

Temperature sensors type MBT 5410

Features and application



- Room temperature sensor for measuring and regulating temperature in marine and industrial refrigeration, freezing installations or engine rooms
- Temperature range: From -50 to +100 °C
- High measuring accuracy
- Robust construction with resistance to shock and vibration
- Available with built-in transmitter
- Approvals:
 - American Bureau of Shipping, ABS
 - Bureau Veritas, BV
 - Det Norske Veritas, DNV
 - Germanischer Lloyd, GL
 - Korean Register of Shipping, KRS
 - Lloyds Register of Shipping, LR
 - Nippon Kaiji Kyokai, ClassNK
 - Registro Italiano Navale, RINA

Ordering - refrigeration and freezing room applications

- Measuring range: -50 → +100 °C
- Tolerance: EN 60751, Class B
- Connection box: Silumin/plastic

Resistance value	Connection	Transmitter output	Transmitter setting	Application	MBT 5410-	Code no.
Pt 100	2-wire	4-20 mA, standard	-10 → +50°C	Refrigeration room	000-060-000-G205	084Z5064
Pt 100	2-wire	4-20 mA, standard	-50 → +50°C	Freezer room	000-060-000-G405	084Z5063
Pt 100	4-wire	None	None	Room	000-060-020-0000	084Z5065
Pt 1000	2-wire, 3 terminals	None	None	Room	020-060-000-0000	084Z5095

Other specifications on request

Ordering - engine room applications

- Measuring range: -50 → +100 °C
- Tolerance: EN 60751, Class B
- Connection box: Silumin/plastic

Resistance value	Connection	Transmitter output	Transmitter setting	Application	MBT 5410-	Code no
Pt 100	4-wire	None	None	Room	000-060-020-0000	084Z5065
Pt 100	2-wire	4-20 mA, standard	0 → +100°C	Engine room	000-060-000-G110	084Z5066

Other specifications on request

Technical data

Response times

Protection tube	Indicative response times according to VDI/VDE 3522	
	Air 1 m/s	
	$t_{0,5}$	$t_{9,9}$
Ø10 × 2	111 s	391 s

Weight

	Without temperature transmitter	With temperature transmitter
Weight, approx.	550 g	600 g

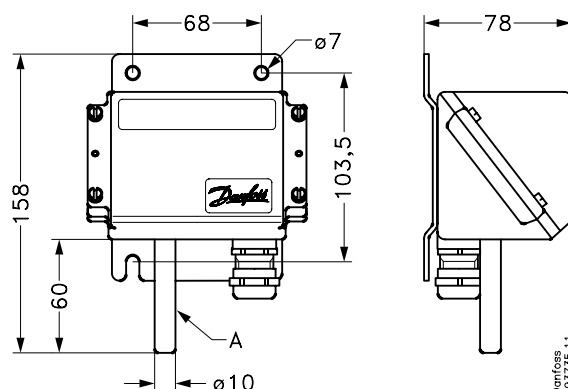
Mechanical and environmental specifications

Ambient temperature	Approval from Lloyds Register of Shipping covers measuring range $-30 \rightarrow +70^{\circ}\text{C}$. Because of this limitation the products are marked $-30 \rightarrow +70^{\circ}\text{C}$	
	Max. ambient temperatures for sensors with temperature transmitter are: Standard: $-40 \rightarrow +85^{\circ}\text{C}$ Without transmitter: $-50 \rightarrow +100^{\circ}\text{C}$	
Sensor tolerance	EN 60751 Class B: $\pm(0.3 + 0.005 \times t)$	t = temperature of medium, numerical value
Vibration stability	Shock: 100 g in 6 ms Vibrations: 4g sine function 2-100 Hz, measured acc. to IEC 68-2-6	
Enclosure	IP 67 according to IEC 529	
Cable entry	PG 13.5	
Material (sensor tube)	W.no. 1.4571 (AISI 316 Ti)	

Further information about temperature transmitter type MBT 9110 available in separate data sheet

Dimensions

All dimensions in millimeters
A: Protection tube



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