

## Operating instructions



Pressure transmitter model S-20



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## 1. General information

### 1. General information

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- The pressure transmitter described in the operating instructions has been designed and manufactured using state-of-the-art technology. All components are subject to stringent quality and environmental criteria during production. Our management systems are certified to ISO 9001 and ISO 14001.
- These operating instructions contain important information on handling the instrument. Working safely requires that all safety instructions and work instructions are observed.
- Observe the relevant local accident prevention regulations and general safety regulations for the instrument's range of use.
- The operating instructions are part of the product and must be kept in the immediate vicinity of the instrument and readily accessible to skilled personnel at any time.
- Skilled personnel must have carefully read and understood the operating instructions prior to beginning any work.
- The manufacturer's liability is void in the event of any damage caused by using the product contrary to its intended use, non-compliance with these operating instructions, assignment of insufficiently qualified skilled personnel or unauthorised modifications to the instrument.
- The general terms and conditions contained in the sales documentation shall apply.
- Subject to technical modifications.

## 1. General information

### Explanation of symbols



#### **WARNING!**

... indicates a potentially dangerous situation that can result in serious injury or death, if not avoided.

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#### **CAUTION!**

... indicates a potentially dangerous situation that can result in light injuries or damage to the equipment or the environment, if not avoided.



#### **Information**

... points out useful tips, recommendations and information for efficient and trouble-free operation.



#### **WARNING!**

... indicates a potentially dangerous situation that can result in burns, caused by hot surfaces or liquids, if not avoided.

### Abbreviations

2-wire	The two connection lines are used for the voltage supply. The measurement signal also provides the supply current.
3-wire	Two connection lines are used for the power supply. One connection line is used for the measurement signal.
U <sub>+</sub>	Positive power supply terminal
U <sub>-</sub>	Negative power supply terminal
S <sub>+</sub>	Positive output terminal

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## 2. Safety

## 2. Safety

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### WARNING!

Before installation, commissioning and operation, ensure that the appropriate pressure transmitter has been selected in terms of measuring range, design and specific measuring conditions. Non-observance can result in serious injury and/or damage to the equipment.



### WARNING!

- Open the connections only after the system has been depressurised.
- Observe the working conditions in accordance with chapter 3 "Specifications".



Further important safety instructions can be found in the individual chapters of these operating instructions.

### 2.1 Intended use

Only use the pressure transmitter in applications that lie within the technical performance limits in particular with regard to its material resistance and leakage rate limits, and also its permissible temperature and pressure limits. It is the sole responsibility of the manufacturer or operator of a machine or plant to ensure the suitability of the pressure transmitter, and its media resistance, within the application through proper choice of materials and maintenance cycles. → For performance limits, see chapter 3 "Specifications".

The mounting, dismounting, installation, parameterisation and maintenance of the pressure transmitter in industrial environments absolutely requires suitably skilled personnel in accordance with chapter 2.3 "Personnel qualification".

The instrument has been designed and built solely for the intended use described here, and may only be used accordingly.

The manufacturer shall not be liable for claims of any type based on operation contrary to the intended use.

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## 2. Safety

### 2.2 Improper use

Any use beyond or different to the intended use is considered as improper use.

The following points are in particular considered as improper use and are not permitted:

- Use in safety or emergency stop devices
- Unauthorized modifications to the pressure transmitter
- Use in hazardous areas
- Use with abrasive and viscous media

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### 2.3 Personnel qualification



#### **WARNING!**

##### **Risk of injury should qualification be insufficient!**

Improper handling can result in considerable injury and damage to equipment.

The activities described in these operating instructions may only be carried out by skilled personnel who have the qualifications described below.

#### **Skilled personnel**

Skilled personnel are understood to be personnel who, based on their technical training, knowledge of measurement and control technology and on their experience and knowledge of country-specific regulations, current standards and directives, are capable of carrying out the work described and independently recognising potential hazards.

Special operating conditions require further appropriate knowledge, e.g. of aggressive media.

### 2.4 Special hazards



#### **WARNING!**

For hazardous media such as oxygen, acetylene, flammable or toxic gases or liquids, and refrigeration plants, compressors, etc., in addition to all standard regulations, the appropriate existing codes or regulations must also be followed.



#### **WARNING!**

Residual media in dismantled pressure transmitters can result in a risk to persons, the environment and equipment.

Take sufficient precautionary measures.

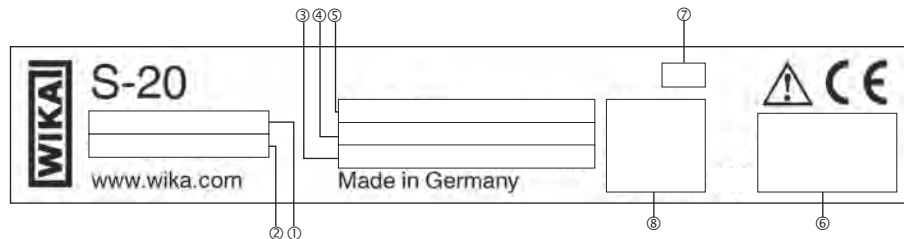
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## 2. Safety

### 2.5 Labelling / safety marks

#### Product label

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- |                     |                            |
|---------------------|----------------------------|
| ① P# product number | ⑤ Measuring range          |
| ② S# serial number  | ⑥ Approvals                |
| ③ Power supply      | ⑦ Coded manufacturing date |
| ④ Output signal     | ⑧ Pin assignment           |

If the serial number becomes illegible due to mechanical damage or overpainting, traceability will no longer be possible.



Before mounting and commissioning the instrument, ensure you read the operating instructions!

### 3. Specifications

### 3. Specifications

#### Specifications

Measuring range	See product label or test report
Vacuum tightness	Yes
Reference conditions	Per IEC 61298-1
■ Temperature	15 ... 25 °C (59 ... 77 °F)
■ Atmospheric pressure	860 ... 1,060 mbar (12.5 ... 15.4 psi)
■ Humidity	45 ... 75 % r. h.
■ Power supply	DC 24 V, DC 5 V with ratiometric output
■ Mounting position	Calibrated in vertical mounting position with pressure connection facing downwards.
Output signal	See product label or test report
Permissible load in $\Omega$	
■ Current output	$\leq$ (power supply - 7.5 V) / 0.023 A
■ With optional settling time of 1 ms	$\leq$ (power supply - 11.5 V) / 0.023 A
■ Voltage output	$>$ maximum output voltage / 1 mA
■ Ratiometric output	$>$ 4.5k
Switch-on time	150 ms
Switch-on drift	5 s (60 s with optional zero point adjustment 0.1 %)
Voltage supply	See product label or test report
Dissipation loss	
■ Current output	828 mW (22 mW/K derating of the dissipation loss with ambient temperatures $\geq$ 100 °C (212 °F))
■ Voltage output	432 mW
Current supply	External circuits connected to the electrical outputs of the pressure transmitter must be energy-limited electrical circuits in accordance with section 9.4 of UL/EN/IEC 61010-1, or an LPS to UL/EN/IEC 60950-1, or class 2 in accordance with UL1310/UL1585 (NEC or CEC). External circuits must be suitable for operation above 2,000 m should the pressure transmitter be used at this altitude.
■ Current output	Current signal, max. 25 mA
■ Voltage output	Max. 12 mA
Non-linearity (per IEC 61298-2)	See test report
Relationship to the mounting position	For measuring ranges $<$ 1 bar (15 psi), an additional zero offset of up to 0.15 % applies
Non-repeatability	$\leq \pm 0.1$ % of span

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### 3. Specifications

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Specifications	
Temperature hysteresis	0.1 % of span at > 80 °C (176 °F)
Long-term drift (per IEC 61298-2)	$\leq \pm 0.1$ % of span $\leq \pm 0.2$ % of span (with special measuring ranges and measuring ranges < 1 bar (15 psi))
Temperature error	For calibration temperature 15 ... 25 °C (59 ... 77°F) -20 ... +80 °C: $\leq 1$ % of span -30 ... +100 °C: $\leq 1.5$ % of span For measuring ranges < 1 bar (15 psi), special measuring ranges and instruments with an increased overpressure limit the respective temperature error increases by 0.5 % of span
Derating for cooling elements	
■ Max. permissible ambient temperature	$T_{amb} (T_{med} < 125\text{ °C}) = 125\text{ °C}$ $T_{amb} (T_{med} \geq 125\text{ °C}) = -0.62 \times T_{med} + 202\text{ °C}$
■ Max. permissible medium temperature	$T_{med} (T_{amb} < 80\text{ °C}) = 200\text{ °C}$ $T_{med} (T_{amb} \geq 80\text{ °C}) = -1.61 \times T_{amb} + 326\text{ °C}$  $T_{amb} = \text{Ambient temperature [°C]}$ $T_{med} = \text{Medium temperature [°C]}$
Storage and transport conditions	
■ Permissible temperature range	-40 ... +70 °C (-40 ... +158 °F)
■ Maximum humidity (per IEC 68-2-78)	67 % r. h. at 40 °C (104 °F) (in accordance with 4K4H per EN 60721-3-4)
Climate class	For indoor and outdoor use. Protect the instrument from direct sunlight.
■ Storage	1K3 (per EN 60721-3-1)
■ Transport	2K3 (per EN 60721-3-2)
■ Operation	4K4H (per EN 60721-3-4, without condensation or icing)
Pollution degree	2
Overvoltage category	I
Operating altitude (above sea level)	$\leq 2,000$ m (6.561 ft)
Vibration resistance (per IEC 68-2-6)	20 g, 10 ... 2,000 Hz (40 g, 10 ... 2,000 Hz for circular connector M12 x 1, metallic) For instruments with cooling elements a limited vibration resistance of 10 g, 10 ... 2,000 Hz, applies.
Continuous vibration resistance (per IEC 68-2-6)	10 g
Shock resistance (per IEC 68-2-27)	100 g, 6 ms (500 g, 1 ms for heavy-duty connector)
Service life	100 million load cycles (10 million load cycles for measuring ranges > 600 bar/7,500 psi)

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### 3. Specifications

Specifications	
Free-fall test (following IEC 60721-3-2)	
■ Individual packaging	1.5 m (5 ft)
■ Multiple packaging	0.5 m (1.6 ft)
■ PE bag	0.5 m (1.6 ft)
Electrical protective measures	The electrical protective measures are not valid for ratiometric output signals.
■ Short-circuit resistance	S+ vs. U-
■ Reverse polarity protection	U+ vs. U-
■ Resistance to overvoltage	DC 40 V
■ Insulation voltage	DC 750 V
Materials of wetted parts	
■ Relative measuring ranges	Measuring ranges ≤ 10 bar (150 psi): 316L Measuring ranges > 10 bar (150 psi): 316L + 13-8 PH
■ Absolute measuring ranges	Measuring ranges ≤ 1,000 bar (10,000 psi): ASTM 630 and 13-8 PH Measuring ranges > 1,000 bar (10,000 psi): 316L + 13-8 PH
Materials of non-wetted parts	
■ Case	316 Ti
■ Zero point adjustment ring	PBT/PET GF30
■ Angular connector DIN 175301-803 A	PBT/PET GF30
■ Angular connector DIN 175301-803 C	PBT/PET GF30
■ Circular connector M12 x 1 (4-pin)	PBT/PET GF30
■ Circular connector M12 x 1 (4-pin, metallic)	316L
■ Bayonet connector (6-pin)	316L + Al
■ Field case	316L, 316Ti
■ Heavy-duty connector	316L
■ Cable outlet IP67	PA66, PBT/PET GF30
■ Cable outlet ½ NPT conduit	316L
■ Cable outlet IP68	316L
■ Cable outlet IP68, FEP	316L
■ Cable outlet IP6K9K	316L

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### 3. Specifications

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Specifications	
CE conformity	<ul style="list-style-type: none"> <li>■ Pressure equipment directive</li> <li>■ EMC directive, EN 61326 emission (group 1, class B) and interference immunity (industrial application)</li> <li>■ RoHS directive</li> </ul>
■ EM field	30 V/m (80 ... 1,000 Mhz)
■ Performance level (per EN ISO 13849-1:2008)	Performance level: PL = b Category: Cat. = B Diagnostic coverage: DC = none MTTF: > 100 years
Approvals	See product label
Dimensions	Spanner width: 24 mm Diameter: 26.7 Length: 53 ... 105 mm, with cooling element additional 73 mm
Weight	Approx. 150 g (0.331 lbs), with cooling element approx. 350g (0.794 lbs)

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### 3. Specifications

#### Electrical connections

Electrical connection	Ingress protection <sup>2)</sup>	Wire cross-section	Cable Ø	Cable material	Permissible temperature
<b>Angular connector DIN EN 175301-803 A</b>					
with mating connector	IP65	max. 1.5 mm <sup>2</sup>	6 ... 8 mm	-	-30 ... +100 °C (-22 ... +212 °F)
with mating connector (conduit)	IP65	max. 1.5 mm <sup>2</sup>	-	-	-30 ... +100 °C (-22 ... +212 °F)
with mating connector with moulded cable	IP65	3 x 0.75 mm <sup>2</sup>	6 mm	PUR	-30 ... +100 °C (cULus: -25 ... +85 °C) (-22 ... +212 °F (cULus: -4 ... +185 °F))
with mating connector with moulded cable, shielded	IP65	6 x 0.5 mm <sup>2</sup>	6.8 mm	PUR	-25 ... +85 °C (-4 ... +185 °F)
<b>Angular connector DIN EN 175301-803 C</b>					
with mating connector	IP65	max. 0.75 mm <sup>2</sup>	4.5 ... 6 mm	-	-30 ... +100 °C (-22 ... +212 °F)
with mating connector with moulded cable	IP65	4 x 0.5 mm <sup>2</sup>	6.2 mm	PUR	-25 ... +85 °C (-4 ... +185 °F)
<b>Bayonet connector (6-pin)</b>					
	IP67	-	-	-	-40 ... +125 °C (-40 ... +257 °F)
<b>Circular connector M12 x 1 (4-pin)</b>					
without mating connector	IP67	-	-	-	-30 ... +100 °C (-22 ... +212 °F)
with mating connector, straight, with moulded cable	IP67	3 x 0.34 mm <sup>2</sup>	4.3 mm	PUR	-25 ... +80 °C (-4 ... +176 °F)
with mating connector, straight, with moulded cable, shielded	IP67	3 x 0.34 mm <sup>2</sup>	4.3 mm	PUR	-25 ... +80 °C (-4 ... +176 °F)
with mating connector, angled, with moulded cable	IP67	3 x 0.34 mm <sup>2</sup>	5.5 mm	PUR	-25 ... +80 °C (-4 ... +176 °F)

2) Only applies when plugged in using a suitable mating connector that has the appropriate ingress protection

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### 3. Specifications

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Electrical connection	Ingress protection <sup>2)</sup>	Wire cross-section	Cable Ø	Cable material	Permissible temperature
<b>Circular connector M12 x 1 (4-pin, metallic)</b>					
without mating connector	IP67	-	-	-	-40 ... +125 °C (cULus: +85 °C) (-40 ... +257 °F (cULus: +185 °F))
with mating connector, straight, with moulded cable	IP67	3 x 0.34 mm <sup>2</sup>	4.3 mm	PUR	-25 ... +80 °C (-4 ... +176 °F)
with mating connector, straight, with moulded cable, shielded	IP67	3 x 0.34 mm <sup>2</sup>	4.3 mm	PUR	-25 ... +80 °C (-4 ... +176 °F)
with mating connector, angled, with moulded cable	IP67	3 x 0.34 mm <sup>2</sup>	5.5 mm	PUR	-25 ... +80 °C (-4 ... +176 °F)
<b>Field case</b>					
	IP6K9K	-	-	-	-25 ... +100 °C (-4 ... +212 °F)
<b>Cable outlet</b>					
Cable outlet IP67	IP67	3 x 0.34 mm <sup>2</sup>	5.5 mm	PUR	-30 ... +100 °C (-22 ... +212 °F)
Cable outlet ½ NPT conduit	IP67	6 x 0.35 mm <sup>2</sup>	6.1 mm	PUR	-30 ... +100 °C (cULus: +90 °C) (-22 ... +212 °F (cULus: +194 °F))
Cable outlet IP68	IP68	6 x 0.35 mm <sup>2</sup>	6.1 mm	PUR	-30 ... +125 °C (cULus: +90 °C) (-22 ... +257 °F (cULus: +194 °F))
Cable outlet IP68, FEP	IP68	6 x 0.39 mm <sup>2</sup>	5.8 mm	FEP	-40 ... +125 °C (cULus: +105 °C) (-40 ... +257 °F (cULus: +221 °F))
Cable outlet IP6K9K	IP6K9K	6 x 0.35 mm <sup>2</sup>	6.1 mm	PUR	-30 ... +125 °C (cULus: +90 °C) (-22 ... +257 °F (cULus: +194 °F))
<b>Heavy-duty connector</b>					
with mating connector with cable	IP68	6 x 0.14 mm <sup>2</sup>	6.5 mm	PUR	-40 ... +125 °C (cULus: -30 ... +90 °C) (-40 ... +257 °F (cULus: -22 ... +194 °F))

2) Only applies when plugged in using a suitable mating connector that has the appropriate ingress protection

For special model numbers, e.g. S-20000, please note the specifications stated on the delivery note.  
For further specifications see WIKA data sheet PE 81.61 and the order documentation.

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## 4. Design and function / 5. Transport, packaging and storage

### 4. Design and function

#### 4.1 Description

The prevailing pressure is measured at the sensor element through the deformation of a diaphragm. By supplying power, this deformation of the diaphragm is converted into an electrical signal. The output signal from the pressure transmitter is amplified and standardised. The output signal is proportional to the measured pressure.

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#### 4.2 Scope of delivery

- Pressure transmitter
- Test report
- Certificates (option)
- Mating connector (option)

Cross-check scope of delivery with delivery note.

### 5. Transport, packaging and storage

#### 5.1 Transport

Check the pressure transmitter for any damage that may have been caused during transportation. Obvious damage must be reported immediately.

#### 5.2 Packaging

Do not remove packaging until just before mounting.

Keep the packaging as it will provide optimum protection during transport (e.g. change in installation site, sending for repair).

#### 5.3 Storage

##### Permissible conditions at the place of storage:

- Storage temperature: -40 ... +70 °C
- Humidity: 67 % relative humidity (no condensation)

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## 5. Transport, packaging and storage / 6. Commissioning, operation

### Avoid exposure to the following factors:

- Direct sunlight or proximity to hot objects
- Mechanical vibration, mechanical shock (putting it down hard)
- Soot, vapour, dust and corrosive gases
- Humid or wet environment
- Potentially explosive environments, flammable atmospheres

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Store the pressure transmitter in its original packaging in a location that fulfils the conditions listed above.



### WARNING!

Before storing the instrument (following operation), remove any residual media. This is of particular importance if the medium is hazardous to health, e.g. caustic, toxic, carcinogenic, radioactive, etc.

## 6. Commissioning, operation

### 6.1 Mounting the instrument

Only use the pressure transmitter if it is in perfect condition with respect to safety.

Prior to commissioning, the pressure transmitter must be subjected to a visual inspection.

- Leaking fluid is indicative of damage.

### Requirements for mounting point

The mounting point must meet the following conditions:

- Sealing faces are clean and undamaged.
- Sufficient space for a safe electrical installation.
- Environment corresponds to a max. pollution degree of 2.
- For information on tapped holes and welding sockets, see Technical information IN 00.14.
- Permissible ambient and medium temperatures remain within the performance limits. Consider possible restrictions on the ambient temperature range caused by mating connector used.
  - For performance limits, see chapter 3 "Specifications".

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## 6. Commissioning, operation

### 6.1.1 Sealing the process connection



**WARNING!**

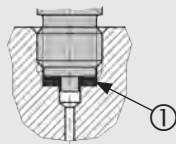
Risk of burns!

The cooling element can be hot as a result of previous use. Allow the cooling element to cool beforehand.

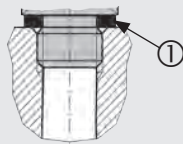
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The sealing faces at the instrument have to be undamaged and clean.

#### Parallel threads



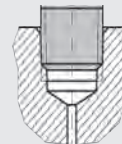
per EN 837



per ISO 1179-2  
(formerly DIN 3852-E)

Correct sealing of the process connections with parallel threads at the sealing face ① must be made using suitable flat gaskets, sealing rings or WIKA profile sealings.

#### Tapered threads



NPT, R and PT

For sealing process connections with tapered threads, the sealing must be made in the threads using additional sealing material, e.g. PTFE tape (EN 837-2).



For further information on seals see WIKA data sheet AC 09.08

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## 6. Commissioning, operation

### 6.1.2 Installing the instrument

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#### **WARNING!**

Risk of burns!

The cooling element can be hot as a result of previous use. Allow the cooling element to cool beforehand.

- When screwing the instrument in, the force required to do this must not be applied through the case or the cap ring, but only through the spanner flats provided for this purpose and using a suitable tool.

When there is a cooling element, the lower hexagon should be used for tightening (see figure a "Mounting cooling element")

The correct torque depends on the dimensions of the process connection and the gasket used (form/material).

- When screwing in, do not cross the threads.
- For heat dissipation, the cooling element must not be insulated.
- If the instrument is mounted upside down, it must be ensured that no water can collect on the electrical connection and on the cap ring. Water can block the pressure compensation diaphragm.



For information on tapped holes and welding sockets, see Technical information IN 00.14



Model S-20 without cooling element



Mounting a cooling element

## 6. Commissioning, operation

### 6.2 Electrical mounting

Only use original accessories. For accessories see data sheet PE 81.61.



#### WARNING!

The instrument shield does not act as a protective conductor for protection of personnel, rather as a functional ground in order to shield the instrument from electromagnetic fields.

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#### 6.2.1 Connection assembly

- For instruments with ratiometric output signals, a shielded cable must be used. The cable shield must be grounded, if the cable is longer than 30 m or leaves the building.
- Use a cable with suitable characteristics for the particular operating conditions.
- For cable variants, strain relief must be employed.
- Cable with ventilation tubes must be vented to atmosphere.
- The instrument must be earthed via the process connection!
- Select a cable diameter that matches the cable gland of the plug. Make sure that the cable gland of the mounted plug has a tight fit and that the seals are present and undamaged. Tighten the threaded connection and check that the seal is correctly seated, in order to ensure a tight seal.
- For cable outlets, make sure that no moisture enters at the cable end.
- Pin assignment see test report.

#### 6.2.2 Requirements for voltage supply

→ For supply voltage see product label

##### For instruments without UL approval:

This equipment is intended for operation with low voltages which are separated from the AC 230 V (50 Hz) mains voltage or voltages greater than AC 50 V or DC 120 V for dry environments. A connection to an SELV circuit is recommended, or alternatively to circuits with a different protective measure in accordance with IEC 60364-4-41 installation standard.

##### For instruments with UL approval and for use in North America:

The power supply for the pressure switch must be made via an energy-limited electric circuit in accordance with section 9.4 of UL/EN/IEC 61010-1, or an LPS per UL/EN/IEC 60950-1/CSA C22.2 no. 60950-1, or class 2 in accordance with UL1310/UL1585 (NEC or CEC).

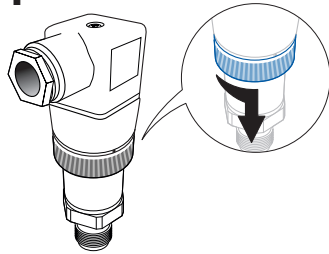
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## 7. Zero point adjustment

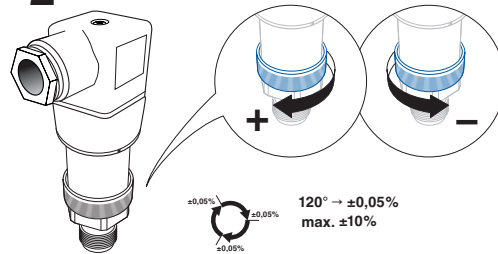
## 7. Zero point adjustment

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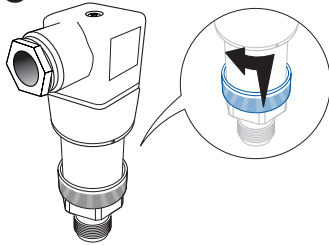
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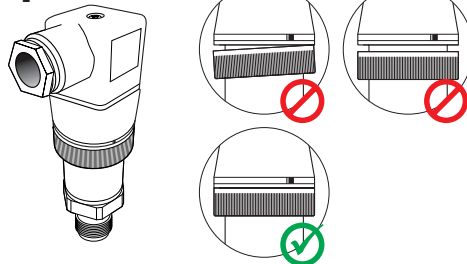
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## 8. Maintenance and cleaning

### 8. Maintenance and cleaning

#### 8.1 Maintenance

This pressure transmitter is maintenance-free.  
Repairs must only be carried out by the manufacturer.

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#### 8.2 Cleaning



##### CAUTION!

- Before cleaning, correctly disconnect the pressure transmitter from the pressure supply, switch it off and disconnect it from the voltage supply.
- Clean the instrument with a moist cloth.
- Wash or clean the dismantled instrument before returning it, in order to protect persons and the environment from exposure to residual media.
- Residual media in dismantled instruments can result in a risk to persons, the environment and equipment. Take sufficient precautionary measures.
- Do not use any pointed or hard objects for cleaning, as they may damage the diaphragm of the process connection.



For information on returning the instrument see chapter 10.2 "Return".

#### 8.3 Recalibration

##### DKD/DAkkS certificate - Official certificates:

If the instrument is used for hydrogen applications, a recalibration is required after 6 months. The basic settings will be corrected, if necessary.

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## 9. Faults

### 9. Faults

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In the event of any faults, first check whether the pressure transmitter is mounted correctly, mechanically and electrically.

Faults	Causes	Measures
Plastic has faded	UV radiation	No measures required Discolouration is harmless
No output signal	Cable break	Check the continuity, and if necessary exchange the cable
	No/wrong power supply	Correct the power supply
No/wrong output signal	Wiring error	Rectify the wiring
Constant output signal upon change in pressure	Mechanical overload caused by overpres- sure	Replace instrument; if it fails repeatedly, contact the manufacturer
Signal span too small/drops	Mechanical overload caused by overpres- sure	Replace instrument; if it fails repeatedly, contact the manufacturer
	Diaphragm damaged, e.g. due to impacts, abrasive/aggressive medium; corrosion at diaphragm or process connection; transmis- sion medium missing	Replace instrument; if it fails repeatedly, contact the manufacturer
	Sealing/sealing face damaged/soiled, sealing does not have a tight fit, threads jammed	Clean the sealing/sealing face, replace sealing if applicable
Signal span varies/inaccurate	EMC interference sources in the environ- ment; e.g. frequency converter	Shield instrument; cable shield; Remove source of interference
	Operating temperature too high/low	Lower/increase the temperature
	Instrument not grounded	Ground the instrument
	Strongly varying pressure of the process medium	Damping; consulting by the manufacturer
Deviating zero point signal	Operating temperature too high/low	Lower/increase the temperature
	Other mounting position	Adjust the zero point
	Overpressure limit exceeded	Reduce the pressure

If complaint is unjustified, we will charge you the complaint processing fees.

## 9. Faults / 10. Dismounting, return and disposal



### CAUTION!

If faults cannot be eliminated by means of the measures listed above, shut down the pressure transmitter immediately, and ensure that pressure and/or signal are no longer present, and secure the instrument from being put back into operation inadvertently. In this case, contact the manufacturer. If a return is needed, please follow the instructions given in chapter 10.2 "Return".

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## 10. Dismounting, return and disposal



### WARNING!

Residual media in dismantled pressure transmitters can result in a risk to persons, the environment and equipment. Take sufficient precautionary measures.

### 10.1 Dismounting



### WARNING!

Risk of burns!

Let the instrument cool down sufficiently before dismantling!

During dismantling there is a risk of dangerously hot pressure media escaping.

When removing the instrument, the force required to do this must not be applied through the case or the cap ring, but only through the spanner flats provided for this purpose and using a suitable tool (see chapter 6.1.2 "Installing the instrument").

When there is a cooling element, the lower hexagon should be used for unscrewing (see chapter 6.1.2 "Installing the instrument")

Only disconnect the pressure transmitter once the system has been depressurised!

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## 10. Dismounting, return and disposal

### 10.2 Return

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#### **WARNING!**

#### **Absolutely observe when shipping the pressure transmitter:**

All pressure transmitters delivered to WIKA must be free from any kind of hazardous substances (acids, bases, solutions, etc.).

When returning the instrument, use the original packaging or a suitable transport package.

Label the shipment as transport of a highly-sensitive measuring instrument in order to avoid any damage.



Information on returns can be found under the heading "Service" on our local website.

### 10.3 Disposal

Incorrect disposal can put the environment at risk.

Dispose of instrument components and packaging materials in an environmentally compatible way and in accordance with the country-specific waste disposal regulations.



Do not dispose of with household waste. Ensure a proper disposal in accordance with national regulations.

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