



## Temperature sensor with process connection

TM-020KFER12-

/US/



L = probe length corresponds to installation length EL



EC 1935/2004 EHEDG Certified



### Application

|                                 |                                                                                    |
|---------------------------------|------------------------------------------------------------------------------------|
| Measuring element               | 1 x Pt 100; (to DIN EN 60751, class A)                                             |
| Media                           | liquids and gases                                                                  |
| Pressure rating [bar]           | 160                                                                                |
| Note on pressure rating         | sensor                                                                             |
| Minimum installation depth [mm] | When mounted in adapters the specifications of the adapter data sheet apply.<br>15 |

### Electrical data

|                  |     |
|------------------|-----|
| Protection class | III |
|------------------|-----|

### Measuring/setting range

|                     |                              |
|---------------------|------------------------------|
| Probe length L [mm] | 20                           |
| Measuring range     | -40...150 °C<br>-40...302 °F |

### Accuracy / deviations

|              |                                   |
|--------------|-----------------------------------|
| Accuracy [K] | $\pm (0,15 K + 0,002 \times  t )$ |
|--------------|-----------------------------------|

### Response times

|                                |                          |
|--------------------------------|--------------------------|
| Dynamic response T05 / T09 [s] | 1 / 3; (to DIN EN 60751) |
|--------------------------------|--------------------------|

### Operating conditions

|                          |               |
|--------------------------|---------------|
| 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            |                     |



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### Mechanical data

|                                                   |      |                                                 |
|---------------------------------------------------|------|-------------------------------------------------|
| Weight                                            | [g]  | 131.8                                           |
| Materials                                         |      | stainless steel (1.4404 / 316L)                 |
| 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] | 20                                              |

### Remarks

|               |                                                       |
|---------------|-------------------------------------------------------|
| Remarks       | operating voltage "supply class 2" according to cULus |
|               | The values for accuracy apply to flowing water.       |
| Pack quantity | 1 pcs.                                                |

### Electrical connection

Connector: 1 x M12; Contacts: gold-plated



### Connection

