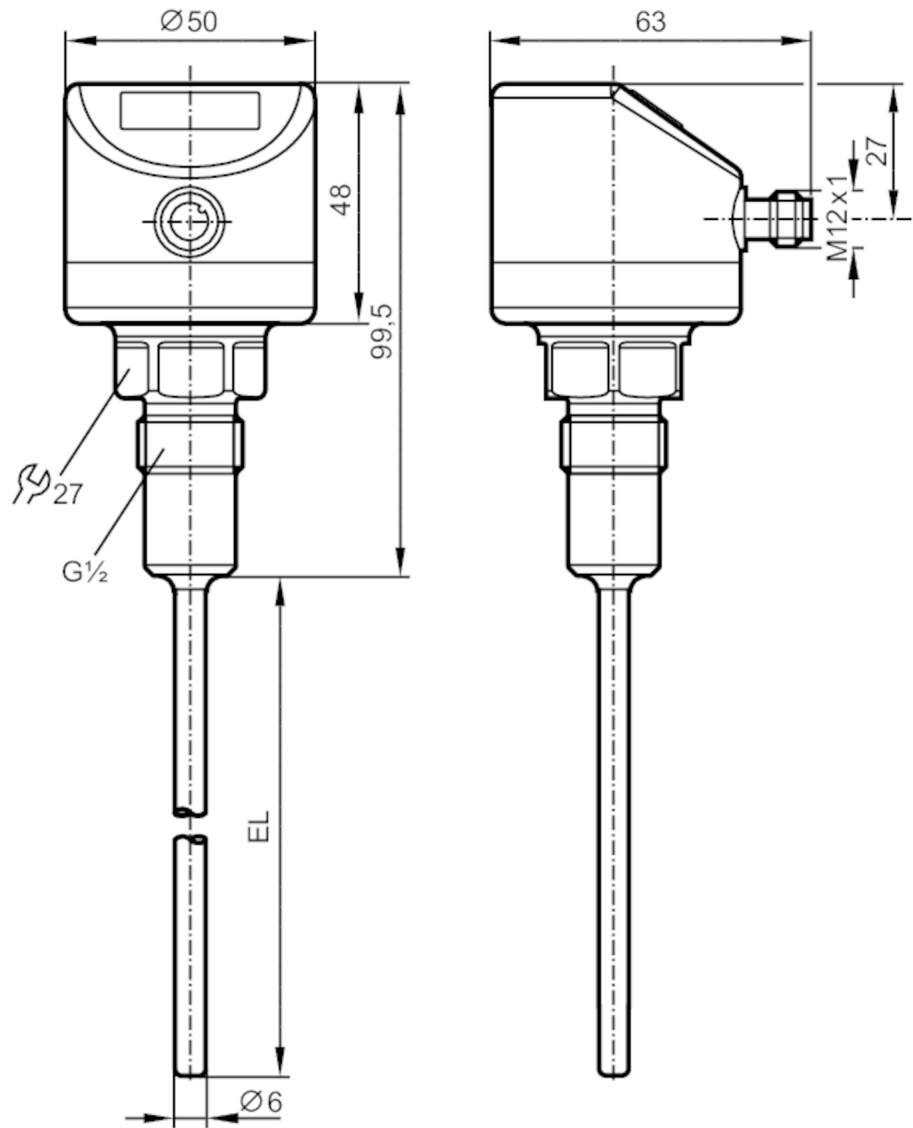


TD2547



Temperature Transmitter with Display

TD-150CFER12-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           | threaded connection G 1/2 external thread sealing cone |              |
| 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     |



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|                                                   |                          |                                                                |
|---------------------------------------------------|--------------------------|----------------------------------------------------------------|
| MAWP (for applications according to CRN)          | [bar]                    | 160                                                            |
| <b>Electrical data</b>                            |                          |                                                                |
| 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                                                              |
| <b>Inputs / outputs</b>                           |                          |                                                                |
| Number of inputs and outputs                      |                          | Number of analog outputs: 1                                    |
| <b>Outputs</b>                                    |                          |                                                                |
| 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                                                            |
| <b>Measuring/setting range</b>                    |                          |                                                                |
| Probe length L                                    | [mm]                     | 150                                                            |
| Measuring range                                   |                          | -50...150 °C      -58...302 °F                                 |
| Factory setting                                   |                          | 0...100 °C                                                     |
| <b>Resolution</b>                                 |                          |                                                                |
| Resolution of analog output                       | [K]                      | 0.04                                                           |
| Resolution of display                             | [K]                      | 0.1                                                            |
| <b>Accuracy / deviations</b>                      |                          |                                                                |
| Precision analog output                           | [K]                      | ± 0,3 + (± 0,1 % MS)                                           |
| Temperature coefficient<br>[% of the span / 10 K] |                          | 0,1; (In case of deviation from the reference condition 25 °C) |
| <b>Reaction times</b>                             |                          |                                                                |
| Dynamic response T05 / T09                        | [s]                      | 1 / 3                                                          |
| <b>Interfaces</b>                                 |                          |                                                                |
| 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                               | <b>Type of operation</b> | <b>DeviceID</b>                                                |
|                                                   | default                  | 374                                                            |
| <b>Operating conditions</b>                       |                          |                                                                |
| Ambient temperature                               | [°C]                     | -25...80                                                       |
| Storage temperature                               | [°C]                     | -40...100                                                      |
| Protection                                        |                          | IP 67; IP 68; IP 69K                                           |



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| 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]         | 405                                                                                                                       |                     |
| 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]                                        | 436.5                                                  |  |
| Housing                                           | tubular                                                |  |
| Dimensions [mm]                                   | Ø 50 / L = 249.5                                       |  |
| Material                                          | stainless steel (1.4404 / 316L); PEI; FKM              |  |
| Materials (wetted parts)                          | stainless steel (1.4404 / 316L) electropolished        |  |
| Tightening torque [Nm]                            | 30...50                                                |  |
| Process connection                                | threaded connection G 1/2 external thread sealing cone |  |
| 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



# TD2547



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### Connection

