promesstec
GmbH

user manual resistance thermometers
type WTR 420.., WTR 430...

safety instructions !!!

intended use of the product

- The sensor has been designed exclusively for the intended use described here or in the datasheet and may only be used in this way.
- The technical specifications contained in these operating instructions must be observed.
- Improper handling or operation of the device outside of its technical specifications requires the device to be taken out of service immediately and an inspection by promesstec.
- When the device is transported from a cold into a warm environment, the formation of condensation may result in the device malfunctioning.
- Before putting it back into operation, wait for the device temperature and the room temperature to equalise.

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

staff qualification

Improper handling can result in considerable personal injury and damage to equipment. The activities described in these operating instructions may only be carried out by skilled staff who have the appropriate qualifications. For installation and starting of the sensor, the relevant regulations and directives of the country and the norms must be observed. Especially during installation of the sensor, it is possible, depending on the use, to come into contact with aggressive media. The safety instructions must be observed. There will be danger to life if live parts are touched. Electrical installation and commissioning may only be carried out by qualified and skilled personnel.
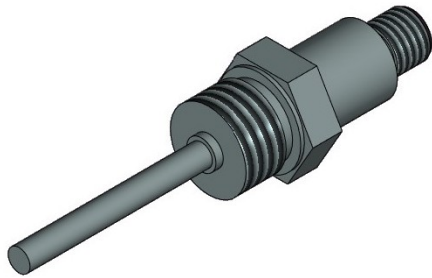
special hazards

Residual media in dismantled devices can result in a risk to personnel, the environment and equipment. Sufficient precautionary measures must be taken here. Do not use the instruments in safety or emergency stop devices. Incorrect application or operation of the instrument can lead to injuries. Depending on the application, aggressive media with extreme temperatures and high pressure or vacuum may be present at the instrument in the event of a fault. We recommend installing and removing the device only at ambient temperature and in a pressureless mode.

hazards when operating the device

Our devices have a very high protection class when properly mounted and installed. When cleaning your system with high-pressure cleaners, steam cleaners etc., make sure that both the cover and the cable screw or M12 connector are not directly exposed to the pressure jet. If the temperature falls below the dew point, condensation may form in the connection chamber of the device. In such extreme applications, contact our sales and technical support before commissioning.
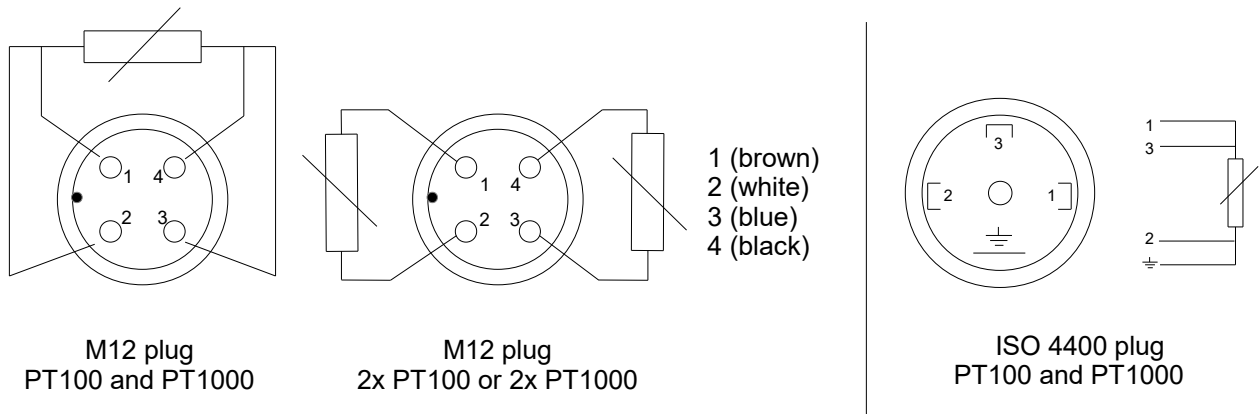
connection WTR 420

mechanical structure WTR 420...
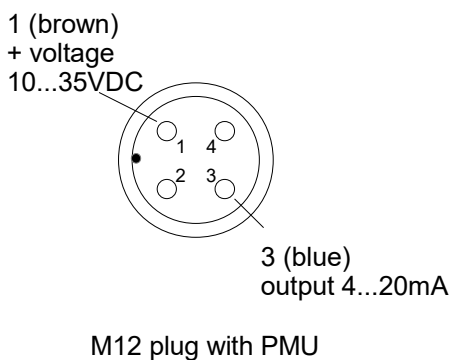
electrical connection WTR 420 without measuring transducer PMU

1 (brown)
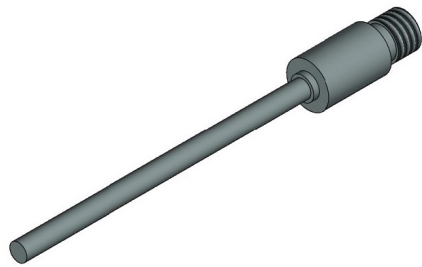2 (white)
3 (blue)
4 (black)

M12 plug
PT100 and PT1000

M12 plug
2x PT100 or 2x PT1000

ISO 4400 plug
PT100 and PT1000

electrical connection WTR 420 with measuring transducer PMU

1 (brown)
+ voltage
10...35VDC

3 (blue)
output 4...20mA

M12 plug with PMU

The optional measuring transducer PMU can be set with the software PXU01 and the corresponding programming adapter. The user manual for the software is included in the programming kit.
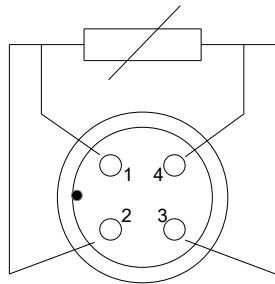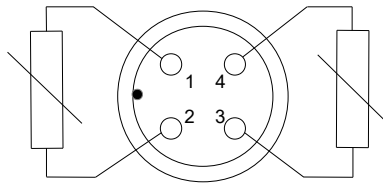
temperature measurement

connection WTR 430

mechanical structure WTR 430...

electrical connection WTR 430 without measuring transducer PMU

1 (brown)
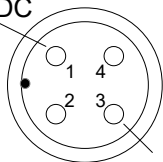2 (white)
3 (blue)
4 (black)

M12 plug
PT100 and PT1000

M12 plug
2x PT100 or 2x PT1000

electrical connection WTR 430 with measuring transducer PMU

1 (brown)
+ voltage
10...35VDC

3 (blue)
output 4...20mA

M12 plug with PMU

The optional measuring transducer PMU can be set with the software PXU01 and the corresponding programming adapter. The user manual for the software is included in the programming kit.

mounting instructions !!!

mechanical installation

- Only use promesstec welding sleeves and process connections for adaptation to your process. This is the only way we can guarantee you clean and aseptic measuring point.
- After installing the sensor, check the tightness of the measuing point.

electrical mounting

- Install the sensor in your process before the electrical mounting. In this way, you prevent coiling of the cable when mounting the meauring point.

- **M12 plug:** Turn the M12 socket by hand onto the plug on the promesstec sensor. The mounting is done without tools.
- When mouting the connection cable, ensure that both components are firmly and positively connected. For the permissible tightening torque, refer to the datasheet of the respective connection cable.

- **ISO 4400 plug:** Connect the ISO4400 plug electrically. Ensure a positive connection between the screw connection and the cable. Plug the connector onto the sensor. Secure the plug by the screw in the head. Check the fit of the sealing and the tightness of the connection.

important information !!!

return and repair

The promesstec sensor have a modular design. This allows us to repair and overhaul defective devices. To do this, send the device to promesstec. You will find a return form with the information to be provided on our homepage under „technical information".

disposal of the device

Dispose of devices, components and packaging in an environmentally friendly manner in accordance with the waste treatment and disposal regulations typical for the country. Pay attention to waste separation and the recycling of high-quality materials such as stainless steel, etc.

further documentation

These operating manual and the datasheets can be found as a file on our homepage under the respective devices. The documetation is available in German as well as in English. Other languages are available on request. Additional information such as characteristic curves of temperature sensors etc. can be found on our homepage under