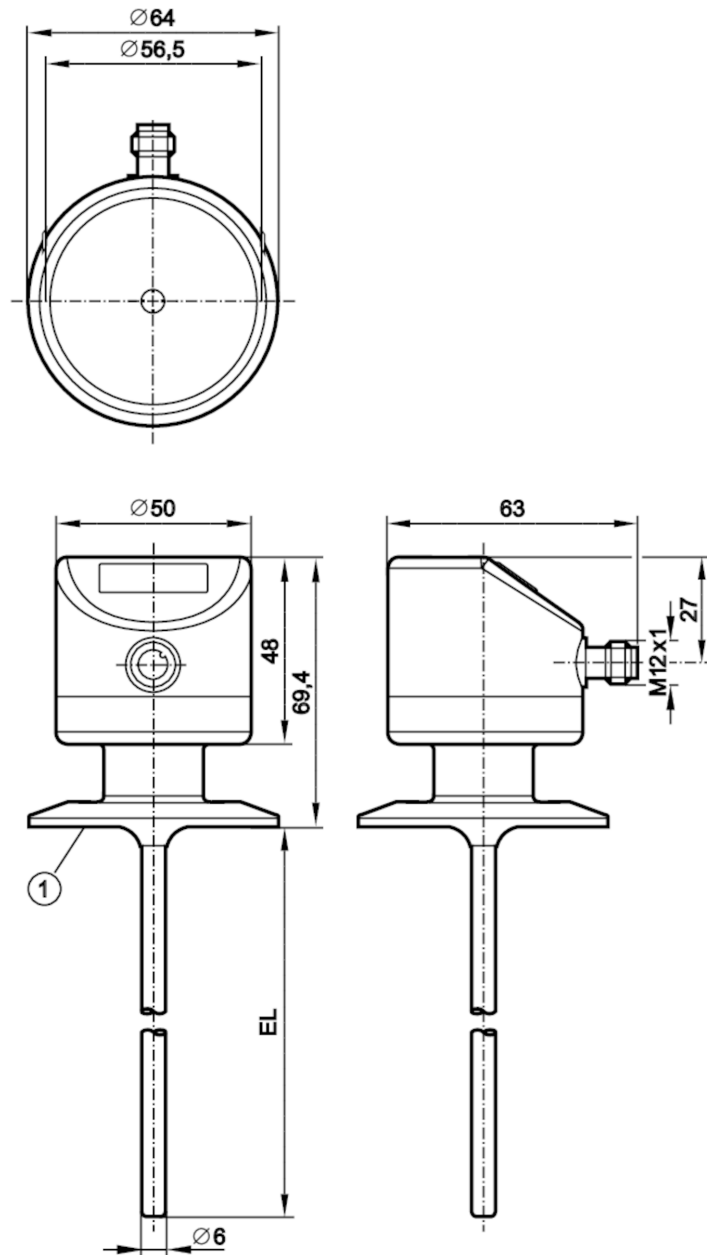


# TD2941



## Temperature Transmitter with Display

TD-150CFEC02-A-ZVG/US



1 2" Clamp ISO 2852  
EL = Installation length



EC 1935/2004 EHEDG Certified FCM FDA IO-Link



### 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 DN50 (2") DIN 32676 (ISO 2852) |              |
| Installation length EL [mm]  | 150                                  |              |

### Application

|                   |   |
|-------------------|---|
| Measuring element | 1 x Pt 1000; (to DIN EN 60751, class A) |
| Media             | liquids and gases                       |

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|   |                  |  |
|---|------------------|--|
| Pressure rating                                   | [bar]            | 100  |
| Vacuum resistance                                 | [mbar]           | -1000  |
| <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>                    |                  |  |
| Measuring range                                   |                  | -50...150 °C   -58...302 °F                                    |
| Factory setting                                   |                  | -10...150 °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  |
| <b>Operating conditions</b>                       |                  |  |
| Ambient temperature                               | [°C]             | -25...80   |
| Storage temperature                               | [°C]             | -40...100  |
| Protection  |                  | IP 67; IP 68; IP 69K   |
| <b>Tests / approvals</b>                          |                  |  |
| 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)  |

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|                  |   |      |
|------------------|---|------|
| 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]   | 484.5 |
| Material  | stainless steel (1.4404 / 316L); PEI; FKM       |       |
| Materials (wetted parts)                          | stainless steel (1.4404 / 316L) electropolished |       |
| Process connection                                | Clamp DN50 (2") DIN 32676 (ISO 2852)            |       |
| Surface characteristics Ra/Rz of the wetted parts | Ra: < 0.8                                       |       |
| 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<br>The values for accuracy apply to flowing water. |  |
| Pack quantity | 1 pcs.   |  |

### Electrical connection

Connector: 1 x M12; coding: A



### Connection

