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JUMO Instrument Co. Ltd.

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Data Sheet 904003

Page 1/4

JUMO plastoSENS T03

Steam-tight plastic temperature probe

- For temperatures from 0 to 150 °C
- Protection type IP69K also steam-tight on the cable outlet
- Absolute tightness the applied special plastics form a substance-to-substance bond during the injection molding process and thereby guarantee steam-tightness
- Application areas: in autoclaves, steam sterilizers, CIP and SIP cleaning (depending on the type of chemicals used)

Brief description

The combination of moisture, pressure, and high temperatures causes sensor stress in sterilization applications. Tightness often constitutes a problem for conventional probes. Even for these special applications, the JUMO plastoSENS T03 plastic temperature probes provide the solution. The reason here is that special plastics form a substance-to-substance bond during the injection molding process. That way, the manufacturing process allows a safe connection at the particularly critical point where the cable outlet comes out of the probe resulting in tightness according to protection rating IP69K. This is especially important as the probe is completely located inside the chamber during the sterilization process. The redundant measurement using two measuring elements ensures the necessary reliability in the sterilization process.

A Pt1000 is used as the temperature sensor as standard in accordance with DIN EN 60751:2009 / IEC 60751:2008, tolerance class B (F0.3) in a two-wire circuit. Versions with Pt100 or other temperature sensors are also possible.



Basic type 904003/10 and .../20

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Data Sheet 904003

Technical data

Dimensions of the temperature probe	Basic type 904003/10: Ø 5.4 × 35 mm							
	Basic type 904003/20: Ø 6.9 × 50 mm							
Protection type	IP69K according to DIN EN 60529							
Response times	Basic type 904003/10							
	In water: • $t_{0.5}$: < 2 s • $t_{0.63}$: < 2.5 s • $t_{0.9}$: < 5.5 s In air: • $t_{0.5}$: < 20 s • $t_{0.63}$: < 27 s • $t_{0.9}$: < 56 s							
	Basic type 904003/20							
	In water: • $t_{0.5}$: < 2.5 s • $t_{0.63}$: < 3 s • $t_{0.9}$: < 6.5 s							
	In air: • $t_{0.5}$: < 23 s • $t_{0.63}$: < 32 s • $t_{0.9}$: < 71 s							
Connecting cable	TPE-S, ambient temperature 0 to 150 °C							
Connection	Cable ends with ferrules							

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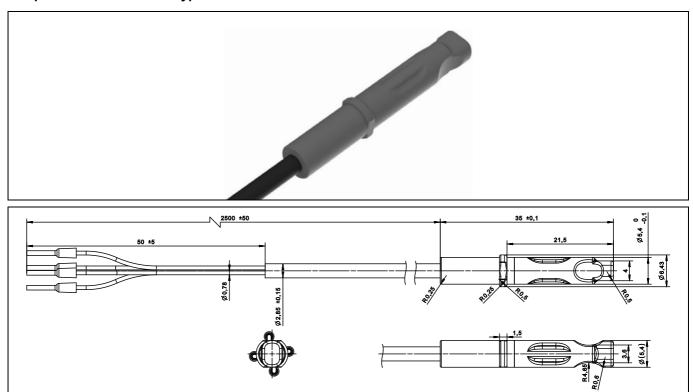
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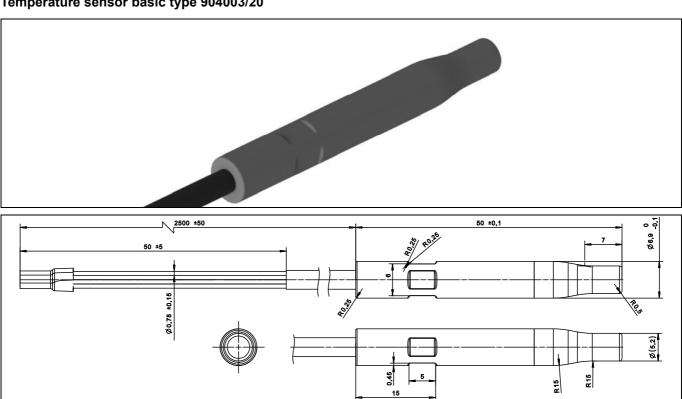
Data Sheet 904003

Dimensions

Temperature sensor basic type 904003/10



Temperature sensor basic type 904003/20



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Data Sheet 904003

Page 4/4

Order details

			(1)	Basic type
		904003/10		JUMO plastoSENS T03
				Steam-tight plastic temperature probe
				Ø 5.4 × 35 mm, IP69K
		904003/20		JUMO plastoSENS T03
				Steam-tight plastic temperature probe
				Ø 6.9 × 50 mm, IP69K
			(2)	Operating temperature in °C
Х	Х	824		0 to 150 °C
			(3)	Measuring insert
	Х	2001		2 × Pt100 in 3-wire circuit
Х		2005		2× Pt1000 in 2-wire circuit (standard)
			(4)	Tolerance class according to DIN EN 60751:2009 / IEC 60751:2008
Х	Х	2		Class A
			(5)	Connecting cable end
Х	Х	11		Ferrules
			(6)	Connecting cable length AL in mm (AL 500 to 10000 mm)
Х	Х	2500		2500 mm
				Specifications in plain text (increments of 500 mm)
			(7)	Extra codes
Х	Х	000		None

	(1)		(2)		(3)		(4)		(5)		(6)		(7)
Order code		-		-		-		-		-		/	
Order example	904003/10	_	824	_	2005	-	2	-	11	_	2500	/	000

Information about order details

Please note that not all feature combinations directly generate deliverable products. They merely describe production-based versions that are possible. Due to the special manufacturing conditions the minimum order quantity for non-standard versions is 500 pieces.