

# temperature probes

HAND-HELD PROBE WITH CONNECTOR Sheath - see table Cable - see table notes Connector - see table notes	Hx (BTSHx)	SENSITIVE ELEMENT	SHEATH MATERIAL	TEMPERATURE RANGE	DIMENSIONS	
					d [mm]	wires
<b>DESIGN WITH PLASTIC HANDLE (H)</b>						
<p>n = 200 ... 2 000 mm      d ≤ 6 mm      k = 1 ... 10 m</p>						
<b>DESIGN WITH ROBUST METAL HANDLE (HN)</b>						
<p>n = 200 ... 2 000 mm      k = 1 ... 10 m</p>						
<b>RTD Design</b>						
1 x Pt (RB,RD,RF,RG)	M1, M2, M3, M9	T7	0...200 °C	4, 5	2, 3*	
		T8	0...400 °C	6	2, 3, 4*	
		T1*	-50...400 °C			
1 x Cu (RH, RK)		T7	0...200 °C	5*, 6	2, 3, 4*	
<b>Normal-Thermocouple Design</b>						
1 x K, 1 x J, 1 x T	M2, M3, M9	T7	0...200 °C	5, 6	2	
		T8	0...400 °C			
<b>MI-Thermocouple Design</b>						
1 x J, 1 x T**	M2, M3, M8	T4	0...800 °C	1, 1.5, 2, 3, 4.5, 6, 8, 10	2	
	M9, M5			1, 1.5, 2, 3, 4.5, 6, 8	2	
	M4			6, 8	2	
	M10			3, 4.5, 6	2	
1 x K, 1 x N, 1 x E**	M2, M3	T3	0...850 °C	1, 1.5, 2, 3, 4.5, 6, 8, 10	2	
	M9			1, 1.5, 2, 3, 4.5, 6, 8	2	
	M7*	T16	0...1100 °C	3, 6, 10	2	
	M8			1, 1.5, 2, 3, 4.5, 6, 8, 10	2	
	M4			6, 8	2	
	M5			1.5, 3, 4.5, 6, 8	2	
	M10	T6	0...1250 °C	3, 4.5, 6	2	
1 x S(R)	M8	T16	0...1100 °C	3, 4.5, 6	2	
<p><b>Sheath material:</b> 1.4301 (M1), 1.4541 (M2), 1.4571 (M3), 1.4762 (M4), 1.4841 (M5), 1.4876 (M7), 2.4816 (M8), 1.4404 (M9), Microbell® (M10)</p> <p><b>Cable type:</b> - 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)</p> <p><b>Tip shape:</b> - RTD: standard, narrowed, pitted - T/C: standard (isolated), grounded, open-tube, exposed (see Appendix - Tip shapes)</p> <p><b>Accuracy class:</b> - RTD: 'A', 'B', or '2xB' - T/C: '1' or '2' (see Appendix - RTD or T/C Tolerance)</p> <p><b>Cable connector:</b> 4-pin (C3), 'T/C standard' (C5) or 'T/C miniature' (C6) (see Appendix - Connectors)</p>						
<p>* Please contact BASI!</p> <p>** For T/C type "T": (T8) 0...400 °C; for T/C type "E": (T13) 0...1000 °C</p>						

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## Ordering code BTSH(N) - G2.G3.G4.G6.G8.G10.G11.G12.G14.G15 - #1

Code	Feature or option	Code values	
<b>G2</b>	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, <b>J</b> - T/C type "J", <b>K</b> - T/C type "K", <b>S</b> - T/C type "S", <b>R</b> - T/C type "R" <b>N</b> - MI T/C type "N", <b>E</b> - MI T/C type "E", <b>T</b> - MI T/C type "T"	
<b>G3</b>	Temperature range	<b>T1</b> - -50...400 °C, <b>T3</b> - 0...850 °C, <b>T4</b> - 0...800 °C, <b>T6</b> - 0...1150(1250) °C, <b>T7</b> - 0...200 °C, <b>T8</b> - 0...400 °C, <b>T16</b> - 0...1100 °C	
<b>G4</b>	Diameter 'd' [mm]	RTD	<b>4, 5, 6, 8</b>
		normal T/C	<b>5, 6</b>
		MI T/C	<b>1, 1.5, 2, 3, 4.5, 6, 8, 10</b>
<b>G6</b>	Probe length 'n' [mm]	<b>200...2000</b>	
<b>G8</b>	Cable length 'k' [m] and type	<b>1GL...10GL</b> - glass fiber, <b>1SL...10SL</b> - silicone, <b>1TF...10TF</b> - Teflon®	
<b>G10</b>	Sheath material (wetted parts)	RTD	<b>M1</b> - 1.4301, <b>M2</b> - 1.4541, <b>M3</b> - 1.4571, <b>M9</b> - 1.4404
		normal T/C	<b>M2</b> - 1.4541, <b>M3</b> - 1.4571, <b>M9</b> - 1.4404
		MI T/C	<b>M2</b> - 1.4541, <b>M3</b> - 1.4571, <b>M4</b> - 1.4762 (1.4749), <b>M5</b> - 1.4841, <b>M7</b> - 1.4876 (Incolloy 800), <b>M8</b> - 2.4816 (Inconel 600), <b>M9</b> - 1.4404, <b>M10</b> - Microbell®
<b>G11</b>	Accuracy class	RTD	<b>X</b> - none (for non Pt sensors), <b>A</b> - 'A', <b>B</b> - 'B', <b>C</b> - '2xB'
		T/C	<b>1</b> - '1' <sup>(4)</sup> , <b>2</b> - '2'
<b>G12</b>	Number of wires <sup>(1)</sup>	<b>2, 3, 4</b> <sup>(4)</sup>	
<b>G14</b>	Tip shape	RTD	<b>X</b> - standard closed, <b>N</b> - narrowed, <b>P</b> - pitted
		T/C	<b>X</b> - standard (isolated from sheath) <sup>(2)</sup> , <b>G</b> - grounded, <b>E</b> - exposed hot junction <sup>(2)</sup> , <b>O</b> - open-tube design <sup>(2)</sup>
<b>G15</b>	Connector	<b>X</b> - none, <b>C3</b> - 4-pin male plug-in connector ø8 (for H5700 thermometer only), <b>C5</b> - T/C connector, <b>C6</b> - miniature T/C connector	
<b>#1</b>	Options	<b>X</b> - none, <b>OV</b> - vibration proof (MgO or Silicone filled) <sup>(3)</sup> , <b>OB</b> - braid termination lead (only w/o connector), <b>OP</b> - electrochemically polished sheath surface <sup>(3)</sup>	

<sup>(1)</sup> Only for RTD sensors!

<sup>(2)</sup> Not available when d = 1!

<sup>(3)</sup> Only for non-MI (normal) sheath types!

<sup>(4)</sup> Contact BASI!