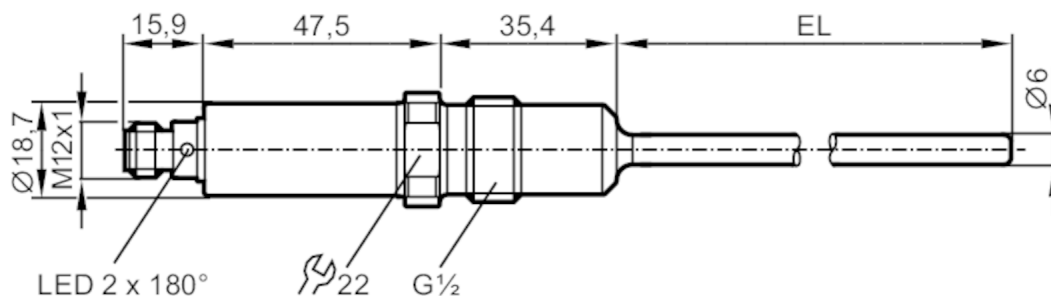


# TA2542



## Temperature transmitter

TA-150CLER12- - /US



US

EC 1935/2004 EHEDG Certified

FCM

FDA

IO-Link



### Product characteristics

|                              |                                        |
|------------------------------|----------------------------------------|
| Number of inputs and outputs | Number of analogue outputs: 1          |
| Measuring range [°C]         | -50...200                              |
| Communication interface      | IO-Link                                |
| Process connection           | threaded connection G 1/2 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 [bar]                          | 160                                     |
| Vacuum resistance [mbar]                       | -1000                                   |
| MAWP (for applications according to CRN) [bar] | 160                                     |

### 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                                       |

### 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]                | 250; ((18...19 V); 19...32 V: 300 Ω)     |
| Short-circuit protection     | yes                                      |
| Overload protection          | yes                                      |

### Measuring/setting range

|                      |           |
|----------------------|-----------|
| Measuring range [°C] | -50...200 |
|----------------------|-----------|



## Temperature transmitter

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|                                                   |                                                                                                                           |                      |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------------------|
| Factory setting                                   | 0...200 °C                                                                                                                |                      |
| Resolution                                        |                                                                                                                           |                      |
| Resolution of analogue output                     | [K]                                                                                                                       | 0.04                 |
| Accuracy / deviations                             |                                                                                                                           |                      |
| Precision analogue 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 ± 5 °C)                                                        |                      |
| Response times                                    |                                                                                                                           |                      |
| Dynamic response T05 / T09                        | [s]                                                                                                                       | < 0,5 / < 2          |
| Interfaces                                        |                                                                                                                           |                      |
| Communication interface                           | IO-Link                                                                                                                   |                      |
| Transmission type                                 | COM2 (38,4 kBaud)                                                                                                         |                      |
| IO-Link revision                                  | 1.1                                                                                                                       |                      |
| Operating conditions                              |                                                                                                                           |                      |
| Ambient temperature                               | [°C]                                                                                                                      | -25...80             |
| Note on ambient temperature                       | at medium temperature: < 160 °C                                                                                           |                      |
|                                                   | -25...60 °C                                                                                                               |                      |
|                                                   | at medium temperature: < 200 °C                                                                                           |                      |
| 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]                                                                                                                   | 324.3                |
| 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.                                                                                                           | K002                 |
| Mechanical data                                   |                                                                                                                           |                      |
| Weight                                            | [g]                                                                                                                       | 239                  |
| Dimensions                                        | [mm]                                                                                                                      | Ø 18.7               |
| Materials                                         | stainless steel (316L/1.4404); PEI; FKM                                                                                   |                      |
| Materials (wetted parts)                          | stainless steel (316L/1.4404) 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]                                                                                                                      | 150                  |
| Remarks                                           |                                                                                                                           |                      |
| Remarks                                           | MS = set measuring span                                                                                                   |                      |
|                                                   | The values for accuracy apply to flowing water.                                                                           |                      |
| Pack quantity                                     | 1 pcs.                                                                                                                    |                      |

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### Electrical connection

Connector: 1 x M12; coding: A



### Connection

