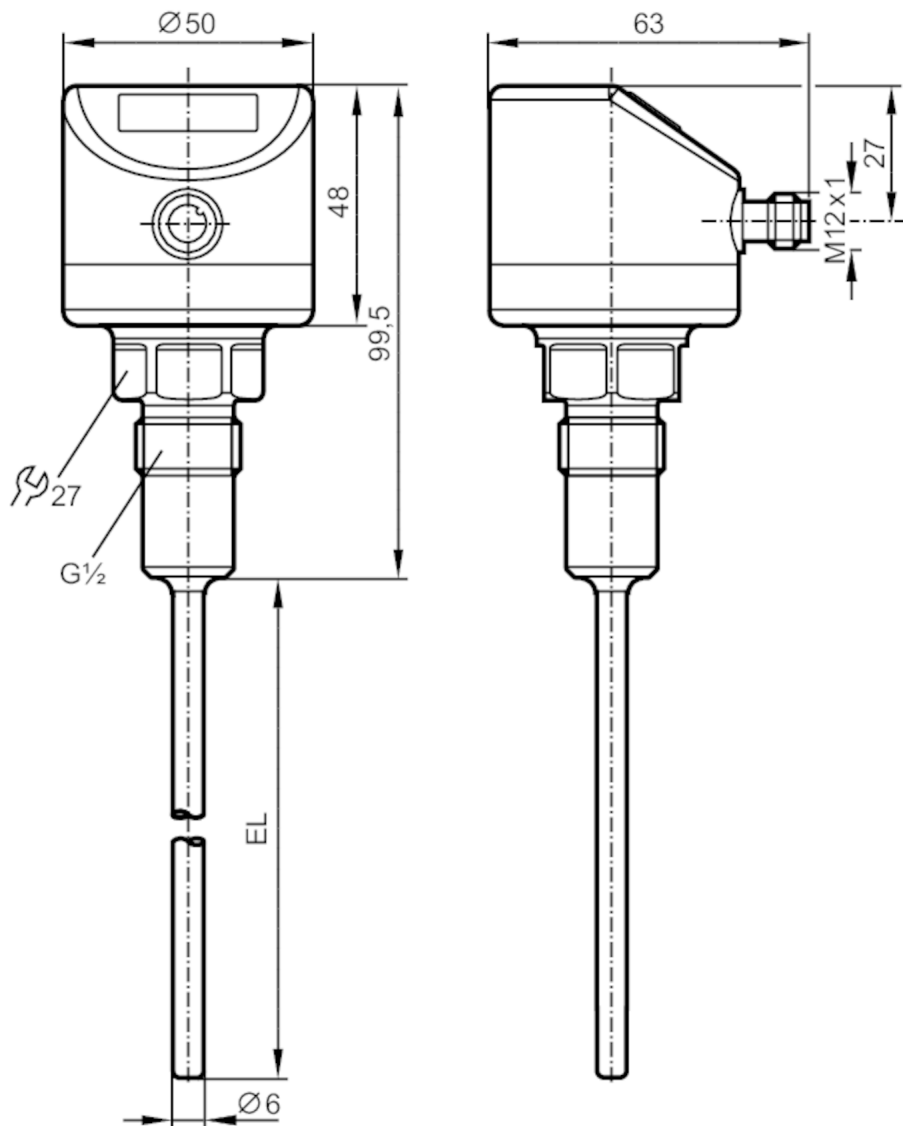


# TD2507



## Temperature Transmitter with Display

TD-030CFER12-A-ZVG/US



EL = Installation length



EC 1935/2004 EHEDG Tested FCM FDA IO-Link

### Product characteristics

|                              |                                        |              |
|------------------------------|----------------------------------------|--------------|
| Number of inputs and outputs | Number of analog outputs: 1            |              |
| Measuring range              | -50...150 °C                           | -58...302 °F |
| Process connection           | threaded connection G 1/2 sealing cone |              |
| Installation length EL [mm]  | 30                                     |              |

### Application

|                                                |                                         |  |
|------------------------------------------------|-----------------------------------------|--|
| Measuring element                              | 1 x Pt 1000; (to DIN EN 60751, class A) |  |
| Media                                          | liquids and gases                       |  |
| Pressure rating [bar]                          | 160                                     |  |
| Vacuum resistance [mbar]                       | -1000                                   |  |
| MAWP (for applications according to CRN) [bar] | 160                                     |  |

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| 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                                                              |
| 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...100 °C                                                     |
| Resolution                                        |      |                                                                |
| Resolution of analog output                       | [K]  | 0.04                                                           |
| Resolution of display                             | [K]  | 0.1                                                            |
| Accuracy / deviations                             |      |                                                                |
| 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) |
| 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                                                            |
| Operating conditions                              |      |                                                                |
| 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]                                                                          | 343                                                                                                                       |                                |
| 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 sealing cone                                                                                    |                                |
| Surface characteristics Ra/Rz of the wetted parts                                   | Ra: < 0.8                                                                                                                 |                                |
| Probe diameter [mm]                                                                 | 6                                                                                                                         |                                |
| Installation length EL [mm]                                                         | 30                                                                                                                        |                                |
| 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                                                                  |                                                                                                                           |                                |
|  |                                                                                                                           |                                |

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### Connection

