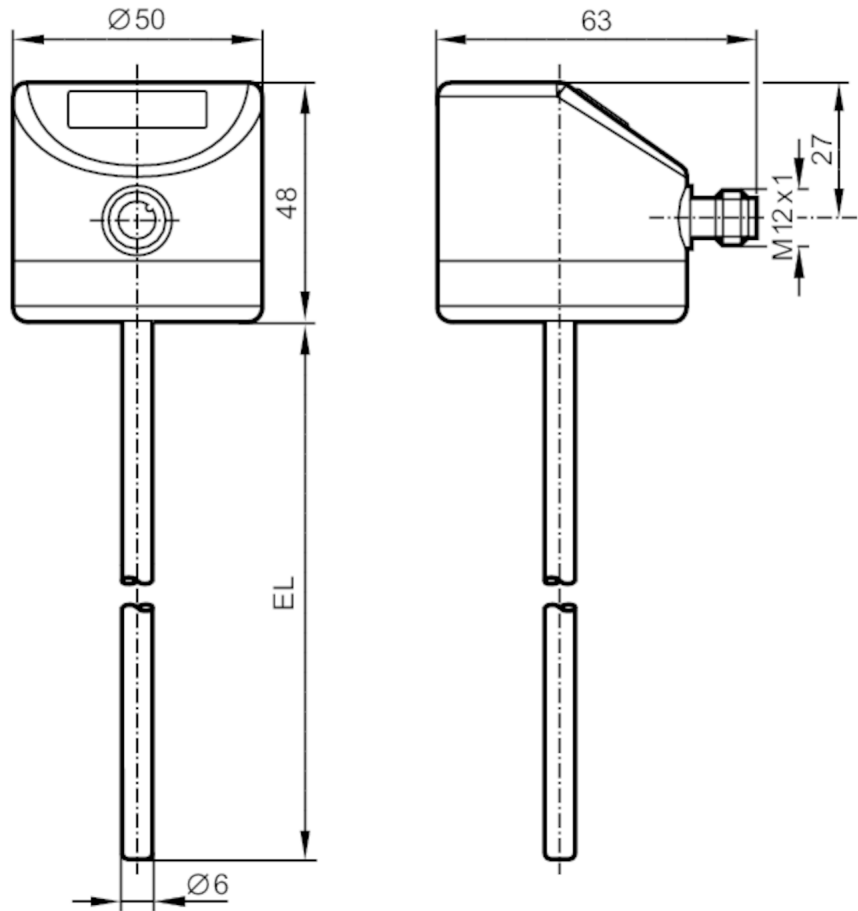


TD2243



Temperature Transmitter with Display

TD-150FFED06-A-ZVG/US



EL = Installation length



| Product characteristics      |                                               |              |
|------------------------------|-----------------------------------------------|--------------|
| Number of inputs and outputs | Number of analog outputs: 1                   |              |
| Measuring range              | -50...150 °C                                  | -58...302 °F |
| Communication interface      | IO-Link                                       |              |
| Process connection           | Clamp fitting Ø 6 mm                          |              |
| Installation length EL [mm]  | 150                                           |              |
| Application                  |                                               |              |
| Measuring element            | 1 x Pt 1000; (to DIN EN 60751, class A)       |              |
| Media                        | liquids and gases                             |              |
| Pressure rating              | 160 bar                                       | 16 MPa       |
| Vacuum resistance            | -1000 mbar                                    | -0.1 MPa     |
| Electrical data              |                                               |              |
| Operating voltage [V]        | 18...32 DC; (cULus - Class 2 source required) |              |
| Current consumption [mA]     | < 50                                          |              |
| Protection class             | III                                           |              |
| Reverse polarity protection  | yes                                           |              |
| Power-on delay time [s]      | 2                                             |              |



## Temperature Transmitter with Display

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| Inputs / outputs                               |                                                                                                                           |                         |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Number of inputs and outputs                   | Number of analog outputs: 1                                                                                               |                         |
| Outputs                                        |                                                                                                                           |                         |
| Total number of outputs                        | 1                                                                                                                         |                         |
| Output signal                                  | analog signal; IO-Link; (configurable)                                                                                    |                         |
| Number of analog outputs                       | 1                                                                                                                         |                         |
| Analog current output [mA]                     | 4...20                                                                                                                    |                         |
| Max. load [Ω]                                  | 300                                                                                                                       |                         |
| Short-circuit protection                       | yes                                                                                                                       |                         |
| Overload protection                            | yes                                                                                                                       |                         |
| Measuring/setting range                        |                                                                                                                           |                         |
| Measuring range                                | -50...150 °C                                                                                                              | -58...302 °F            |
| Factory setting                                | 0...300 °F                                                                                                                |                         |
| Resolution                                     |                                                                                                                           |                         |
| Resolution of analog output [K]                | 0.04                                                                                                                      |                         |
| Resolution of display [K]                      | 0.28                                                                                                                      |                         |
| Accuracy / deviations                          |                                                                                                                           |                         |
| Precision analog output [K]                    | ± 0,3 + (± 0,1 % MS)                                                                                                      |                         |
| Temperature coefficient [% of the span / 10 K] | 0,1; (In case of deviation from the reference condition 25 °C)                                                            |                         |
| Reaction times                                 |                                                                                                                           |                         |
| Dynamic response T05 / T09 [s]                 | 1 / 3                                                                                                                     |                         |
| Interfaces                                     |                                                                                                                           |                         |
| Communication interface                        | IO-Link                                                                                                                   |                         |
| Transmission type                              | COM2 (38,4 kBaud)                                                                                                         |                         |
| IO-Link revision                               | 1.1                                                                                                                       |                         |
| Profiles                                       | Smart Sensor - SSP 0                                                                                                      | Generic Profiled Sensor |
| Min. process cycle time [ms]                   | 2.3                                                                                                                       |                         |
| Supported DeviceIDs                            | Type of operation<br>default                                                                                              | DeviceID<br>376         |
| Operating conditions                           |                                                                                                                           |                         |
| Ambient temperature [°C]                       | -25...80                                                                                                                  |                         |
| Storage temperature [°C]                       | -40...100                                                                                                                 |                         |
| Protection                                     | IP 67; IP 68; IP 69K                                                                                                      |                         |
| Tests / approvals                              |                                                                                                                           |                         |
| EMC                                            | DIN EN 61000-6-2                                                                                                          |                         |
|                                                | DIN EN 61000-6-3                                                                                                          |                         |
| Shock resistance                               | DIN IEC 68-2-27                                                                                                           | 50 g (11 ms)            |
| Vibration resistance                           | DIN IEC 68-2-6                                                                                                            | 10 g (10...2000 Hz)     |
| MTTF [years]                                   | 407                                                                                                                       |                         |
| Note on approval                               | Factory certificate available as download at <a href="http://www.factory-certificate.ifm">www.factory-certificate.ifm</a> |                         |
| UL approval                                    | UL approval number                                                                                                        | K001                    |
| Mechanical data                                |                                                                                                                           |                         |
| Weight [g]                                     | 211.5                                                                                                                     |                         |

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Temperature Transmitter with Display

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|                                                   |                                                 |
|---------------------------------------------------|-------------------------------------------------|
| Housing                                           | tubular                                         |
| Dimensions [mm]                                   | Ø 6 / L = 198                                   |
| Material                                          | stainless steel (1.4404 / 316L); PEI; FKM       |
| Materials (wetted parts)                          | stainless steel (1.4404 / 316L) electropolished |
| Process connection                                | Clamp fitting Ø 6 mm                            |
| Surface characteristics Ra/Rz of the wetted parts | Ra < 0.8 µm                                     |
| Probe diameter [mm]                               | 6                                               |
| Installation length EL [mm]                       | 150                                             |

Displays / operating elements

|         |                                |
|---------|--------------------------------|
| Display | 7-segment LED display, 4-digit |
|         | Display unit / status, °C / °F |

Remarks

|               |                                                 |
|---------------|-------------------------------------------------|
| Remarks       | MS = set measuring span                         |
|               | The values for accuracy apply to flowing water. |
| Pack quantity | 1 pcs.                                          |

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4



Connection

