



Level



Pressure



Flow



Temperature



Liquid
Analysis



Registration



Systems
Components



Services



Solutions

Technical Information

CTS1

Temperature sensor

e.g. for automatic temperature compensation in pH measurement



Application

- Temperature measurement in general
- In combination with:
 - pH sensor without temperature sensor
 - pH glass electrode and separate reference electrode
- Installation in immersion and flow assemblies possible

Your benefits

- Pt100 measuring resistor
- Process connection: Pg 13.5
- Measuring cable connection via:
 - Coaxial plug-in head
 - TOP68 plug-in head
 - Fixed cable
- Sensor shaft of process applicable, lead-free glass
- Double Pt100 version possible
- Version for Ex zone 0 applications

Electrical connection

Cable connection

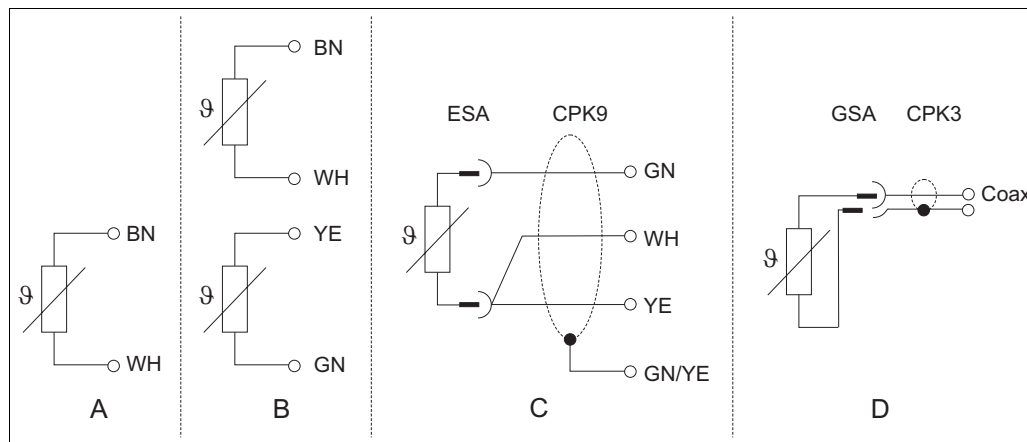


Fig. 1: Cable connection

- A Fixed cable (GFB version) and type A (single Pt100)
- B Fixed cable (GFB version) and type B (double Pt100)
- C Connection of the ESA plug-in head version with CPK9 cable
- D Connection of the GSA plug-in head version with CPK3 cable

Input

Measured variable

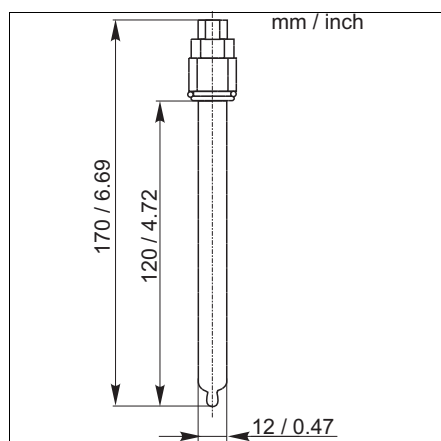
Temperature by means of TDR (temperature dependent resistance)

Measuring range

- in combination with Mycom S CPM153:
-50 to 200 °C (-58 to 392 °F)
- in combination with Liquisys M CPM223/253:
-50 to 150 °C (-58 to 302 °F)

Mechanical construction

Design, dimensions



Dimensions

Weight

185 g (0.4 lb)

Materials

| | |
|----------------|--------------------------|
| Shaft: | process applicable glass |
| Sealing ring: | Viton |
| Thrust collar: | EPDM |

Process connection

Pg 13.5

Ordering information

Product structure

| Type | |
|-----------------|--|
| A | Single Pt100 sensor (not in combination with GFB connection head) |
| B | Double Pt100 sensor (in combination with GFB connection head only) |
| Shaft length | |
| 2 | 120 mm |
| 3 | 150 mm |
| Connection head | |
| ESA | Pg 13.5 process connection, TOP68 plug-in head |
| GFB | Pg 13.5 process connection, fixed cable 3 m |
| GSA | Pg 13.5 process connection, coaxial plug-in head |
| CTS1- | complete order code |

Certificates and approvals

Ex approval (ESA only)

- ATEX II 1G EEX ia IIC T3/T4/T6
- FM Class I Div. 2, in combination with transmitters Mypro CPM431 or Mycom S CPM153

TÜV certificate TOP68 plug-in head

Pressure resistance 16 bar, min. triple overpressure safety

Accessories

Measuring cables

- ☐ CPK3 special measuring cable
for sensors with GSA plug-in head
ordering acc. to product structure, see Technical Information (TI 118C/07/en)
- ☐ CPK9 special measuring cable
For electrodes with TOP68 plug-in head, for high-temperature and high-pressure applications, IP 68
Ordering acc. to product structure, see Technical Information (TI 118C/07/en)

pH single electrode

- ☐ CPS 64
single pH electrode for each application;
ordering acc. to product structure, see Technical Information (TI 032C/07/en)

Reference electrode

- ☐ OrbiSint CPS 13
Reference electrode for each application, with PTFE diaphragm;
ordering acc. to product structure, see Technical Information (TI 367C/07/en)

Transmitters

- ☐ Liquisys M CPM 223/253
Transmitter for pH and ORP, field or panel-mounted housing,
Hart® or PROFIBUS available,
Ordering acc. to product structure, see Technical Information (TI 194C/07/en)
- ☐ Mycom S CPM 153
Transmitter for pH and ORP, one or two channel version, Ex or Non-Ex,
Hart® or PROFIBUS available,
Ordering acc. to product structure, see Technical Information (TI 233C/07/en)

Documentation

- ☐ Single pH electrode CPS 64, Technical Information TI 032C/07/en; order no. 50054653
- ☐ CPK1-12, Technical Information TI 118C/07/en; order no. 50068526
- ☐ Orbisint CPS12/13, Technical Information TI 367C/07/en; order no. 51513586
- ☐ Liquisys M CPM 223/253, Technical Information TI 194C/07/en; order no. 51500277
- ☐ Mycom S CPM 153, Technical Information TI 233C/07/en; order no. 51503788

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