

# SIEMENS

## Weighing systems

### Junction boxes SIWAREX JB

#### Operating Instructions

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7MH5001-0AA20 (SIWAREX JB aluminum)  
7MH5001-0AA00 (SIWAREX JB stainless steel)  
7MH5001-0AA01 (SIWAREX JB stainless steel Ex)  
7MH5001-0AA41 (SIWAREX JB polyester Ex)

## Legal information

### Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

 <b>DANGER</b>
indicates that death or severe personal injury <b>will</b> result if proper precautions are not taken.

 <b>WARNING</b>
indicates that death or severe personal injury <b>may</b> result if proper precautions are not taken.

 <b>CAUTION</b>
indicates that minor personal injury can result if proper precautions are not taken.

<b>NOTICE</b>
indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

### Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

### Proper use of Siemens products

Note the following:

 <b>WARNING</b>
Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

### Trademarks

All names identified by ® are registered trademarks of Siemens AG. The remaining trademarks in this publication may be trademarks whose use by third parties for their own purposes could violate the rights of the owner.

### Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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# Introduction

## 1.1 Purpose of this documentation

These instructions contain all information required to commission and use the device. Read the instructions carefully prior to installation and commissioning. In order to use the device correctly, first review its principle of operation.

The instructions are aimed at persons mechanically installing the device, connecting it electronically, configuring the parameters and commissioning it, as well as service and maintenance engineers.

## 1.2 Document history

The most important changes in the documentation when compared with the respective previous edition are given in the following table.

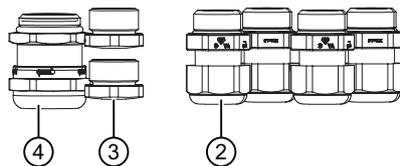
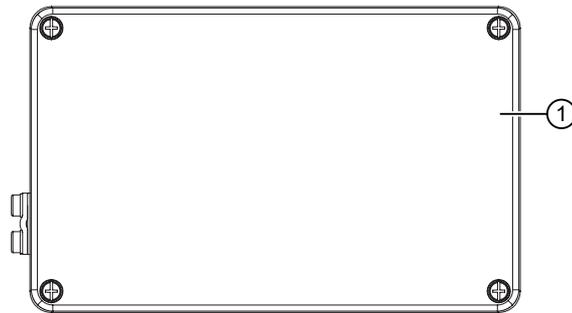
Manual edition	Note
09/2022	Safety instructions revised Technical specifications updated
08/2021	Polyester enclosure added Technical specifications updated

## 1.3 Checking the consignment

1. Check the packaging and the delivered items for visible damages.
2. Report any claims for damages immediately to the shipping company.
3. Retain damaged parts for clarification.
4. Check the scope of delivery by comparing your order to the shipping documents for correctness and completeness.

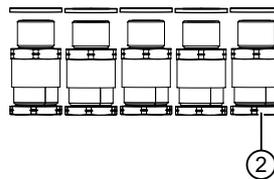
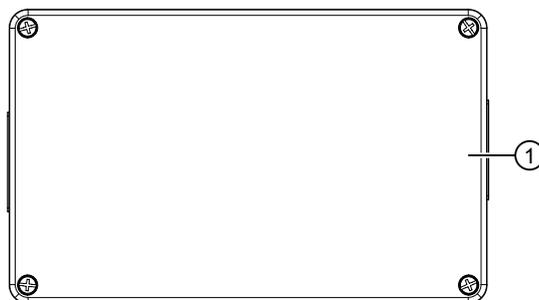
 <b>WARNING</b>
<p><b>Using a damaged or incomplete device</b></p> <p>Risk of explosion in hazardous areas.</p> <ul style="list-style-type: none"> <li>• Do not use damaged or incomplete devices.</li> </ul>

## 1.4 Scope of delivery



- ① Junction box with cover
- ② 4 x M16 x 1.6 plastic/metal cable glands
- ③ 2 x M16 x 1.5 plastic/metal blanking plugs
- ④ 1 x M20 x 1.5 EMC cable gland

Figure 1-1 Scope of delivery: Stainless steel and aluminum enclosure



- ① Junction box with cover
- ② 5 x M20 x 1.5 EMC cable gland

Figure 1-2 Scope of delivery: Polyester enclosure

## 1.5 Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place.

For additional information on industrial security measures that may be implemented, please visit

<https://www.siemens.com/industrialsecurity>.

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Security RSS Feed under

<https://www.siemens.com/industrialsecurity>.

## 1.6 Transportation and storage

To guarantee sufficient protection during transport and storage, observe the following:

- Keep the original packaging for subsequent transportation.
- Devices/replacement parts should be returned in their original packaging.
- If the original packaging is no longer available, ensure that all shipments are properly packaged to provide sufficient protection during transport. Siemens cannot assume liability for any costs associated with transportation damages.

### NOTICE

#### Insufficient protection during storage

The packaging only provides limited protection against moisture and infiltration.

- Provide additional packaging as necessary.

Special conditions for storage and transportation of the device are listed in Technical data (Page 31).

## 1.7 Notes on warranty

The contents of this manual shall not become part of or modify any prior or existing agreement, commitment or legal relationship. The sales contract contains all obligations on the part of Siemens as well as the complete and solely applicable warranty conditions. Any statements regarding device versions described in the manual do not create new warranties or modify the existing warranty.

The content reflects the technical status at the time of publishing. Siemens reserves the right to make technical changes in the course of further development.

## Safety information

### 2.1 Prerequisites for safe use

This device left the factory in good working condition. In order to maintain this status and to ensure safe operation of the device, observe these instructions and all the specifications relevant to safety.

Observe the information and symbols on the device. Do not remove any information or symbols from the device. Always keep the information and symbols in a completely legible state.

Symbol	Explanation
	Consult operating instructions

#### 2.1.1 Laws and directives

Observe the safety rules, provisions and laws applicable in your country during connection, assembly and operation. These include, for example:

- National Electrical Code (NEC - NFPA 70) (USA)
- Canadian Electrical Code (CEC) (Canada)

Further provisions for hazardous area applications are for example:

- IEC 60079-14 (international)
- EN 60079-14 (EU)

#### 2.1.2 Conformity with European directives

The CE mark on the device is a sign of conformity with the following European directives:

Electromagnetic compatibility EMC 2014/30/EU	Directive of the European Parliament and of the Council on the harmonization of the laws of the Member States relating to electromagnetic compatibility
Atmosphère explosible ATEX 2014/34/EU	Directive of the European Parliament and of the Council on the harmonization of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres
2011/65/EU RoHS	Directive of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment

The applicable directives can be found in the EU conformity declaration of the specific device.

**See also**

Certificates and approvals (Page 34)

 <b>WARNING</b>
<b>Improper device modifications</b> Risk to personnel, system and environment can result from modifications to the device, particularly in hazardous areas. <ul style="list-style-type: none"><li>• Only carry out modifications that are described in the instructions for the device. Failure to observe this requirement cancels the manufacturer's warranty and the product approvals.</li></ul>

## 2.2 Requirements for special applications

Due to the large number of possible applications, each detail of the described device versions for each possible scenario during commissioning, operation, maintenance or operation in systems cannot be considered in the instructions. If you need additional information not covered by these instructions, contact your local Siemens office or company representative.

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**Note**

**Operation under special ambient conditions**

We highly recommend that you contact your Siemens representative or our application department before you operate the device under special ambient conditions as can be encountered in nuclear power plants or when the device is used for research and development purposes.

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## 2.3 Use in hazardous areas

**Qualified personnel for hazardous area applications**

Persons who install, connect, commission, operate, and service the device in a hazardous area must have the following specific qualifications:

- They are authorized, trained or instructed in operating and maintaining devices and systems according to the safety regulations for electrical circuits, high pressures, aggressive, and hazardous media.
- They are authorized, trained, or instructed in carrying out work on electrical circuits for hazardous systems.
- They are trained or instructed in maintenance and use of appropriate safety equipment according to the pertinent safety regulations.

 <b>WARNING</b>
<b>Use in hazardous area</b>
Risk of explosion.
<ul style="list-style-type: none"><li>• Only use equipment that is approved for use in the intended hazardous area and labeled accordingly.</li><li>• Do not use devices that have been operated outside the conditions specified for hazardous areas. If you have used the device outside the conditions for hazardous areas, make all Ex markings unrecognizable on the nameplate.</li></ul>

 <b>WARNING</b>
<b>Loss of safety of device with type of protection "Intrinsic safety Ex i"</b>
If the device or its components have already been operated in non-intrinsically safe circuits or the electrical specifications have not been observed, the safety of the device is no longer ensured for use in hazardous areas. There is a risk of explosion.
<ul style="list-style-type: none"><li>• Connect the device with type of protection "Intrinsic safety" solely to an intrinsically safe circuit.</li><li>• Observe the specifications for the electrical data on the certificate and/or in Technical data (Page 31).</li></ul>

### 2.3.1 Special conditions

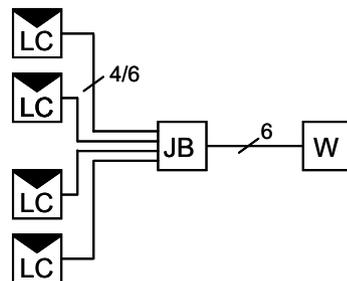
1. The permissible ambient temperature range is -40°C to +80°C. For ambient temperatures  $\geq 60^\circ\text{C}$ , use corresponding temperature resistant cables.
2. The circuits that are connected must be only intrinsically safe or only non-intrinsically safe. Mixing is not allowed. If the Ex terminal box type SIWAREX JB has been operated on non-intrinsically safe circuits, the subsequent use as intrinsically safe equipment in the hazardous area is not permitted.
3. Cable glands that are not required must be closed off with appropriate screw plugs.
4. If the Ex terminal box type SIWAREX JB is operated non-intrinsically safe or intrinsically safe with circuits grounded on both sides, the inner and outer connection for the equipotential bonding conductor must be connected to the local equipotential bonding.
5. Further information and safety instructions in the operating instructions must be observed accordingly.



## Description

### 3.1 Applications

The SIWAREX JB junction box is used in weighing systems with extra-low voltages  $\leq 30$  V. The SIWAREX JB junction box is used to connect load cells to the electronic weighing system. You can connect up to four load cells in parallel in a junction box.



- LC Load cell
- JB SIWAREX JB junction box
- W Electronic weighing system

Figure 3-1 Connection design for up to four load cells

If you have more than four load cells, connect an additional SIWAREX JB junction box in parallel using a cross-connection. The extension set is required for this, see Accessories (Page 39). The cross-connection allows you to connect up to three load cells in the first junction box. Up to four load cells can be connected in the second junction box.

Load cells with 4-wire and 6-wire strain gauges can be connected.

The cable connection from the junction box to the electronic weighing system and between two junction boxes is implemented with a six-wire system.

Description

3.1 Applications

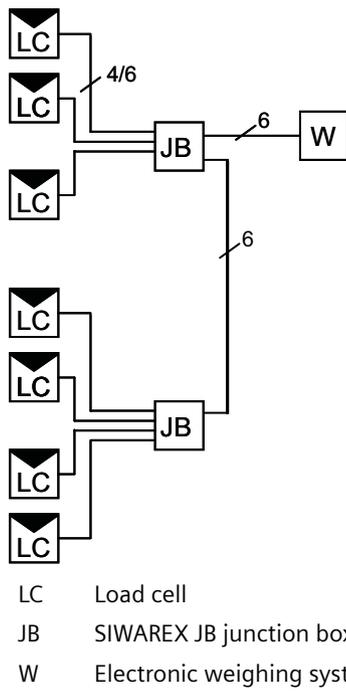
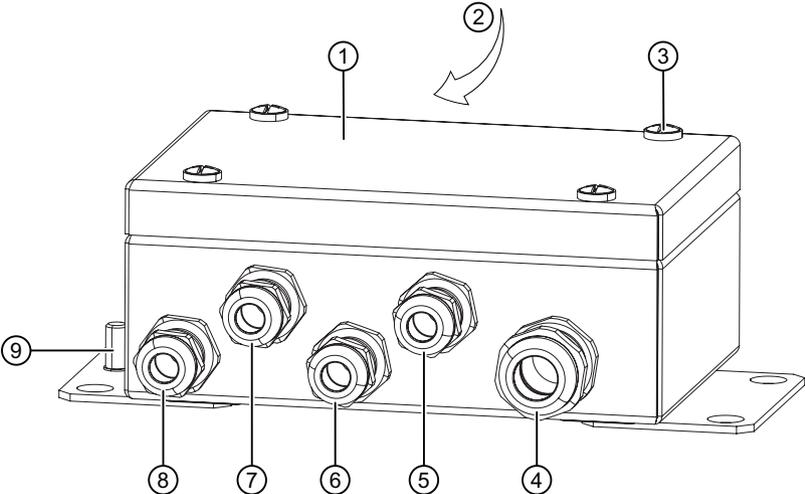


Figure 3-2    Application design with more than four load cells

### 3.2 Design

#### 3.2.1 Stainless steel enclosure



- ① Cover
- ② Back of nameplate  
Optional: Nameplate with information on the hazardous area
- ③ Screw for cover (4x)
- ④ EMC cable gland for the signal cable to the electronic weighing system or "Ex barrier"
- ⑤ ⑥ EMC cable gland for the connecting cable of a load cell
- ⑦ ⑧
- ⑨ Mounting flange for equipotential-bonding conductor

Figure 3-3 Stainless steel enclosure

### 3.2.2 Aluminum enclosure

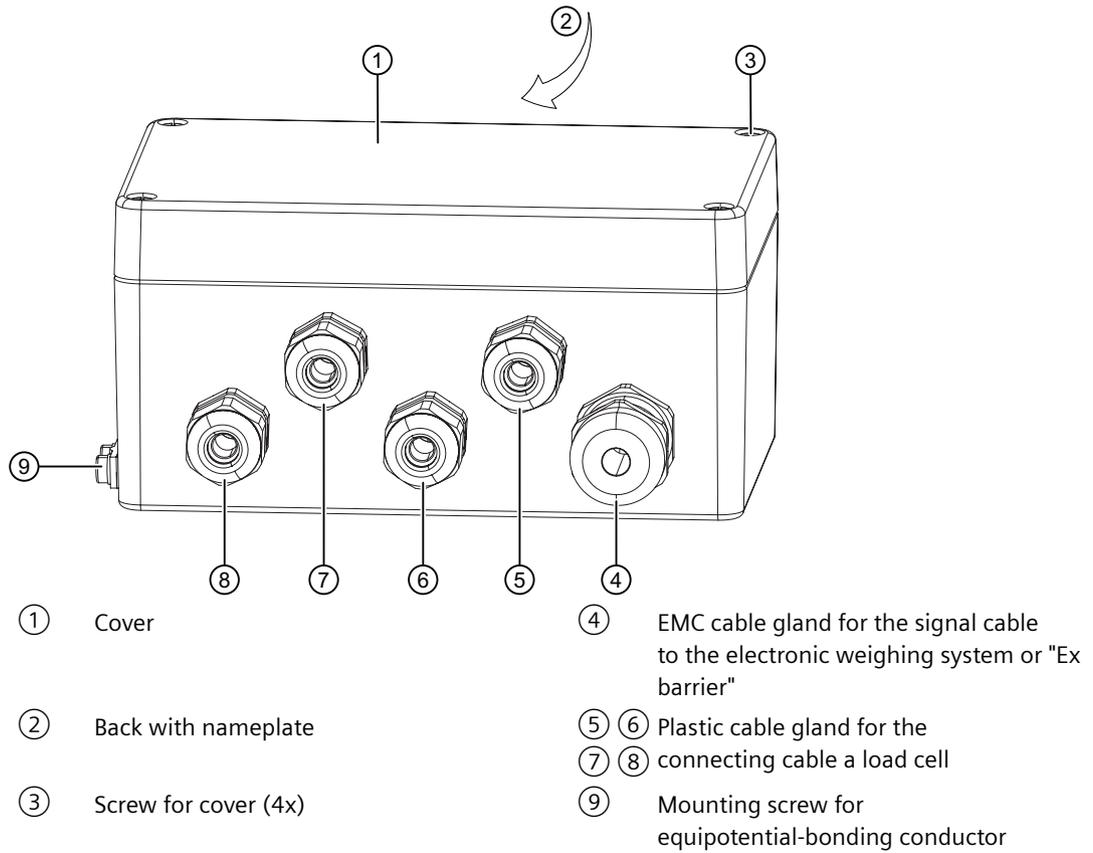
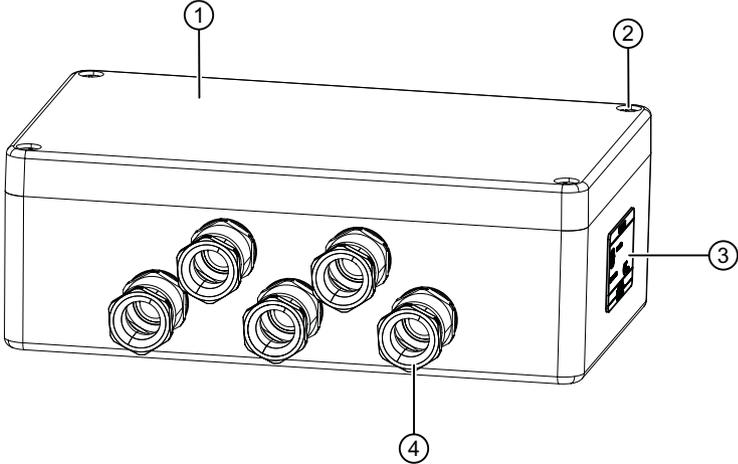


Figure 3-4 Aluminum enclosure

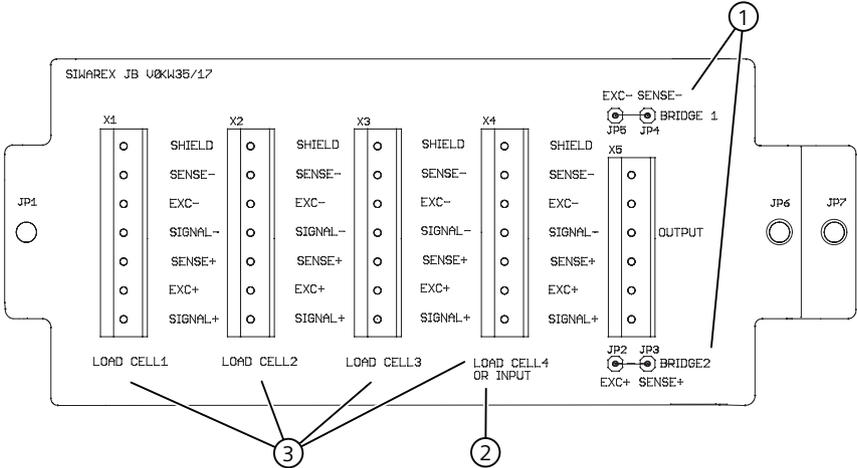
### 3.2.3 Polyester enclosure



- ① Cover
- ② Screw for cover (4x)
- ③ Nameplate
- ④ Cable glands

Figure 3-5 Polyester enclosure

### 3.2.4 Internal view



- ① Disconnect wire jumper [BRIDGE 1 and BRIDGE 2] for the connection of Load cells with six-wire system (Page 27)
- ② Output terminal [OUTPUT] for signal cable for weighing electronics
- ③ Load cell terminals [LOAD CELL 1 ... LOAD CELL 4]

Figure 3-6 Internal view SIWAREX JB

See also

Connecting (Page 23)

### 3.3 Nameplates

The nameplate shows the article number and other important product information.

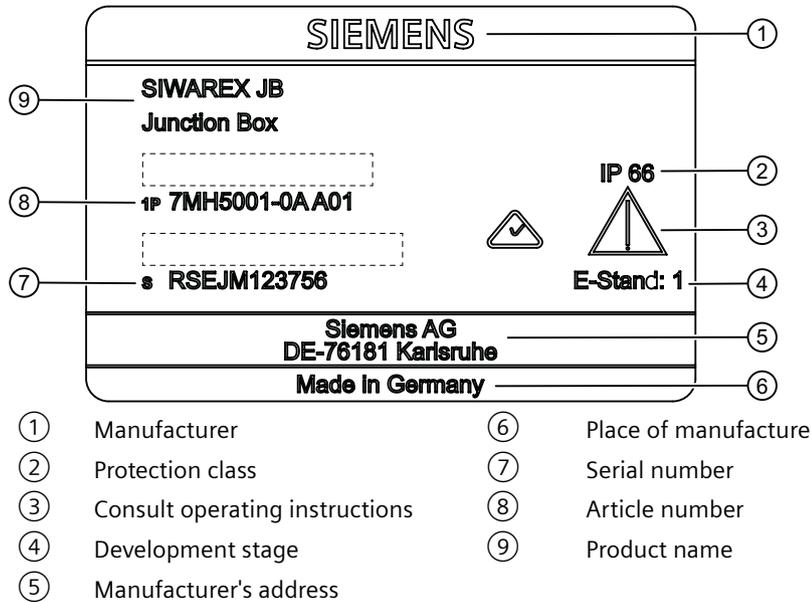


Figure 3-7 Example nameplate with general information

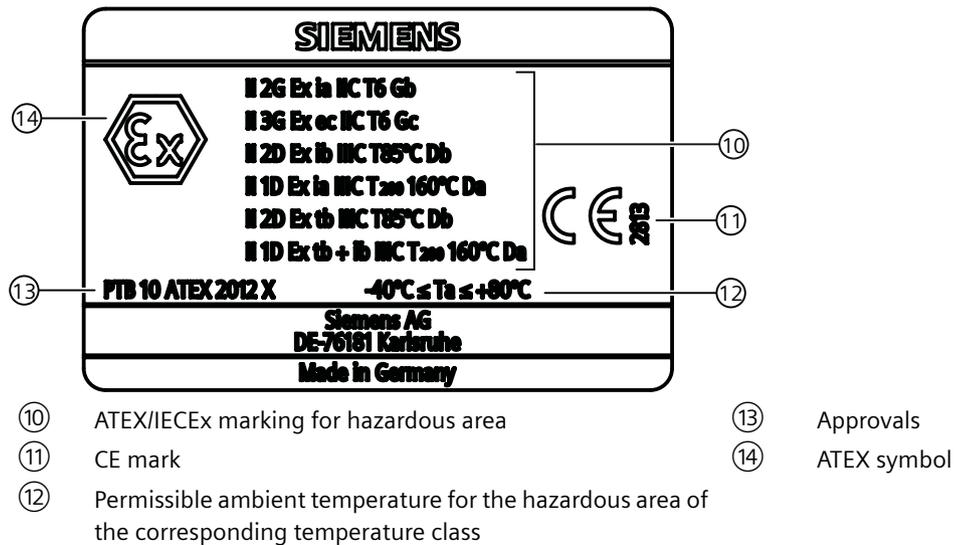


Figure 3-8 Example nameplate with information on the hazardous area

## Application planning

### 4.1 Cable glands

The signal cable to the electronic weighing system is fed into the enclosure through an EMC cable gland. A high level of protection against electromagnetic interference (EMI) is achieved due to the large area shielding in the cable gland. The cable glands are made of nickel-plated brass.

The aluminum SIWAREX JB junction box is equipped with plastic cable glands as standard. The connecting cables of the load cells are fed into the enclosure through plastic cable glands. The shielding is attached to screw terminals. If electromagnetic interference from the load cell cables is expected in the system, the plastic cable glands can be replaced with EMC cable glands. EMC cable glands are available as accessories (Page 39). Maximum immunity to interference is achieved by the large area shielding layer.

The stainless steel SIWAREX JB junction box is equipped with EMC cable glands as standard. The connecting cables of the load cells are fed into the enclosure through EMC cable glands. A high level of protection against electromagnetic interference (EMI) is achieved due to the large area shielding in the cable gland. The cable glands are made of nickel-plated brass.

Purchase EMC cable glands in stainless steel from the appropriate suppliers. Note that the cable glands must be approved for the respective applications. See Service and support (<http://www.siemens.com/automation/service&support>)

#### See also

Ordering data (Page 39)



# Installing/mounting

## 5.1 Basic safety instructions

<b>NOTICE</b>
<b>Incorrect mounting</b> The device can be damaged, destroyed, or its functionality impaired through improper mounting. <ul style="list-style-type: none"><li>• Before installing ensure there is no visible damage to the device.</li><li>• Make sure that process connectors are clean, and suitable gaskets and glands are used.</li><li>• Mount the device using suitable tools. Refer to the information in Technical data (Page 31).</li></ul>

## 5.2 Install the junction box

### Introduction

You can mount the junction box in any position. The cable glands should point downward.

### Condition

The cover is open.

### Procedure

1. Prepare the installation location.
2. Set the holes according to the dimension drawings.  
Dimension drawings (Page 35)
3. Screw the junction box securely to the wall with four screws.



# Connecting

## 6.1 Basic safety instructions

### WARNING

#### Unsuitable cables, cable glands and/or plugs

Risk of explosion in hazardous areas.

- Use only cable glands/plugs that comply with the requirements for the relevant type of protection.
- Tighten the cable glands in accordance with the torques specified in Technical data (Page 31).
- Close unused cable inlets for the electrical connections.
- When replacing cable glands, only use cable glands of the same type.
- After installation, check that the cables are seated firmly.

### WARNING

#### Lack of equipotential bonding

Risk of explosion through compensating currents or ignition currents through lack of equipotential bonding.

- Ensure that the device is potentially equalized.

**Exception:** It may be permissible to omit connection of the equipotential bonding for devices with type of protection "Intrinsic safety Ex i".

### WARNING

#### Improper laying of shielded cables

Risk of explosion through compensating currents between hazardous area and the non-hazardous area.

- Shielded cables that cross into hazardous areas should be grounded only at one end.
- If grounding is required at both ends, use an equipotential bonding conductor.

### WARNING

#### Mixing intrinsically safe and non-intrinsically safe circuits

Danger of explosion in hazardous areas.

- Connect either only intrinsically safe or only non-intrinsically safe circuits. Mixing is not allowed.

**NOTICE****Loss of degree of protection**

Damage to device if the enclosure is open or not properly closed. The degree of protection specified in the technical specifications is only guaranteed if the device is installed correctly.

- Keep sealing surfaces clean.
- Close any unused openings in the junction box enclosure using a cap screw.

**NOTICE****Incorrect connection to screw-type terminals**

Short-circuit or contact problems.

The stripped litz wire may buckle when it is inserted into the terminal. In this case, the cable is clamped to the insulation.

- Use end sleeves for small conductor cross-sections.
- Remove dirt or cable residue from the enclosure.

**NOTICE****Condensation in the device**

Damage to device through formation of condensation if the temperature difference between transportation or storage and the mounting location exceeds 20 °C (36 °F).

- Before taking the device into operation, let the device adapt for several hours in the new environment.

**NOTICE****Ambient temperature too high**

Damage to cable sheath.

- At an ambient temperature  $\geq 60$  °C (140 °F), use heat-resistant cables suitable for an ambient temperature at least 20 °C (36 °F) higher.

## 6.2 Connecting SIWAREX JB to the electronic weighing system and load cell

### Procedure

1. Open the cover of the SIWAREX JB.
2. Screw in an M16 x 1.5 cable gland for each load cell.
3. Screw in an M20 x 1.5 EMC cable gland for the signal cable to the electronic weighing system.

4. Wire the SIWAREX JB to the load cell and the electronic weighing system in accordance with Wiring diagrams (Page 25).  
To learn how to connect the cable, see section Connecting the cable (Page 28).
5. Close any unused opening in the enclosure with a blanking plug.
6. Connect the equipotential bonding conductor to the outside of the enclosure.  
Use shielded cable lugs.
7. Close the cover of the SIWAREX JB according to the tightening torque (Page 31).

## 6.3 Wiring diagrams

### 6.3.1 Load cells with four-wire system

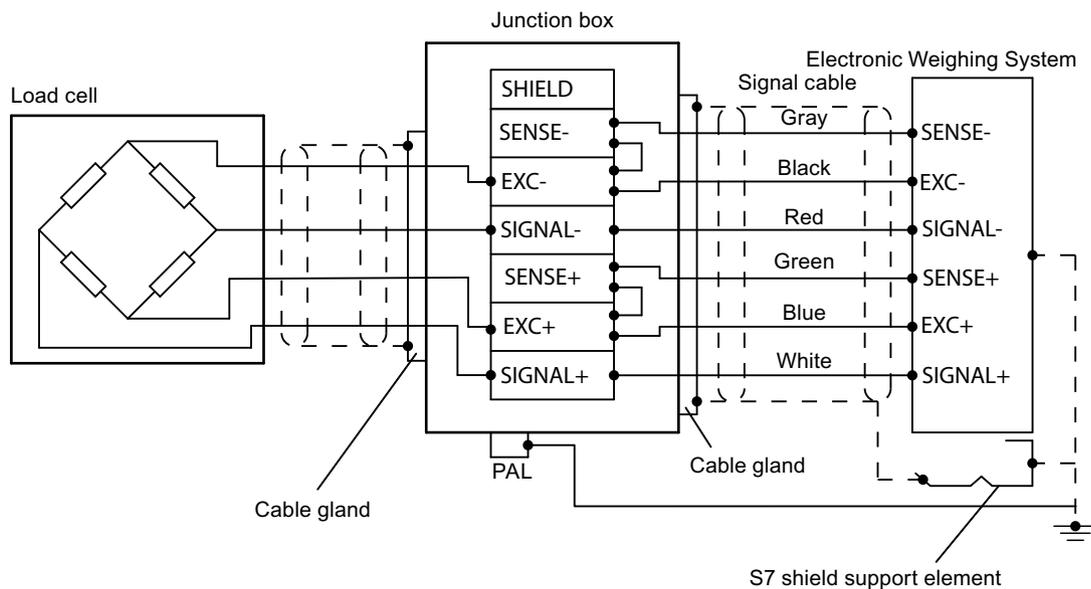


Figure 6-1 Cable shield of the signal cable connected to EMC cable gland

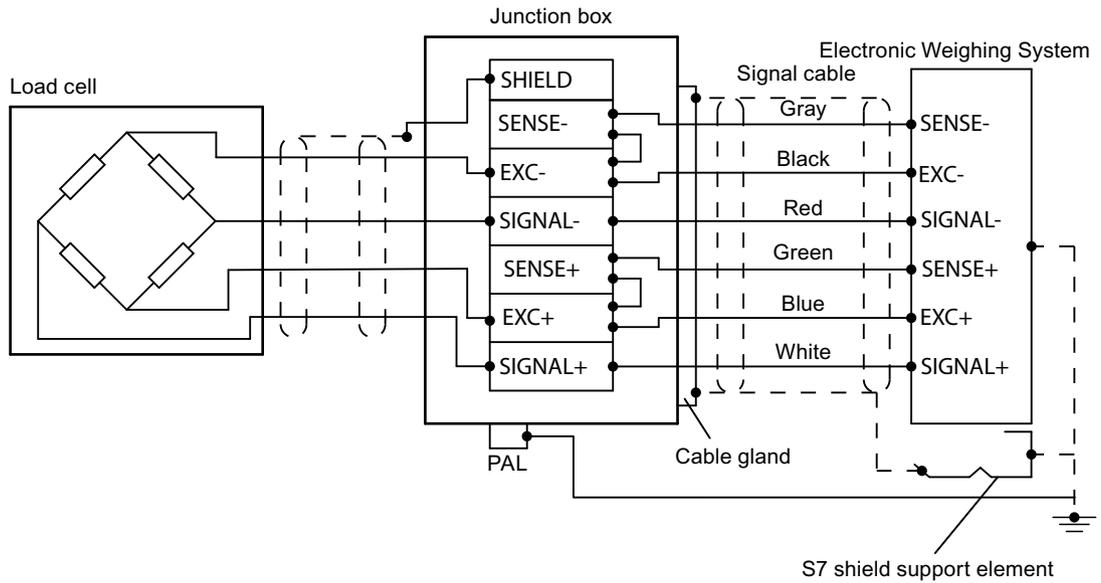


Figure 6-2 Cable shield of the signal cable connected to shield terminal

The following wire jumpers are set by default:

Wire jumper	From terminal	To terminal
1	EXC-	SENSE-
2	EXC+	SENSE+

**Note**

If the wire jumpers are missing, the electronic weighing system reports a wire break.

### 6.3.2 Load cells with six-wire system

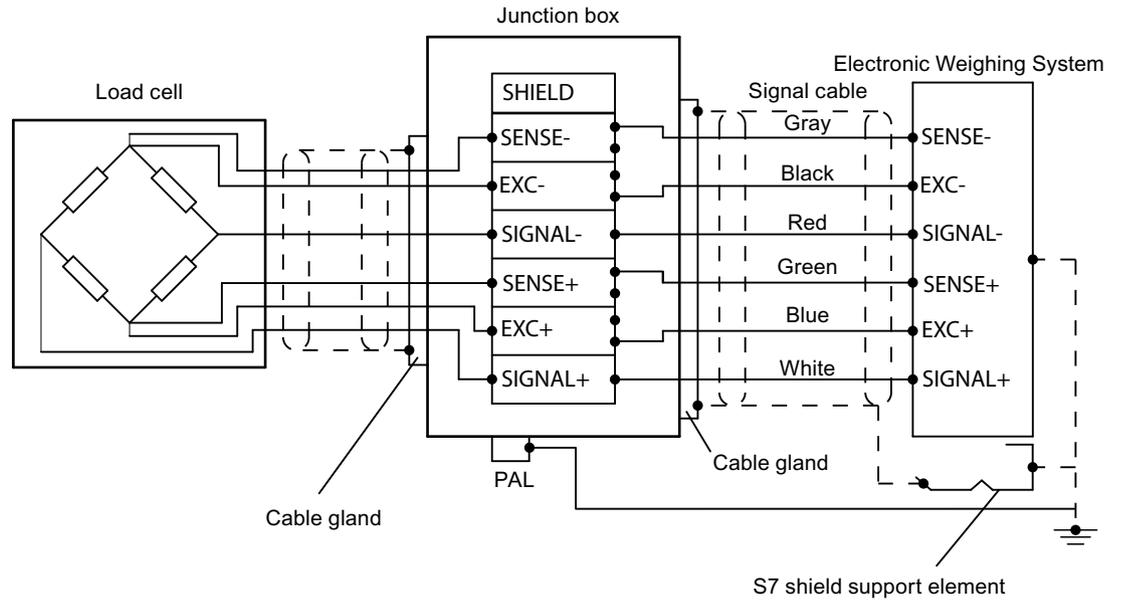


Figure 6-3 Cable shield of load cell cable connected to EMC cable gland

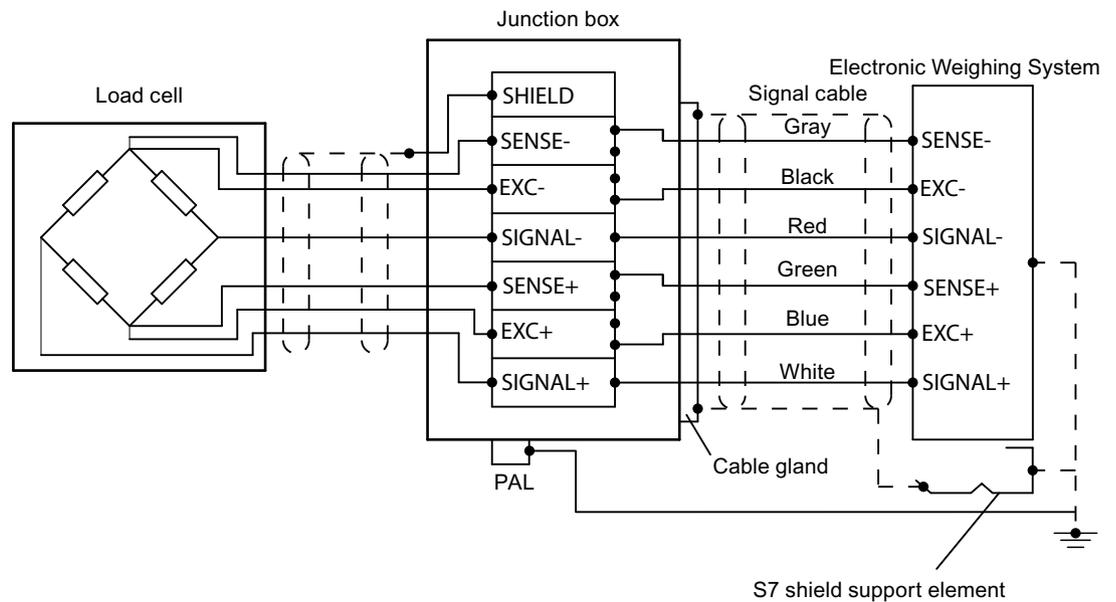


Figure 6-4 Cable shield of load cell cable connected to shield terminal

- Disconnect the following wire jumpers:

Wire jumper	From terminal	To terminal
1	EXC-	SENSE-
2	EXC+	SENSE+

See also

Internal view (Page 17)

## 6.4 Connecting the cable

### Requirement

You require a screwdriver with a maximum blade width of 3.5 mm.

### Procedure

1. In EMC cable glands, lay the cable shielding over a large area.

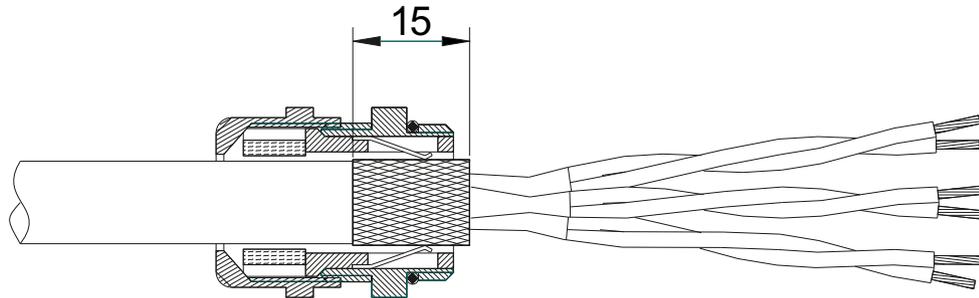


Figure 6-5 Place the cable shield in the EMC cable gland

2. With plastic cable glands, place the corresponding wire of the SIWAREX load cell on the shield terminal.
3. Strip at least 6 mm of insulation from the load cell cable.

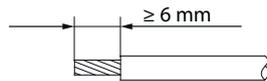


Figure 6-6 Strip cable

4. Insert the stripped load cell cable into the square opening of the screw terminal as far as it will go.
5. Tighten the screws with the specified tightening torque (Page 31).

### Result

The tightened screw firmly holds the stripped wire and establishes the contact.

## Service and maintenance

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**Note**

The device is maintenance-free.

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### 7.1 Disposal



Devices described in this manual should be recycled. They may not be disposed of in the municipal waste disposal services according to the Directive 2012/19/EC on waste electronic and electrical equipment (WEEE).

Devices can be returned to the supplier within the EC, or to a locally approved disposal service for eco-friendly recycling. Observe the specific regulations valid in your country.

Further information about devices containing batteries can be found at: Information on battery/product return (WEEE) (<https://support.industry.siemens.com/cs/document/109479891/>)

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**Note****Special disposal required**

The device includes components that require special disposal.

- Dispose of the device properly and environmentally through a local waste disposal contractor.
-



## Technical data

### 8.1 Rated conditions

SIWAREX JB is simple electrical equipment according to EN 60079-11 and can be used in intrinsically safe circuits including in hazardous areas. The connection board of SIWAREX JB meets the requirements for disconnecting intrinsically safe circuits: Clearances and creepage distances: > 2 mm.

Ambient condition	Value
Ambient temperature	-40 to +80 °C
Storage temperature	-40 ... +70 °C
Degree of protection	IP66, DIN 60529 for the terminal box with aluminum and stainless steel enclosure IP54, DIN 60529 for the terminal box with polyester enclosure

### 8.2 Construction

Table 8-1 Stainless steel enclosure without ATEX approval

Variable	Value		
Enclosure material	Stainless steel 1.4301		
Weight	Approx. 0.9 kg		
Color	Polished stainless steel		
Cable glands	Screw	Terminal area	Tightening torque
• Load cells	M16 x 1.5 mm	4.5 ... 9 mm	10 Nm
• Signal cable	M20 x 1.5 mm	7 ... 12.5 mm	12 Nm
Screw terminals			
• Vibration test	according to DIN EN 60068 2 6: 1996 05 10 ... 150 ... 10 Hz, amplitude 0.35 mm		
• Tightening torque	Maximum 0.6 Nm		
Core cross-section	0.14 ... 1.5 mm <sup>2</sup>		
Tightening torque mounting screw of the cover	1 ... 1.5 Nm		

Table 8-2 Stainless steel enclosure with ATEX approval

Variable	Value
Enclosure material	Stainless steel 1.4301
Weight	Approx. 0.9 kg

## Technical data

### 8.2 Construction

Variable	Value		
Color	Polished stainless steel		
Cable glands	Screw connection	Terminal area	Tightening torque
• Load cells	M16 x 1.5 mm	4 ... 8 mm	6 Nm
• Signal cable	M20 x 1.5 mm	10 ... 14 mm	10 Nm
Screw terminals			
• Vibration test	according to DIN EN 60068 2 6: 1996 05 10 ... 150 ... 10 Hz, amplitude 0.35 mm		
• Tightening torque	Maximum 0.6 Nm		
Core cross-section	0.14 ... 1.5 mm <sup>2</sup>		
Tightening torque mounting screw of the cover	1 ... 1.5 Nm		

Table 8-3 Aluminum enclosure without ATEX approval

Variable	Value		
Enclosure material	Pressure die cast aluminum housing DIN EN 1706 EN AC-ALSi 12 (Fe)		
Weight	approx. 1 kg		
Color	Powder-coated, anthracite		
Cable glands	Screw connection	Terminal area	Tightening torque
• Load cells	M16 x 1.5 mm	5 ... 10 mm	2.5 Nm
• Signal cable	M20 x 1.5 mm	7 ... 12.5 mm	12 Nm
Screw terminals			
• Vibration test	according to DIN EN 60068 2 6: 1996 05 10 ... 150 ... 10 Hz, amplitude 0.35 mm		
• Tightening torque	Maximum 0.6 Nm		
Core cross-section	0.14 ... 1.5 mm <sup>2</sup>		
Tightening torque mounting screw of the cover	1.5 ... 2 Nm		

### See also

Accessories (Page 39)

Table 8-4 Polyester enclosure with ATEX approval

Variable	Value		
Enclosure material	Glass-fiber reinforced, duroplastic polyester with graphite additive		
Weight	2.688 kg		
Color	RAL 9011, graphite black		
Cable glands	Screw connection	Terminal area	Tightening torque
	M20 x 1.5 mm	3.2 ... 8 mm	25 Nm

Variable	Value
Screw terminals	
• Vibration test	according to DIN EN 60068 2 6: 1996 05 10 ... 150 ... 10 Hz, amplitude 0.35 mm
• Tightening torque	Maximum 0.6 Nm
Core cross-section	0.14 ... 1.5 mm <sup>2</sup>
Tightening torque mounting screw of the cover	2 ... 2.5 Nm

Cable	Version
Load cell cable	SIWAREX load cells are supplied with connecting cables.
Power and signal cable	The junction box is connected to the electronic weighing system via the power and signal cable.
	
Use Copper Conductors Only	
• Shielded cable	4 cores
• Recommended cable	SIWAREX cable Li2Y2x0,75St+2x(2x0,34St)-CY See section Accessories (Page 39)
• Maximum length	See Electronic weighing system manual ( <a href="https://support.industry.siemens.com/cs/ww/en/ps/17796/man">https://support.industry.siemens.com/cs/ww/en/ps/17796/man</a> )
• Diameter of individual conductors	≥ 0.1 mm (hazardous area)
Equipotential bonding conductor (function earth cable)	At least 4 mm <sup>2</sup>
	
Use Copper, Copper-Clad Aluminum, or Aluminum Conductors	

## 8.3 Electrical specifications

Variable	Value
Rated voltage	Max. 400 V AC
Load current	Max. 13.5 A
U <sub>m</sub> 250 V AC	Rated voltage AC 45 V
I <sub>m</sub> = 10 A	Load current 1 A
For the application increased safety Ex e and dust protection Ex tb	Power 10 W
For application intrinsically safe (Ex i) in accordance with EN 60079-11	Maximum values: U <sub>i</sub> = 30 V or I <sub>i</sub> = 1 A P <sub>i</sub> = 4.2 W

## 8.4 Certificates and approvals

ATEX	
Standard	Certificate number
EN IEC 60079-0:2018	PTB 10 ATEX 2012X
EN 60079-11:2012	
EN IEC 60079-7:2015 +A1:2018	
EN 60079-31:2014	
• "Intrinsically safe ia" protection type	Zones 1, 2, 20, 21, 22
Identification	II 2 G Ex ia IIC T6 Gb
• ATEX	II 1 D Ex ia IIIC T <sub>200</sub> 160 °C Da II 2 D Ex ib IIIC T85 °C Db I M 1 Ex ia I Ma
• Type of protection "increased safety ec"	Zone 2
Identification	
• ATEX	II 3 G Ex ec IIC T6 Gc
• Type of protection "dust explosion protection by enclosure"	Zone 20, 21 and 22
Identification	II 2 D Ex tb IIIC T85 °C Db
• ATEX	II 1 D Ex tb + ib IIIC T <sub>200</sub> 160 °C Da

## Dimension drawings

### 9.1 Dimension drawing stainless steel enclosure

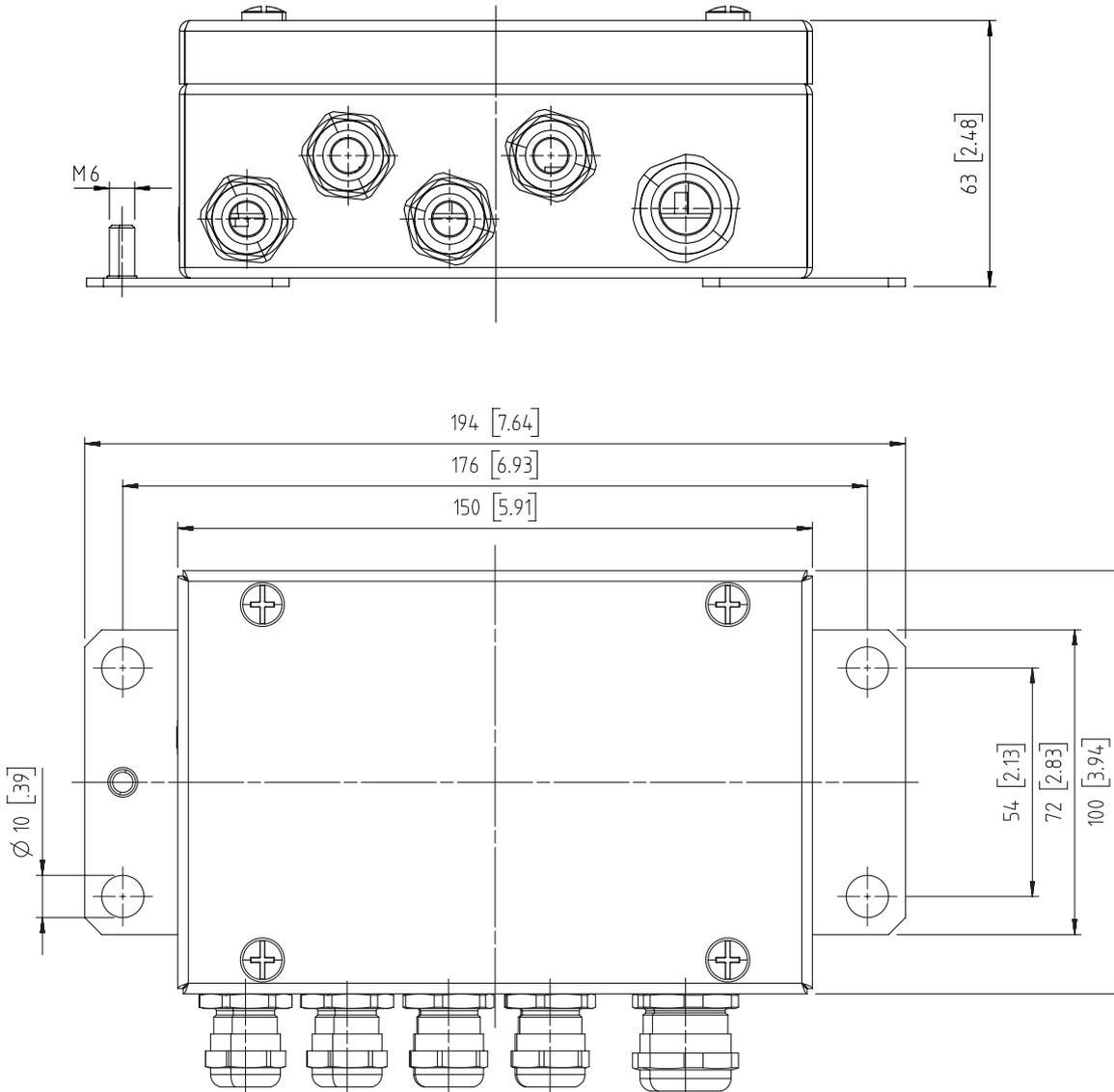


Figure 9-1 Dimension drawing stainless steel enclosure, dimensions in mm [inch]

## 9.2 Dimension drawing aluminum enclosure

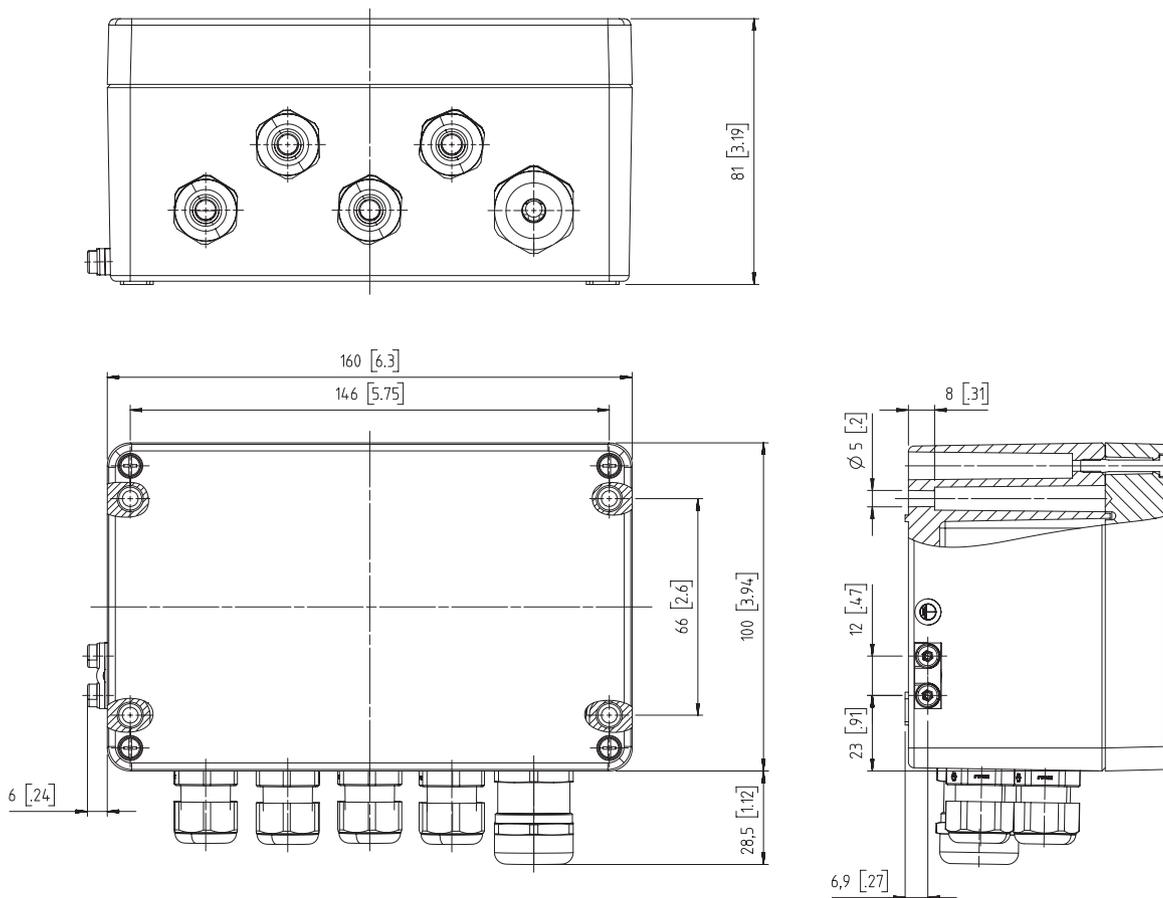


Figure 9-2 Dimension drawing aluminum enclosure, dimensions in mm [inch]

### 9.3 Dimension drawing for polyester enclosure

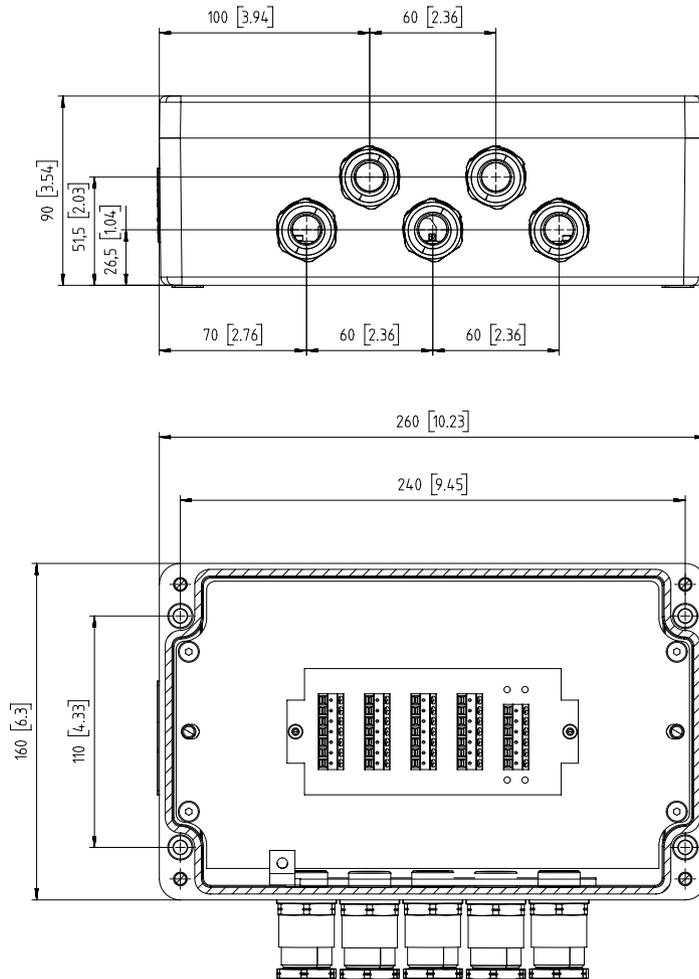


Figure 9-3 Dimension drawing for polyester enclosure, dimensions in mm [inch]



## Ordering data

### 10.1 Accessories

You can order accessories online: Industry Mall (<https://mallstage.industry.siemens.com/mall/en/b0/Catalog/Products/10022772?tree=CatalogTree>)



# Product documentation and support

## A.1 Product documentation

Product documentation for process instrumentation is available in the following formats:

- Certificates (<http://www.siemens.com/processinstrumentation/certificates>)
- Downloads (firmware, EDDs, software) (<http://www.siemens.com/processinstrumentation/downloads>)
- Catalogs and technical data sheets (<http://www.siemens.com/processinstrumentation/catalogs>)
- Manuals (<http://www.siemens.com/processinstrumentation/documentation>)  
You have the option to view, open, save or configure the manual.
  - "Display": The manual opens in HTML5 format.
  - "Configure": You can register and configure the specific documentation for your plant here.
  - "Download": The manual is opened or saved in PDF format.
  - "Download as html5, only PC": The manual is opened or saved in HTML5 view on your PC.

You can also find manuals at Industry Online Support (<https://support.industry.siemens.com/cs/ww/de/sc/2067>) using the mobile app. Download the app to your mobile device and scan the QR code.

### See also

Generally applicable information/SIMATIC manual overview (<https://support.industry.siemens.com/cs/ww/en/view/109742709>)

## A.2 Technical support

### Technical support

If this documentation does not completely answer your technical questions, you can enter a Support Request (<http://www.siemens.com/automation/support-request>).

Additional information on our technical support can be found at Technical Support (<http://www.siemens.com/automation/csi/service>).

### Service & support on the Internet

In addition to our technical support, Siemens offers comprehensive online services at Service & Support (<http://www.siemens.com/automation/serviceandsupport>).

## Contact

If you have further questions about the device, contact your local Siemens representative at Personal Contact (<http://www.automation.siemens.com/partner>).

To find the contact for your product, go to "all products and branches" and select "Products & Services > Industrial automation > Process instrumentation".

Contact address for business unit:  
Siemens AG  
Digital Industries  
Process Automation  
Östliche Rheinbrückenstr. 50  
76187 Karlsruhe, Germany

## SIWAREX support

- Email (<mailto:hotline.siwarex@siemens.com>)
- Phone: +49 (721) 667-1200 CET 8:00 to 17:00

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