

## Temperature sensors with ceramic protection tubes TTSC-ACT, TTBC-ACT, TTRC-ACT

### Dane techniczne

Measuring range / sensing element		
(0 ÷ 1600) °C	<b>S, R</b>	class 2
(600 ÷ 1700) °C	<b>B</b>	class 3
Sheath		
– ceramics, material: corundum 799		
– sprayed protection layer		
– covering material: Pt, PtRh10, PtRh20		
– covering thickness g/g <sub>1</sub> : 0,3/0,5 mm		
– length L <sub>max</sub> [mm]: 1500		
Connection head		
– AA, IP53, (-40 ÷ 150) °C		
Options		
– measuring junctions on different heights: L <sub>5</sub> , L <sub>6</sub> , L <sub>7</sub>		
– dimensions: L <sub>1</sub> ...L <sub>7</sub> [mm]		
– different thickness of protective layer		
– L <sub>1</sub> ...L <sub>4</sub> [mm] acc. to requirements		
– wire diameter ø0,35 mm		
– thermocouple R, S: class 1; B: class 2		
Additional accessories		
– temperature transmitters – p. 225+241		
– compensation cables – p. 197		
– mounting brackets: UZ-11, UZ-21 – p. 216		

d <sub>3</sub> [mm]	d <sub>2</sub> [mm]	d <sub>1</sub> [mm]	wire diameter [mm]
10	15	22	ø0,5
12	20	26	
15	24	32	

#### Response time T05/T09

Sensor type	ø9	ø11
<b>Pt</b>	≤33/≤95	≤40/≤120
<b>J, K</b> insulated junction	≤22/≤62	≤27/≤90
<b>J, K</b> grounded junction	≤3/≤8	≤6/≤15

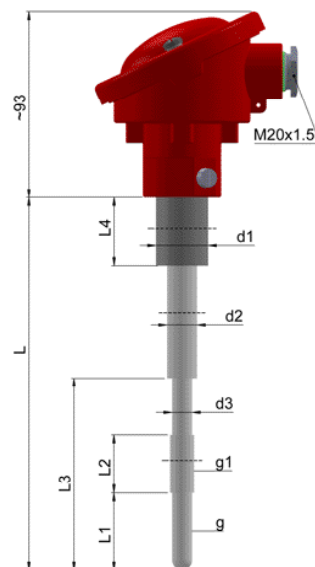
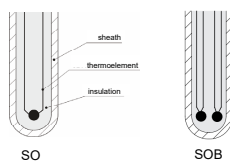
#### Resistors tolerance acc. to PN-EN 60751

Class	Wire wound resistor	
	Range [°C]	Tolerance [°C]
<b>AA</b>	(-50÷250)	±(0,1+0,0017· t )
<b>A</b>	(-100÷450)	±(0,15+0,002· t )
<b>B</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]
<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	...	TT	...	C-ACT	-	-	-	-	-	-	-	-	-	-
Single	no sign													
Double	2													
Triple	3													
Thermocouple PtRh10-Pt				<b>S</b>										
Thermocouple PtRh13-Pt				<b>R</b>										
Thermocouple PtRh30-PtRh6				<b>B</b>										
Sensor sheath length L [mm]														1000*
Thermocouple class for S, R														1, 2
Thermocouple class for B														2, 3
Covering material														Pt, PtRh10, PtRh20
Covering thickness g/g <sub>1</sub> [mm]														0,3/0,5*
Diameter d <sub>3</sub> [mm]														12*
Dimensions L <sub>1</sub> ...L <sub>7</sub> [mm]														acc. to requirements

\* or others acc. to requirements

### Ordering example

2TTSC-ACT-1200-1-Pt-0,3/0-10-L<sub>1</sub>=100 L<sub>2</sub>=0 L<sub>3</sub>=200 L<sub>4</sub>=150 L<sub>5</sub>=20 L<sub>6</sub>=60 L<sub>7</sub>=0