

(MI**) RTD BAYONET CABLE PROBE Sheath - stainless steel (see table notes) Cable - see table notes	TSBx	SENSITIVE ELEMENT	CABLE TYPE	TEMPERATURE RANGE	DIMENSIONS																																		
					d [mm]	wires																																	
<p>STRAIGHT-TUBE DESIGN (TSB)</p> <p>$n = 10 \dots 200 \text{ mm}$ $k = 1 \dots 10 \text{ m}$</p>	<p>1 x Pt (RB,RD,RF,RG)</p>	<p>SLSL, TSL, TT YY, UU, YU</p>	<p>T7 0...200 °C T9 -50...200 °C</p>	<p>4, 4.5*, 5 6 8</p>	<p>2, 3* 2, 3, 4* 2, 3, 4</p>																																		
	<p>2 x Pt (RB,RD,RF,RG)</p>	<p>GLGL, SFSF TT, TSL, SLSL</p>	<p>T1 -50...400 °C T8 0...400 °C</p>	<p>6, 8</p>	<p>2x2, 2x3*</p>																																		
	<p>1 x Cu (RH, RK)</p>	<p>SLSL, TSL, YY, UU, YU</p>	<p>T9 -50...200 °C</p>	<p>5* 6 8</p>	<p>2, 3* 2, 3, 4* 2, 3, 4</p>																																		
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	<p>1 x PTC (RP, RQ)</p>	<p>SLSL, TSL, YY, UU, YU</p>	<p>T12 -50...100 °C</p>	<p>6</p>	<p>2, 3</p>																																		
	<p>2 x PTC (RP, RQ)</p>	<p>GLGL, TT</p>	<p>T19 0...100 °C</p>	<p>8</p>	<p>2x2</p>																																		
<p>DESIGN WITH ANGLED TERMINATION (TSBL)</p> <p>$n = 10 \dots 200 \text{ mm}$ $k = 1 \dots 10 \text{ m}$</p>	<p>Sheath material: 1.4301 (M1), 1.4541 (M2), 1.4571 (M3), 1.4404 (M9)</p> <p>Cable type: - GLGLP(V) (glass fiber w/ steel braid, max. 400 °C ambient temperature) - SLSL or TSL (silicone, max. 250 °C ambient temperature) - TT (Teflon®, max. 250 °C ambient temperature) - YY (PVC, max. 100 °C ambient temperature) - UU or YU (PUR, max. 80 °C ambient temperature) - SFSF (mineral fiber, max. 1000 °C ambient temperature)</p> <p>Applicable cables:</p> <table border="1"> <thead> <tr> <th>Temp. range</th> <th>TSB, TSBG</th> <th>TSBL, TSBGL</th> </tr> </thead> <tbody> <tr> <td>T12, T19</td> <td>all</td> <td>all</td> </tr> <tr> <td>T7, T9</td> <td>no PUR, no PVC</td> <td>all</td> </tr> <tr> <td>T22</td> <td>TT</td> <td>TT, SLSL, TSL</td> </tr> <tr> <td>T1, T8</td> <td>GLGLP, SFSF</td> <td>no PUR, no PVC</td> </tr> <tr> <td>T11</td> <td>SFSF</td> <td>GLGLP, SFSF</td> </tr> </tbody> </table> <p>Tip shape: standard, narrowed, pitted (see Appendix - Tip Shapes)</p> <p>Accuracy class: 'A', 'B', or '2xB' (see Appendix - RTD Tolerance)</p> <p>Cable connector: 4-pin (C3) (see Appendix - Connectors)</p> <p>Bayonet: $\varnothing 13 \times 1 \dots \varnothing 20 \times 1$; aluminum, brass, or stainless steel</p> <p>Available threads and HEX sizes:</p> <table border="1"> <thead> <tr> <th>G</th> <th>M8</th> <th>M10 1/8"</th> <th>M12 1/4"</th> <th>M14</th> <th>M16 3/8"</th> <th>M18</th> <th>M20 1/2"</th> </tr> </thead> <tbody> <tr> <td>SW</td> <td>10</td> <td>12(13)</td> <td>14</td> <td>17</td> <td>19</td> <td>22</td> <td>24</td> </tr> </tbody> </table>					Temp. range	TSB, TSBG	TSBL, TSBGL	T12, T19	all	all	T7, T9	no PUR, no PVC	all	T22	TT	TT, SLSL, TSL	T1, T8	GLGLP, SFSF	no PUR, no PVC	T11	SFSF	GLGLP, SFSF	G	M8	M10 1/8"	M12 1/4"	M14	M16 3/8"	M18	M20 1/2"	SW	10	12(13)	14	17	19	22	24
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<p>STRAIGHT DESIGN WITH MOVABLE CONNECTION (TSBG)</p> <p>$n = 10 \dots 200 \text{ mm}$ $k = 1 \dots 10 \text{ m}$</p>	<p>Tip shape: standard, narrowed, pitted (see Appendix - Tip Shapes)</p> <p>Accuracy class: 'A', 'B', or '2xB' (see Appendix - RTD Tolerance)</p> <p>Cable connector: 4-pin (C3) (see Appendix - Connectors)</p> <p>Bayonet: $\varnothing 13 \times 1 \dots \varnothing 20 \times 1$; aluminum, brass, or stainless steel</p> <p>Available threads and HEX sizes:</p> <table border="1"> <thead> <tr> <th>G</th> <th>M8</th> <th>M10 1/8"</th> <th>M12 1/4"</th> <th>M14</th> <th>M16 3/8"</th> <th>M18</th> <th>M20 1/2"</th> </tr> </thead> <tbody> <tr> <td>SW</td> <td>10</td> <td>12(13)</td> <td>14</td> <td>17</td> <td>19</td> <td>22</td> <td>24</td> </tr> </tbody> </table>					G	M8	M10 1/8"	M12 1/4"	M14	M16 3/8"	M18	M20 1/2"	SW	10	12(13)	14	17	19	22	24																		
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<p>ANGLED DESIGN WITH MOVABLE CONNECTION (TSBGL)</p> <p>$n = 10 \dots 200 \text{ mm}$ $k = 1 \dots 10 \text{ m}$</p>	<p>Tip shape: standard, narrowed, pitted (see Appendix - Tip Shapes)</p> <p>Accuracy class: 'A', 'B', or '2xB' (see Appendix - RTD Tolerance)</p> <p>Cable connector: 4-pin (C3) (see Appendix - Connectors)</p> <p>Bayonet: $\varnothing 13 \times 1 \dots \varnothing 20 \times 1$; aluminum, brass, or stainless steel</p> <p>Available threads and HEX sizes:</p> <table border="1"> <thead> <tr> <th>G</th> <th>M8</th> <th>M10 1/8"</th> <th>M12 1/4"</th> <th>M14</th> <th>M16 3/8"</th> <th>M18</th> <th>M20 1/2"</th> </tr> </thead> <tbody> <tr> <td>SW</td> <td>10</td> <td>12(13)</td> <td>14</td> <td>17</td> <td>19</td> <td>22</td> <td>24</td> </tr> </tbody> </table>					G	M8	M10 1/8"	M12 1/4"	M14	M16 3/8"	M18	M20 1/2"	SW	10	12(13)	14	17	19	22	24																		
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Ordering code TSB(L,G,GL) - (MI -⁽¹⁾) G1G2.G3.G4.G5'5".G6.G8.G9.G10.G11.G12.G14.G15 - #1

Code	Feature or option	Code values	
G1	Number of RTD sensors	1 or 2	
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, T7 - 0...200 °C, T8 - 0...400 °C, T9 - -50...200 °C, T11 - -50...600 °C ^(1,2,7) , T12 - 50...100 °C, T19 - 0...100 °C, T22 - -200...200 °C	
G4	Diameter 'd' [mm]	regular design	4, 5, 6, 8
		MI design	4.5, 6, 8 ⁽⁷⁾
G5'	Bayonet size ⁽³⁾	13 - ø13x1, 14 - ø14x1, 15 - ø15x1, 17 - ø17x1, 20 - ø20x1, Z - other (specify!)	
G5"	Bayonet material ⁽³⁾	AL - aluminum, BR - brass, SS - stainless steel	
G6	Probe length 'n' [mm]	10...200	
G8	Cable length 'k' [m] and type	1GL...10GL - glass fiber, 1SL...10SL - silicone, 1TF...10TF - Teflon®, 1PU...10PU - polyurethane ⁽⁷⁾ , 1MF...10MF - mineral fiber, 1PV...10PV - PVC	
G9	Mounting connection ⁽⁴⁾	Q0 - M16x1.5, Q1 - M18x1.5, Q2 - M20x1.5, Q3 - G3/8", Q4 - G1/2", Q7 - M12x1.5, Q8 - M14x1.5, Q10 - 1/2" NPT, Q18 - G1/8", Q19 - 1/8" NPT, Q20 - M10x1, Q23 - G1/4", Q24 - 1/4" NPT, Q26 - M8x1, Q29 - M8x1.25, Q30 - M10x1.5, Uxx - union nut (xx - same as for Qxx)	
G10	Sheath material (wetted parts)	M1 - 1.4301, M2 - 1.4541, M3 - 1.4571, M9 - 1.4404	
G11	Accuracy class	X - none ⁽⁵⁾ , A - 'A', B - 'B', C - '2xB'	
G12	Number of wires	2, 3, 4 ⁽⁷⁾	
G14	Tip shape	X - standard closed, N - narrowed ⁽⁶⁾ , P - pitted ⁽⁶⁾	
G15	Connector	X - none, C3 - 4-pin male plug-in connector ø8 (for H5700 thermometer only)	
#1	Options	X - none, OV - vibration proof (MgO or Silicone filled) ⁽⁶⁾ , OS - cable protection SS spring (≈ 50 mm) ⁽¹⁾ , OB - braid termination lead (only w/o connector), OP - electrochemically polished sheath surface ⁽⁶⁾	

⁽¹⁾ Available only for TSBL and TSBGL!

⁽²⁾ Available only for MI design!

⁽³⁾ Only for TSB and TSBL!

⁽⁴⁾ Only for TSBG and TSBGL!

⁽⁵⁾ For non-Pt sensors

⁽⁶⁾ Only for non-MI (regular) design!

⁽⁷⁾ Contact COMECO!

(MI**) T/C BAYONET CABLE PROBE	TSBx	SENSITIVE ELEMENT	CABLE TYPE	TEMPERATURE RANGE	DIMENSIONS																	
					d [mm]	wires																
Sheath - stainless steel (see table notes) Cable - see table notes																						
Regular Design																						
STRAIGHT-TUBE DESIGN (TSB) <p>n = 10 ... 200 mm k = 1 ... 10 m</p>		1 x K SLSL, TSL, TT YY, UU, YU SLSL, TSL, TT, GLGL GLGL, SFSF	T7 0...200 °C T9 -50...200 °C T1 -50...400 °C T8 0...400 °C T4 0...800 °C T3* 0...850 °C	4, 5, 6, 8	2																	
DESIGN WITH ANGLED TERMINATION (TSBL) <p>n = 10 ... 200 mm k = 1 ... 10 m</p>		1 x J SLSL, TSL, TT YY, UU, YU SLSL, TSL, TT, GLGL GLGL, SFSF	T7 0...200 °C T9 -50...200 °C T1 -50...400 °C T8 0...400 °C T4* 0...800 °C	4, 5, 6, 8	2																	
STRAIGHT DESIGN WITH MOVABLE CONNECTION (TSBG) <p>n = 10 ... 200 mm k = 1 ... 10 m</p>		1 x T YY, UU, YU SLSL, TSL, TT GLGL	T7 0...200 °C T9 -50...200 °C	4, 5, 6, 8	2																	
ANGLED DESIGN WITH MOVABLE CONNECTION (TSBGL) <p>n = 10 ... 200 mm k = 1 ... 10 m</p>		1 x N, 1 x E SLSL, TSL, TT YY, UU, YU SLSL, TSL, TT, GLGL GLGL, SFSF	T7 0...200 °C T9 -50...200 °C T1 -50...400 °C T8 0...400 °C T4 0...800 °C T3* 0...850 °C	4.5, 6, 8	2																	
		MI Design **																				
Sheath material: 1.4301 (M1), 1.4541 (M2), 1.4571 (M3), 1.4404 (M9), 1.4841 (M5), 2.4816 (M8)																						
Cable type: - GLGLP(V) (glass fiber w/ steel braid, max. 400 °C ambient temperature) - SLSL or TSL (silicone, max. 250 °C ambient temperature) - TT (Teflon®, max. 250 °C ambient temperature) - YY (PVC, max. 100 °C ambient temperature) - UU or YU (PUR, max. 80 °C ambient temperature) - SFSF (mineral fiber, max. 1000 °C ambient temperature)																						
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T3, T4	SFSF	GLGLP, SFSF																				
Tip shape: standard (isolated), grounded, open-tube, exposed (see Appendix - Tip Shapes)																						
Accuracy class: '1' or '2' (see Appendix - T/C Tolerance)																						
Cable connector: 4-pin (C3), 'T/C standard' (C5) or 'T/C miniature' (C6) (see Appendix - Connectors)																						
Bayonet: ø13x1... ø20x1; aluminum, brass, or stainless steel																						
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COMECO reserves the right of changing specifications without prior notice!

Ordering code TSB(L,G,GL) - (MI -⁽¹⁾) G2.G3.G4.G5'5".G6.G8.G9.G10.G11.G14.G15 - #1

Code	Feature or option	Code values
G2	Thermocouple	regular design J - type "J", K - type "K", T - type "T"
		MI design E - type "E", N - type "N", T - type "T"
G3	Temperature range	T1 - -50...400 °C, T3 - 0...850 °C ⁽⁵⁾ , T4 - 0...800 °C ⁽⁵⁾ , T7 - 0...200 °C, T8 - 0...400 °C, T9 - -50...200 °C
G4	Diameter 'd' [mm]	regular design 4 ⁽⁵⁾ , 5 , 6 , 8
		MI design 4.5 , 6 , 8 ⁽⁵⁾
G5'	Bayonet size ⁽²⁾	13 - ø13x1, 14 - ø14x1, 15 - ø15x1, 17 - ø17x1, 20 - ø20x1, Z - other (specify!)
G5"	Bayonet material ⁽²⁾	AL - aluminum, BR - brass, SS - stainless steel
G6	Probe length 'n' [mm]	10...200
G8	Cable length 'k' [m] and type	1GL...10GL - glass fiber, 1SL...10SL - silicone, 1TF...10TF - Teflon®, 1PU...10PU - polyurethane ⁽⁵⁾ , 1MF...10MF - mineral fiber, 1PV...10PV - PVC
G9	Mounting connection ⁽³⁾	Q0 - M16x1.5, Q1 - M18x1.5, Q2 - M20x1.5, Q3 - G3/8", Q4 - G1/2", Q7 - M12x1.5, Q8 - M14x1.5, Q10 - 1/2" NPT, Q18 - G1/8", Q19 - 1/8" NPT, Q20 - M10x1, Q23 - G1/4", Q24 - 1/4" NPT, Q26 - M8x1, Q29 - M8x1.25, Q30 - M10x1.5, Uxx - union nut (xx - same as for Qxx)
G10	Sheath material (wetted parts)	regular design M1 - 1.4301, M2 - 1.4541, M3 - 1.4571, M9 - 1.4404
		MI design M1 - 1.4301, M2 - 1.4541, M3 - 1.4571, M5 - 1.4841, M8 - 2.4816 (Inconel 600), M9 - 1.4404
G11	Accuracy class	1 - '1' ⁽⁵⁾ , 2 - '2'
G14	Tip shape (hot junction)	X - standard (isolated from sheath), G - grounded, E - exposed hot junction, O - open-tube design
G15	Connector	X - none, C3 - 4-pin male plug-in connector ø8 (for H5700 thermometer only), C5 - T/C connector, C6 - miniature T/C connector
#1	Options	X - none, OV - vibration proof (MgO or Silicone filled) ⁽⁴⁾ , OS - cable protection SS spring (≈ 50 mm) ⁽¹⁾ , OB - braid termination lead (only w/o connector), OP - electrochemically polished sheath surface ⁽⁴⁾

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