



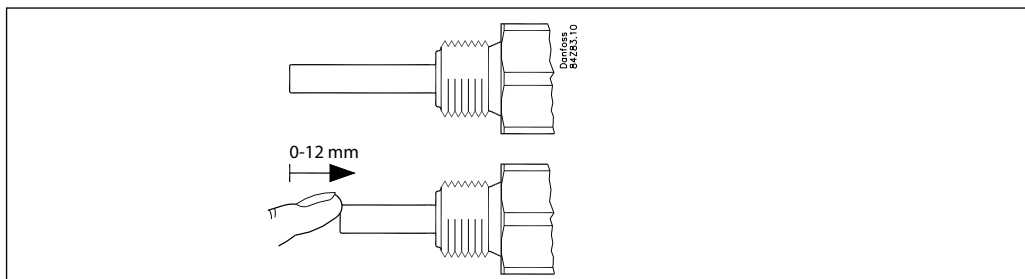
Bearing temperature sensor MBT 5310

Features



- For monitoring of bearing temperatures where there is risk of overheating, such as:
 - Wind Turbines
 - Engines
 - Gearboxes
- Based on Pt100 technology for use up to 200 °C
- Spring loaded to ensure good contact with the bearing

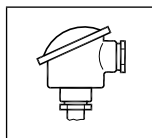
Spring function



Ordering standard programme

- Measuring range: -50 to +200°C
- Sensing element: Pt 100, EN 60751 Class B
- Protection tube: Ø8 × 1 mm, W. No. 1.4571 (AISI 316)

Type	Insertion length [mm]	Insertion range [mm]	Process connection	Electrical connection	Code no.
	48	36 – 48	G1/2A Stainless steel	2 wire/ 3 terminals	084Z7280
	60	48 – 60			084Z5211
	72	60 – 72			084Z3147
	96	84 – 96			084Z3128
	128	116 – 128			084Z7276
	144	132 – 144			084Z3129
	180	168 – 180			084Z5281
	320	308 – 320			084Z3189
	435	423 – 435			084Z3188
	450	438 – 450			084Z3198



It is possible to order the sensors with a B-head, please contact Danfoss for further information.

Technical Data

Response time

Protection tube	Indicative response times according to VDI/VDE 3522			
	Water 0.2 m/s		Air 1 m/s	
	$t_{0.5}$	$t_{0.9}$	$t_{0.5}$	$t_{0.9}$
Ø 8 x 1 mm	4 s	16 s	35 s	140 s

Materials

Protection tube in contact with the media	W. No. 1.4571 (AISI 316 Ti)
O-ring	FPM
Nut	Nickel plated brass
Process connection	AISI 316
Gasket	Silicone
Plug DIN 43650	PA (max. 125 °C)

Mechanical and environmental specifications

Sensor tolerance	EN 60751 Class B: $\pm(0.3^{\circ}\text{C} + 0.005 \times t)$ t = temperature of medium, numerical value	
Vibration stability	Shock	100g in 6 ms
	Vibrations	4g sine function 2 – 100 Hz, acc. to IEC 68-2-6
Enclosure	IP 65 according to IEC 529	
Cable entry	Pg 11	

Electrical connection and dimension

