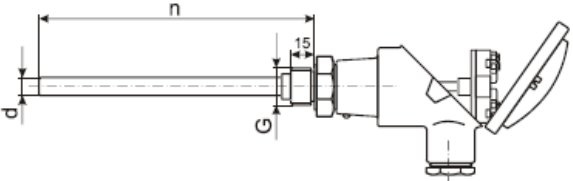
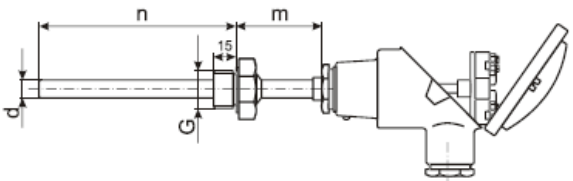
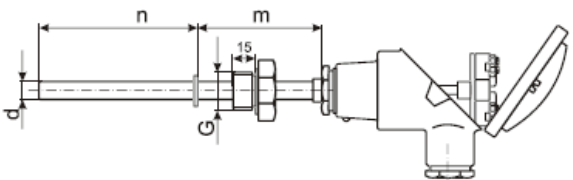
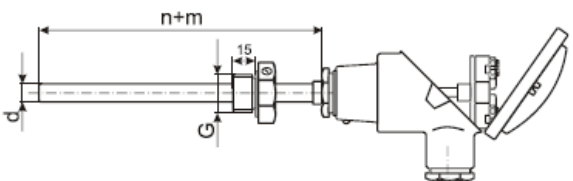
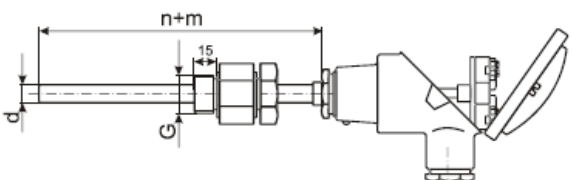


# Termorezistenta tip TSCS

RTD PROBE WITH PROTECTION HEAD AND INSERT  (FOR IN-HEAD TRANSMITTER)** Sheath - stainless steel (see Appendix - Sheath materials) Head - aluminum, stainless steel, or plastic (see Appendix - Protection heads)	CSx (TSCSx)	SENSITIVE ELEMENT	TEMPERATURE RANGE	DIMENSIONS			
	OCSx (TSOCSx)			d [mm]	d-insert [mm]	wires	
<p><b>DESIGN WITHOUT EXTENSION (CS)</b></p> 		1 x Pt (RB,RD,RF,RG)	T9 -50...200 °C	8	4, 5	2, 3*	
			T1 -50...400 °C	9, 10, 12, 14, 16, 20	6	2, 3, 4*	
			T11* -50...600 °C	12, 14, 16, 20	8	2, 3, 4	
			T2* -200...600 °C	9, 10, 12, 14, 16, 20	6	2x2*	
			T4* -0...800 °C	12, 14, 16, 20	8	2x2(3)*	
<p><b>EXTENDED DESIGN WITH WELDED CONNECTION (CS1)</b></p> 		1 x Cu (RH, RK)	T9 -50...200 °C	9, 10, 12, 14, 16, 20	6	2, 3, 4*	
				12, 14, 16, 20	8	2, 3, 4	
			2 x Cu (RH, RK)	T9 -50...200 °C	9, 10, 12, 14, 16, 20	6	2x2*
					12, 14, 16, 20	8	2x2(3)*
			<p><b>EXTENDED DESIGN WITH MOVABLE CONNECTION (CS2)</b></p> 		2 x Cu (RH, RK)	T9 -50...200 °C	9, 10, 12, 14, 16, 20
	12, 14, 16, 20	8				2x2(3)*	
2 x Cu (RH, RK)	T9 -50...200 °C	9, 10, 12, 14, 16, 20				6	2x2*
		12, 14, 16, 20				8	2x2(3)*
<p><b>DESIGN WITH ADJUSTABLE CONNECTION (CS3)</b></p> 		2 x Cu (RH, RK)				T9 -50...200 °C	9, 10, 12, 14, 16, 20
				12, 14, 16, 20	8	2x2(3)*	
			2 x Cu (RH, RK)	T9 -50...200 °C	9, 10, 12, 14, 16, 20	6	2x2*
					12, 14, 16, 20	8	2x2(3)*
			<p><b>DESIGN WITH GLAND-TYPE CONNECTION (CS4)</b></p> 		2 x Cu (RH, RK)	T9 -50...200 °C	9, 10, 12, 14, 16, 20
	12, 14, 16, 20	8				2x2(3)*	
2 x Cu (RH, RK)	T9 -50...200 °C	9, 10, 12, 14, 16, 20				6	2x2*
		12, 14, 16, 20				8	2x2(3)*

**Protection head:**  
B, MA, MB, G, N, Dx, Ex, EX (see Appendix - Protection heads)

**Process connection 'G' (nipple or union nut):**  
- M16x1.5(Q0), M18x1.5(Q1), M20x1.5(Q2), M27x2(Q5), M33x2(Q25)  
- 3/8"(Q3/Q9), 1/2"(Q4/Q10), 3/4"(Q6/Q11), 1"(Q12/Q15)  
- welded or adjustable flange  
- no mounting appliances

**Thermal isolation between nipple and metal head:** (for TS(O)CS only)

Protection head	Length 'n'	Maximum temperature	Insulation material
MA, MB	up to 50 mm	200 °C	POM
B	up to 100 mm	400 °C	Teflon®
other	up to 150 mm		

**Extension length:**  
m = 0...1500 mm

**Extension diameter:** (for TS(O)CS1 and TS(O)CS2 only, [mm])

Probe diameter 'd'	8 mm	9, 10 mm	10+ mm
Ext. length 'm'			
up to 50 mm	d	d	d
50...150 mm	d	d	d
150...500 mm	10	d	d
500+ mm	14	14	d

**Tip shape:**  
standard, narrowed, pitted (see Appendix - Tip shapes)

**Process pressure:**

Probe design	CS, CS1	CS2	CS4	CS3
Max. pressure *	25 bar	16 bar	6 bar	0 bar

**Sheath material:**  
1.4301(M1), 1.4404(M9), 1.4541(M2), 1.4571(M3), 1.4362 (M15)

**Wire material:**  
Cu, Ni, or Ag

**Accuracy class:**  
'A', 'B', or '2xB' (see Appendix - RTD Tolerance)

\* Please contact

\*\* Order transmitter separately!!!

**Ordering code TS\*(1,2,3,4) - G0.G1G2.G3.G4.G6.G7.G9'9".G10.G11.G12.G13.G14 - #1.#2**

Code	Feature or option	Code values
*	Base model variant	<b>CS</b> - standard (w/ terminal block), <b>OC</b> S - prepared for in-head transmitter (w/o terminal block)
G0	Protection head	<b>B</b> - type "B", <b>MA</b> - type "MA", <b>MB</b> - type "MB", <b>G</b> - IP65, type "G", <b>N</b> - type "N", <b>D</b> - type "D", <b>DW</b> - windowed, type "DW", <b>DH</b> - w/ high cap, type "DH", <b>DHW</b> - windowed, type "DHW", <b>E</b> - IP65 EEx 'd', type "E", <b>ES</b> - stainless-steel, type "ES", <b>EG</b> - IP68 ATEX-approved EEx 'd', type "EG", <b>EGS</b> - IP66 ATEX-approved EEx 'd', type "EGS", <b>EGW</b> - windowed ATEX-approved EEx 'd', type "EGW", <b>EX</b> - explosion-proof instrument housing (specify!)
G1	Number of RTD sensors	<b>1</b> or <b>2</b>
G2	Sensor	<b>RB</b> - Pt50, <b>RD</b> - Pt100, <b>RF</b> - Pt500, <b>RG</b> - Pt1000, <b>RH</b> - Cu50, <b>RK</b> - Cu100
G3	Temperature range	<b>T1</b> - -50...400 °C, <b>T2</b> - -200...600 °C (Ni or Ag wires only!), <b>T4</b> - 0...800 °C (Ag wires only!), <b>T9</b> - -50...200 °C, <b>T11</b> - -50...600 °C (Ni or Ag wires only!)
G4	Diameter 'd' [mm]	<b>8/4, 8/5, 9/6, 10/6, 12/6, 14/6, 12/8, 14/8, 16/6, 16/8, 20/6, 20/8</b>
G6	Probe length 'n' [mm] <sup>(1)</sup>	<b>50...3000</b>
G7	Probe length 'm' [mm] <sup>(2)</sup>	<b>0...1500</b>
G9'	Mounting connection	<b>X</b> - no mounting appliances, <b>Q0</b> - M16x1.5, <b>Q1</b> - M18x1.5, <b>Q2</b> - M20x1.5, <b>Q3</b> - G3/8", <b>Q4</b> - G1/2", <b>Q5</b> - M27x2, <b>Q6</b> - G3/4", <b>Q9</b> - 3/8" NPT, <b>Q10</b> - 1/2" NPT, <b>Q11</b> - 3/4" NPT, <b>Q12</b> - G1", <b>Q15</b> - 1" NPT, <b>Q25</b> - M33x2, <b>Uxx</b> - union nut (xx - same as for Qxx), <b>F</b> - flange (specify!), <b>Z</b> - other connection (specify!)
G9"	Compression fitting ferrule <sup>(3)</sup>	<b>TF</b> - Teflon®, <b>BR</b> - brass, <b>SS</b> - stainless steel
G10	Sheath material	<b>M1</b> - 1.4301, <b>M2</b> - 1.4541, <b>M3</b> - 1.4571, <b>M9</b> - 1.4404, <b>M15</b> - 1.4362
G11	Accuracy class <sup>(4)</sup>	<b>A</b> - 'A', <b>B</b> - 'B', <b>C</b> - '2xB'
G12	Number of wires	<b>2, 3, 4</b> <sup>(5)</sup>
G13	Wire material <sup>(4)</sup>	<b>CU</b> - copper, <b>NI</b> - nickel, <b>AG</b> - silver
G14	Tip shape	<b>X</b> - standard closed, <b>N</b> - narrowed, <b>P</b> - pitted <sup>(5)</sup>
#1	Options	<b>X</b> - none, <b>OV</b> - vibration proof (MgO or Silicone filled insert, secured screws) <sup>(6)</sup> , <b>OS</b> - spring-loaded insert, <b>OT</b> - thermal isolation <sup>(7)</sup> , <b>OP</b> - electrochemically polished sheath surface
#2	Local indicator	<b>X</b> - none, <b>A</b> - local indicator mounted <sup>(8)</sup>

<sup>(1)</sup> 'n+m' for TS(O)CS3 and TS(O)CS4!

<sup>(2)</sup> Only for TS(O)CS1 and TS(O)CS2!

<sup>(3)</sup> Only for TS(O)CS4!

<sup>(4)</sup> Only for Pt sensors!

<sup>(5)</sup> Only for non-explosion-proof RTDs!

<sup>(6)</sup> Requires 'OS' option!

<sup>(7)</sup> Only for TS(O)CS!

<sup>(8)</sup> With windowed heads only! See indicator datasheets and order separately!

<sup>(9)</sup> Contact

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