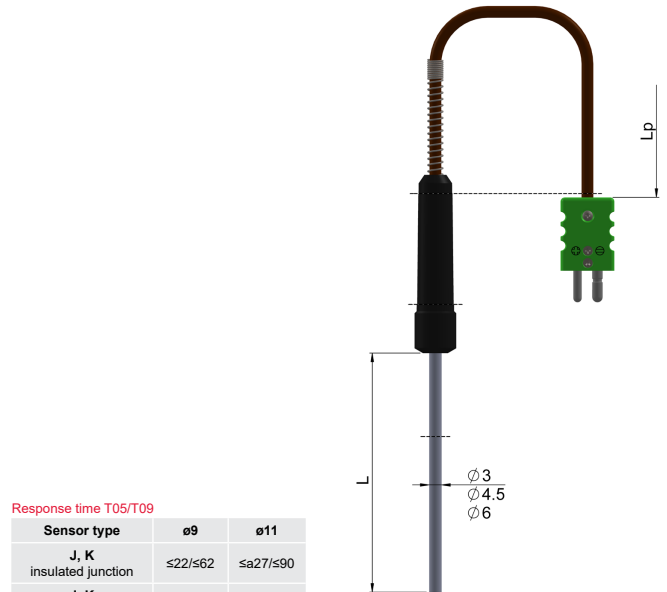


## Mineral insulated thermocouple sensors PTR-2, PTR-3

### Technical description

Measuring range / sensing element			
(-40 + 700) °C	<b>J</b>	class 2	
(-40 + 1200) °C	<b>K</b>	class 2	
Thermowell			
– material: steel 1.4541 for J, Inconel 600 for K			
– diameter d [mm]: ø3; ø4,5; ø6			
– length L [mm]: 100÷1500			
– min. bending radius [mm]: 3xd			
Max. the range of continuous operation depends on the diameter of the mineral insulation			
Termopara class 2	Mineral insulated diameter d [mm]		
	ø3	ø4,5	ø6
<b>J</b>	450 °C	550 °C	700 °C
<b>K</b>	900 °C	1000 °C	1200 °C
Construction version			
– plastic handle, max. working temperature 80 °C			
Wire			
– wire: 2x0,22 mm <sup>2</sup> in double silicone insulation			
– measuring junction: isolated SO			
– length L <sub>p</sub> =1,5m (standard)			
Options			
– measuring junction: grounded SP			
– thermocouple J, K: class 1			
– other lead wire insulation types: teflon, armour, fiberglass			
Additional accessories			
– mini plug SMPW – p. 198+199			
– compensation cables – p. 197			



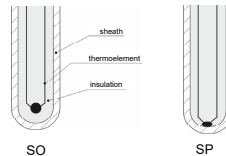
Response time T05/T09

Sensor type	ø9	ø11
<b>J, K</b> insulated junction	≤22/≤62	≤a27/≤90
<b>J, K</b> grounded junction	≤3/≤8	≤6/≤15

Tolerance for thermocouples class acc to. PN-EN 60584

Thermocouple	Class 1		Class 2	
	Range [°C]	Tolerance [°C]	Range [°C]	Tolerance [°C]
<b>J</b> Fe-CuNi	(-40+375) (375+750)	±1,5 ±0,004 [t]	(-40+333) (333+750)	±2,5 ±0,0075 [t]
<b>K</b> NiCr-NiAl	(-40+375) (375+1000)	±1,5 ±0,004 [t]	from (-40+333) (333+1200)	±2,5 ±0,0075 [t]

Types of measuring hot junction



### Ordering code

Temperature sensor	PTR	-	...	-	...	...	...	...	...
Thermocouple NiCr-NiAl	<b>2</b>								
Thermocouple Fe-CuNi	<b>3</b>								
Mineral insulated diameter dx10				<b>60*</b>					
Thermocouple class							<b>1, 2</b>		
Junction insulated from the sheath								<b>SO</b>	
Junction grounded								<b>SP</b>	
Sensor length L [mm]									<b>200*</b>
Cable length L <sub>p</sub> [m]									<b>1,5m*</b>
Additional accessories: mini plug									<b>W</b>

\* or others acc. to requirements

### Ordering example

**PTR-2-45-2-SO-250-1,5m** sensor with mineral insulated thermocouple NiCr-NiAl, class 2, insulated hot junction, sheath diameter ø4,5 mm, length L = 250 mm, cable length L<sub>p</sub>=1,5m

**PTR-3-30-1-SP-500-2m-W** sensor with mineral insulated thermocouple Fe-CuNi, class 1, grounded hot junction, sheath diameter ø3 mm and length L = 500 mm, lead wire length L<sub>p</sub>= 2m, terminated with the miniature plug