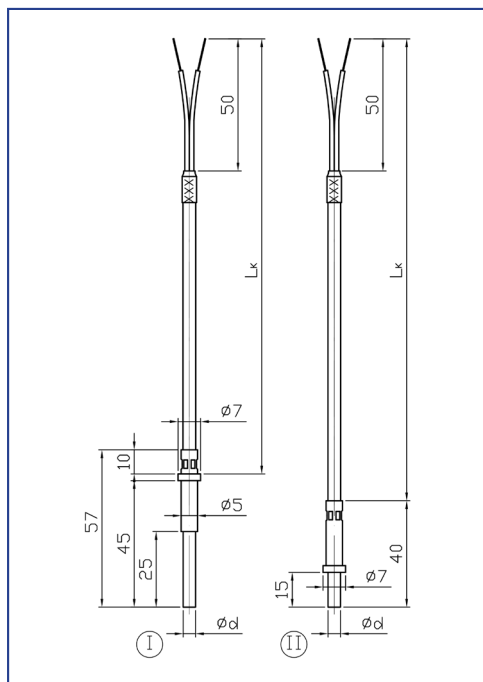


# TER-PKbm-37

## Thermocouple Miniature

Miniature thermocouple type TER-PKbm-37 has been designed for temperature measurement up to +400°C. Thanks miniature dimensions assures short response time and precise temperature measurement. Thermometer is applicable in variety of location and process fluids even in cases of limited access space.

Thermocouple is made of sheathed thermo-elements.



| Type            | Execution                   | Version       |
|-----------------|-----------------------------|---------------|
| TER-PKbm-37     | Basic - acc to catalog card | I<br>or<br>II |
| TER-PKbm-37/Exi | Intrinsic – acc to Atex     | II            |

## Technical specification

| Sheathed sensor insert           | Temp. range - Class 1 | Characteristic  |
|----------------------------------|-----------------------|-----------------|
| 1xFe-CuNi (J), 2xFe-CuNi (J)     | -40°C..+300°C         | acc. EN 60584-1 |
| 1xNiCr-NiAl (K), 2xNiCr-NiAl (K) | -40°C..+400°C         |                 |

| Junction   |
|------------|
| ungrounded |
| grounded   |

| Sheath diameter<br>d [mm] | Material<br>acc. DIN/AISI |
|---------------------------|---------------------------|
| ø1, ø1.5, ø2, ø3          | 2.4816/Inconel 600        |

| Thermocouple | Configuration   | Dimension | Compensation Cable Type | Insulation                       | Temp. limits |
|--------------|-----------------|-----------|-------------------------|----------------------------------|--------------|
| Single       | 2 wire (1-pair) | ø 3,2     | L2GGD-J-0,22mm2         | glass fibre, glass fibre, screen | +400°C       |
|              |                 | ø 3,3     | L2GGD-K-0,22mm2         |                                  |              |
|              |                 | ø 3,2     | L2TDT-J-0,22mm2         | teflon, screen, teflon           | +260°C       |
|              |                 | ø 3,0     | L2TDT-K-0,22mm2         |                                  |              |
|              |                 | ø 4,2     | L2SS-J-0,22mm2          | silicone, silicone               | +180°C       |
|              |                 | ø 3,5     | L2SS-K-0,22mm2          |                                  |              |
| Double       | 4 wire (2-pair) | ø 4,0     | L4GGD-J-0,22mm2         | glass fibre, glass fibre, screen | +400°C       |
|              |                 | ø 3,6     | L4GGD-K-0,22mm2         |                                  |              |

Non-standard models available.

## Ordering Information

|             |          |          |          |          |          |          |          |          |
|-------------|----------|----------|----------|----------|----------|----------|----------|----------|
| TER-PKbm-37 | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> | <b>F</b> | <b>G</b> | <b>H</b> |
|-------------|----------|----------|----------|----------|----------|----------|----------|----------|

| <b>A Execution</b> |                                           |
|--------------------|-------------------------------------------|
| I                  | Basic - immersion length L=45 mm          |
| II                 | Basic - immersion length L=15 mm          |
| I/Exi              | Intrinsic safe - immersion length L=45 mm |
| II/Exi             | Intrinsic safe - immersion length L=15 mm |

| <b>B Type of thermocouple</b> |                  |
|-------------------------------|------------------|
| 1xJ                           | Single Fe-CuNi   |
| 2xJ                           | Double Fe-CuNi   |
| 1xK                           | Single NiCr-NiAl |
| 2xK                           | Double NiCr-NiAl |

| <b>C Protection tube diameter d</b> |           |
|-------------------------------------|-----------|
| 1                                   | d= 1 mm   |
| 1,5                                 | d= 1,5 mm |
| 2                                   | d= 2 mm   |
| 3                                   | d= 3 mm   |

| <b>D Protection tube material</b> |                    |
|-----------------------------------|--------------------|
| 2.4816                            | 2.4816/Inconel 600 |

| <b>E Compensation cable type</b> |                       |
|----------------------------------|-----------------------|
| 2p-L2GGD-J                       | 2 wire (L2GGD-J-0,22) |
| 2p-L2TDT-J                       | 2 wire (L2TDT-J-0,22) |
| 2p-L2SS-J                        | 2 wire (L2SS-J-0,22)  |
| 4p-L4GGD-J                       | 4 wire (L4GGD-J-0,22) |
| 2p-L2GGD-K                       | 2 wire (L2GGD-K-0,22) |
| 2p-L2TDT-K                       | 2 wire (L2TDT-K-0,22) |
| 2p-L2SS-K                        | 2 wire (L2SS-K-0,22)  |
| 4p-L4GGD-K                       | 4 wire (L4GGD-K-0,22) |

| <b>F Cable length <math>L_k</math></b> |               |
|----------------------------------------|---------------|
|                                        | specify in mm |

| <b>G Junction</b> |            |
|-------------------|------------|
| O                 | ungrounded |
| Z                 | grounded   |

| <b>H Operating temperature</b> |               |
|--------------------------------|---------------|
|                                | specify in °C |

## Ordering Example

### TER-PKbm-37-I/Exi-1xJ-3-2.4816-2p-L2GGD-J-1000-O-280

stands for: Thermocouple miniature, intrinsic safe, immersion length L=45 mm, 1xFe-CuNi, protection tube diameter 3 mm, material Inconel 600, configuration 2-wire, cable type L2GGD-J length L<sub>k</sub>=1000 mm, ungrounded, operating temp. up to 280°C.