

## Technical leaflet

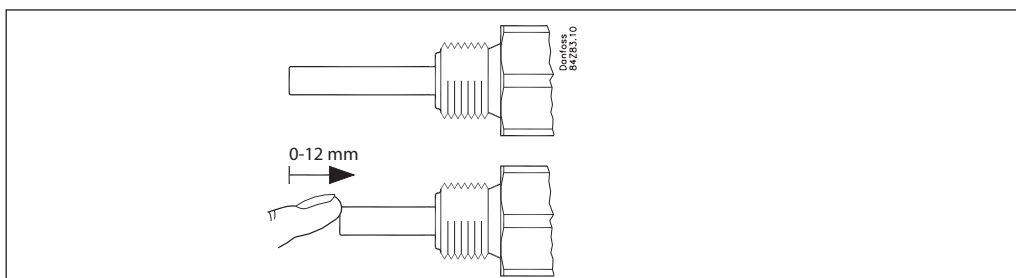
# Bearing temperature sensor MBT 5310

### 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	<b>084Z7280</b>
	60	48 – 60			<b>084Z5211</b>
	72	60 – 72			<b>084Z3147</b>
	96	84 – 96			<b>084Z3128</b>
	128	116 – 128			<b>084Z7276</b>
	144	132 – 144			<b>084Z3129</b>
	180	168 – 180			<b>084Z5281</b>
	320	308 – 320			<b>084Z3189</b>
	435	423 – 435			<b>084Z3188</b>
	450	438 – 450			<b>084Z3198</b>

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

### Response time

Protection tube	Indicative response times according to VDI/VDE 3522			
Ø 8 x 1 mm	Water 0.2 m/s		Air 1 m/s	
	$t_{0.5}$	$t_{0.9}$	$t_{0.5}$	$t_{0.9}$
	1.2 s	2.4 s	6 s	12 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

