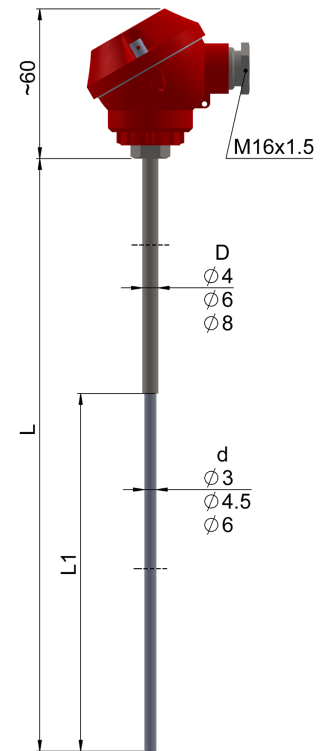


Czujniki płaszczowe **PTOP-453, PTTJ-453, PTTK-453**

Technical description

Measuring range / sensing element			
(-50 ÷ 550) °C	Pt100	class B, 3-wire	
(-40 ÷ 700) °C	J	class 2	
(-40 ÷ 1100) °C	K	class 2	
Thermowell			
– mineral insulated material: steel 1.4541 for J, steel 1.4571 for Pt100, Inconel 600 for K			
– diameter d/D [mm]: ø3/ø4; ø4,5/ø6; ø6/ø8			
– sensor length L [mm]: 250+1000			
– sheath length L ₁ [mm]: 50+300			
– strengthening sheath material: stainless steel 1.4541 (max. working temperature: 700 °C)			
– min. bending radius [mm]: 3xd for length L ₁			
Max. the range of continuous operation depends on the diameter of the mineral insulation			
Czujnik class 2, class B	Mineral insulated diameter d [mm]		
	ø3	ø4,5	ø6
J	450 °C	550 °C	700 °C
K	900 °C	1000 °C	1100 °C
Pt100	400 °C	–	550 °C
Connection head			
– MA, IP54 (-40 ÷ 100) °C			
Options			
– measuring junction for TC: insulated SO, grounded SP			
– 4-wire connection for 1xPt100*			
– Pt100: class A (-30 ÷ 200) °C, class AA (0 ÷ 150) °C; TC: class 1			
Additional accessories			
– mounting brackets: UG-1, UG-3, UG-8, UZK-1 – p. 215+216			



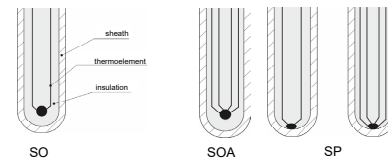
Resistors tolerance acc. to PN-EN 60751

Class	Wire wound resistor	
	Range [°C]	Tolerance [°C]
AA	(-50+250)	±(0,1+0,0017· t)
A	(-100+450)	±(0,15+0,002· t)
B	(-196+600)	±(0,3+0,005· t)

Tolerance for thermocouples class acc to. PN-EN 60584

Thermocouple	Class 1		Class 2	
	Range [°C]	Tolerance [°C]	Range [°C]	Tolerance [°C]
J Fe-CuNi	(-40+375) (375+750)	±1,5 ±0,004 t	(-40+333) (333+750)	±2,5 ±0,0075 t
K, Na 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		...	PT	...	- 453 -
Single			no sign							
Double			2							
Resistor Pt					OP					
Thermocouple Fe-CuNi					TJ					
Thermocouple NiCr-NiAl					TK					
Dimensions d/D [mm]						3/4; 4,5/6; 6/8				
Resistor type									Pt100*	
Junction insulated from the sheath									SO	
Junction grounded									SP	
Resistor class										A, B*
Thermocouple class										1, 2
Measuring circuit for RTD										3, 4
Sheath length L ₁ [mm]										200*
Sensor length L [mm]										500*

* or others acc. to requirements

Ordering example

PTTK-453-3/4-SO-1-100-300 single thermocouple sensor NiCr-NiAl, class 1, insulated junction, sheath diameter ø3 mm, support sheath diameter ø4 mm, sheath length L₁=100 mm, sensor length L=300 mm