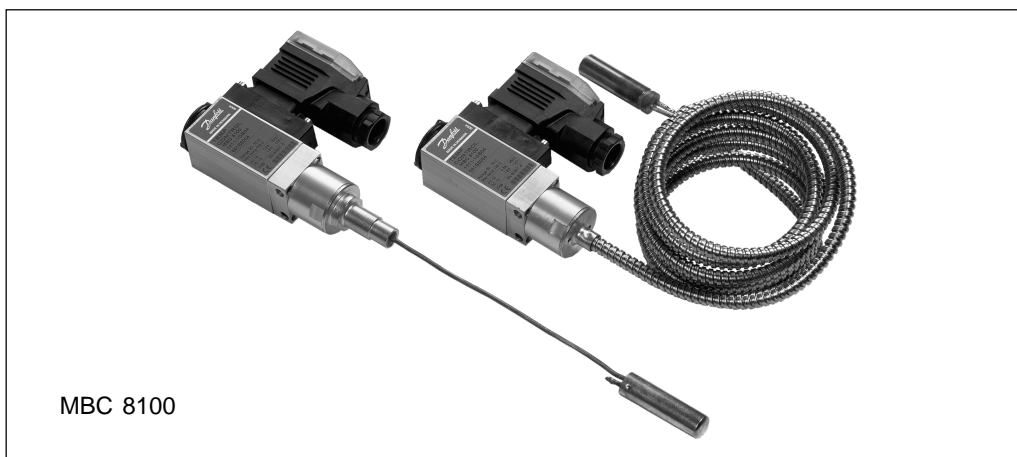


Introduction



MBC thermostats are temperature controlled switches designed for use in severe industrial environments. It consists of the standard series MBC 8000 and the special series MBC 8100 with ship approvals. In MBC thermostats special attention has been given to meeting demands for:

- compact design
- a high level of enclosure
- robust and reliable construction
- resistance to shock and vibration
- low differential and high repeatability

The MBC thermostats is part of the Danfoss block controls programme consisting of MBC pressure controls and thermostats, MBS pressure transmitters and MBV test valves. The thermostats are suitable for use in monitoring and alarm systems in factories, diesel plant, compressors, power stations and on board ship.

Standard types

Setting range	Fixed diff.	Max. sensor temp.	Well/Sensor pocket see accessories				Cap. length	Capillary tube		Armoured capillary tube		Rigid sensor	
								Code no.	Type MBC 8100	Code no.	Type MBC 8100	Code no.	Type MBC 8100
C°	C°	C°	mm				m						
-10 - 30	3	80	65	75	110	160	2	061B8201	1221-1A02000	061B8101	1231-1A02000		
20 - 60	3	130	65	75	110	160	2	061B8202	1421-1A02000	061B8102	1431-1A02000		
20 - 60	3	130		75	110	160						061B8002	1411-1A00075
50 - 100	4	200	65	75	110	160	2	061B8203	2221-1A02000	061B8103	2231-1A02000		
50 - 100	4	200		75	110	160						061B8003	2211-1A00075
70 - 120	5	220	65	75	110	160	2	061B8204	2421-1A02000	061B8104	2431-1A02000		
70 - 120	5	220		75	110	160						061B8004	2411-1A00075
60 - 150	6	250	65	75	110	160	2	061B8205	2621-1A02000	061B8105	2631-1A02000		
60 - 150	6	250		75	110	160						061B8005	2611-1A00075
100 - 200	7	300	65	75	110	160	2	061B8206	2821-1A02000	061B8106	2831-1A02000		

Approvals

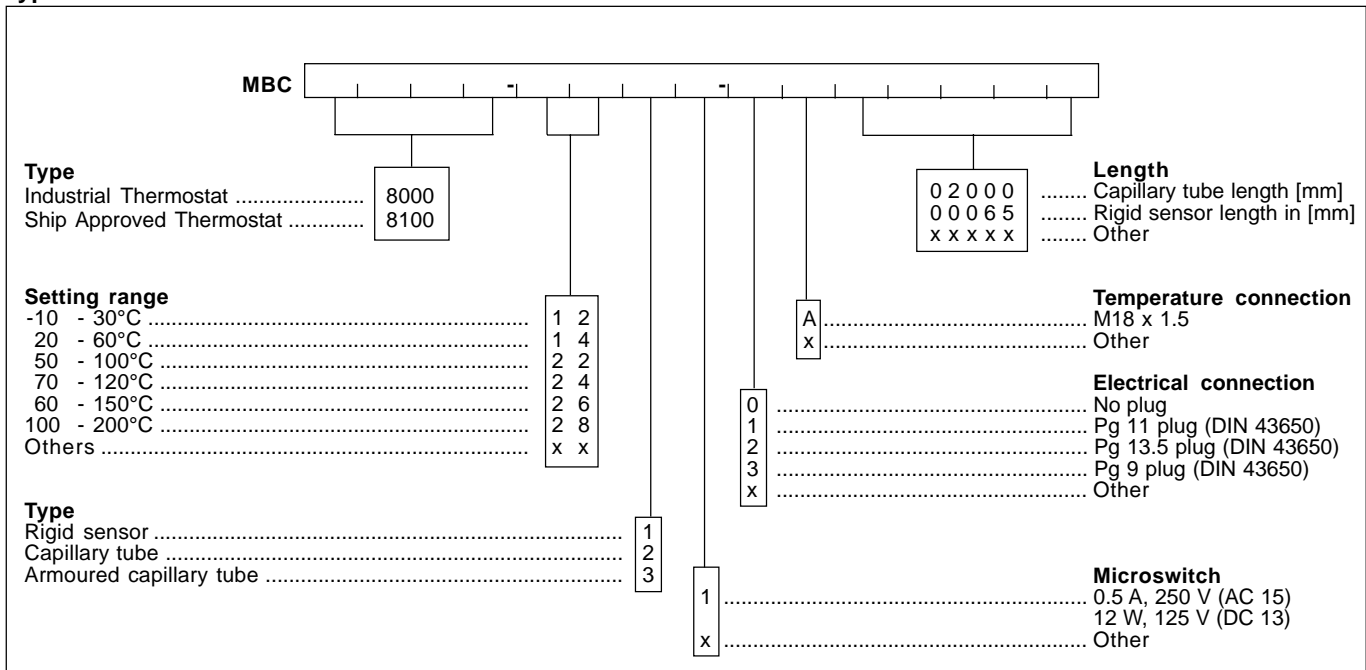
CE marked acc. to EN 60 947-5-1

Bureau Veritas, France
 Registro Italiano Navale, Italy
 MRS, Maritime Register of Shipping, Russia
 Nippon Kaiji Kyokai, Japan
 KRS, Korean Register of Shipping

Ship approvals, MBC 8100 only

Det norske Veritas, Norway
 American Bureau of Shipping
 Lloyds Register of Shipping, UK
 Germanischer Lloyd, Federal Republic of Germany (FRG)

Ordering of customized types



Technical data

Contact load (Alternating current):
 Inductive: 0.5 A, 250 V, AC15
 Direct current: 12 W, 125V, DC 13

Enclosure
 IP 65 to IEC 529 and DIN 40050. Anodized Al Mg Si 1.

Ambient temperature -40 to +70 °C

Electrical connection
 DIN 43650 plug, Pg 9, Pg 11, Pg 13.5

Shock resistance:
 50 g / 6 ms, 500 g / 1ms
 acc. to IEC 68-2-27
 Free fall acc. to IEC 68-2-32

Switch
 Single-pole changeover switch (SPDT).

Vibration resistance
 Sin 20 g, 25Hz → 2 kHz acc. to IEC 68-2-6.

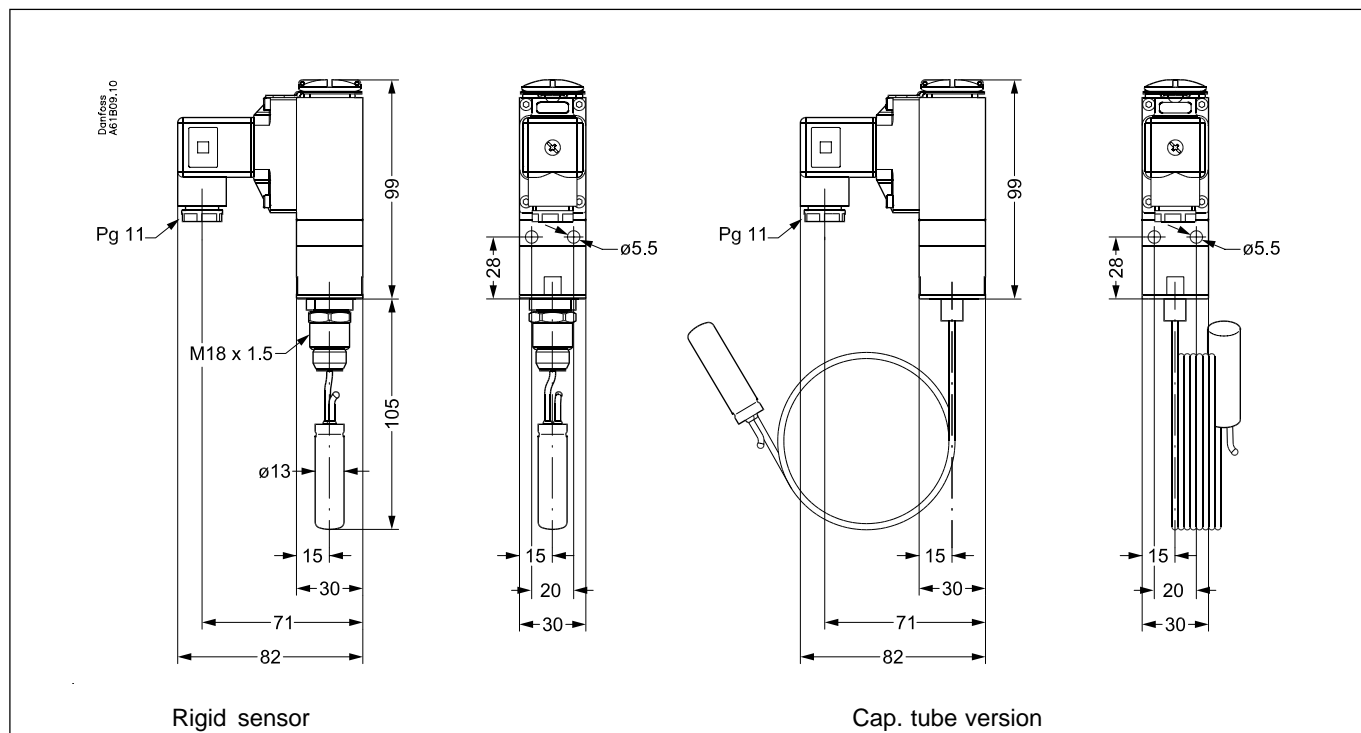
Properties acc. to EN 60947

Wire dimensions	
Solid/stranded	0.2 - 1.5 mm ²
Flexible, w/out ferrules	0.2 - 1.5 mm ²
Flexible, with ferrules	0.2 - 1 mm ²
Tightening torque	max. 1.2 Nm
Rated Impuls voltage	4 kV
Pollution degree	3
Short circuit protection, fuse	2 Amp
Insulation	250 V
IP-index	65

Accessories: Sensor pockets for MBC thermostats	Sensor pocket	A mm	Thread B	Codeno.	Sensor pocket	A mm	Thread B	Codeno.
<p>Supplied without gland nut, gaskets and washer</p>	Brass	75	1/2 NPT	060L3264	Steel 18/8	75	G 1/2 A	060L3267
		75	G 1/2 A	060L3262				
		75	G 3/4 A	060L3266				
		75	G 1/2 A (ISO 228/1)	060L3281				
	Brass	110	1/2 NPT	060L3270	Steel 18/8	110	G 1/2 A	060L3268
		110	G 1/2 A	060L3271				
		110	G 1/2 A (ISO 228/1)	060L3406				
		110	G 3/4 A (ISO 228/1)	060L3403				
	Brass	160	G 1/2 A	060L3263	Steel 18/8	160	G 1/2 A	060L3269
		160	G 1/2 A (ISO 228/1)	060L3407				
		160	G 3/4 A (ISO 228/1)	060L3405				

Part	Description	No. of per unit	Codeno.
	For thermostats with remote sensor (L = 392 mm)	X	017-4204
	For thermostats with sensor fitted in a sensor pocket. Compound for filling sensor pocket to improve heat transfer between pocket and sensor. Application range for compound: -20 to +150 °C, momentarily up to 220°C.	As required	41E0110

Dimensions



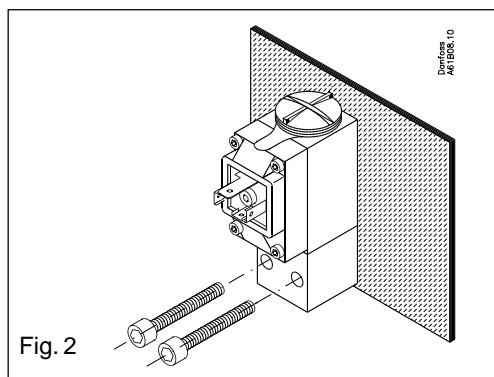
Installation

Installation

MBC thermostats are designed to withstand the shocks that occur, e.g. in ships, on compressors and in large machine installations. MBC thermostats with remote sensor are fitted with 5 mm screws to bulkheads or similar. See fig. 2

MBC thermostats with rigid sensor are self-supporting from the sensor pocket.

For permissible media pressure see fig. 3.



right angles to the direction of flow. The active part of the sensor is $\varnothing 13$ mm x 50 mm long on thermostats with rigid sensors and 2 m capillary tube.

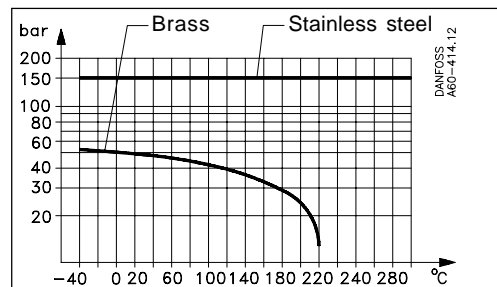


Fig. 3. Permissible media pressure on the sensor pocket as a function of temperature

Setting

When the top cover screw at the thermostat is removed, the range can be set with the setting screw. The differential is non-adjustable.

Resistance to media

Material specifications for sensor pockets:

Sensor pocket, brass

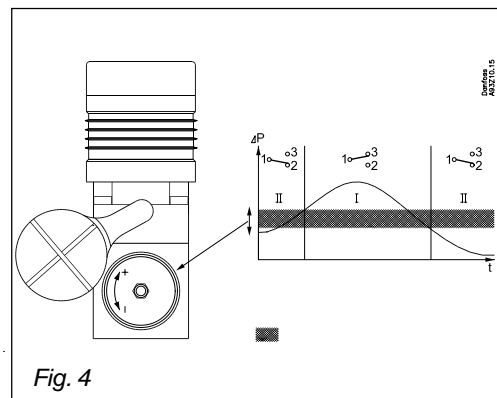
The tube is made of Ms 72 to DIN 17660, the threaded portion of So Ms 58Pb to DIN 17661.

Sensor pocket, stainless steel 18/8

Material designation 1.4305 to DIN 17440.

Sensor position

As far as possible the sensor should be positioned so that its longitudinal axis is at



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