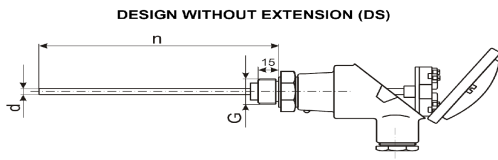
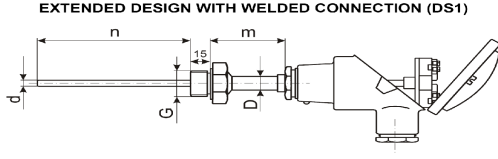
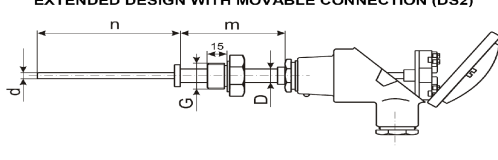
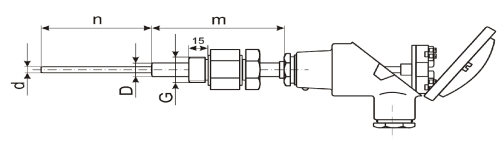
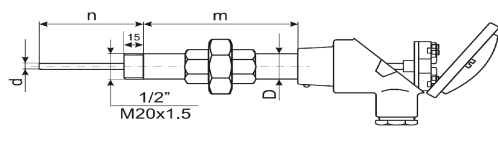
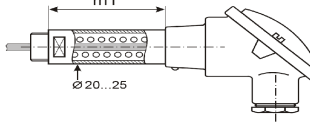


# TERMOREZISTENTA tip TSDS

RTD PROBE WITH PROTECTION HEAD AND OPEN REPLACEABLE INSERT FOR THERMOWELL OR PROTECTION TUBE (FOR IN-HEAD TRANSMITTER)** DSx (TSDSx) ODSx (TSODSx) <small>Sheath - stainless steel (see Appendix - Sheath materials)                      Head - aluminum, stainless steel, or plastic (see Appendix - Protection heads)</small>	SENSITIVE ELEMENT	TEMPERATURE RANGE	DIMENSIONS																		
			D [mm]	d [mm]	wires																
<b>DESIGN WITHOUT EXTENSION (DS)</b> 	1 x Pt (RB, RD, RF, RG)	T9 -50...200 °C T1 -50...400 °C T11* -50...600 °C	8, 10 10, 12 12, 14	5 6 8	2, 3* 2, 3, 4* 2, 3, 4																
<b>EXTENDED DESIGN WITH WELDED CONNECTION (DS1)</b> 	2 x Pt (RB, RD, RF, RG)	T2* -200...600 °C T4* -0...800 °C	10, 12 12, 14 12, 14	6 8 8	2x2* 2x2(3)* 2, 3, 4																
<b>EXTENDED DESIGN WITH MOVABLE CONNECTION (DS2)</b> 	1 x Cu (RH, RK)	T9 -50...200 °C	10, 12 12, 14 10, 12	6 8 6	2, 3, 4* 2, 3, 4 2x2*																
<b>DESIGN WITH SLIDING GLAND-TYPE CONNECTION (DS4)</b> 	2 x Cu (RH, RK)	T9 -50...200 °C	10, 12 12, 14 12, 14	6 8 8	2x2(3)* 2x2(3)* 2x2(3)*																
<b>DESIGN WITH NIPPLE-UNION-NIPPLE CONNECTION (DS5)</b> 	<b>Protection head:</b> B, MA, MB, G, N, Dx, Ex, EX (see Appendix - Protection heads) <b>Process connection 'G':</b> (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 flange <b>Thermal isolation between nipple and metal head:</b> (for TS(O)DS only) <table border="1" style="width: 100%; margin-top: 5px;"> <thead> <tr> <th>Protection head</th> <th>Length 'n'</th> <th>Maximum temperature</th> <th>Insulation material</th> </tr> </thead> <tbody> <tr> <td>MA, MB</td> <td>up to 50 mm</td> <td>200 °C</td> <td>POM</td> </tr> <tr> <td>B</td> <td>up to 100 mm</td> <td>400 °C</td> <td>Teflon®</td> </tr> <tr> <td>other</td> <td>up to 150 mm</td> <td></td> <td></td> </tr> </tbody> </table> <b>Insertion length (must fit thermowell / protection tube length 'L'):</b> n = 50...2000 mm <b>Extension length:</b> m = 50...1000 mm (w/o spring-loaded adapter) m = m1...1000 mm (w/ spring-loaded adapter) <b>Tip shape:</b> standard, narrowed, pitted (see Appendix - Tip shapes) <b>Process pressure:</b> - with metal thermowell up to 500 bar (see Accessories - Thermowells) - with ceramic protection tube (see Accessories - Protection tubes) * <b>Sheath material:</b> 1.4301(M1) or 1.4541(M2) <b>Insert sheath material:</b> 1.4301(M1), 1.4404(M9), 1.4541(M2), 1.4571(M3), 1.4362 (M15) <b>Wire material:</b> Cu, Ni, or Ag <b>Accuracy class:</b> 'A', 'B', or '2xB' (see Appendix - RTD Tolerance) <b>Spring-loaded adapter:</b> (mounted between probe and protection head)  m1 = 60...100 mm					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		
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																				
* Please contact ** Order transmitter separately!!!																					

**Ordering code** TS\*(1,2,4,5) - G0.G1G2.G3.G4.G6.G7.G9\*9"G10.G11.G12.G13.G14 - #1.#2

Code	Feature or option	Code values
*	Base model variant	DS - standard (w/ terminal block), ODS - prepared for in-head transmitter (w/o terminal block)
G0	Protection head	B - type "B", MA - type "MA", MB - type "MB", G - IP65, type "G", N - type "N", D - type "D", DW - windowed, type "DW", DH - w/ high cap, type "DH", DHW - windowed, type "DHW", E - IP65, type "E", ES - stainless-steel, type "ES", EG - IP68 ATEX-approved Ex 'd', type "EG", EGS - IP66 ATEX-approved Ex 'd', type "EGS", EGW - windowed ATEX-approved Ex 'd', type "EGW", EX - explosion-proof instrument housing (specify!)
G1	Number of RTD sensors	1 or 2
G2	Sensor	RB - Pt50, RD - Pt100, RF - Pt500, RG - Pt1000, RH - Cu50, RK - Cu100
G3	Temperature range	T1 - -50...400 °C, T2 - -200...600 °C (Ni or Ag wires only), T4 - 0...800 °C (Ag wires only), T9 - -50...200 °C, T11 - -50...600 °C (Ni or Ag wires only)
G4	Diameters 'D/d' [mm] <sup>(1)</sup>	8/5, 10/5, 10/6, 12/6, 14/6, 14/8, 20/6, 21/6, 20/8, 21/8
G6	Probe length 'n' [mm]	50...2000
G7	Probe length 'm' [mm] <sup>(2)</sup>	50...1000 (m1...1000 with 'OA' option)
G9*	Mounting connection	X - no mounting appliances, Q0 - M16x1.5, Q1 - M18x1.5, Q2 - M20x1.5, Q3 - G3/8", Q4 - G1/2", Q5 - M27x2, Q6 - G3/4", Q9 - 3/8" NPT, Q10 - 1/2" NPT, Q11 - 3/4" NPT, Q12 - G1", Q15 - 1" NPT, Q25 - M33x2, Uxx - union nut (xx - same as for Qxx), F - flange (specify!), Z - other connection (specify!)
G9"	Compression fitting ferrule <sup>(3)</sup>	TF - Teflon®, BR - brass, SS - stainless steel
G10	Insert sheath material	M1 - 1.4301, M2 - 1.4541, M3 - 1.4571, M9 - 1.4404, M15 - 1.4362
G11	Accuracy class <sup>(4)</sup>	A - 'A', B - 'B', C - '2xB'
G12	Number of wires	2, 3, 4 <sup>(10)</sup>
G13	Wire material <sup>(4)</sup>	CU - copper, NI - nickel, AG - silver
G14	Tip shape	X - standard closed, N - narrowed, P - pitted <sup>(5)</sup>
#1	Options	X - none, OV - vibration proof (MgO or Silicone filled insert, secured screws) <sup>(6)</sup> , OS - spring-loaded insert, OT - thermal isolation <sup>(7)</sup> , OA - spring-loaded adapter <sup>(8)</sup> , OP - electrochemically polished sheath surface
#2	Local indicator	X - none, A - local indicator mounted <sup>(9)</sup>

<sup>(1)</sup> Only 'd' for TS(O)DS!

<sup>(2)</sup> Omit for TS(O)DS without 'OA' option!

<sup>(3)</sup> Only for TS(O)DS4!

<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)DS!

<sup>(8)</sup> Only for TS(O)DS, TS(O)DS1, and TS(O)DS5! **Insert is not replaceable!**

<sup>(9)</sup> With windowed head only! See indicator datasheets and order separately!

<sup>(10)</sup> Contact !