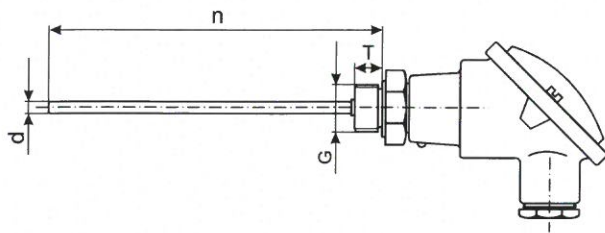
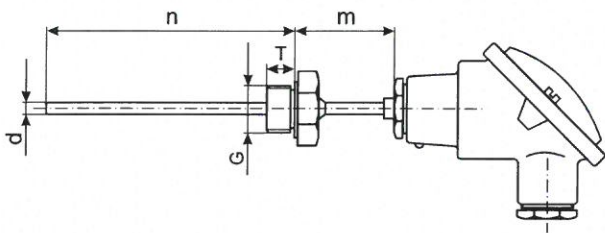
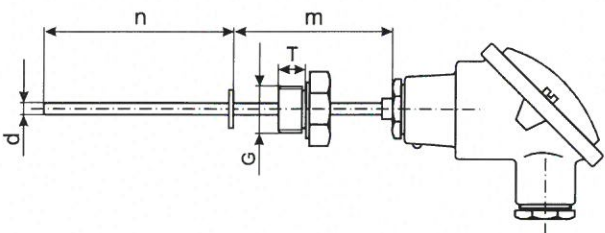
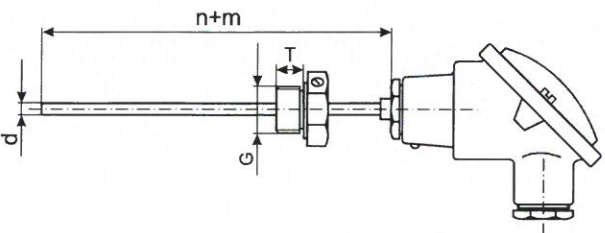
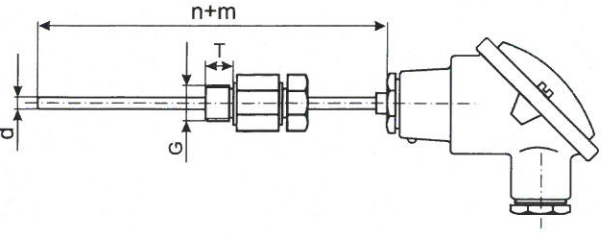


(MI) RTD PROBE WITH PROTECTION HEAD - FOR IN-HEAD TRANSMITTER **	TSCx TSOCx	SENSITIVE ELEMENT	TEMPERATURE RANGE	DIMENSIONS																																																													
				n [mm]	d [mm]	wires																																																											
<p>Sheath - stainless steel (see Appendix - Sheath materials) Head - aluminum, stainless steel, iron, or plastic (see Appendix - Protection heads)</p>																																																																	
Regular Design																																																																	
DESIGN WITHOUT EXTENSION (TS(O)C) 	1 x Pt (RB,RD,RF,RG)	T9	-50...200 °C	50...500	4	2, 3*																																																											
		T1	-50...400 °C		5																																																												
		T24	-50...500 °C	50...1500	6	2, 3, 4*																																																											
		T11*	-50...600 °C	50...3000	8, 10, 12, 14, 16, 20	2, 3, 4																																																											
		T2*	-200...600 °C	50...3000	6*, 8, 10	2x2(3)*																																																											
T4*	0...800 °C	12, 14, 16, 20	2x2(3), 3x2																																																														
1 x Cu (RH, RK)	T9	-50...200 °C	50...1500	6	2, 3, 4*																																																												
			50...3000	8, 10, 12, 14, 16, 20																																																													
2 x Cu (RH, RK)	T9	-50...200 °C	50...3000	8, 10	2x2																																																												
				12, 14, 16, 20	2x2(3)*																																																												
1 x PTC (RP, RQ)	T12	-50...100 °C	50...1500	6	2, 3																																																												
			50...3000	8, 10, 12, 14																																																													
2 x PTC (RP, RQ)			50...3000	8, 10, 12, 14	2x2																																																												
MI Design																																																																	
EXTENDED DESIGN WITH WELDED CONNECTION (TS(O)C1) 	1 x Pt (RB,RD,RF,RG)	T9	-50...200 °C	50...50000	3*	2, 3*																																																											
		T1	-50...400 °C		4.5	2, 3*																																																											
		T24	-50...500 °C		6	2, 3, 4*																																																											
		T11*	-50...600 °C		8	2, 3, 4																																																											
		T2*	-200...600 °C		50...50000	6, 8	2x2, 2x3*																																																										
T4*	0...800 °C	T22	-200...200 °C																																																														
<p>Protection head: B, MA, MB, G, N, Cx, Dx, Ex (see Appendix - Protection Heads)</p> <p>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 - other - w/o mounting appliances</p> <p>Thread length: - cylindrical thread: T = 15 mm - NPT thread: according to ANSI B1.20.1</p> <p>Thermal isolation between nipple and metal head: (for TS(O)C only)</p> <table border="1" style="width: 100%;"> <tr> <th>Protection head</th> <th>Length 'n'</th> <th>Maximum temperature</th> <th>Insulation material</th> </tr> <tr> <td>MA, MB</td> <td>up to 50 mm</td> <td rowspan="2">200 °C</td> <td rowspan="2">POM</td> </tr> <tr> <td>B</td> <td>up to 100 mm</td> </tr> <tr> <td>other</td> <td>up to 150 mm</td> <td>400 °C</td> <td>Teflon®</td> </tr> </table> <p>Extension length: m = 0...1500 mm</p> <p>Extension diameter: (for TS(O)C1 and TS(O)C2 only, [mm])</p> <table border="1" style="width: 100%;"> <tr> <th rowspan="2">Probe diameter 'd'</th> <th colspan="5">Ext. length 'm'</th> </tr> <tr> <th>3, 4 mm</th> <th>4.5...6 mm</th> <th>8 mm</th> <th>10 mm</th> <th>10+ mm</th> </tr> <tr> <td>up to 50 mm</td> <td>8</td> <td>d</td> <td>d</td> <td>d</td> <td>d</td> </tr> <tr> <td>50...150 mm</td> <td>8</td> <td>8</td> <td>d</td> <td>d</td> <td>d</td> </tr> <tr> <td>150...500 mm</td> <td>10</td> <td>10</td> <td>10</td> <td>d</td> <td>d</td> </tr> <tr> <td>500+ mm</td> <td>14</td> <td>14</td> <td>14</td> <td>14</td> <td>d</td> </tr> </table> <p>Tip shape: standard, narrowed, pitted (see Appendix - Tip Shapes)</p> <p>Process pressure:</p> <table border="1" style="width: 100%;"> <tr> <th>Probe design</th> <th>TS(O)C, TS(O)C1</th> <th>TS(O)C2</th> <th>TS(O)C4</th> <th>TS(O)C3</th> </tr> <tr> <td>Max. pressure *</td> <td>25 bar</td> <td>16 bar</td> <td>6 bar</td> <td>0 bar</td> </tr> </table> <p>Sheath material: 1.4301(M1), 1.4401/1.4404(M9), 1.4541(M2), 1.4571(M3), 1.4362(M15)</p> <p>Wire material: Cu, Ni, or Ag</p> <p>Accuracy class: 'A', 'B', or '2xB' (see Appendix - RTD Tolerance)</p>							Protection head	Length 'n'	Maximum temperature	Insulation material	MA, MB	up to 50 mm	200 °C	POM	B	up to 100 mm	other	up to 150 mm	400 °C	Teflon®	Probe diameter 'd'	Ext. length 'm'					3, 4 mm	4.5...6 mm	8 mm	10 mm	10+ mm	up to 50 mm	8	d	d	d	d	50...150 mm	8	8	d	d	d	150...500 mm	10	10	10	d	d	500+ mm	14	14	14	14	d	Probe design	TS(O)C, TS(O)C1	TS(O)C2	TS(O)C4	TS(O)C3	Max. pressure *	25 bar	16 bar	6 bar	0 bar
Protection head	Length 'n'	Maximum temperature	Insulation material																																																														
MA, MB	up to 50 mm	200 °C	POM																																																														
B	up to 100 mm																																																																
other	up to 150 mm	400 °C	Teflon®																																																														
Probe diameter 'd'	Ext. length 'm'																																																																
	3, 4 mm	4.5...6 mm	8 mm	10 mm	10+ mm																																																												
up to 50 mm	8	d	d	d	d																																																												
50...150 mm	8	8	d	d	d																																																												
150...500 mm	10	10	10	d	d																																																												
500+ mm	14	14	14	14	d																																																												
Probe design	TS(O)C, TS(O)C1	TS(O)C2	TS(O)C4	TS(O)C3																																																													
Max. pressure *	25 bar	16 bar	6 bar	0 bar																																																													
<p>DESIGN WITH MOVABLE CONNECTION (TS(O)C2) </p>																																																																	
<p>DESIGN WITH ADJUSTABLE CONNECTION (TS(O)C3) </p>																																																																	
<p>DESIGN WITH GLAND-TYPE CONNECTION (TS(O)C4) </p>																																																																	
<p>* Please contact COMECO! ** Order transmitter separately!!!</p>																																																																	

Code	Feature or option	Code values
*	Base model variant	C - standard (w/ terminal block), OC - prepared for in-head transmitter (w/o terminal block)
G0	Protection head	B - type "B", CC - type "CC", CS - type "CS", D - type "D", DH - type "DH", DHW - type "DHW", DW - type "DW", E - type "E", EG - type "EG", EGS - type "EGS", EGSS - type "EGSS", EGW - type "EGW", EGWSS - type "EGWSS", ES - type "ES", G - type "G", MA - type "MA", MB - type "MB", N - type "N"
G1	Number of RTD sensors	1, 2, or 3 ⁽¹¹⁾
G2	Sensor	RB - Pt50, RD - Pt100, RF - Pt500, RG - Pt1000, RH - Cu50, RK - Cu100, RP - PTC 1k, RQ - PTC 2k
G3	Temperature range	T1 - -50...400 °C, T2 - -200...600 °C, T4 - 0...800 °C, T9 - -50...200 °C, T11 - -50...600 °C, T22 - -200...200 °C, T24 - -50...500 °C
G4	Diameter 'd' [mm]	regular design: 4, 5, 6, 8, 10, 12, 14, 16, 20 MI design: 3 ⁽¹¹⁾ , 4.5, 6, 8
G6	Probe length 'n' [mm] ⁽¹⁾	50...50000 (see table overleaf)
G7	Probe length 'm' [mm] ⁽²⁾	0...1500
G9'	Mounting connection	X - no mounting appliances ⁽³⁾ , 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 ⁽⁴⁾	BR - brass, GR - graphite, SS - stainless steel, TF - Teflon®
G10	Sheath material (wetted parts)	regular design: M1 - 1.4301, M2 - 1.4541, M3 - 1.4571, M9 - 1.4401 (1.4404), M15 - 1.4362 ⁽¹¹⁾ MI design: M2 - 1.4541, M3 - 1.4571, M9 - 1.4401 (1.4404)
G11	Accuracy class	X - none ⁽⁵⁾ , A - 'A', B - 'B', C - '2xB'
G12	Number of wires	2, 3, 4 ⁽¹¹⁾
G13	Wire material ⁽⁶⁾	CU - copper ⁽⁷⁾ , NI - nickel, AG - silver ⁽⁸⁾
G14	Tip shape	X - standard closed, N - narrowed ⁽⁸⁾ , P - pitted ⁽⁸⁾
#1	Options	X - none, OV - vibration proof (spring terminals, MgO or Silicone filled, secured screws) ⁽⁸⁾ , OT - thermal isolation ⁽³⁾ , OP - electrochemically polished sheath surface ⁽⁸⁾
#2	Incorporated devices	X - none, T - in-head transmitter ⁽⁹⁾ , A - local indicator ⁽¹⁰⁾

⁽¹⁾ 'n+m' for TS(O)C3 and TS(O)C4!

⁽²⁾ Only for TS(O)C1 and TS(O)C2!

⁽³⁾ Only for TS(O)C!

⁽⁴⁾ Only for TS(O)C4!

⁽⁵⁾ For non-Pt sensors

⁽⁶⁾ Only for Pt sensors!

⁽⁷⁾ Not applicable to non-MI (regular) RTDs for above 500 °C!

⁽⁸⁾ Only for non-MI (regular) design!

⁽⁹⁾ Only for variant 'OC'! See transmitter datasheets and order separately!

⁽¹⁰⁾ With windowed head only! See indicator datasheets and order separately!

⁽¹¹⁾ Contact COMECO!