P5, P6: Windows® 10 Enterprise LTSC 2021 P7, P8: Windows® 11 IoT Enterprise LTSC 2024

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

Display	
Type:	Liquid Crystal Display (LCD) with LED back-light
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
Reading angle:	horizontal: 170° vertical: 160°
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-* technical data)

Interface	
Interface type	1 x Ethernet 100/1000BASE-TX (Ex e) or 1 x fiber optic 1000BASE-SX (Multimode) or 1 x fiber optic 1000BASE-LX (Single mode) 1 x USB 2.0 (Ex e, service port) 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) **Optional:** "interface 3": 1 x barcode reader interface for wired 1-D readers IDM-160-D*, IDM-Z1-160-D-*, IDM-Z1-164-D-* and base station IDMx61-B-* and IDM-Z1-x61-B-* "interface 4": 1 x barcode reader interface for wired 2-D reader IDM-Z1-260-D-* (Ex i) and IDM-Z1-264-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

Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2013 (industrial locations) non-Bluetooth products only

RoHS	
Directive 2011/65/EU (RoHS)	EN 50581:2012-09

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: Panel: anodized aluminum (TCU, PSU), powder-coated aluminum (DPU) External: Bezel: stainless steel AISI 304 (1.4301) System housing: stainless steel AISI 304 (1.4301), ground smooth, typical surface roughness Ra = 1.6 µm
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 panel with AC: 524 mm x 453 mm x 137 mm panel with AG1 housing: 582 mm x 490 mm x 224 mm

Note

For more technical information, refer to the manuals and instruction manuals of 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-*
- Computing Units PCU1100-J1-* and PCU1200-J2-*

Marking

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

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

INMETRO
The current certificate can be found at https://www.pepperl-fuchs.com/ on the respective product page under the ‘Approvals’ tab.

CCC
The current certificate can be found at https://www.pepperl-fuchs.com/ on the respective product page under the ‘Approvals’ tab.

2026-08

PESO
The current certificate can be found at https://www.pepperl-fuchs.com/ on the respective product page under the ‘Approvals’ tab.

Revision Code	Description
Rev.: 1.1	Additional Processor Option Intel® Atom™ Atom Apollo Lake E3940* for Remote Monitors

3.3 Typecode

Reference table for display code **-GXP1***-cde-*-*****-**-X

	**-GXP1* BVS 17 ATEX E 036 X	DPU1*00-J* BVS 16 ATEX E 084 X	Description
Display variants			
C	22F	22F	21.5” (16:9) Full HD display
	19S	19S	19” (5:4) SXGA display
	***	***	For further display variants see DisplayUnit codes in manual and BVS 16 ATEX E 084 X
Touch			
d	N	EN	Anti-glare security glass, no touch screen
	C	EC	Anti-glare security glass, projective capacitive multi-touch screen
	*	**	For further touch variants see DisplayUnit codes in manual and BVS 16 ATEX E 084 X
Front keys			
e	1	F1	5x capacitive system front keys
	2	F2	5x capacitive system front keys & Bluetooth interface
	3	F3	5x capacitive system front keys and Bluetooth interface and RFID Reader
	*	**	For further front keys see DisplayUnit codes in BVS 16 ATEX E 084 X

Reference table for computing unit **-GXP1***-*****-*-ghij-**-X

	**-GXP1* BVS 17 ATEX E 036 X	*CU1*00-J* BVS 16 ATEX E 083 X	Description
Interfaces			
g	E	ET	1x 1000BASE-T LAN Ex e, 1x USB Ex e, 2x USB Ex i
	S	SX	1x 1000BASE-SX Multi-Mode Fiber Optic Ex, 1x USB Ex e, 2x USB Ex i
	L	LX	1x 1000BASE-LX Single-Mode Fiber Optic Ex, 1x USB Ex e, 2x USB Ex i
	*	**	For further Interfaces see Computing Unit codes in manual and BVS 16 ATEX E 083 X
Interfaces Module A			
h	N	NN	No additional interface module
	B	BR	1x TTY Ex i for Barcode Reader (PSCAN-D / EX Dragon) and Base station (PSCAN-B)
	1	S1	RS232 Ex e
	2	S2	RS485 Ex e
	3	S3	1x RS232 Ex i for Scanner interface IDM (1D wired) and Base station
	4	S4	1x RS232 Ex i for Scanner interface IDM (2D wired)
	5	S5	1x RS232 Ex i for miscellaneous devices and peripherals
	E	ET	Ethernet module
	*	**	For further Modules A see Computing Unit codes in manual and BVS 16 ATEX E 083 X
Interfaces Module B			
i	N	NN	No additional interface module
	B	BR	1x TTY Ex i for Barcode Reader (PSCAN-D / EX Dragon) and Base station (PSCAN-B)
	1	S1	RS232 Ex e
	2	S2	RS485 Ex e
	3	S3	1x RS232 Ex i for Scanner interface IDM (1D wired) and Base station
	4	S4	1x RS232 Ex i for Scanner interface IDM (2D wired)
	5	S5	1x RS232 Ex i for miscellaneous devices and peripherals
	E	ET	Ethernet module
	*	**	For further Modules B see Computing Unit codes in manual and BVS 16 ATEX E 083 X

2026-08

	**-GXP1* BVS 17 ATEX E 036 X	*CU1*00-J* BVS 16 ATEX E 083 X	Description
Computing Platform			
j	XX	XXX	stands for computing platform: options without impact on explosion protection, which can be any number or charactersFor further Modules B see Computing Unit codes in manual and BVS 16 ATEX E 083 X

3.4 Dimensions

Dimensions with AG1 Housing and Pedestal

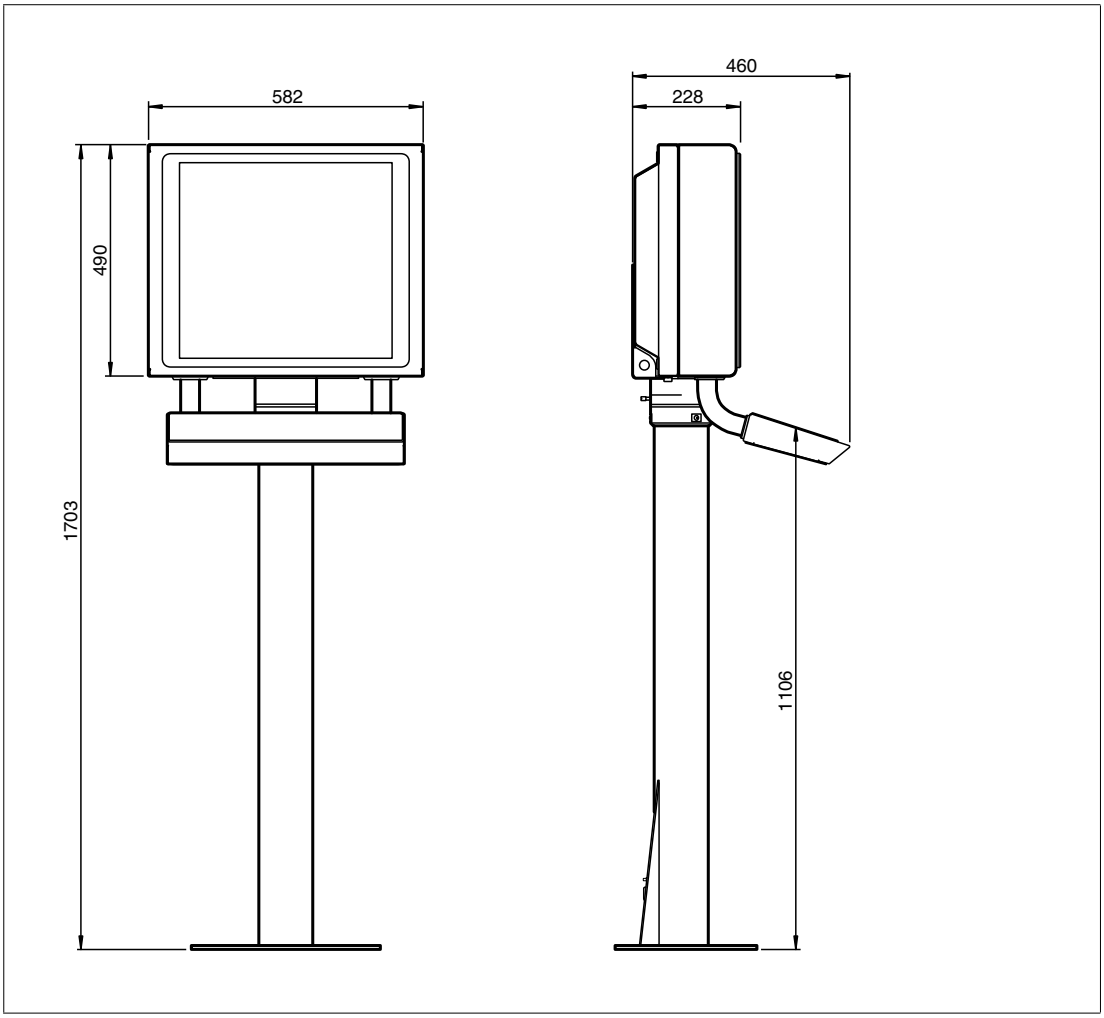
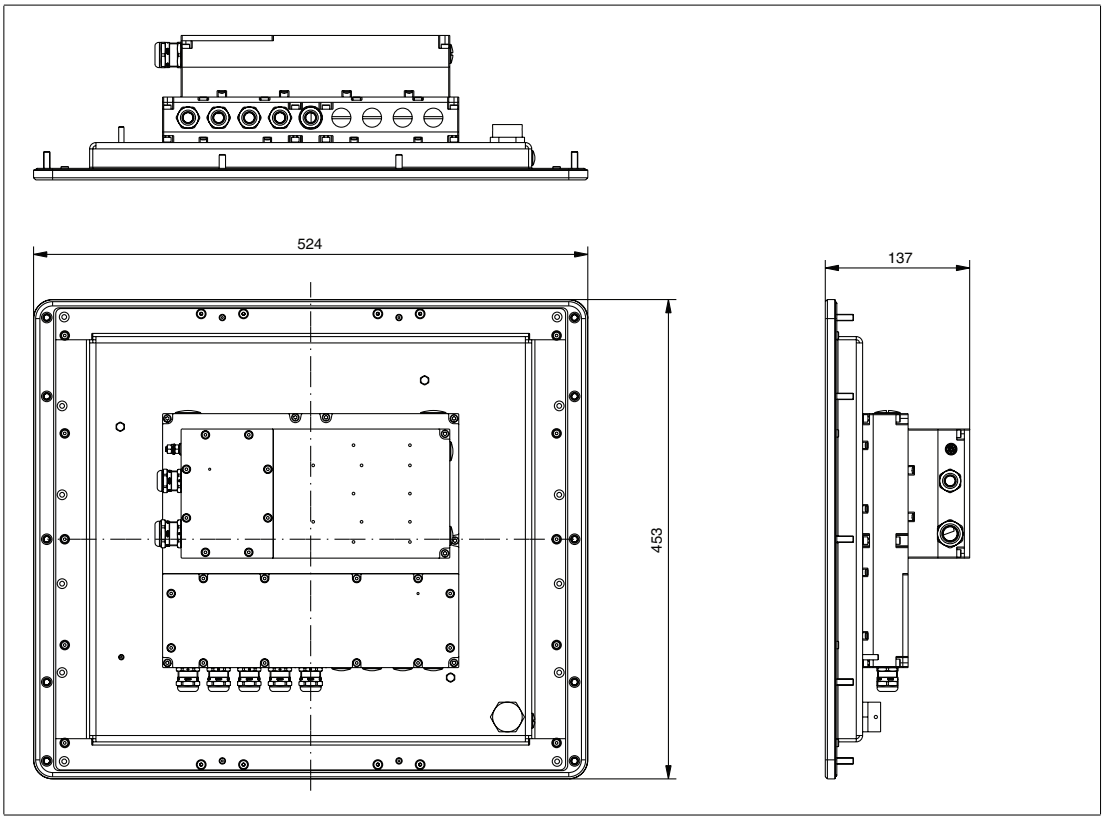


Figure 3.3 Dimensions with StandardLine Pedestal5-1458-Fix and EXTA4-* keyboard/mouse - sample configuration

Note

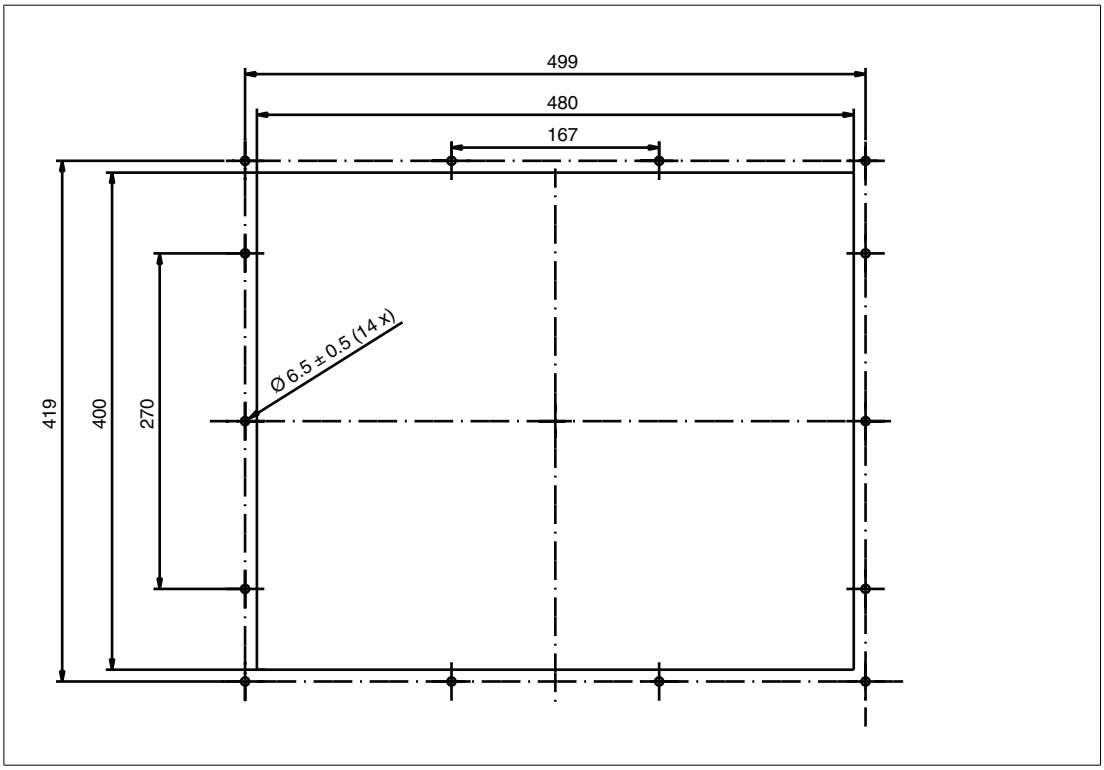
Keyboard/mouse and pedestal are ordered separately.

Panel Dimensions with Bezel



Panel Cut Out Dimensions

Cut-out dimensions: 480 x 400 mm. For more information, see chapter 4.5.



2026-08

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Wall Mount Dimensions

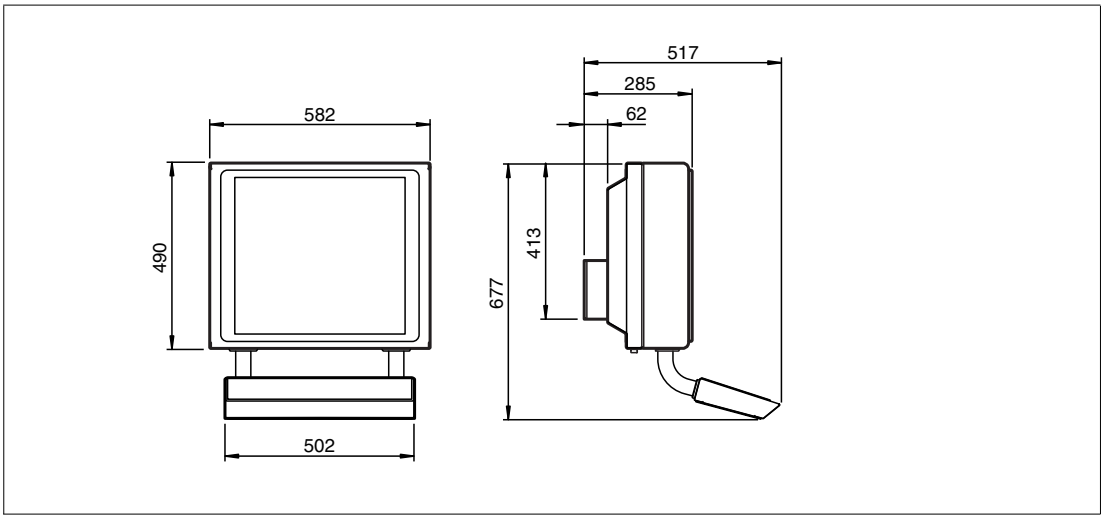


Figure 3.4 Wall mount dimensions with additional wall brackets (#198768)

3.5 Disposal

Follow all local and any other requirements for disposing of electronic equipment. When disposing of any system component, mark VOID across all certification labels.

3.6 Nameplates and Labels

Sample Main Label:

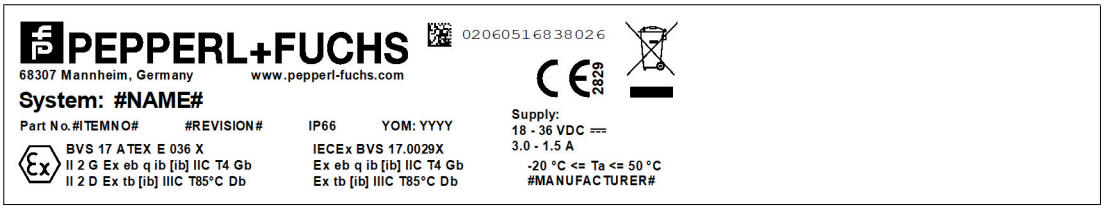


Figure 3.5

Sample CCC Label:

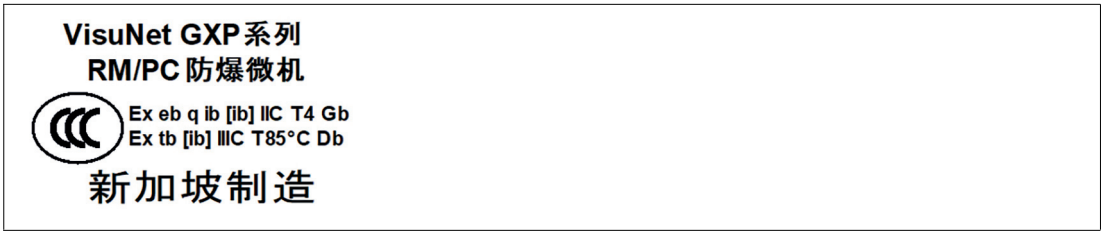


Figure 3.6

4 Mechanical Installation

4.1 General Installation Requirements

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 power supply unit is the responsibility of the assembler of the system.

4.2 Installation Tools

- 4-mm and 5-mm torque Allen keys
- Open-ended wrench for cable glands
- Screws for floor or wall mounting. Choose the appropriate screws based on the mounting conditions.
- Small cable ties
- Side cutters
- Strong adhesive tape, such as duct tape or packing tape
- At least 1 piece of thin, 2.5-m-long wire for pulling cables through 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 have another person help you.

4.3 System Installation

4.3.1 Preparation for System Installation



Caution!

Device damage!

Mount the device in such a way that it is protected from ultraviolet radiation and sunlight. Do not expose the device to direct sunlight! The device might get damaged.



Caution!

Device damage!

Protect the device from external heat sources (e.g sunlight).



Caution!

Use of the device!

The use of the device is only permitted under the ambient conditions (temperature, humidity, vibration and shock) which are specified in the technical data. Failure to comply with any of these conditions void the warranty for the device. Pepperl+Fuchs cannot be held liable for any damage arising from improper use and handling.

2026-08

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.

Warning!

Distance between housing and wall!

Provide at least 350 mm of space between the housing/pedestal assembly and the left wall. This is required in order to properly open the housing and connect the GXP components.

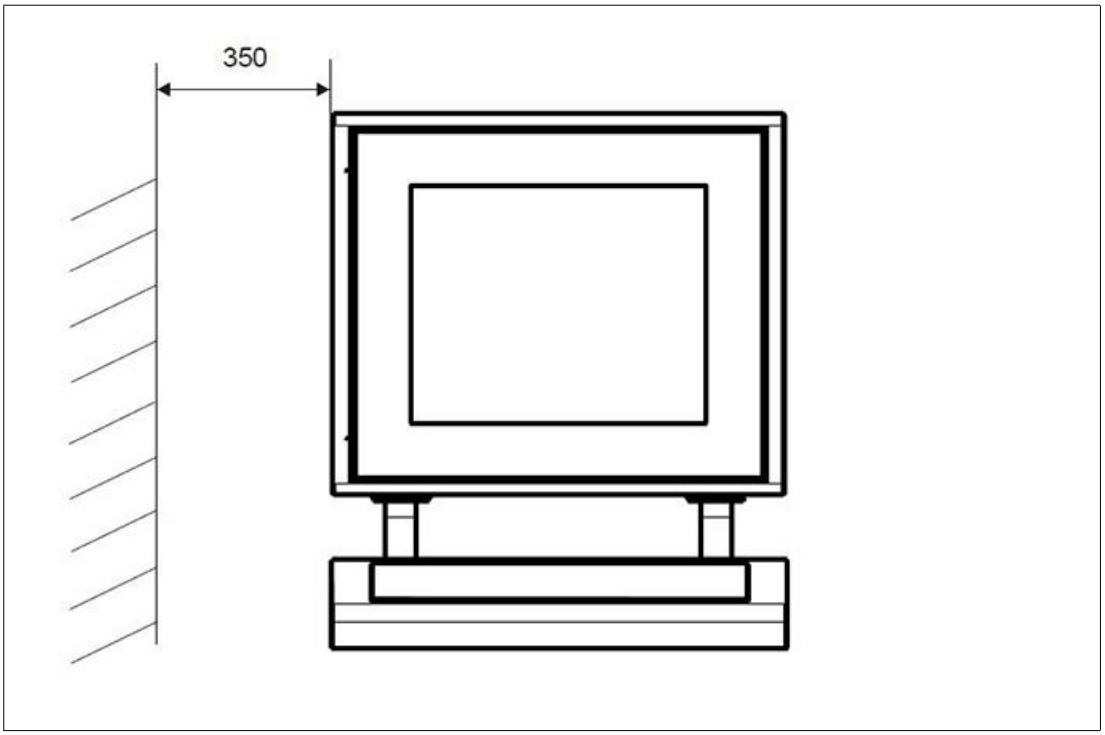
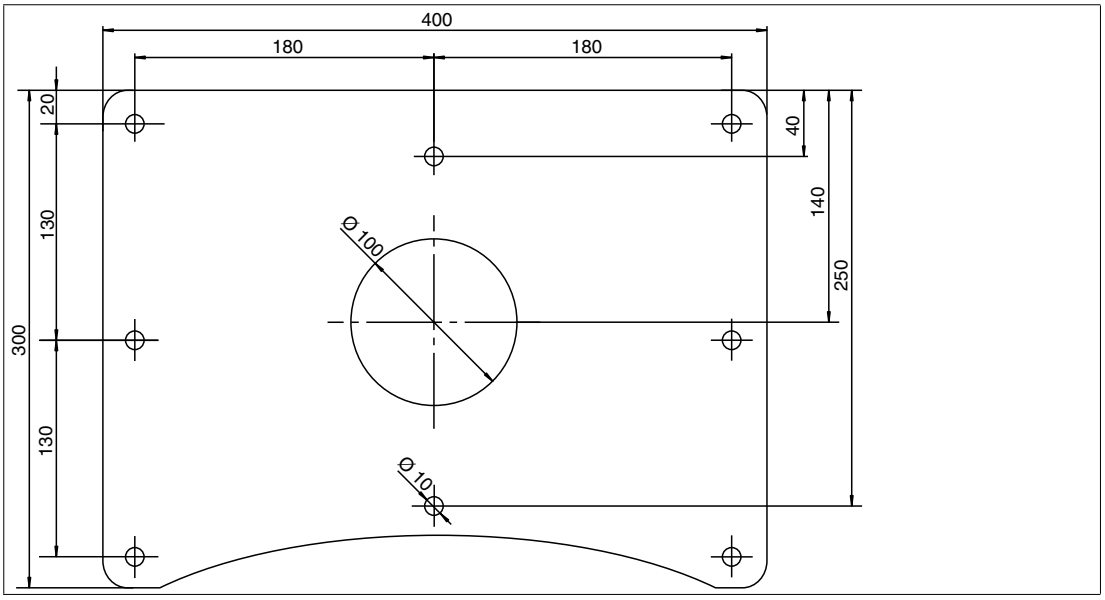


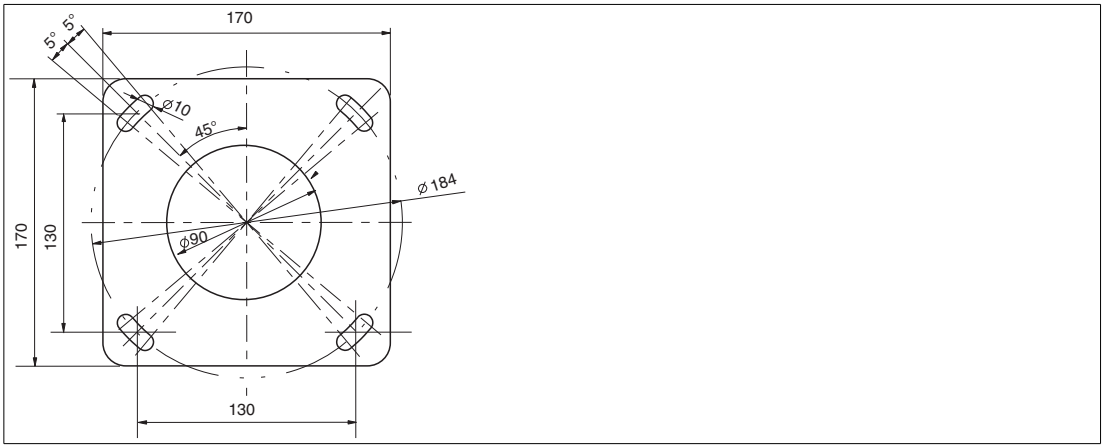
Figure 4.1 Distance required between housing/pedestal assembly and wall

StandardLine Pedestal Floor-Mount Hole Pattern



2026-08

BasicLine Pedestal Floor-Mount Hole Pattern



4.3.2 Preparing the GXP Panel/Housing

The VisuNet GXP comes pre-assembled and consists of the core components display unit, power supply unit, and thin-client unit / power supply unit. If the AG1 housing option is chosen, the panel is pre-mounted in the housing.

Included with delivery

- 1 x pre-assembled VisuNet RM-GXP or PC-GXP panel (option: panel-mounted into AG1 housing)
- 2 x protective tubes
- Screws for housing

Items Ordered Separately

- Pedestal that is compatible with AG1 housing (StandardLine or BasicLine pedestal)
- Optional EXTA4-* keyboard

Warning!

Risk of injury

Handling the devices with bare hands may cut fingers, hands, or wrists.

Wear gloves always during the installation process.

Warning!

Risk of injury

Lifting the GXP housing on your own may cause injury.

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

Warning!

Danger resulting from scratched display unit screen

Scratches on a display unit front screen weaken the glass structure and may result in broken glass. Explosion protection is no longer ensured if a display unit with a scratched screen is used.

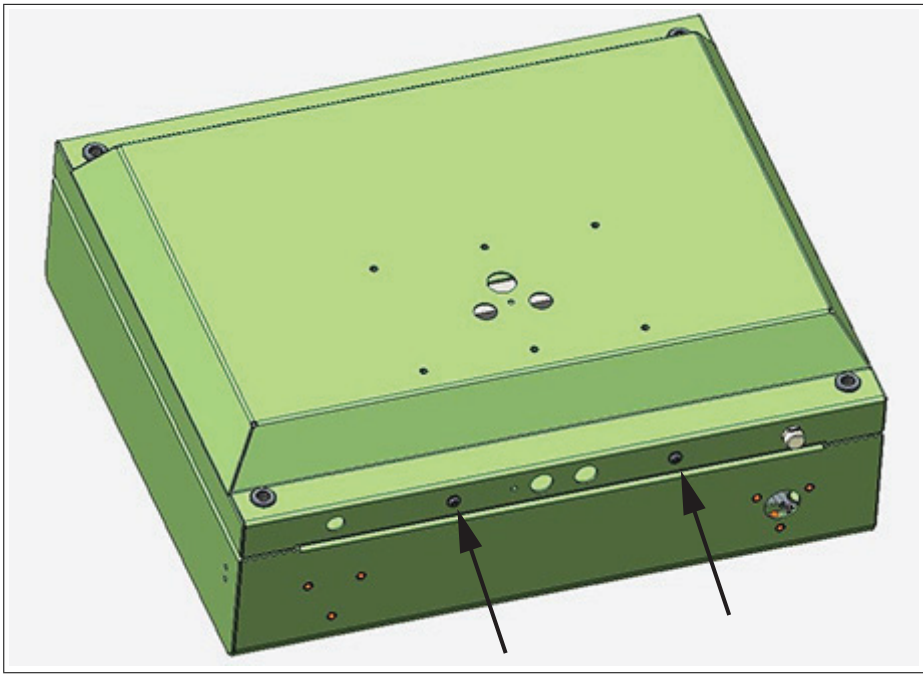
NEVER use a display unit with a scratched front screen in a hazardous area. If the surface is damaged in any way, return the display unit to Pepperl+Fuchs at once and replace it with a new one.

Preparing the Housing

1. Remove the box and leave the protective foam blocks on the housing. Save the uncollapsed box for further mounting steps.



2. Wrap strong adhesive tape around the foam blocks to hold them onto the housing and protect the components during mounting.
3. Place the housing face down on a flat surface.
4. Remove and discard the screws from the bottom of the housing.



4.3.3 Preparing the StandardLine Pedestal

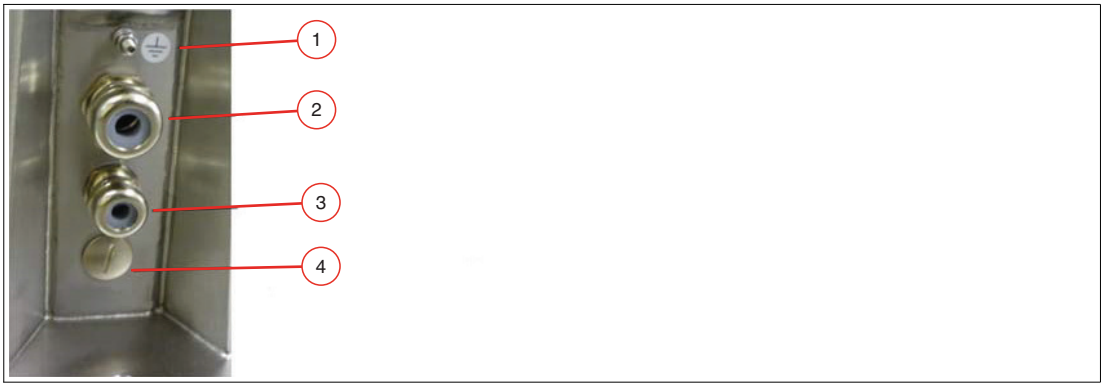
A variety of pedestals are available for floor mounting. For a complete list of available mounting options, see the mounting options datasheet. Pedestals are shipped with an attached protective earth (PE) wire and screws for mounting the VisuNet GXP AG1 housing to the pedestal: 6 x M8 countersunk screws and 2 x M6 countersunk screws.

StandardLine Pedestal



1 Pre-installed PE wire
2 Top cable opening
3 Cable glands

Bottom of Pedestal



1 PE stud
2 M25 opening
3 M20 opening
4 M20 plug

Warning!
Connection to the PE stud
Connection to the PE stud is mandatory.

Opening Size	Wrench Size	Cable Diameter	Torque
M20	24 mm	7 ... 13 mm	12 Nm
M25	29 mm	9 ... 17 mm	

Preparing the Pedestal for Connection to the GXP Housing

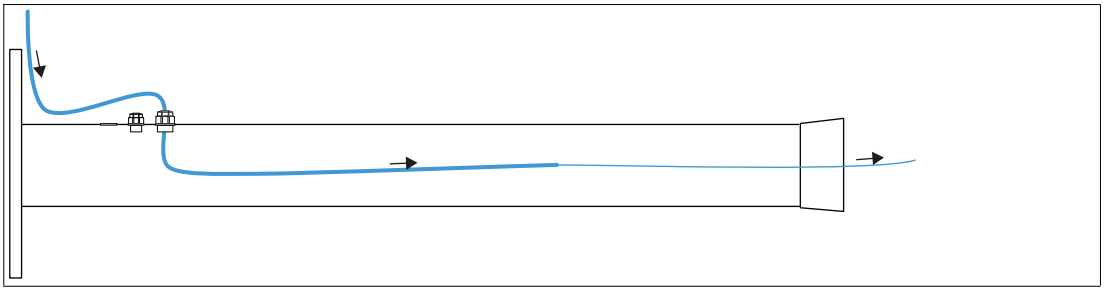
1. Remove the cable glands at the bottom of the pedestal.
2. Feed the pull wire (thin, 2.5-m-long wire for pulling cables through pedestal) through the top of the pedestal and out the appropriate cable entry.
3. Put the gland nut and ferrule of the cable gland on the cable and slide them a few meters down the length of the cable away from the pedestal. Keep the nut and ferrule on the cable in order to tighten them in a later installation step.

4. Attach the cable to the pull wire.





5. Pull the cable through the cable entry and out the top of the pedestal.



6. Pull the cable through the pedestal so that 50 cm of cable is hanging out of the top of the pedestal.
7. Repeat the preceding steps for each cable that must be routed through the pedestal.

4.3.4 Attaching the Pedestal to the Housing

Warning!

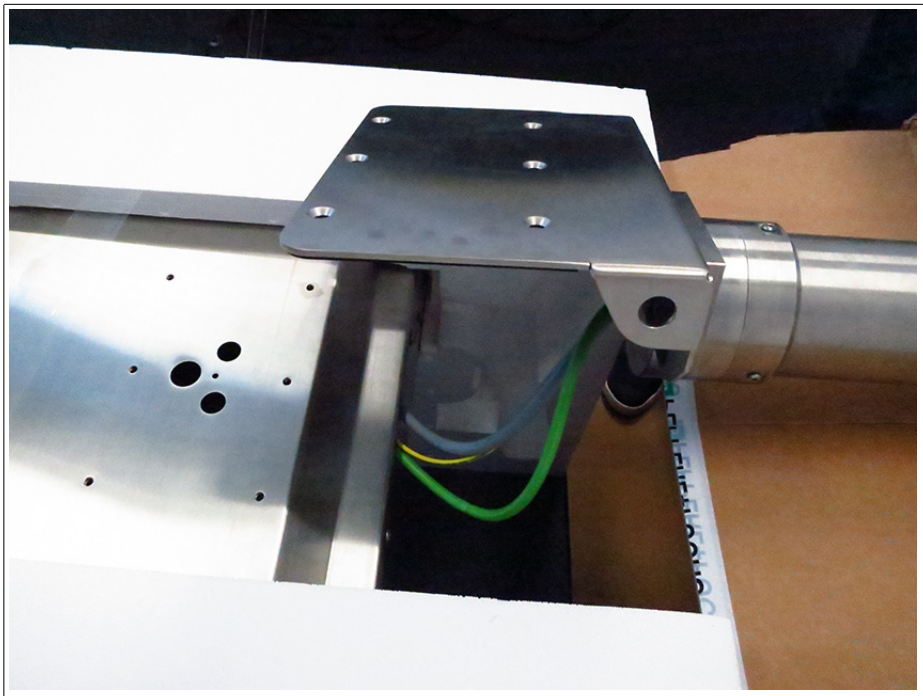
Risk of injury!

Lifting the GXP housing on your own may cause injury.

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

Mounting the Pedestal

1. Rest the pedestal on the box that the GXP housing was shipped in. Position the pedestal and box behind the housing.
2. Slide the cable ends from the top of the pedestal through the openings in the bottom of the housing.



Warning!

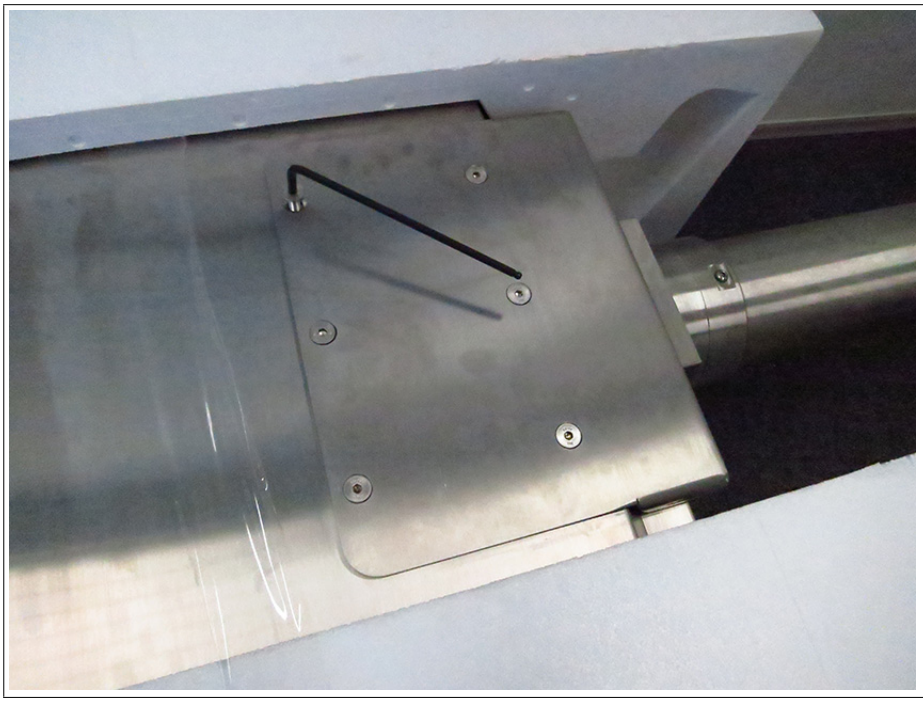
Damage to cables

The cables may become damaged if they are pinched between the pedestal and the housing.

Ensure that the cables do not get caught between the pedestal and housing during the mounting process.

3. Align the mounting holes on the top of the pedestal with the mounting holes on the back of the housing.

4. Tighten the 6 x M8 screws in a criss-cross pattern to 20 Nm.



5. Tighten the 2 x M6 screws to 12 Nm.



Positioning and Floor-Mounting the VisuNet GXP

1. Remove the box from under the pedestal and carefully position the system upright on the floor with a crane or the help of another person.



2. Mount the pedestal onto the floor using suitable screws.

Warning!

Proper floor mounting

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. Remove the protective foam blocks.
4. Remove the protective plastic film from the screen. This should not be present in a hazardous location.

Note

For more information on floor mounting, including hole patterns, see see chapter 4.3.1.

Note

The StandardLine pedestal is depicted above. Follow the same steps to mount the VisuNet GXP with the BasicLine pedestal.

2026-08

4.3.5 Opening the Housing

The GXP housing is hinged and opens to the left.

Opening the GXP

Warning!

Risk of Damage and Injury

Opening the GXP housing before the pedestal is mounted onto the floor may cause the housing and pedestal to tip over.

Mount the pedestal to the floor before opening the GXP housing.

1. Loosen the 4 screws on the back of the housing.
2. Gently pull the front side of the housing toward you.



3. Pull the right side of the housing front away from the back part of the housing.



4.3.6 Grounding the Housing to the Pedestal

Warning!

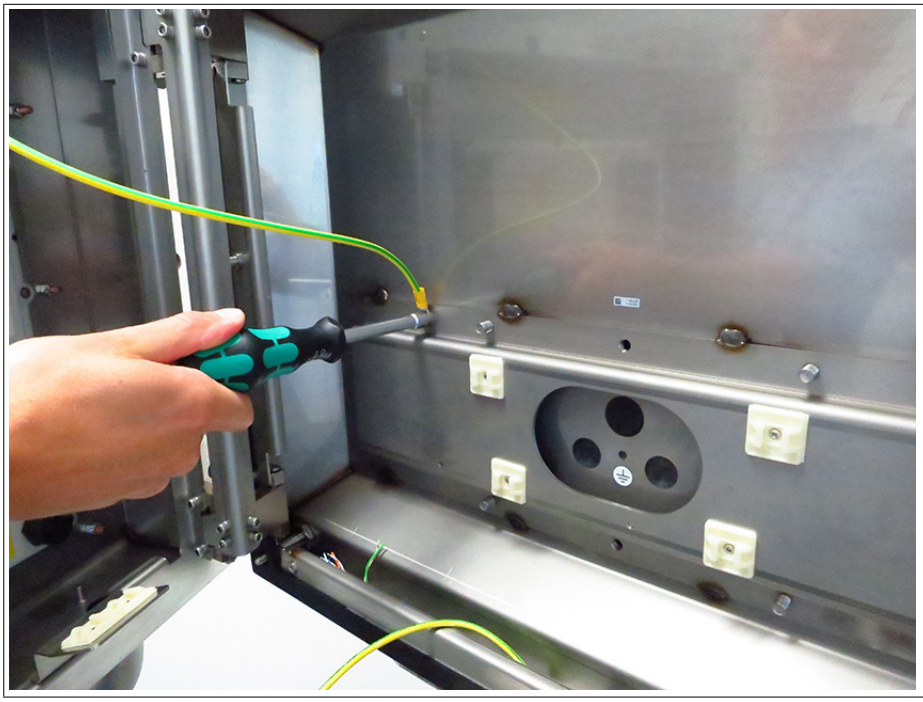
Customer responsibility to verify grounding path

Check the grounding path after completing system installation.

The AG1 housing comes with a pre-installed PE wire that is connected from the inside-top of the housing to the inside-back of the housing. The pedestal comes with a pre-installed PE wire that you must route from the pedestal into the housing (see see chapter 4.3.3).

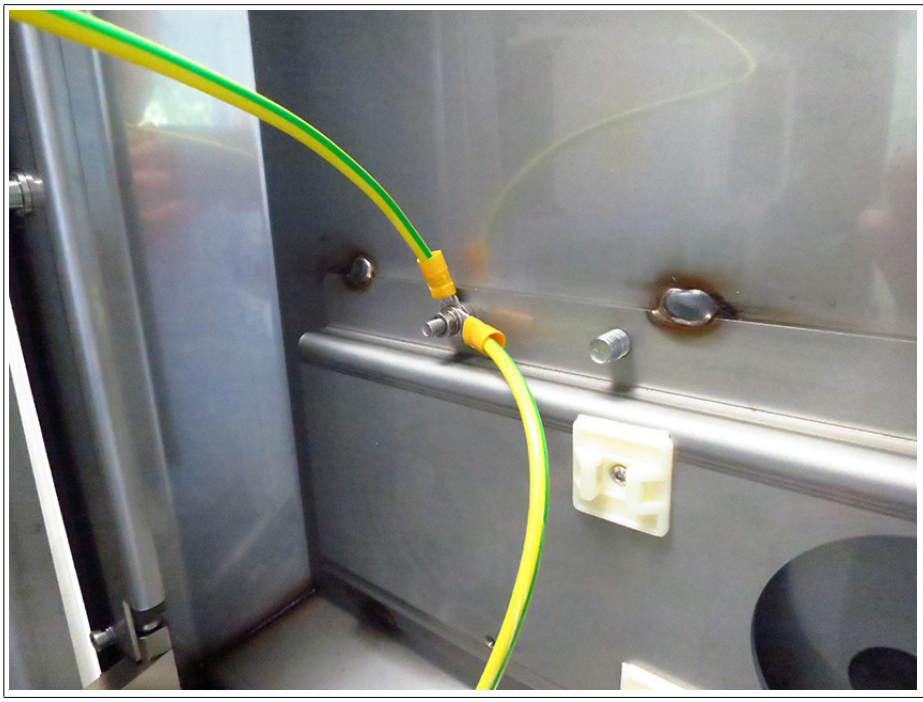
Connecting the PE Wires

1. Remove the nuts and washers from the PE stud on the inside-back of the AG1 housing.



2. Connect the pre-installed PE wires from the the housing and pedestal to the PE stud.

3. Replace the nuts and washers. Fasten the nuts and washers with a torque of 7.5 Nm.



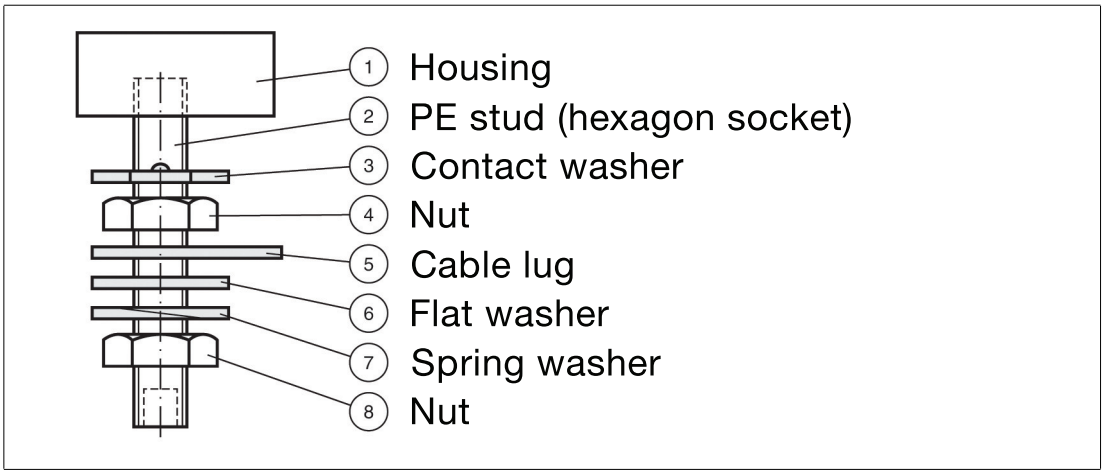


Figure 4.2 Grounding Concept

1 Housing
2 PE stud (hexagon socket)
3 Contact washer
4 Nut
5 Cable lug
6 Flat washer
7 Spring washer
8 Nut

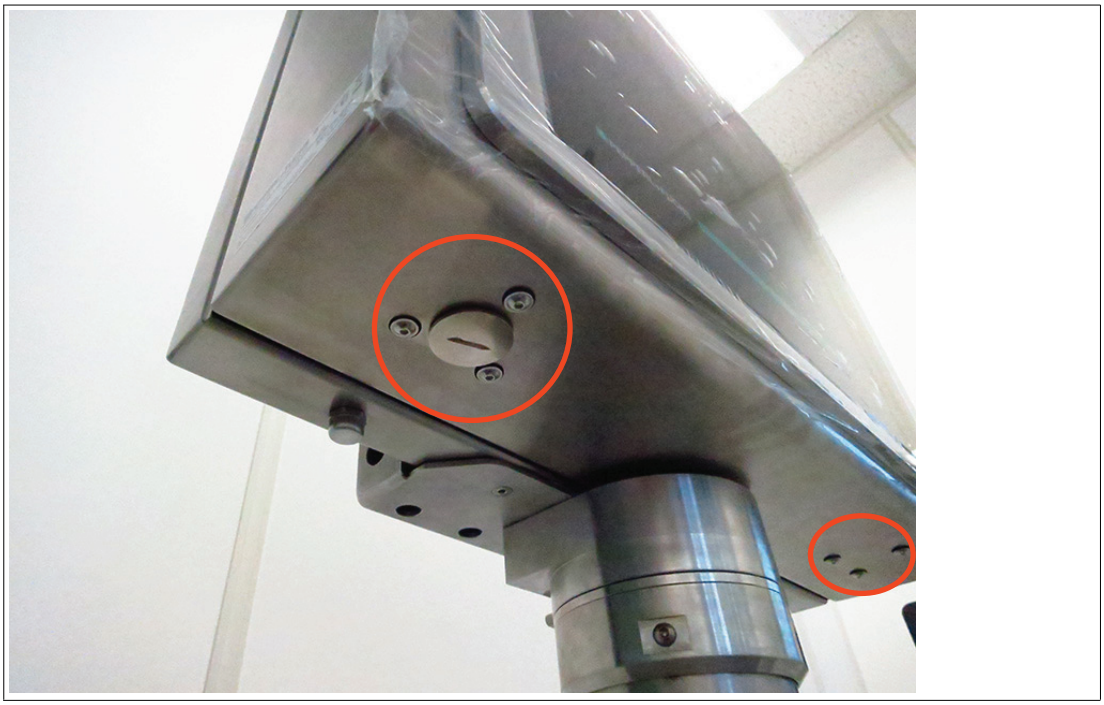
4.3.7 Cable Routing of the DC Power Supply Unit

To comply with electromagnetic compatibility (EMC) requirements, the cables must be routed through the supplied cable clips as shown in the Power Supply Unit (PSU) manual linked on GXP product page.

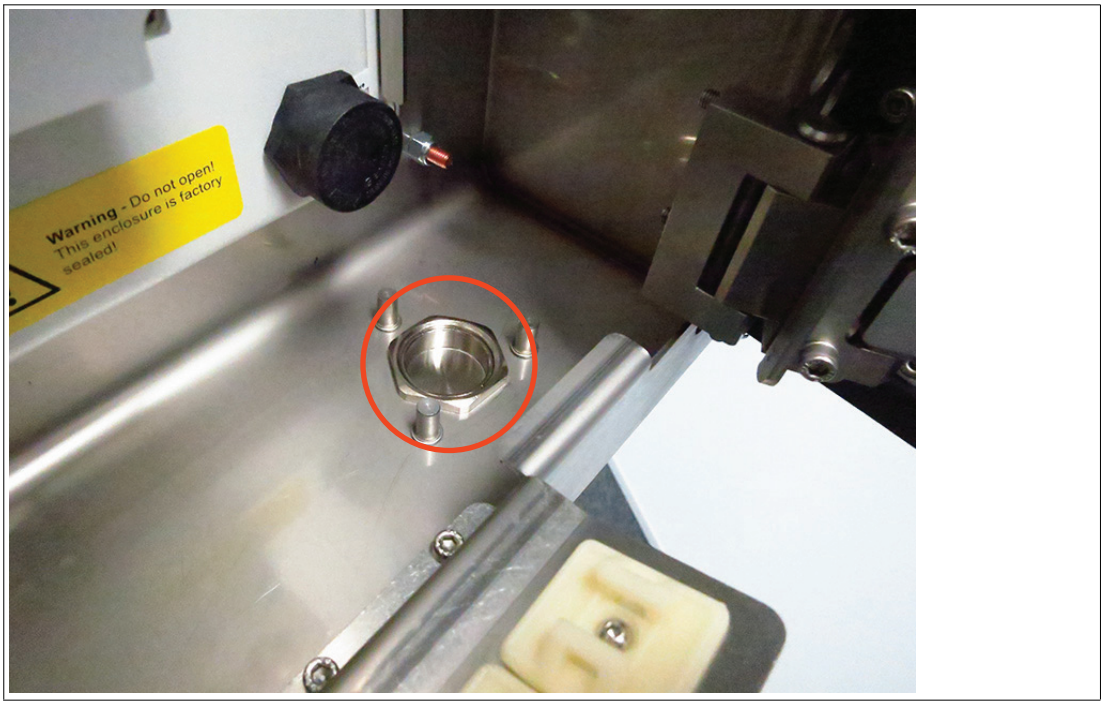
2026-08

4.3.8 Mounting the Keyboard

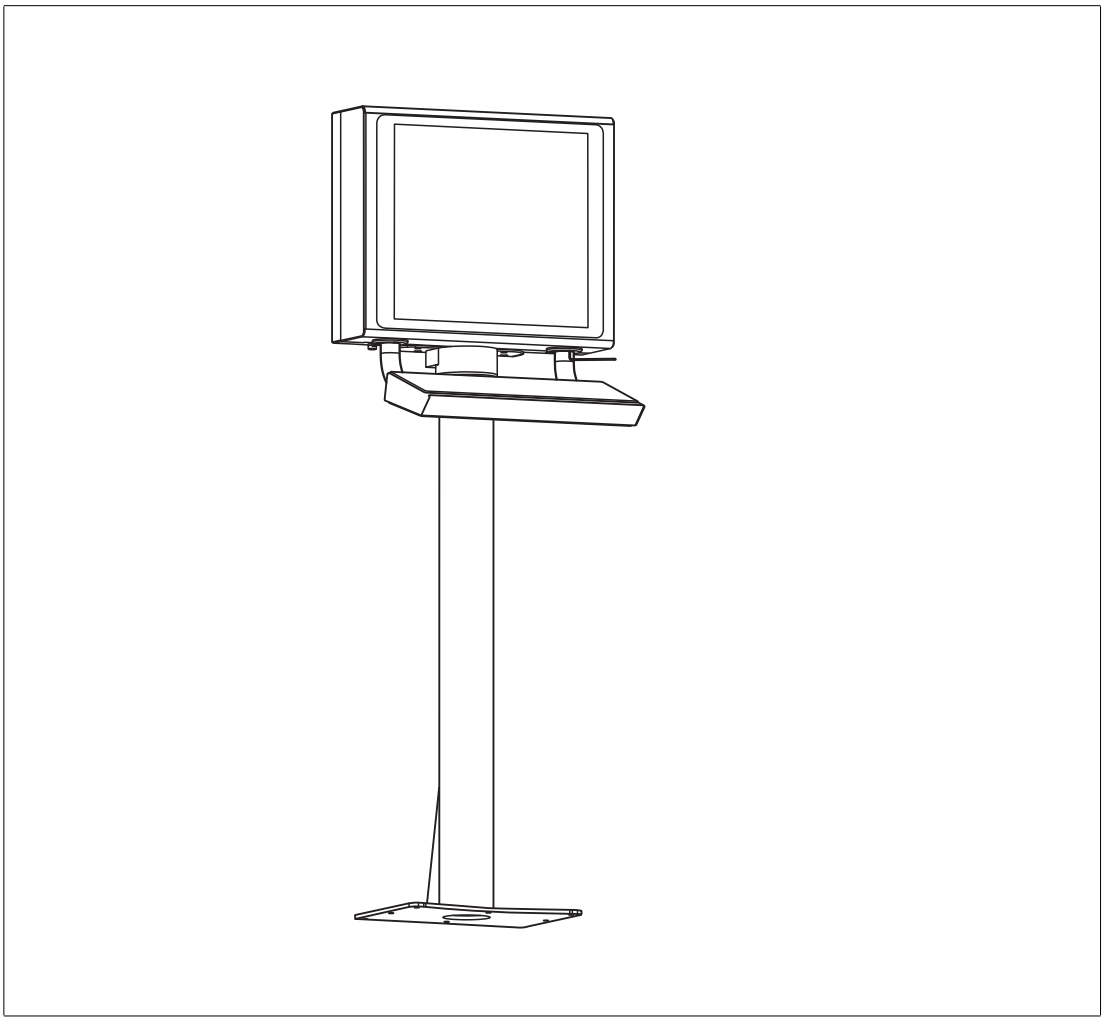
1. Remove the plug and screws from the bottom of the housing



2. To remove the plug, open the housing (see see chapter 4.3.5). Hold the inside nut while removing the plug from the outside with a flat-head screwdriver.



3. Pull the keyboard wire through the plug and tighten the screws to 4.5 Nm.



Note

The keyboard is an intrinsically safe device. Refer to the control drawings and relevant installation requirements.

For proper electrical termination of the keyboard, refer to the TCU/PCU and EXTA4-* keyboard manuals.

2026-08

4.3.9 Mounting the Scanner Holder to the AG1 Housing

SCANNER-HOLDER-U1-XX00-N0 is a holder for the IDM-* handheld barcode reader family. The holder is compatible with the VisuNet GXP AG1 housing.

Required Components

- VisuNet GXP pre-assembled in AG1 housing
- SCANNER-HOLDERU1-AG1-N0 (screws included)

Required Installation Tools

- Size 3-hex wrench
- Safety gloves

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

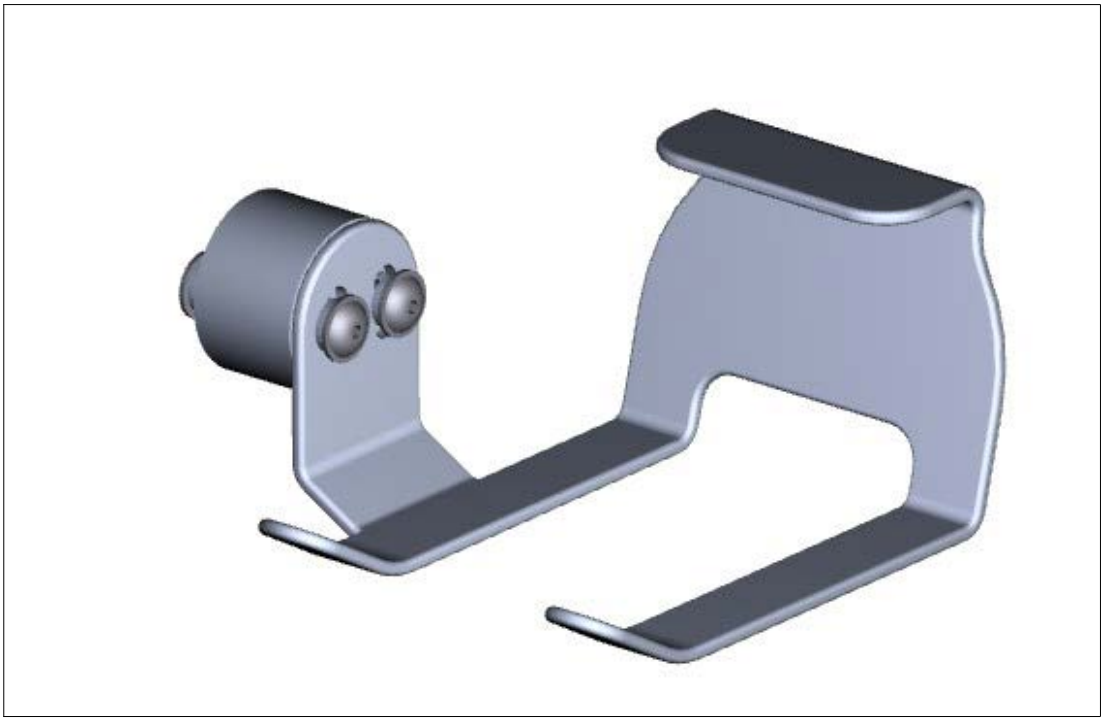


Figure 4.3 #548268 scanner holder compatible with AG1 housing

Mounting the Scanner Holder

1. Open the AG1 housing. See chapter 4.3.5
2. Remove the screws on the right side of the AG1 housing.



3. Affix the barcode reader using the screw included in delivery with the barcode reader holder.
4. Use a hex key to put the first screw (with lock washer and sealing washer) through the drilled hole on the right side of the AG1 housing.
5. Press the scanner holder against the housing from the outside. Fasten the screw using a torque of 6 Nm.
6. Use the hex key to put the second screw (with lock washer and sealing washer) through the drilled hole on the right side of the AG1 housing. Fasten the screw using a torque of 6 Nm.

↳ The scanner holder is now attached to the housing.

2026-08



Follow the same steps to mount the holder bracket-AG1-IDMx61-B-N0 for the IDM base station (#548395) to the AG1 housing.

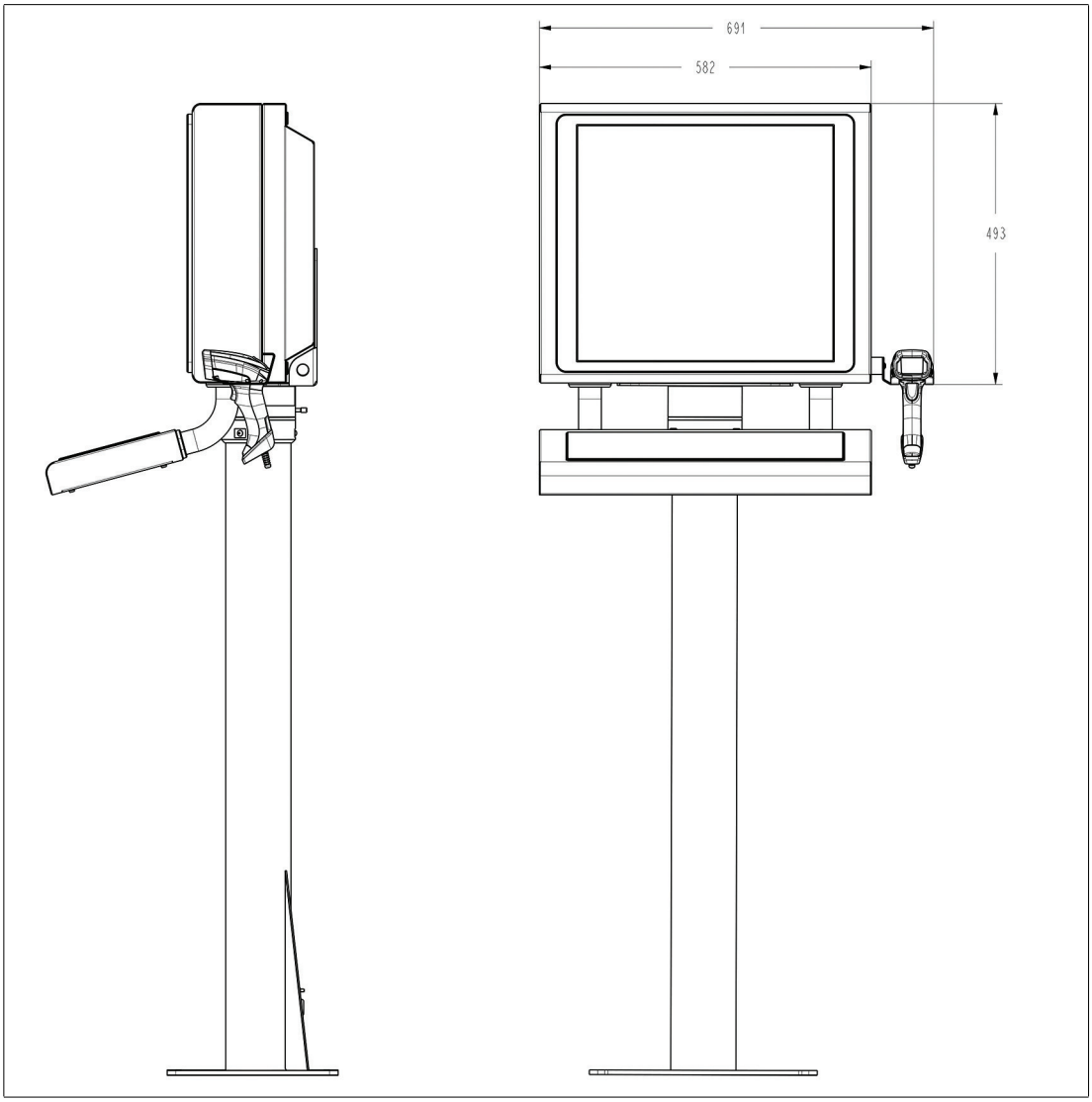


Figure 4.4 Technical drawing - dimensions with scanner holder.

Follow the same steps to mount HOLDER-BRACKET-AG1-IDMx61-B-N0 (#548395). This bracket holds the IDM base station.

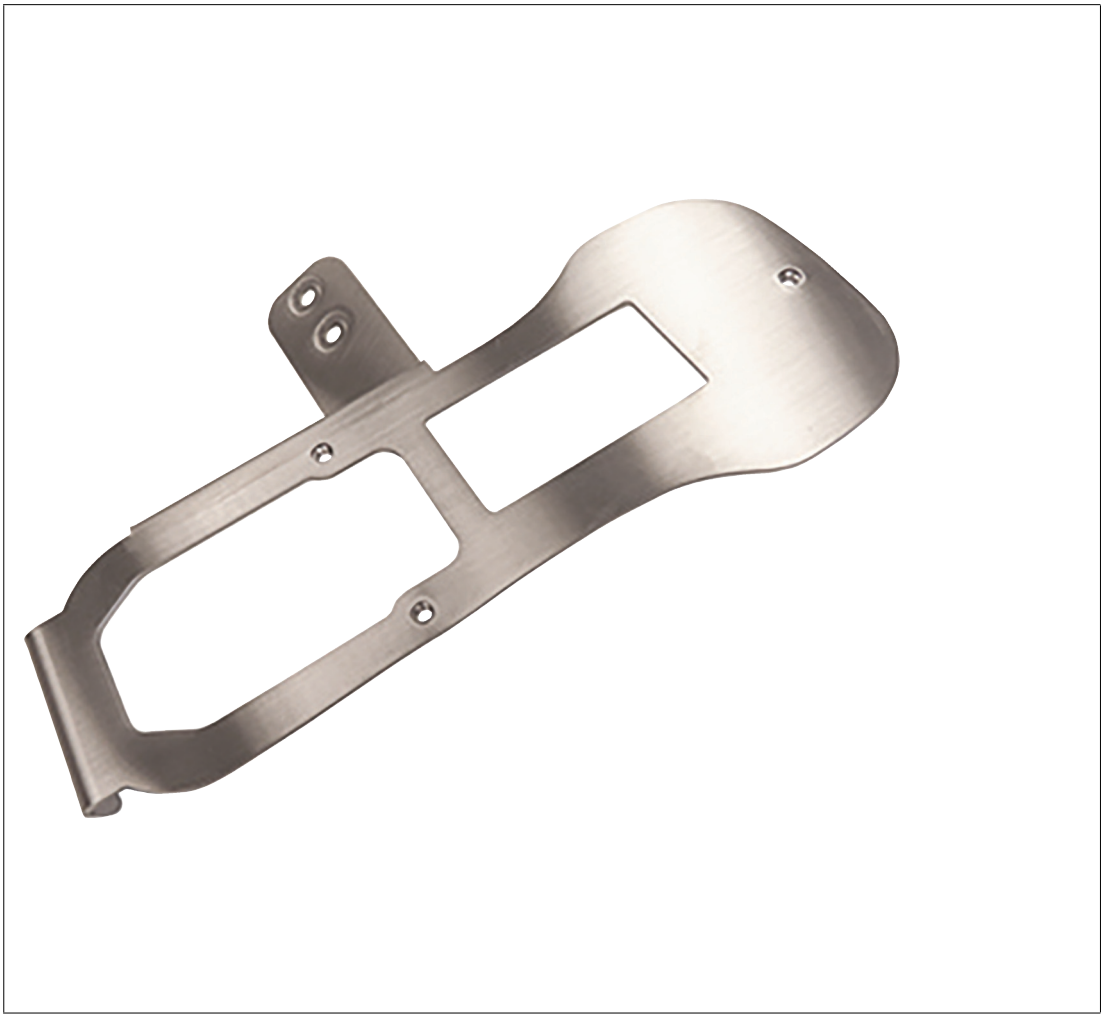


Figure 4.5 HOLDER-BRACKET-AG1-IDMx61-B-N0 (screws and adapter included)

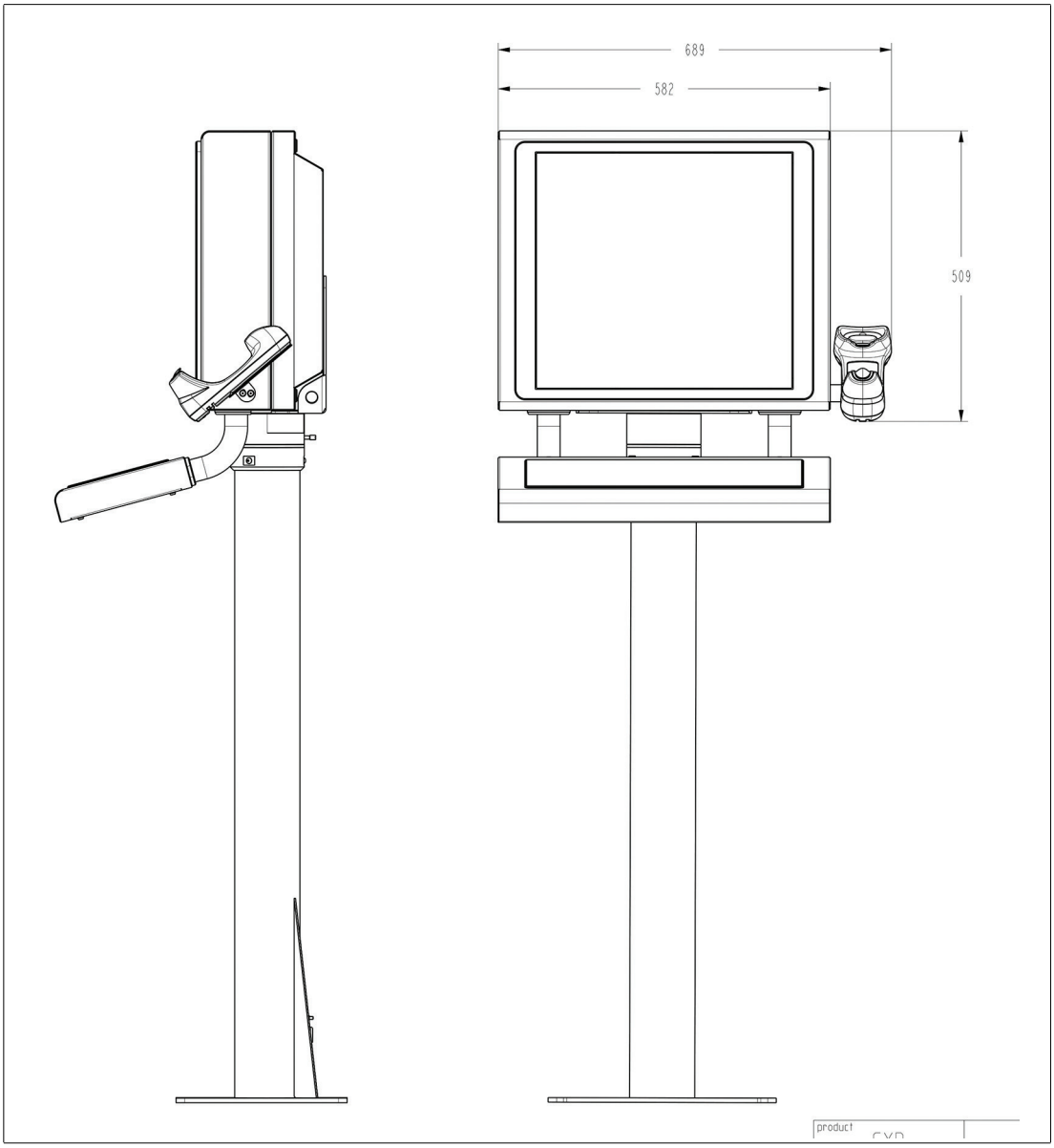


Figure 4.6 Dimension drawing with holder bracket

4.3.10 Installing the Handheld 1-D/2-D Code Reader

DATL-IDM-DB-S-XX00-N0 and CBL-IDMx60-D-* are used to install IDM corded Zone 1/21 or Zone 2/22 barcode readers or Bluetooth® barcode readers via base station to the VisuNet GXP RM/PC. The cables are compatible with the VisuNet GXP AG-1 housing.

Required Components

- S3 or S4 Interface (TCU / PCU)
- DATL-IDM-DB-S-XX00-N0
- CBL-IDMx60-D-J1-S-S18-N0 or CBL-IDMx60-D-J1-S-C38-N0
- IDM-Z1-16x-D-1D-J1-*, IDM-Z2-16x-D-1D-J2-*, IDM-16x-D-1D-J1-*, IDM-Z1-26x-D-2D-J1-S1-N-N0, IDM-Z2-26x-D-2D-J2-S1-N-N0 or IDM-Z1-x6x-*, IDM-Z2-x6x-B-J2-BT-N0, IDM-x6x-* in combination with required Bluetooth® handheld barcode reader
- Optional: SCANNER-HOLDERU1-AG1-N0 or HOLDER-BRACKET-AG1-IDMx61-B-N0

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.

Connector cable DATL-IDM-DB-S-XX00-N0

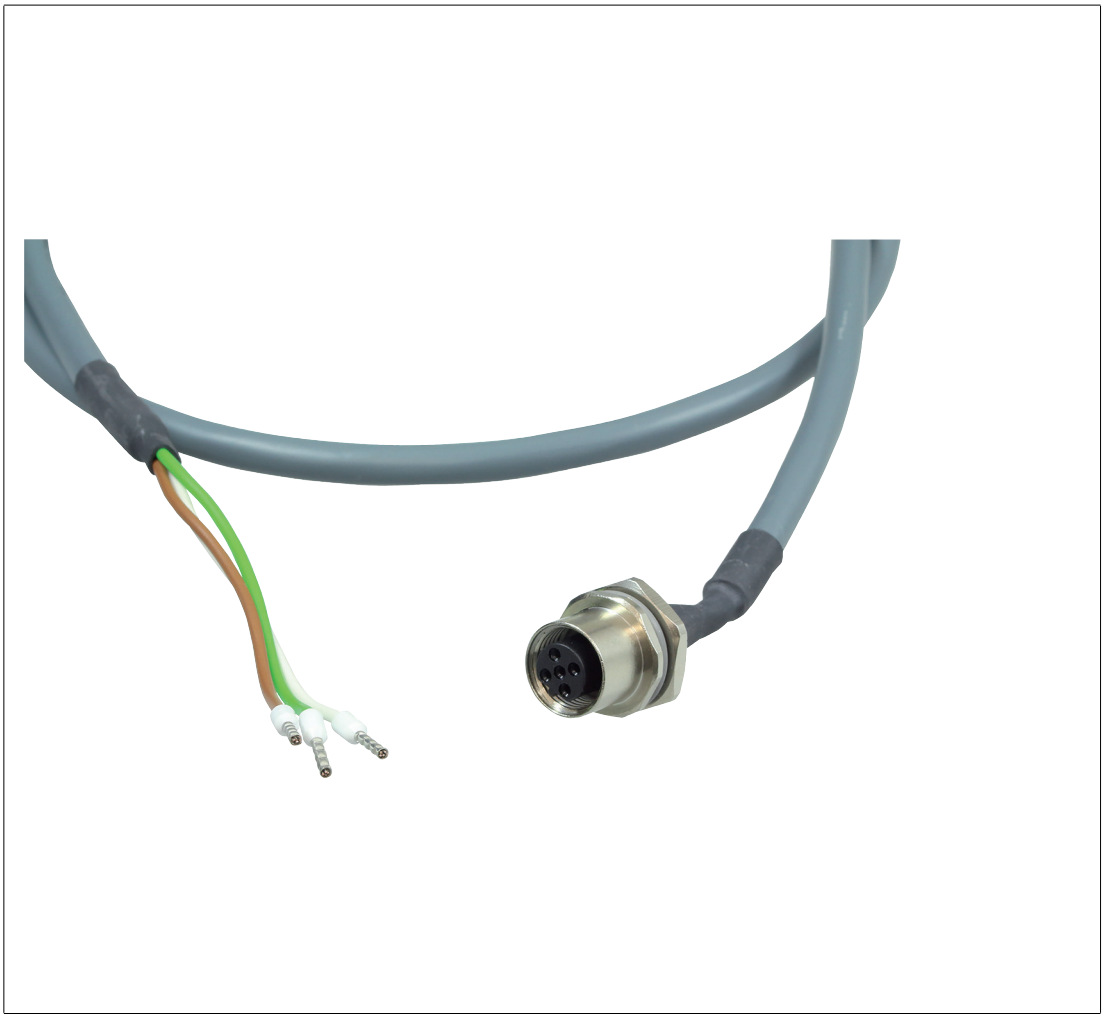


Figure 4.7 Connector cable for wired 1-D reader IDM-Z1-160-D-1D-J1- S-*, IDM-Z1-164-D-1D-J1-S*, IDM-Z2-160-D-1D-J2-*, IDM-Z2-164-D-1D-J1-S* (S3-Interface required) and 2-D reader IDM-Z1-260-D-2D-J1-S1-N-N0, IDM-Z1-264-D-2D-J1-S*, IDM-Z2-260-D-2D-J2-S1-N-N0, IDM-Z2-264-D-2D-J1-S* (S4-interface required) 4-wire with ferrules — IDM scanner connection via M12 connector.

Note

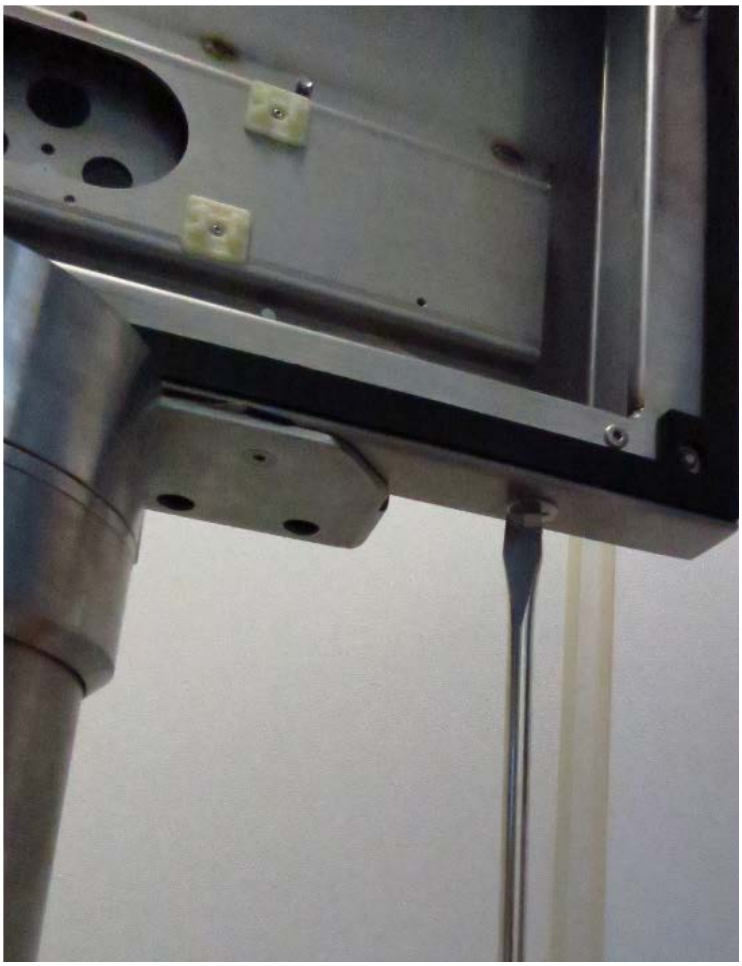
Supports only RS-232 scanner / base station

2026-08

PEPPERL+FUCHS

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

1. Open the AG1 housing. See chapter 4.3.5
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.

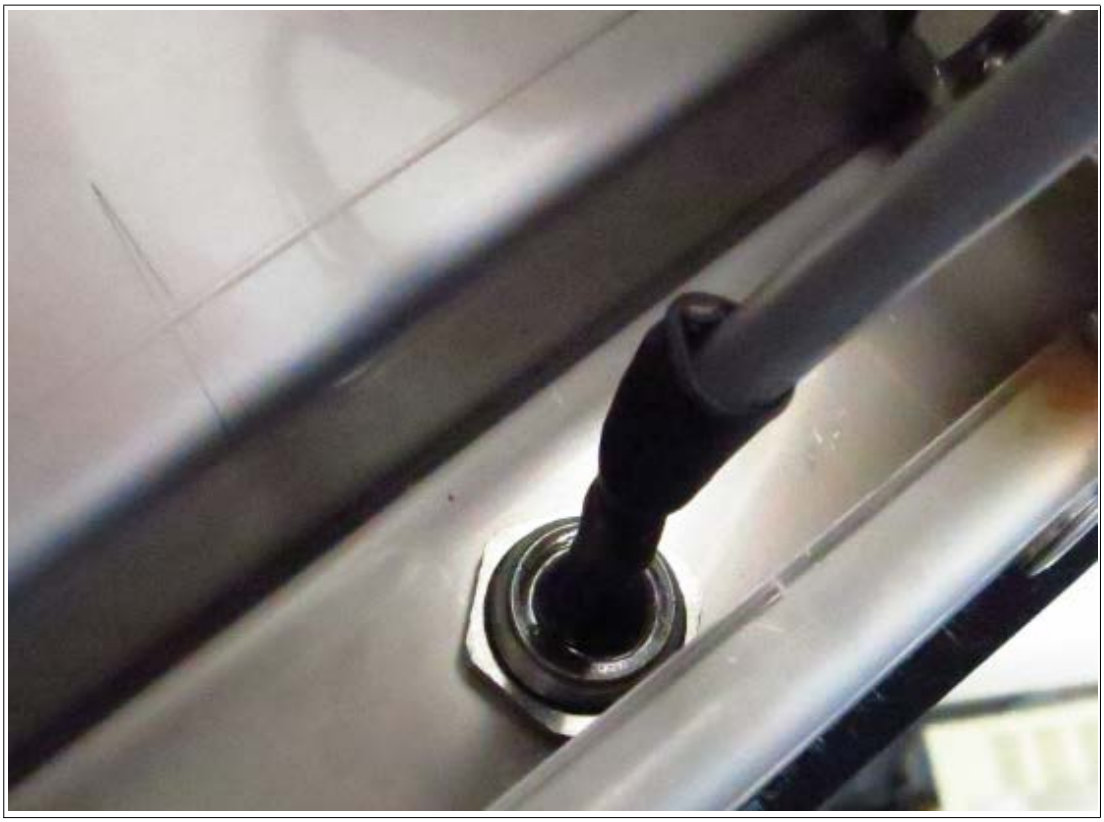


3. Guide the open wire end of the cable DATL-IDM-DB-S-XX00-N0 through the hole.

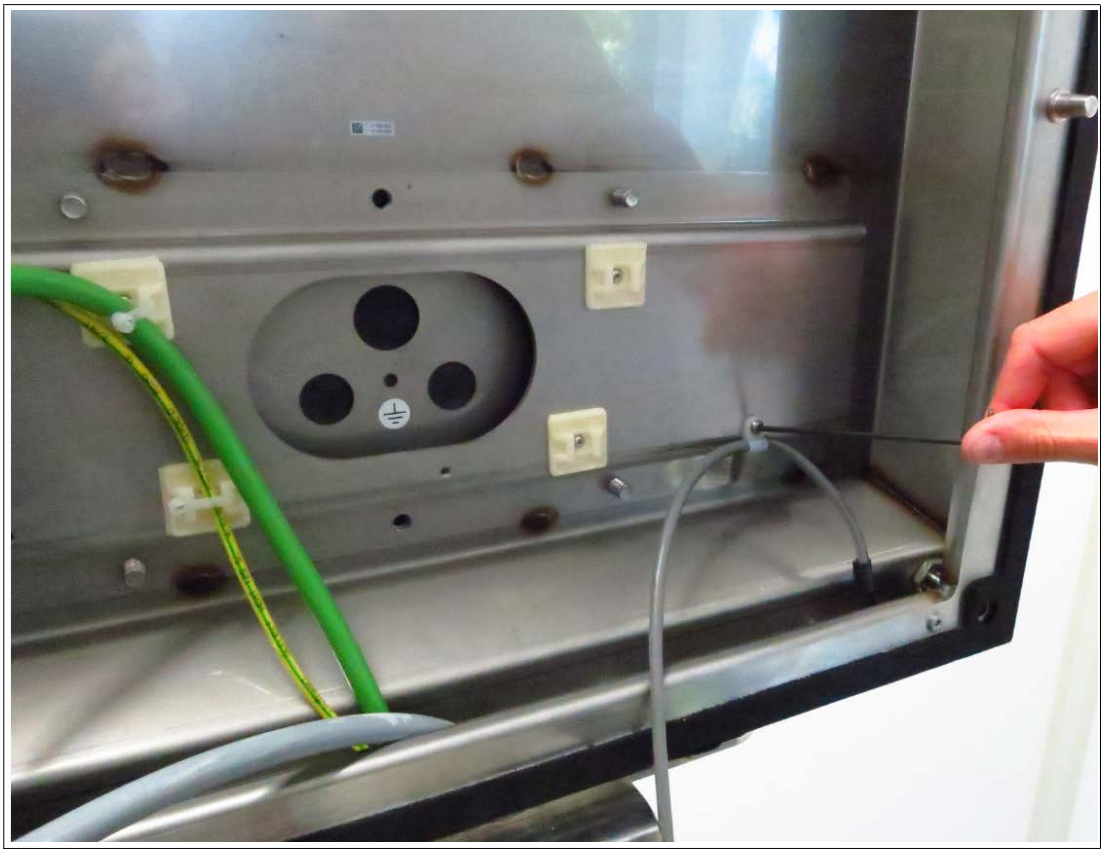


4. Place the M16 counter nut over the end of the cable.

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-Z1-16x-*, IDM-Z2-16x-* and Base Station IDM-Z1-x6x-B-N0-*, IDM-Z2-x6x-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-Z1-26x-* and IDM-Z2-26x-*

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.

2026-08

Connecting the IDM* Barcode Reader

1. Connect the plug (M12 male connector) of the barcode reader to the socket and tighten it firmly.

Coded Plug and Socket

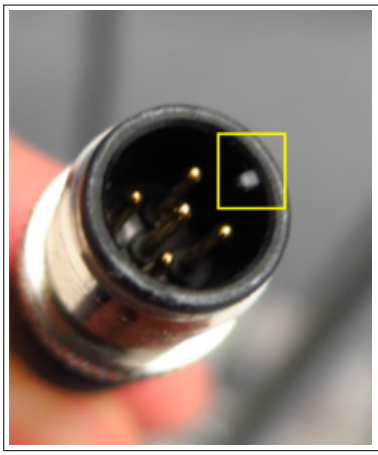


Figure 4.8 The plug and socket are coded. Match the coding on the plug and socket before tightening.

4.4 Replacing a VisuNet EX1 with the 19-Inch VisuNet GXP

General Requirements

- Deenergize the machine or plant.
- Ensure that there are no combustible gases in the installation area while the VisuNet system is being dismantled.

Warning!

External equipotential bonding

The housing must be provided with external equipotential bonding. The equipotential bonding conductor must have a minimum cross section of 4 mm ^{2} and be as short as possible. It must remain connected until the device has been completely dismantled.

Warning!

Waiting period after disconnecting supply voltage

Wait three minutes after disconnecting the supply voltage before opening the Ex e terminal compartments. Internal capacitors could otherwise still be charged, leading to an explosion in the event of a short circuit. If the Ex e terminal compartment is open, the explosion protection is no longer effective.

4.4.1 Removing VisuNet EX1 from AG1 Housing

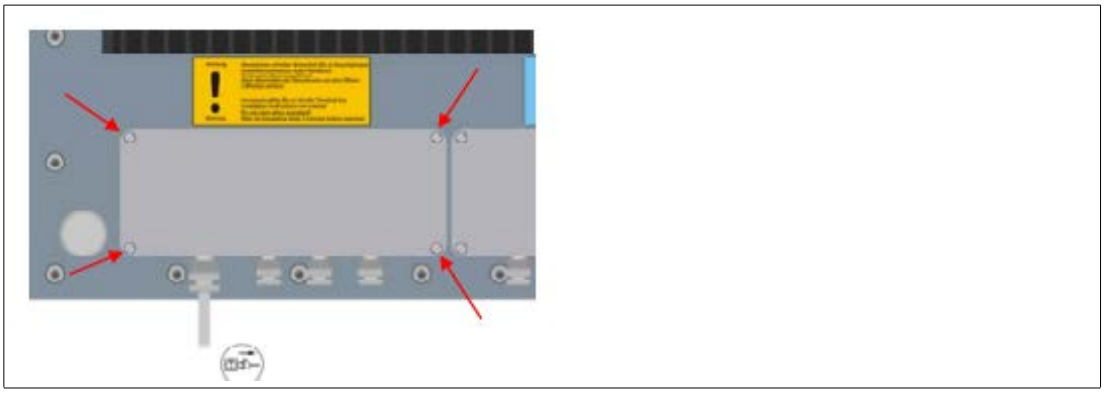
Required Installation Tools

- 3-mm wide flat head screwdriver
- Phillips head screwdriver
- Cable gland installation tool
- Ratchet strap or, preferably, a second person to help you
- Socket wrench extension with size 10 magnetic socket for EX1 nuts
- Safety gloves
- Size 5 hex wrench for housing screws
- Size 10 socket wrench for ground bolt

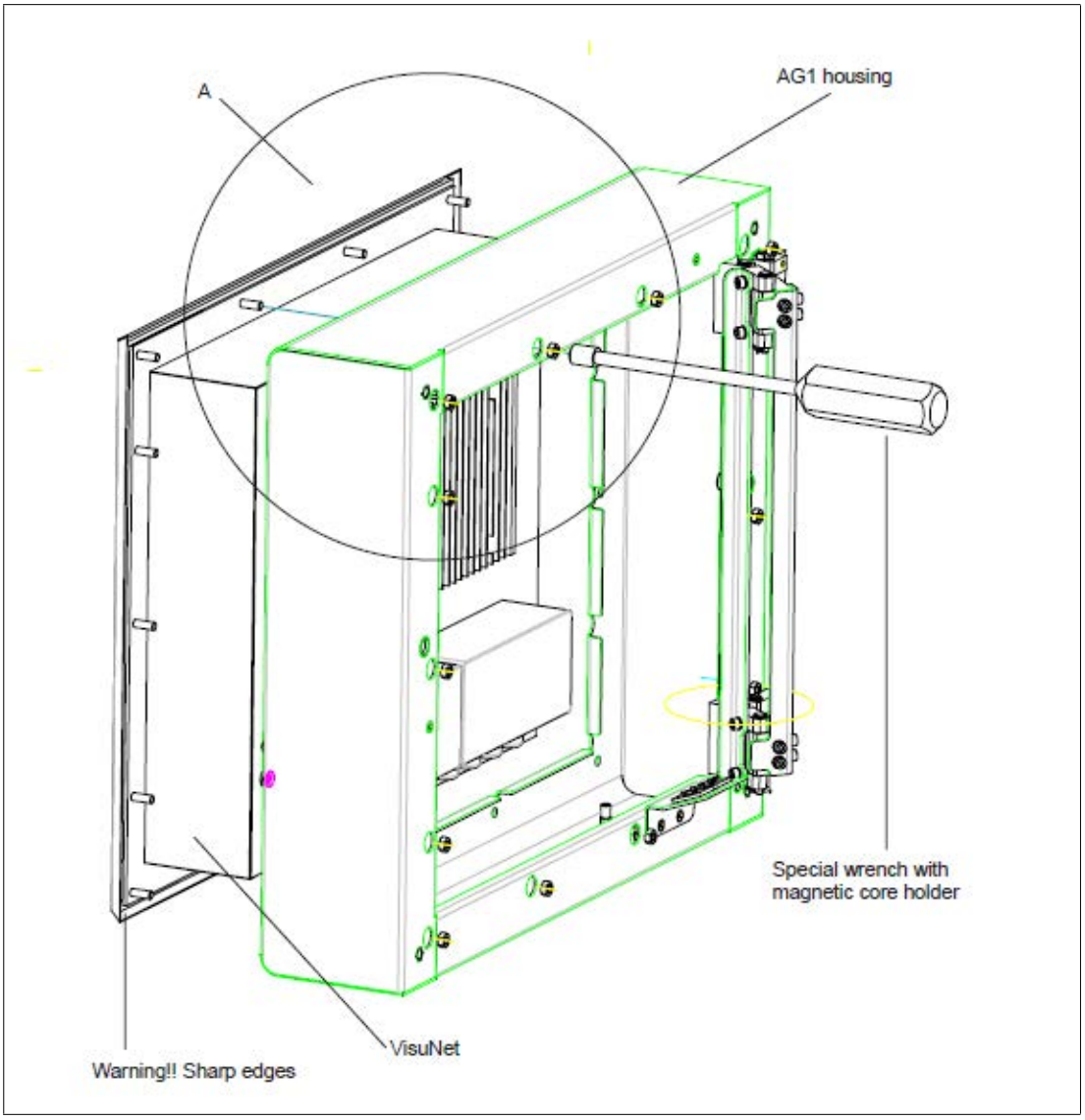
All tools should be torque controlled if a torque is specified.

Removing the VisuNet EX1

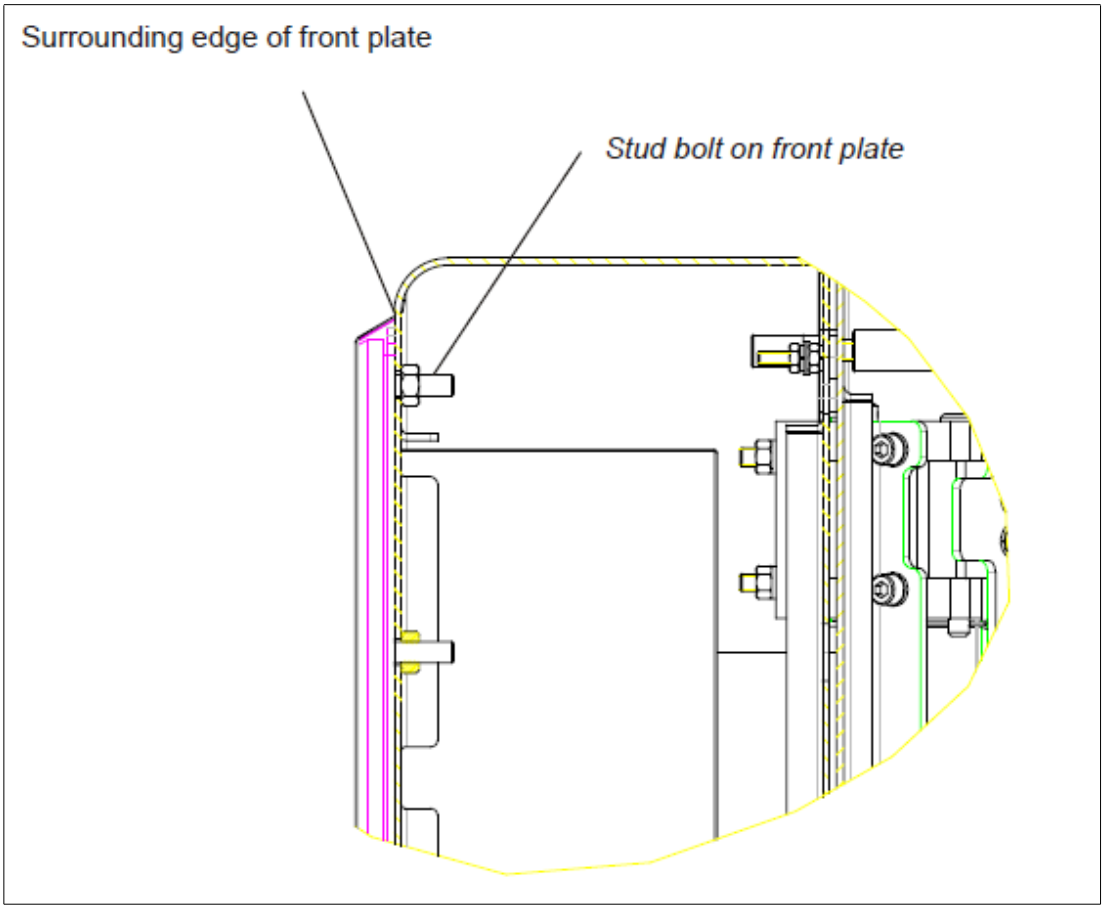
1. Disconnect the supply voltage (24 V DC) for the VisuNet supply line (X1).
2. Open the AG1 housing. See chapter 4.3.5
3. Wait at least three minutes, then open the Ex e terminal compartment X1.



4. Open terminals 1 and 2 in terminal compartment X1.
5. Open the cable gland and disconnect the supply voltage cable.
6. Loosen all other cables in terminal compartments X1 and X2, then open the cable glands and disconnect the cables.
7. Seal all open cable glands in terminal compartment X1 with an Ex e-compatible plug, then tighten the glands securely.
8. Close the covers of the Ex e and Ex i terminal compartments and ensure that they are tightly sealed in accordance with regulations.
9. Disconnect the equipotential bonding conductor between the AG1 housing and the VisuNet EX1.
10. To prevent the VisuNet EX1 from falling to the floor, either secure the EX1 with a ratchet strap prior to loosening the self-locking nut, or ask a second person to help you remove the EX1.
11. Remove the VisuNet EX1 from the AG1 housing. Be sure to wear safety gloves to protect your hands.



Warning!
Risk of damage
When setting the VisuNet EX1 down, do not rest the EX1 on the edge of the front plate.



4.4.2 Installing VisuNet GXP into AG1 Housing

Required Components

- VisuNet GXP 19-inch prepared for panel mounting (S2 option)
- AG1 housing

Required Installation Tools

- 3-mm wide slot head screwdriver
- Phillips head screwdriver
- Cable gland installation tool
- Tools for preparing cables (wire stripper, crimp tool, and wire end ferrules
- Ratchet strap or, preferably, a second person to help you
- Socket wrench extension with size 10 magnetic socket for housing nuts
- Size 5 hex wrench for housing screws
- Size 8 socket wrench for ground bolt
- Methylated spirit or cold cleaner
- Safety gloves

All tools should be torque controlled if torque is specified.

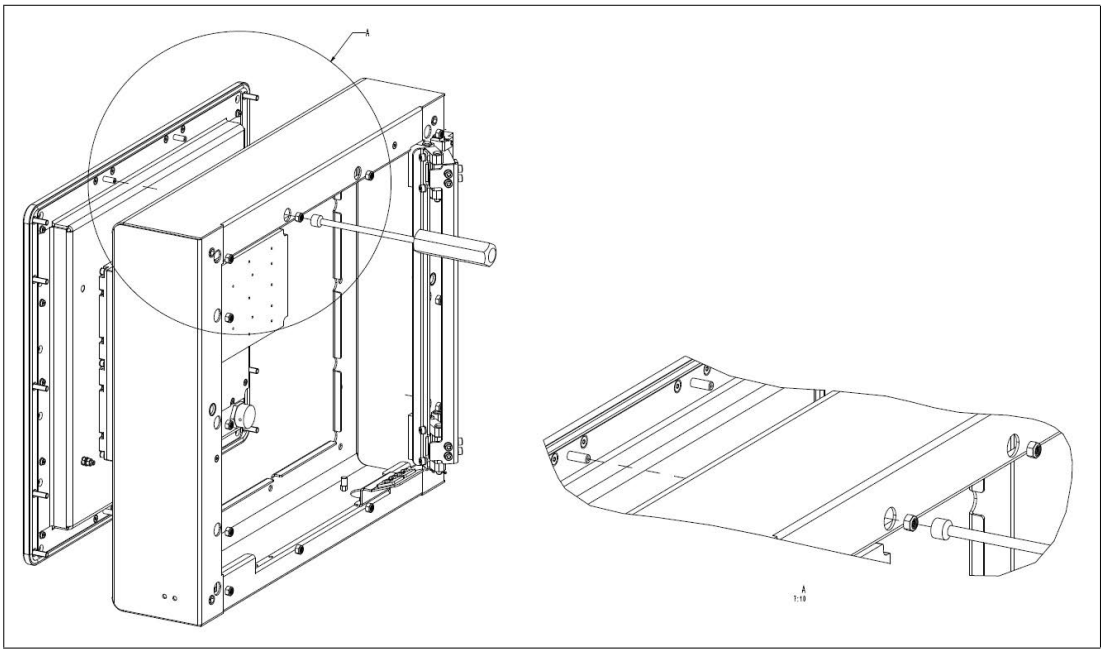
Installing the VisuNet GXP

1. Connect the AG1 housing to an external equipotential bonding conductor.
2. Close the AG1 housing, but do not yet insert the screws to fasten the housing closed.
3. Insert the 19-inch VisuNet GXP into the opening of the AG1 housing. Be sure to wear safety gloves to protect your hands.
4. Ensure that no foreign bodies are attached either to the front plate of the VisuNet GXP or to the connection surface of the AG1 housing. If necessary, clean the surfaces with methylated spirit or cold cleaner before installing the VisuNet GXP.

Note

Check the surrounding seal of the front plate for damage before installing the VisuNet GXP.

5. While securing the VisuNet GXP housing to prevent it from falling, swing the AG1 front housing sideways along with the GXP.
6. Tighten the self-locking nuts onto the threaded pins on the front plate using the magnetic wrench.



7. Connect the equipotential bonding conductor between the AG1 housing and the VisuNet GXP.
8. Wire the terminal compartments as described in the VisuNet TCU/PCU manual.

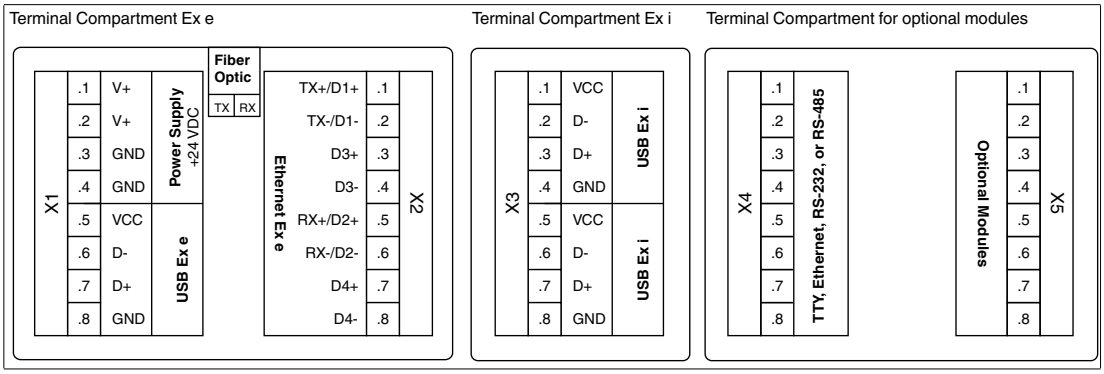


Figure 4.9 Terminal compartments

9. Close the covers of the terminal compartments and ensure that they are tightly sealed in accordance with regulations
10. Close the AG1 housing.
11. Start up the VisuNet GXP and test all connected components.
    1. Switch on the power supply.
    2. Check the functions of the VisuNet RM/PC, e.g., the display, external keyboard, and mouse.
    3. Switch on the machine or plant.
    4. Check the functions of the machine or plant.

4.5 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.



Required Components

- VisuNet GXP 19 inch bezel prepared for panel mounting or mounting into AG1 housing (S2 option, 14 x M6 bolts included)
- No kit for panel mounting required, no panel mount bracket required

Required Installation Tools

- Safety gloves
- Loctite® Threadlocker Blue 243®
- Size 8 socket wrench for ground bolt
- Size 10 socket wrench for mounting nuts
- Appropriate tools (6.5 mm drill size) for creating the cutout

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

If the panel mount option (S2) is chosen, no additional kit for panel mounting is required. You will receive a pre-assembled package consisting of a display unit, a computing unit, and a power supply unit.

Note

If installing the device in a different housing, ensure that the operating temperature is within the specified range or up to +50 °C.

The panel mount option is mounted from the front and placed outside the wall surface. The monitor protrudes slightly and is exposed.

The maximum wall thickness for panel mount installation with the VisuNet GXP is 10 mm.

Use the drilling pattern below to drill holes into the surface in which the panel is to be mounted. Use the included bolts to fasten the panel into the wall. Tighten all bolts with a torque of 4 Nm.

Drilling Pattern

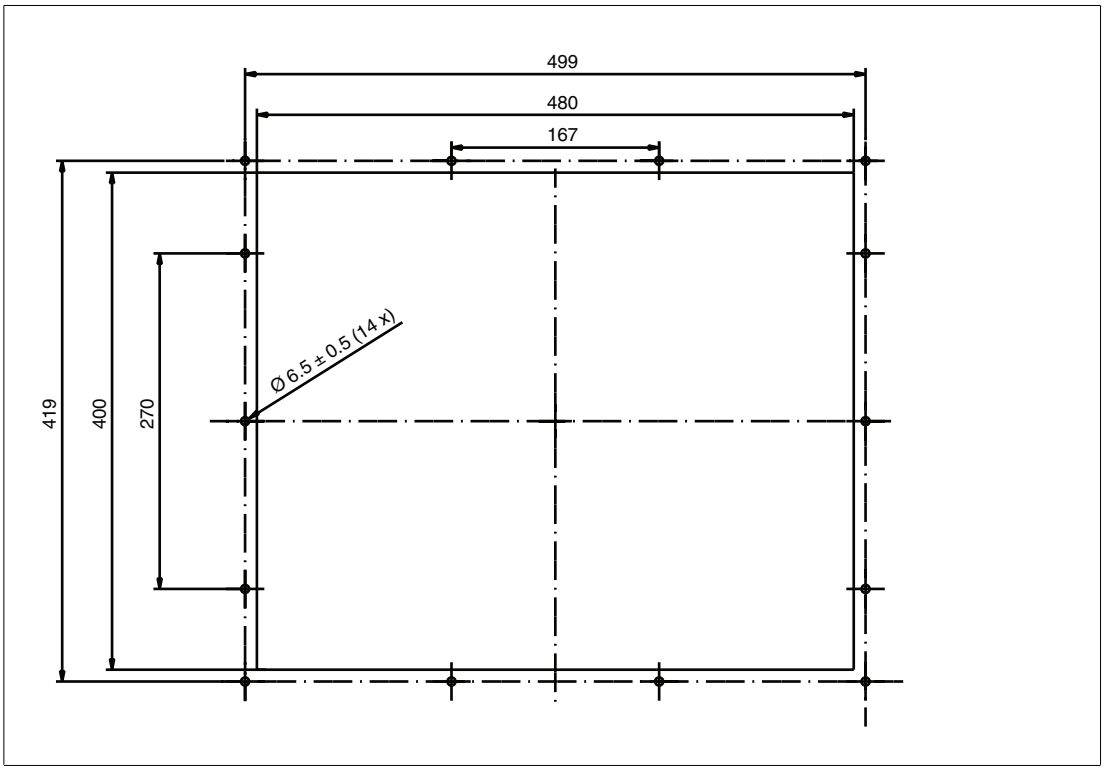


Figure 4.10 The cut-out dimensions for the VisuNet GXP 19-inch are 480 x 400 mm.

Flush Mount Installation

The 19-inch 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 4.11 VisuNet GXP flush mounted

Note

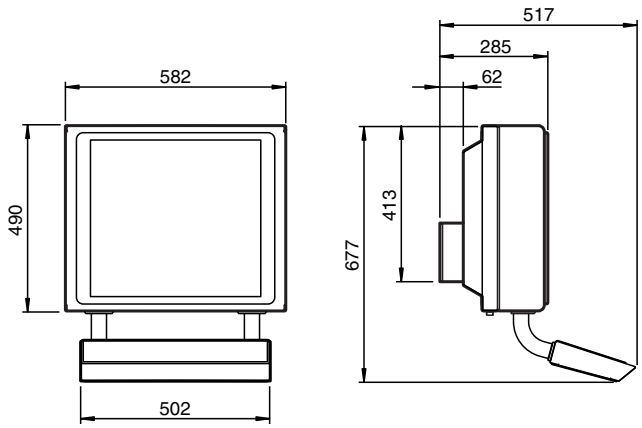
For more options and accessories, contact your local Pepperl+Fuchs sales representative.

4.6 Wall 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.



Required Components

- 19-inch VisuNet GXP prepared for wall mounting (front opening of the AG1 housing H2 option)
- Wall bracket adapter for wall mounting installation compatible with AG1 housing
- Optional EXTA4-* keyboard/mouse (ordered separately)

Required Installation Tools

- 5 mm hex wrench for attaching the wall bracket screws to the AG-XX00-* housing
- Loctite® Threadlocker Blue 243®
- Cable gland installation tool
- Size 8 socket wrench for ground bolt

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

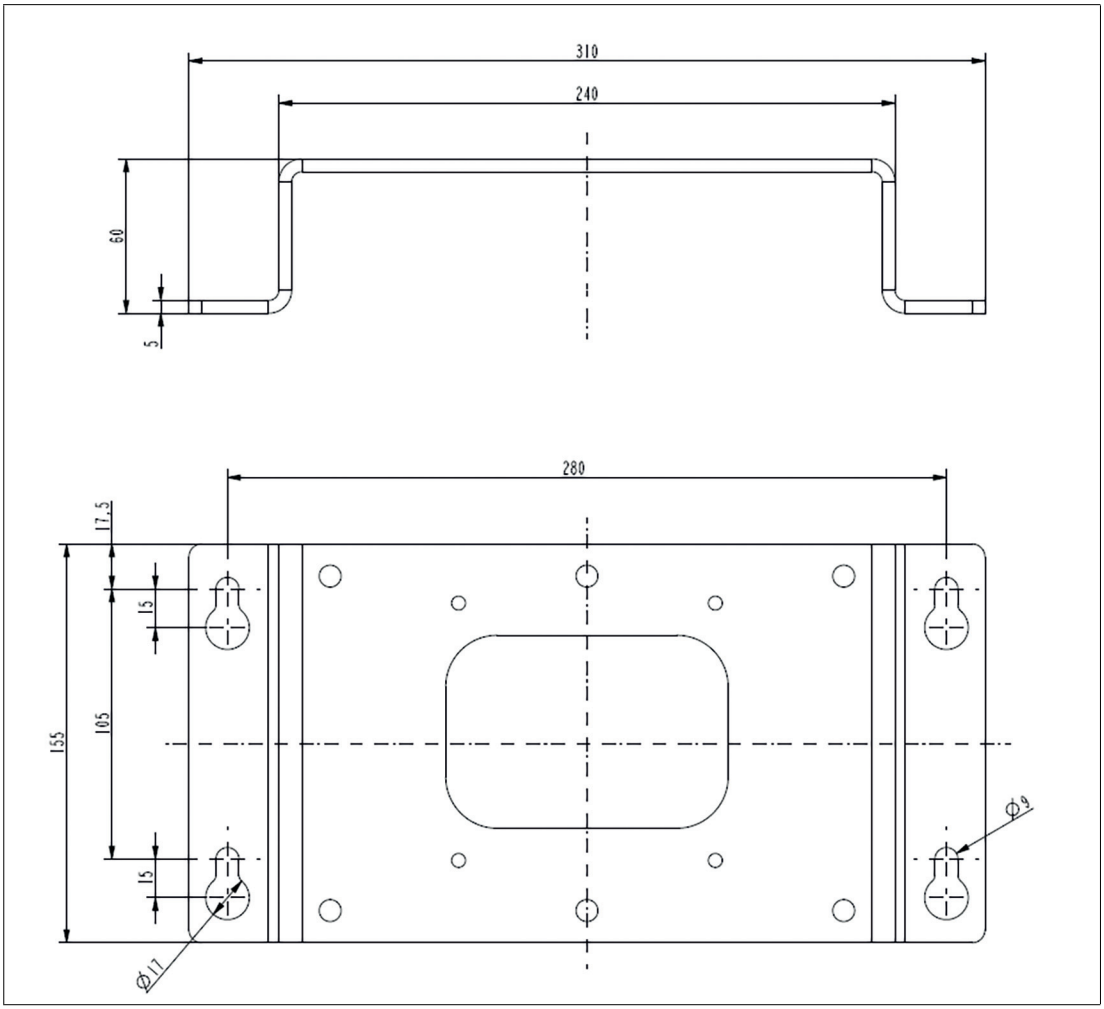
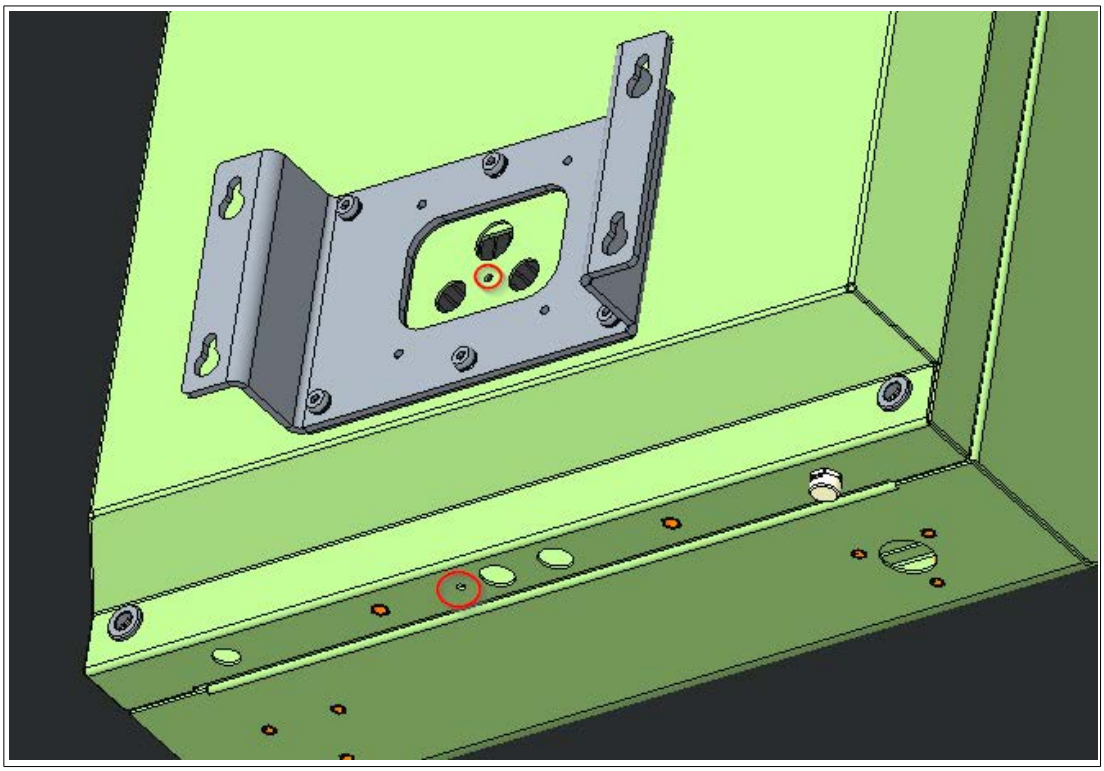


Figure 4.12 Wall bracket dimensions

Installation Steps

1. Open the AG1 housing. See chapter 4.3.5
2. Install cable glands with counter nuts and the two ground studs into the AG1 back wall where indicated in the image below.



3. Close the AG1 housing.
4. Install the wall bracket to the AG1 housing with the included M8 screws and lock washers.
5. Install the assembled unit to the wall with the appropriate mounting material.

Note

Secure the cable gland counter nut with a medium-strength bolt adhesive (e.g., Loctite® Threadlocker Blue 243®).

5 Maintenance

Note

Operating temperature has influence on the VisuNet GXP lifetime.

Frequency Management

The following maintenance intervals must be observed:

Interval	Location	Activity
Daily	Overall device	Visually inspect for loose objects and visible damage
Monthly	Fixing screws	Check that they are seated securely; tighten as necessary

Warning!

Before cleaning the device with a water jet (e.g. by using a high-pressure cleaner), make sure that there is no damage to the device (e.g. display, housing, cable glands, etc.).

6 Appendix

6.1 Glove Compatibility

A list of tested gloves is available at https://www.pepperl-fuchs.com/ under the respective product page in the 'Documentation' section.

6.2 Accessories

Mounting and Installation

Item Number	Type Code	Description
Contact sales for model number selection	PEDESTAL5-XXXX-*	StandardLine or BasicLine pedestal
198768	WALL-BRACKET5	Direct wall mount bracket for VisuNet GXP AG1 housing, stainless steel (1.4301/304

Peripherals

Item Number	Type Code	Description
Contact sales for individual configuration	EXTA4-* product family	Keyboard and mouse system Mounting options for Zone 1/21 hazardous locations
Contact sales for model selection	IDM-Z1-x6x-D*	Corded 1-D and 2-D handheld reader for Zone 1/21
Contact sales for model selection	IDM-Z1-x6x-M*	Bluetooth® 1-D and 2-D handheld reader for Zone 1/21
548333	CBL-IDMx60-D-J1-S-S18-N0	Cable for connecting IDMx-Z1-60-D-* barcode readers to the VisuNet GXP Length: 1.8 m
548334	CBL-IDMx60-D-J1-S-C38-N0	Cable for connecting IDM-Z1-*60-D* or IDM-Z1-*64-D* barcode readers to the VisuNet GXP Length: 3.8 m
548268	SCANNER-HOLDER-U1-AG1-N0	Scanner holder compatible with AG1 housing Material: stainless steel AISI 316L (1.4404) Compatible with IDM-Z1-6x, IDM-6x, ecom Ident-Ex® 01, and PSCAN Prepared for mounting to right side of housing
548395	HOLDER-BRACKET-AG1-IDMx61-B-N0	Bracket to mount IDM-Z1-61-*, IDM-x61-* base station to AG1 housing Material: stainless steel AISI 304 (1.4301) Assembly: right side of AG1 housing Includes bracket and installation materials Note: base station and cables not included!

2026-08

Note

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