

ANGLED RTD PROBE WITH PROTECTION HEAD LDx (TSLDx) FOR PROTECTION TUBE ASSEMBLY (FOR IN-HEAD TRANSMITTER)**	OLDx (TSOLDx) Holding tube - stainless steel 1.4301 or 1.4404 Protection tube - metal (see Accessories - Protection tubes) Head - aluminum, stainless steel, or plastic (see Appendix - Protection heads)	SENSITIVE ELEMENT	TEMPERATURE RANGE	DIMENSIONS									
				d [mm]	wires								
	1 x Pt (RB,RD,RF,RG)	T9 -50...200 °C T1 -50...400 °C T11* -50...600 °C	6 8, 10, or bare	2, 3, 4* 2, 3, 4									
	2 x Pt (RB,RD,RF,RG)	T2* -200...600 °C T4* -0...800 °C	6*, 8, 10, or bare	2x2									
	1 x Cu (RH, RK)	T9 -50...200 °C	6 or bare	2, 3									
	2 x Cu (RH, RK)	T9 -50...200 °C	8, 10, or bare	2, 3, 4*									
	1 x Cu (RH, RK)	T9 -50...200 °C	8, 10, or bare	2, 3, 4*									
	2 x Cu (RH, RK)	T9 -50...200 °C	8, 10, or bare	2x2									
<p>Protection head: B, MA, MB, G, N, Dx, Ex, EX (see Appendix - Protection heads)</p> <p>Process connection (must fit the YA connection 'G'): G1/2"(Q4), G3/4"(Q6), male or female (see Accessories - Protection tubes)</p> <p>Insertion length (must fit the YA length 'L'): n = 100...1000 mm</p> <p>Holding tube: - m1 = 100...1000 mm - OD 20(22) mm - tube/elbow material 1.4301 or 1.4541</p> <p>Tip shape: standard, narrowed, pitted (see Appendix - Tip shapes)</p> <p>Process pressure: YA protection tube process pressure (see Accessories - Protection tubes)</p> <p>Sheath material: 1.4301(M1), 1.4404(M9), 1.4541(M2), 1.4571(M3), 1.4362 (M15), or bare sensor</p> <p>Wire material: Cu, Ni, or Ag</p> <p>Accuracy class: 'A', 'B', or '2xB' (see Appendix - RTD Tolerance)</p> <p>Spring-loaded adapter: (mounted between protection tube and elbow)</p>													
<table border="1"> <thead> <tr> <th>Protection Tube Material</th> <th>d [mm]</th> </tr> </thead> <tbody> <tr> <td>M1, M3, M4, M6, M6S, M8, M9, M11, M13, M14</td> <td>6, 8, 10</td> </tr> <tr> <td>M12</td> <td>6, 8</td> </tr> <tr> <td>M20</td> <td>6</td> </tr> </tbody> </table>						Protection Tube Material	d [mm]	M1, M3, M4, M6, M6S, M8, M9, M11, M13, M14	6, 8, 10	M12	6, 8	M20	6
Protection Tube Material	d [mm]												
M1, M3, M4, M6, M6S, M8, M9, M11, M13, M14	6, 8, 10												
M12	6, 8												
M20	6												
<p>* Please contact COMECO!</p> <p>** Order transmitter separately!!!</p>													

COMECO reserves the right of changing specifications without prior notice!

Ordering code TS* - G0.G1G2.G3.G4.G6.G7.G9.G10.G11.G12.G13.G14 - #1.#2

Code	Feature or option	Code values
*	Base model variant	LD - standard (w/ terminal block), OLD - 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" ⁽⁵⁾ , EG - IP68 ATEX-approved, type "EG", EGS - IP66 ATEX-approved, type "EGS" ⁽⁵⁾ , EGW - windowed ATEX-approved, type "EGW", EX - explosion-proof instrument housing (specify!)
G1	Number of RTD sensors	1, 2, or 3 ⁽⁵⁾
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	Diameter 'd' [mm] (must fit the protection tube ID)	X (bare sensor), 6, 8, 10
G6	Probe length 'n' [mm]	100...1000
G7	Probe length 'm1' [mm]	100...1000
G9	Mounting connection (must fit the protection tube thread)	Q4 - G1/2", Q6 - G3/4", U4 - G1/2-F", U6 - G3/4-F"
G10	Sheath material	M1 - 1.4301, M2 - 1.4541, M3 - 1.4571, M9 - 1.4404, M15 - 1.4362
G11	Accuracy class ⁽¹⁾	A - 'A', B - 'B', C - '2xB'
G12	Number of wires	2, 3, 4 ⁽⁵⁾
G13	Wire material ⁽¹⁾	CU - copper, NI - nickel, AG - silver
G14	Tip shape	X - standard closed, N - narrowed, P - pitted ⁽²⁾
#1	Options	X - none, OV - vibration proof (MgO or Silicone filled, secured screws), OA - spring-loaded adapter ⁽³⁾ , OP - electrochemically polished sheath surface
#2	Local indicator	X - none, A - local indicator mounted ⁽⁴⁾

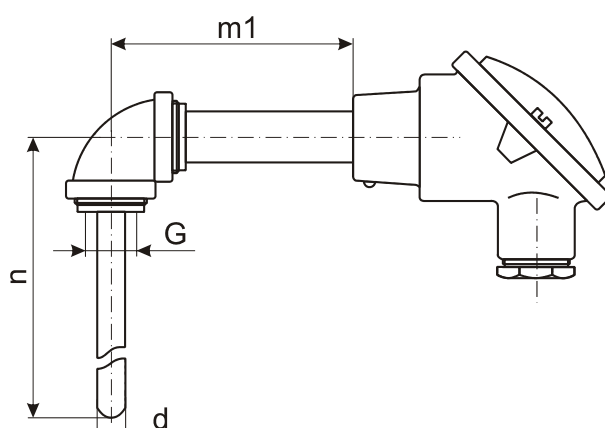
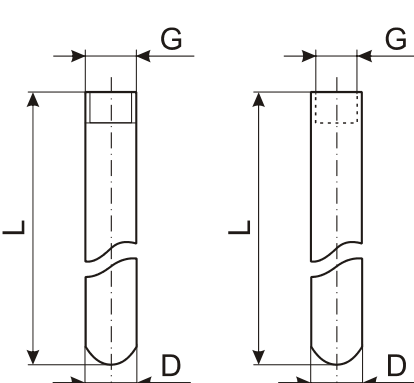
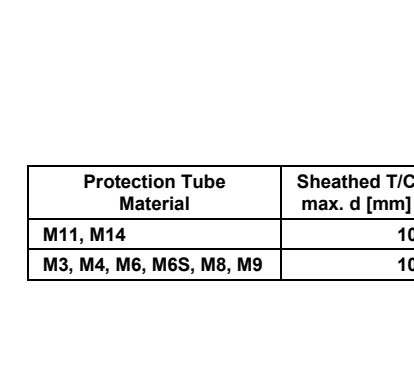


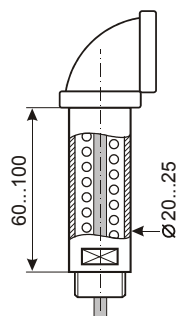
⁽¹⁾ Only for Pt sensors!

⁽²⁾ Only for non-explosion-proof RTDs!

⁽³⁾ Not available for bare sensor!

⁽⁴⁾ With windowed head only! See indicator datasheets and order separately!

⁽⁵⁾ Contact COMECO!

ANGLED T/C PROBE WITH PROTECTION HEAD FOR PROTECTION TUBE ASSEMBLY (FOR IN-HEAD TRANSMITTER)** Holding tube - stainless steel 1.4301 or 1.4404 Protection tube - metal (see Accessories - Protection tubes) Head - aluminum, stainless steel, or plastic (see Appendix - Protection heads)	LDx (TSLDx)	SENSITIVE ELEMENT	TEMPERATURE RANGE	DIMENSIONS											
	OLDx (TSOLDx)			d [mm]	wire ø [mm]	wires									
Regular Thermocouple Design															
	1 x J; 2 x J	T4	0...800 °C	8	1	2; 2x2									
	1 x L; 2 x L			10	1.5										
	1 x K; 2 x K	T3	0...850 °C	bare	1, 1.5, 3	2; 2x2									
	1 x E; 2 x E	T16	0...1100 °C	10	1.5										
	1 x S; 2 x S	T6*	0...1150 °C	bare	1, 1.5, 3	2; 2x2									
	1 x R; 2 x R	T21	0...1300 °C	8, 10, or bare	0.35, 0.5										
MI Thermocouple Design															
	1 x J	T4	0...800 °C	3, 4.5, 6, 8		2									
	2 x J					2x2									
	1 x K	T3	0...850 °C	3, 4.5, 6, 8, 10		2									
	1 x N; 1 x E	T16	0...1100 °C												
	2 x K	T6*	0...1150 °C			2x2									
	2 x N; 2 x E	T6*	0...1250 °C												
<p>Protection head: B, MA, MB, G, N, Dx, Ex, EX (see Appendix - Protection heads)</p> <p>Process connection (must fit the YA connection 'G'): G1/2"(Q4), G3/4"(Q6), male or female (see Accessories - Protection tubes)</p> <p>Insertion length (must fit the YA length 'L'): n = 100...1000 mm</p> <p>Holding tube: - m1 = 100...1000 mm - OD 20(22) mm - tube/elbow material 1.4301 or 1.4541</p> <p>Tip shape (hot junction design): standard (isolated), grounded, open-tube, exposed (see Appendix - Tip shapes)</p> <p>Process pressure: YA protection tube process pressure (see Accessories - Protection tubes)</p> <p>Sheath material: 1.4404(M9), 1.4541(M2), 1.4571(M3), 1.4762(M4), 1.4841(M5), 1.4845(M6), 1.4876(M7), 2.4816(M8), 1.4362 (M15)</p> <p>MI sheath material: 1.4404(M9), 1.4541(M2), 1.4571(M3), 1.4762(M4), 1.4841(M5), 1.4876(M7), 2.4816(M8), Microbell® (M10)</p> <p>Accuracy class: '1' or '2' (see Appendix - T/C Tolerance)</p> <p>Spring-loaded adapter: (mounted between protection tube and elbow)</p>															
<table border="1"> <thead> <tr> <th>Protection Tube Material</th> <th>Sheathed T/C max. d [mm]</th> <th>Bare T/C max. ø [mm]</th> </tr> </thead> <tbody> <tr> <td>M11, M14</td> <td>10</td> <td>4 x ø3</td> </tr> <tr> <td>M3, M4, M6, M6S, M8, M9</td> <td>10</td> <td>2 x ø3</td> </tr> </tbody> </table>				Protection Tube Material	Sheathed T/C max. d [mm]	Bare T/C max. ø [mm]	M11, M14	10	4 x ø3	M3, M4, M6, M6S, M8, M9	10	2 x ø3			
Protection Tube Material	Sheathed T/C max. d [mm]	Bare T/C max. ø [mm]													
M11, M14	10	4 x ø3													
M3, M4, M6, M6S, M8, M9	10	2 x ø3													
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Code	Feature or option	Code values
*	Base model variant	LD - standard (w/ terminal block), OLD - 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" ⁽⁴⁾ , EG - IP68 ATEX-approved, type "EG", EGS - IP66 ATEX-approved, type "EGS" ⁽⁴⁾ , EGW - windowed ATEX-approved, type "EGW", EX - explosion-proof instrument housing (specify!)
G1	Number of thermocouples	1 or 2
G2	Thermocouple	J - type "J", K - type "K", N - type "N", E - type "E", L - type "L", S - type "S", R - type "R"
G3	Temperature range	T3 - 0...850 °C, T4 - 0...800 °C, T6 - 0...1200 °C ⁽⁴⁾ , T13 - 0...1000 °C, T16 - 0...1100 °C, T21 - 0...1300 °C
G4	Diameter 'd' [mm] (must fit the protection tube ID)	regular T/C X (bare thermocouple), 8 , 10
		MI T/C 3 , 4.5 , 6 , 8 , 10
G6	Probe length 'n' [mm]	100...1000
G7	Probe length 'm1' [mm]	100...1000
G9	Mounting connection (must fit the protection tube thread)	Q4 - G1/2", Q6 - G3/4", U4 - G1/2-F", U6 - G3/4-F"
G10	Sheath material	regular T/C M2 - 1.4541, M3 - 1.4571, M4 - 1.4762, M5 - 1.4841, M6 - 1.4845, M7 - 1.4876, M8 - 2.4816, M9 - 1.4404, M15 - 1.4362
		MI T/C M2 - 1.4541, M3 - 1.4571, M4 - 1.4762 (1.4749), M5 - 1.4841, M7 - 1.4876 (Incolloy 800), M8 - 2.4816 (Inconel 600), M9 - 1.4404, M10 - Microbell®
G11	Accuracy class	1 - '1' ⁽⁴⁾ , 2 - '2'
G14	Tip shape (hot junction)	X - standard (isolated from sheath), G - grounded, E - exposed hot junction ⁽¹⁾ , O - open-tube design ⁽¹⁾
#1	Options	X - none, OV - vibration proof (spring-type terminals ⁽⁴⁾ , secured screws), OA - spring-loaded adapter ⁽²⁾ , OP - electrochemically polished sheath surface
#2	Local indicator	X - none, A - local indicator mounted ⁽³⁾

⁽¹⁾ Only for non explosion-proof thermocouples!

⁽²⁾ Not available for bare thermocouple!

⁽³⁾ With windowed head only! See indicator datasheets and order separately!

⁽⁴⁾ Contact COMECO!