

Temperature Measurement

Transmitters for field mounting

SITRANS TF280
WirelessHART

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|---|--|
| Displays and controls | |
| Display (with illumination) | |
| • Size of display | 104 x 80 pixels |
| • Number of digits | Adjustable |
| • Number of spaces after comma | Adjustable |
| Setting options | <ul style="list-style-type: none"> • on site with 3 push buttons • with SIMATIC PDM or HART Communicator |
| Auxiliary power | |
| Battery | 3.6 V DC |
| Communication | |
| Wireless standard | WirelessHART V7.1 conforming |
| Transmission frequency band | 2.4 GHz (ISM-Band) |
| Range under reference conditions | Up to 250 m (line of sight) in outside areas Up to 50 m (greatly dependent on obstacles) in Inside areas |
| Communication interfaces | <ul style="list-style-type: none"> • HART communication with HART modem • WirelessHART |
| Certificates and approvals | |
| Wireless communication approvals | R&TTE FCC |
| Classification according to pressure equipment directive (PED 97/23/EC) | This device does not fall under the pressure equipment directive |

- 1) Pre-mounted Pt100: Class A (maximum MES: $0.15 + 0.002 \cdot |t|$ °C)
- 2) Calculation for errors:
 Probable total error = $\sqrt{MES^2 + AET^2 + LTD^2 + ATE^2}$
 Max. error = MES + AET + LTD + ATE
 |t|: Absolut value of measured temperature
 MES: Measurement error of sensor
 AET: Accuracy error transmitter
 LTD: Long term drift
 ATE: Ambient temperature drift

| | | |
|---|-----|----------------------|
| Selection and Ordering data | | Article No. |
| SITRANS TF280 WirelessHART Temperature transmitter | | 7MP1110- |
| (Required battery not included with delivery, see accessories) | | 0A - 00 |
| Connections/cable entry | | |
| Cable gland M20x1.5 ¹⁾ | ▶ ◆ | C |
| Sensor pipe with Pt100, G½" male thread, pre-mounted and connected | ▶ ◆ | D |
| Display | | |
| Digital display, visible | ▶ ◆ | 1 |
| Enclosure | | |
| Die-cast aluminum | ▶ ◆ | 1 |
| Explosion protection | | |
| Not included | ▶ ◆ | A |
| Antenna | | |
| Variable, attached to device | ▶ ◆ | A |
| Further designs | | Order code |
| Please add "-Z" to Article No. and specify Order code(s) and plain text. | | |
| Measuring point number (TAG Nr.) max. 16 digits entered in plain text Y15: | | Y15 |
| Measuring point message max. 27 characters entered in plain text: Y16: | | Y16 |
| Accessories | | Article No. |
| Lithium battery for SITRANS TF280/P280 | ▶ | 7MP1990-0AA00 |
| Mounting bracket, steel | | 7MF4997-1AC |
| Mounting bracket, stainless steel | ▶ | 7MF4997-1AJ |
| Cover, die-cast aluminum, without window | ▶ | 7MF4997-1BB |
| Cover, die-cast aluminum, with window | | 7MF4997-1BE |
| Thread adapter M20x1.5 (male thread) on ½-14 NP (female thread) | ▶ | 7MP1990-0BA00 |
| Thread adapter M20x1.5 (male thread) on G½B (female thread) | ▶ | 7MP1990-0BB00 |
| IE/WSN-PA Link | | see Sec. 8 |
| HART modem with RS232 interface | ▶ | 7MF4997-1DA |
| HART modem with USB interface | ▶ | 7MF4997-1DB |
| SIMATIC PDM | | see Sec. 8 |

▶ Available ex stock.

◆ We can offer shorter delivery times for configurations designated with the Quick Ship Symbol ◆. For details see page 9/5 in the appendix.

¹⁾Please order sensor separately.

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