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JUMO FOODtemp

Insertion resistance thermometers



- **for temperatures from -50 to +260°C**
- **steam-tight and pressure-proof**
- **high mechanical strength**
- **for use in the food industry**
- **with several measurement points**

Thanks to their special construction, the rugged steam-tight insertion resistance thermometers are particularly suitable for cooking and baking processes in all areas of food processing and preservation. Other applications are autoclaves and sterilizers.

The stainless steel probe tube is available with concentric point or oblique tip (approx. 25° or 45°).

All versions are highly resistant to shock and vibration. The handles are resistant to oil and acid.

The measuring insert is normally fitted with a Pt100 temperature sensor to EN 60 751, Class B in 2-wire or 3-wire circuit.

Technical data

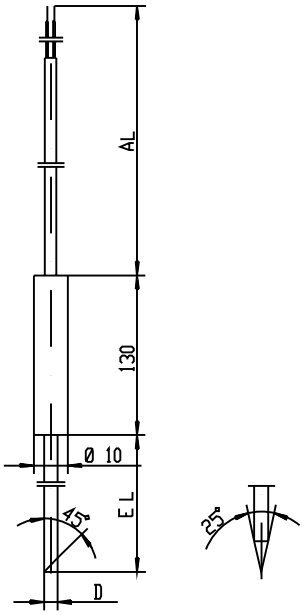
Connection	cable ends available as: bare wires, with ferrules, receptacles or multipole connector
Connecting cable	silicone, ambient temperature -50 to +180°C PTFE, ambient temperature -50 to +260°C connecting cable available with shielding (option)
Handle	PPS plastic handle, ambient temperature +200°C max. silicone handle, ambient temperature +200°C max. PTFE handle, ambient temperature +260°C max. FPM handle, ambient temperature +200°C max. PEEK handle, ambient temperature +260°C max.
Protection tube	stainless steel 1.4571, 3.2mm, 4mm and 4.5mm dia.
Protection tube end	concentric, angled at approx. 25° oblique, angled at 45°
Measuring insert	Pt100 temperature sensor, EN 60 751, Cl. B, 2-wire circuit
Protection	IP67

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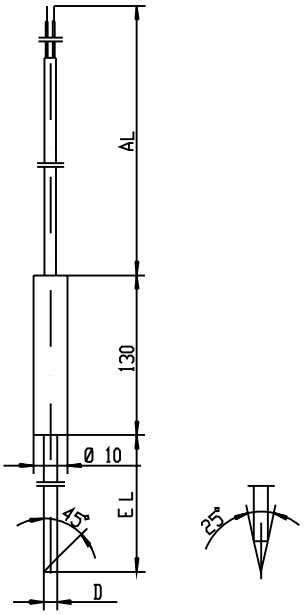
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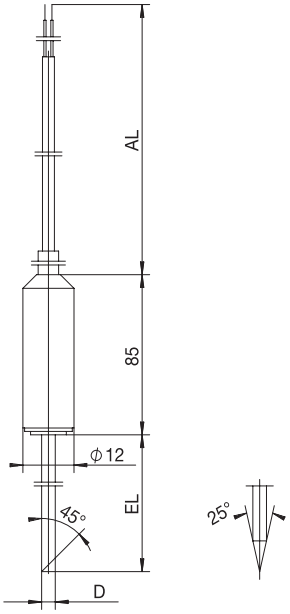
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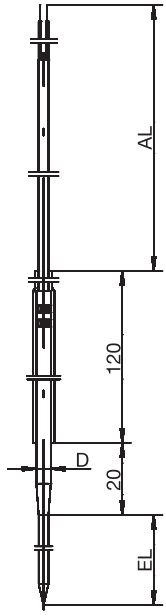
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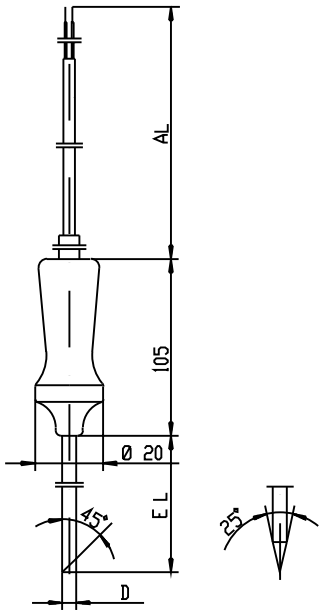
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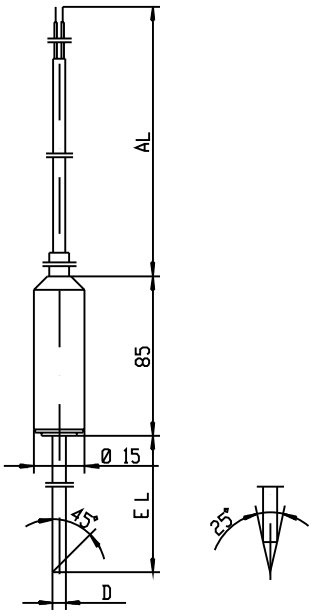
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Type 902305/37
Type 902305/38



Type 902305/43

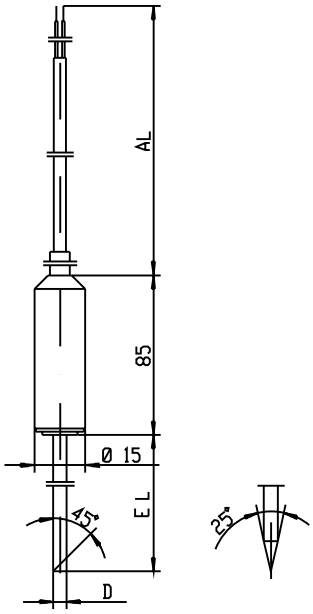


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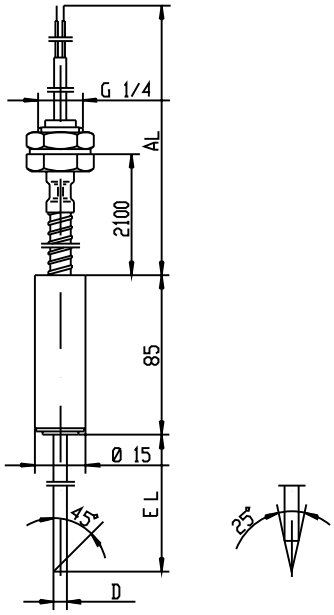
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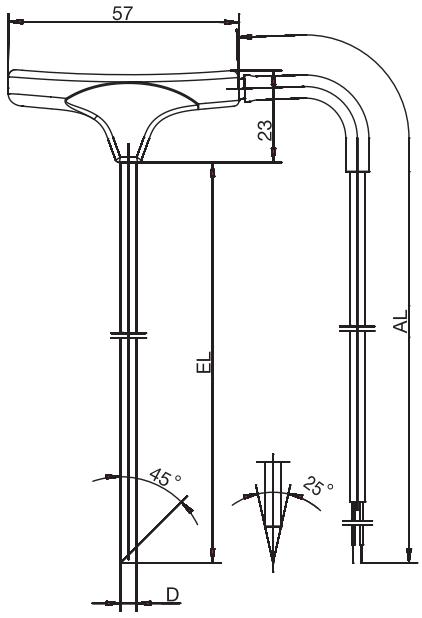
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Type 902305/63



Type 902305/74



Type 902305/82
Type 902305/83

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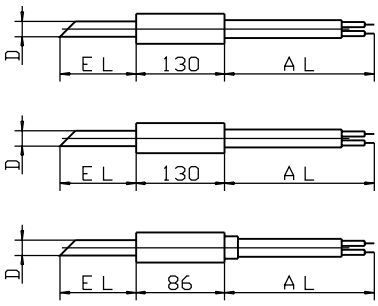
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Order details: Insertion resistance thermometers

(1) Basic version

			902305/22	Insertion resistance thermometer with silicone handle 10 mm dia. and silicone cable
			902305/23	Insertion resistance thermometer with silicone handle 10 mm dia. and PTFE cable
			902305/33	Insertion resistance thermometer with PTFE handle 12 mm dia. and PTFE cable



				(2) Operating temperature in °C
x	x	x	380	-50 to +200°C
		x	386	-50 to +260°C
				(3) Measuring insert
x	x	x	1001	1 x Pt100 in 3-wire circuit
x	x	x	1003	1 x Pt100 in 2-wire circuit
x	x	x	1011	1 x Pt100 in 4-wire circuit
x	x	x	2001	2 x Pt100 in 3-wire circuit
x	x	x	2003	2 x Pt100 in 2-wire circuit
				(4) Tolerance class to EN 60 751
x	x	x	1	Class B (standard)
x	x	x	2	Class A
				(5) Protection tube diameter D in mm
x	x	x	4	4mm
x	x	x	4.5	4.5mm (only with 2 x Pt100 in 3-wire circuit)
				(6) Fitting length EL in mm
x	x	x	100	100mm
x	x	x	150	150mm
x	x	x	200	200mm
				(7) Insertion tip
x	x	x	2	concentric, angled at 25°
x	x	x	3	oblique, angled at 45°
				(8) Connecting cable end
x	x	x	03	bare cable ends
x	x	x	11	ferrules to DIN 46 228 Part 4 (standard)
x	x	x	13	receptacle 6.3 to DIN 46 247
x	x	x	80	multipole connector (please specify type in plain text)
				(9) Connecting cable length AL in mm (500 ≤ AL ≤ 500000)
x	x	x	4000	4000mm (standard)
x	x	x	...	please specify in plain text (500mm steps)
				(10) Extra codes
x	x	x	000	no extra code
x	x	x	317	shielded connecting cable

	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)		(9)		(10)
Order code		-		-		-		-		-		-		-		-		/	
Order example	902305/22	-	380	-	1003	-	1	-	4	-	100	-	3	-	11	-	4000	/	000

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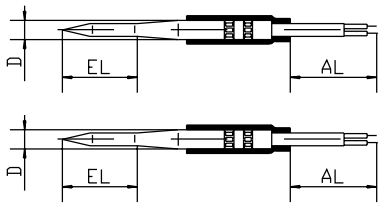
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Order details: Insertion resistance thermometers

(1) Basic version

		902305/37	Miniature insertion resistance thermometer with FPM handle 6.5mm dia. and silicone cable
		902305/38	Miniature insertion resistance thermometer with FPM handle 6.5mm dia. and shielded PTFE cable



			(2) Operating temperature in °C
x	x	380	-50 to +200°C
			(3) Measuring insert
	x	1001	1 x Pt100 in 3-wire circuit
x	x	1003	1 x Pt100 in 2-wire circuit
	x	1011	1 x Pt100 in 4-wire circuit
			(4) Tolerance class to EN 60 751
x	x	1	Class B (standard)
x	x	2	Class A
			(5) Protection tube diameter D in mm
x	x	4	4mm stepped down to 2.5mm
			(6) Fitting length EL in mm
x	x	30	30mm
x	x	50	50mm
x	x	80	80mm
x	x	100	100mm
			(7) Connecting cable end
x	x	03	bare cable ends
x	x	11	ferrules to DIN 46 228 Part 4 (standard)
x	x	13	fast-on connector 6.3 to DIN 46 249
x	x	80	multipole connector (please specify type in plain text)
			(8) Connecting cable length AL in mm (500 ≤ AL ≤ 500000)
x	x	4000	4000mm (standard)
x	x	...	please specify in plain text (500mm steps)

	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)
Order code		-		-		-		-		-		-		-	
Order example	902305/37	-	380	-	1003	-	1	-	4	-	80	-	11	-	4000

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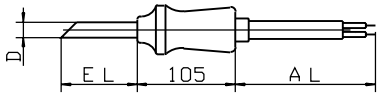
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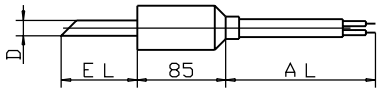
Order details: Insertion resistance thermometers

(1) Basic version

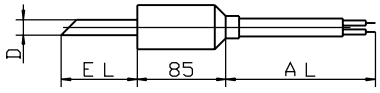
902305/43 Insertion resistance thermometer with PPS plastic handle 20mm dia. and PTFE cable



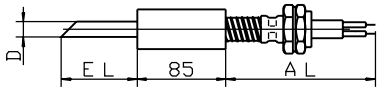
902305/52 Insertion resistance thermometer with PTFE handle 15mm dia. and silicone cable



902305/63 Insertion resistance thermometer with PTFE handle 15mm dia. and PTFE cable



902305/74 Insertion resistance thermometer with PTFE handle 15mm dia. and stainless steel corrugated tube



					(2) Operating temperature in °C
x	x	x	x	380	-50 to +200°C
		x	x	386	-50 to +260°C
					(3) Measuring insert
x	x	x	x	1001	1 x Pt100 in 3-wire circuit
x	x	x	x	1003	1 x Pt100 in 2-wire circuit
x	x	x	x	1011	1 x Pt100 in 4-wire circuit
x	x	x	x	2001	2 x Pt100 in 3-wire circuit
	x	x	x	2003	2 x Pt100 in 2-wire circuit
					(4) Tolerance class to EN 60 751
x	x	x	x	1	Class B (standard)
x	x	x	x	2	Class A
					(5) Protection tube diameter D in mm
	x	x	x	3.2	3.2mm dia. (only with 1 x Pt100 in 2-wire circuit)
x	x	x	x	4	4mm
	x	x	x	4.5	4.5mm (only with 2 x Pt100 in 3-wire circuit)
					(6) Fitting length EL in mm
x	x	x	x	100	100mm
x	x	x	x	150	150mm
	x	x	x	200	200mm
					(7) Insertion tip
x	x	x	x	2	concentric, angled at 25°
x	x	x	x	3	oblique, angled at 45°
					(8) Connecting cable end
x	x	x	x	03	bare cable ends
x	x	x	x	11	ferrules to DIN 46 228 Part 4 (standard)
x	x	x	x	13	receptacle 6.3 to DIN 46 247
x	x	x	x	80	multipole connector (please specify type in plain text)
					(9) Connecting cable length AL in mm (500 ≤ AL ≤ 500000)
x	x	x	x	4000	4000mm (standard)
x	x	x	x	...	please specify in plain text (500mm steps)
					(10) Extra codes
x	x	x	x	000	no extra code
x	x	x	x	317	shielded connecting cable

	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)		(9)		(10)
Order code		-		-		-		-		-		-		-		-		/	
Order example	902305/43	-	380	-	1003	-	1	-	4	-	100	-	3	-	11	-	4000	/	000

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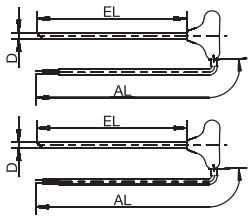
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Order details: Insertion resistance thermometers

(1) Basic version

		902305/82	Insertion resistance thermometer with PEEK handle and silicone cable
		902305/83	Insertion resistance thermometer with PEEK handle and PTFE cable



			(2) Operating temperature in °C
x		380	-50 to +200°C
	x	386	-50 to +260°C
			(3) Measuring insert
x	x	1001	1 x Pt100 in 3-wire circuit
x	x	1003	1 x Pt100 in 2-wire circuit
	x	1011	1 x Pt100 in 4-wire circuit
	x	2001	2 x Pt100 in 3-wire circuit (only PTFE cable with diameter D = 4.5mm)
	x	2003	2 x Pt100 in 2-wire circuit
			(4) Tolerance class to EN 60 751
x	x	1	Class B (standard)
x	x	2	Class A
			(5) Protection tube diameter D in mm
	x	4	4mm dia.
x		4.5	4.5mm
			(6) Fitting length EL in mm
x	x	100	100mm (standard)
x	x	150	150mm
			(7) Insertion tip
x	x	2	concentric, angled at 25° (approx.)
x	x	3	oblique, angled at 45° (standard)
			(8) Connecting cable end
x	x	03	bare cable ends
x	x	11	ferrules to DIN 46 228 Part 4 (standard)
x	x	13	receptacle 6.3 to DIN 46 247
x	x	80	multipole connector (please specify type in plain text)
			(9) Connecting cable length AL in mm (500 ≤ AL ≤ 500000)
x	x	4000	4000mm (standard)
x	x	...	please specify in plain text (500mm steps)
			(10) Extra codes
x	x	000	no extra code
	x	317	shielded connecting cable

	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)		(9)		(10)
Order code		-		-		-		-		-		-		-		-		/	
Order example	902305/83	-	386	-	1001	-	1	-	4,5	-	100	-	2	-	03	-	4000	/	000

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Stock versions

(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)		(9)		(10)	Sales No.
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902305/23	-	380	-	1003	-	1	-	4	-	100	-	3	-	11	-	4000	/	000	90/00085418
902305/23	-	380	-	1003	-	1	-	4	-	100	-	2	-	11	-	4000	/	000	90/00085420
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