

FLTSN-P

Temperature probe

The FLTSN-P passive temperature probes feature an outstanding stability of the temperature characteristics due to the platinum sensor element used. The sensor element is resin encapsulated in a stainless steel tube. These temperature sensors have a positive temperature coefficient of resistance: when the temperature rises, the resistance rises.



Key features

- Resin encapsulated sensor element in a stainless steel tube
- Positive temperature coefficient
- Long-term stability

Technical specifications

Long-term stability	< ± 0,04 %		
Insulation resistance	> 10 MΩ		
Flying leads	Length	FLTSN-P100-010 FLTSN-P500-010 FLTSN-P1K0-010	1 m, can be extended*
		FLTSN-P500-040 FLTSN-P1K0-040	4 m, can be extended*
	Cross section	0,5 mm ²	
Ambient conditions	Temperature	-20—60 °C	
	Rel. humidity	< 95 % rH (non-condensing)	

* Use screened extension wires

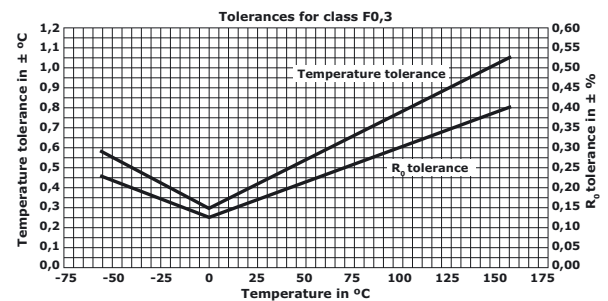
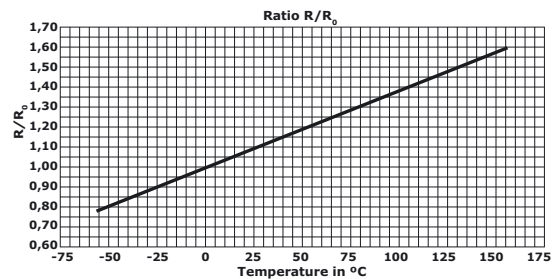
Article codes

	FLTSN-P100-010	FLTSN-P500-010 FLTSN-P500-040	FLTSN-P1K0-010 FLTSN-P1K0-040
Measurement current (DC)	0,1—1,0 mA	0,1—0,40 mA	0,1—0,25 mA
Self-heating	≤ 0,8 K/mW	≤ 0,8 K/mW	≤ 0,7 K/mW
Thermal response time flowing water	t _{0,5} ≤ 0,2 s t _{0,9} ≤ 0,3 s	t _{0,5} ≤ 0,2 s t _{0,9} ≤ 0,3 s	t _{0,5} ≤ 0,3 s t _{0,9} ≤ 0,4 s
Thermal response time flowing air	t _{0,5} ≤ 1,5 s t _{0,9} ≤ 8,0 s	t _{0,5} ≤ 1,5 s t _{0,9} ≤ 8,0 s	t _{0,5} ≤ 0,3 s t _{0,9} ≤ 0,4 s

Area of use

- Temperature measurement in HVAC applications

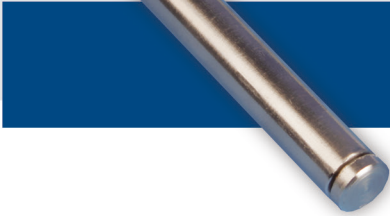
Resistance and tolerance values



Temp. °C	R/R ₀ ratio	Nominal resistance values			Class F0.3 T _{tol.} °C
		R ₀ 100 Ω	R ₀ 500 Ω	R ₀ 1000 Ω	
-20	0,92160	92,16	460,80	921,60	± 0,40
-15	0,94124	94,12	470,62	941,24	± 0,38
-10	0,96086	96,09	480,43	960,86	± 0,35
-5	0,98044	98,04	490,22	980,44	± 0,33
0	1,00000	100,0	500,00	1000,00	± 0,30
5	1,01953	101,95	509,76	1019,53	± 0,33
10	1,03903	103,90	519,51	1039,03	± 0,35
15	1,05849	105,85	529,25	1058,49	± 0,38
20	1,07794	107,79	538,97	1077,94	± 0,40
25	1,09735	109,73	548,67	1097,35	± 0,43
30	1,11673	111,67	558,36	1116,73	± 0,45
35	1,13608	113,61	568,04	1136,08	± 0,48
40	1,15541	115,54	577,70	1155,41	± 0,50
45	1,17470	117,47	587,35	1174,70	± 0,53
50	1,19397	119,40	596,99	1193,97	± 0,55
55	1,21321	121,32	606,60	1213,21	± 0,58
60	1,23242	123,24	616,21	1232,42	± 0,60

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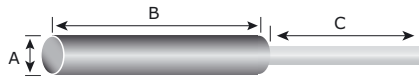


Standards

- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC: EN 61326
- WEEE Directive 2012/19/EC
- RoHs Directive 2011/65/EC

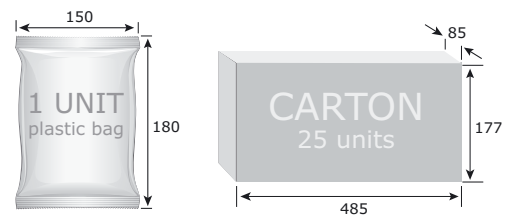


Dimensions



Article code	A	B	C
FLTSN-PXX0-010	8 mm	53 mm	100 cm
FLTSN-PXX0-040	8 mm	53 mm	400 cm

Packaging



Article	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight	Gross weight
FLTSN-P100-010	Bag (1 pc.)	150	≈20	180	0,04 kg	0,04 kg
	Carton (25 pcs.)	485	177	85	1,00 kg	1,15 kg
FLTSN-P500-010	Bag (1 pc.)	150	≈20	180	0,04 kg	0,04 kg
	Carton (25 pcs.)	485	177	85	1,00 kg	1,15 kg
FLTSN-P1K0-010	Bag (1 pc.)	150	≈20	180	0,04 kg	0,04 kg
	Carton (25pcs.)	485	177	85	1,00 kg	1,15 kg
FLTSN-P500-040	Bag (1 pc.)	150	≈20	180	0,06 kg	0,06 kg
	Carton (10 pcs.)	485	177	85	0,6 kg	0,75 kg
FLTSN-P1K0-040	Bag (1 pc.)	150	≈20	180	0,06 kg	0,06 kg
	Carton (10 pcs.)	485	177	85	0,6 kg	0,75 kg