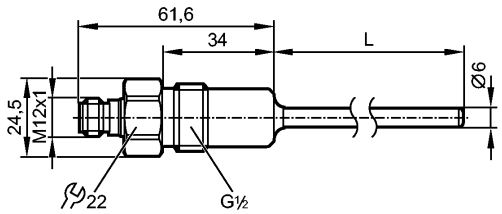
# TM4531

TM-100KFER12- /US/

**Temperature sensors**




L = probe length (corresponds to installation length EL)

EC 1935/2004 EHEDG Certified

| | | | |
|---|---|---|---|
| **Product characteristics** | | | |
| Temperature sensor for connection to a control monitor with a max. operating voltage of 32 V | | | |
| Quick disconnect | | | |
| Process connection: G½ with sealing cone | | | |
| Installation length EL: 100 mm | | | |
| gold-plated contacts | | | |
| Connection to control monitor TP / TR | | | |
| Measuring range: -40...150 °C / -40...302 °F | | | |
| Measuring element: 1 x Pt 100, to DIN EN 60751, class A | | | |
| **Application** | | | |
| Application | | liquids and gases | |
| Pressure rating | [bar] | 160; only applies to the sensor; for installation in adapters the indications in the adapter data sheet shall apply | |
| Minimum installation depth | [mm] | 15 | |
| **Electrical data** | | | |
| Connection to control monitor | | TP / TR | |
| Protection class | | III | |
| **Measuring / setting range** | | | |
| Measuring range | | -40...150 °C | -40...302 °F |
| **Accuracy / deviations** | | | |
| Accuracy | | ± (0.15 K + 0.002 x \|t\|) | |
| **Reaction times** | | | |
| Dynamic response | T05 / T09 [s] | 1 / 3 *) | |
| **Environment** | | | |
| Ambient temperature | [°C] | -25...80 | |
| Storage temperature | [°C] | -40...100 | |
| Protection | | IP 68 / IP 69K | |
| **Tests / approvals** | | | |
| Shock resistance | | DIN EN 60068-2-2-27: | 50 g (11 ms) |
| Vibration resistance | | DIN EN 60068-2-6 | 10 g (10...2000 Hz) |
| MTTF | [Years] | 22831.05 | |
| **Mechanical data** | | | |
| Process connection | | G½ with sealing cone | |
| Materials (wetted parts) | | stainless steel 316L / 1.4404; surface characteristics: Ra < 0.8 / electropolished | |
| Probe diameter | [mm] | 6 | |
| Probe length L | [mm] | 100 | |
| Installation length EL | [mm] | 100 | |

efector600

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**Temperature sensors**

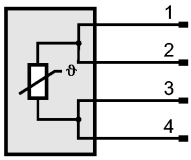
| | | |
|---|---|---|
| Housing materials | | stainless steel 316L / 1.4404 |
| Tightening torque | [Nm] | 30...50 |
| Weight | [kg] | 0.141 |

## Electrical connection

| | |
|---|---|
| Connection | M12 connector; gold-plated contacts |

**Wiring**




## Remarks

| | |
|---|---|
| Remarks | cULus - Class 2 source required<br>*) according to DIN EN 60751<br>The values for accuracy apply to flowing water. |
| Pack quantity [piece] | 1 |