



## **Temperature sensor and temperature transmitter type MBT 5410**

**Application**



- For measuring temperature in marine and industrial refrigeration, freezing installations
- Temperature range: From -50 to +70 °C
- High measuring accuracy
- Robust construction with resistance to shock and vibration
- Available with built-in transmitter

**Approvals**

- Lloyds Register of Shipping, LR
- Germanischer Lloyd, GL
- Bureau Veritas, BV
- Det Norske Veritas, DNV
- Nippon Kaiji Kyokai, ClassNK
- American Bureau of Shipping, ABS
- Korean Register of Shipping, KRS
- Registro Italiano Navale, RINA

**Ordering**

Resistance value	Connection	Transmitter output	Transmitter setting	Application	MBT 5410-	Code no.
Pt 100	2-wire	4-20 mA, standard	-10 to +50°C	Refrigeration room	000-060-000-G205	<b>084Z5064</b>
Pt 100	2-wire	4-20 mA, standard	-50 to +50°C	Freezer room	000-060-000-G405	<b>084Z5063</b>
Pt 100	2-wire	4-20 mA, standard	0 to +100°C	Engine room	000-060-000-G110	<b>084Z5066</b>
Pt 100	4-wire	None	None	Misc.	000-060-020-0000	<b>084Z5065</b>
Pt 1000	2-wires, 3 terminals	None	None	Misc.	020-060-000-0000	<b>084Z5095</b>

Other specifications on request

Technical data

Response times

Protection tube	Indicative response times according to VDI/VDE 3522	
	Air 1 m/s	
	$t_{0,5}$	$t_{0,9}$
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 to +70°C. Because of this limitation the products are marked -30 to +70°C	
	Max. ambient temperatures for sensors with temperature transmitter are: Standard: -40 to +70°C (Brief in max. 2 hours: 80°C) Without transmitter: -50 to +70°C (Brief in max. 2 hours: 80°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: 4 g 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



