

TD2277



Temperature transmitter with display

TD-300CFED06-A-ZVG/US



EL = installation length



| Product characteristics      |                                         |              |
|------------------------------|-----------------------------------------|--------------|
| Number of inputs and outputs | Number of analogue outputs: 1           |              |
| Measuring range              | -50...150 °C                            | -58...302 °F |
| Communication interface      | IO-Link                                 |              |
| Process connection           | clamp adapter Ø 6 mm                    |              |
| Installation length EL [mm]  | 300                                     |              |
| 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; ("supply class 2" to cULus) |              |
| Current consumption [mA]     | < 50                                    |              |
| Protection class             | III                                     |              |
| Reverse polarity protection  | yes                                     |              |
| Power-on delay time [s]      | 2                                       |              |



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| Inputs / outputs                               |  |                                                                                                                           |                     |
|------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------|---------------------|
| Number of inputs and outputs                   |  | Number of analogue outputs: 1                                                                                             |                     |
| Outputs                                        |  |                                                                                                                           |                     |
| Total number of outputs                        |  | 1                                                                                                                         |                     |
| Output signal                                  |  | analogue signal; IO-Link; (configurable)                                                                                  |                     |
| Number of analogue outputs                     |  | 1                                                                                                                         |                     |
| Analogue 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 analogue output [K]              |  | 0.04                                                                                                                      |                     |
| Resolution of display [K]                      |  | 0.1                                                                                                                       |                     |
| Accuracy / deviations                          |  |                                                                                                                           |                     |
| Precision analogue 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)                                                            |                     |
| Response 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                                                                                                      |                     |
| 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 no.                                                                                                           | K001                |
| Mechanical data                                |  |                                                                                                                           |                     |
| Weight [g]                                     |  | 292.5                                                                                                                     |                     |
| Housing                                        |  | cylindrical                                                                                                               |                     |
| Dimensions [mm]                                |  | Ø 6 / L = 348                                                                                                             |                     |
| Materials                                      |  | stainless steel (316L/1.4404); PEI; FKM                                                                                   |                     |

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|                                                   |                                               |
|---------------------------------------------------|-----------------------------------------------|
| Materials (wetted parts)                          | stainless steel (316L/1.4404) electropolished |
| Process connection                                | clamp adapter Ø 6 mm                          |
| Surface characteristics Ra/Rz of the wetted parts | Ra: < 0.8                                     |
| Probe diameter [mm]                               | 6                                             |
| Installation length EL [mm]                       | 300                                           |

| Displays / operating elements |  |                                                                  |
|-------------------------------|--|------------------------------------------------------------------|
| Display                       |  | 7-segment LED display, 4-digit<br>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

