

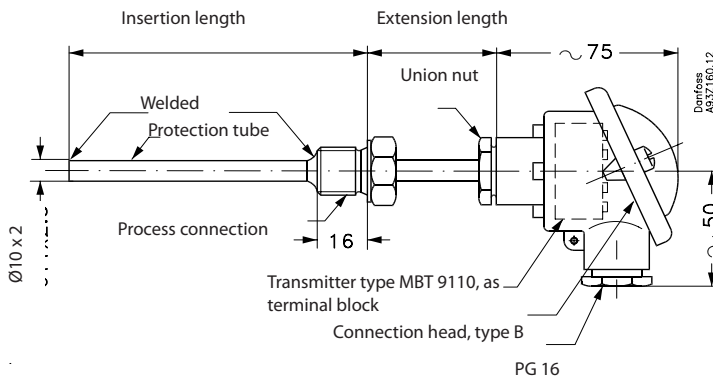
Features and application
MBT 5252

- 1) MBT 5252 Measuring insert type MBT 152
- 2) with terminal block
- 3) with temperature transmitter

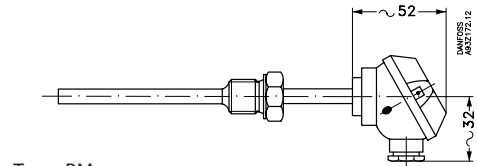


- For measuring and regulating temperature in piping systems and refrigeration plant on ships - or at all points where reliable, robust and accurate equipment is required
- Gaseous or liquid media, e.g. air, gas, vapour, water or oil
- Up to +400°C media temperatures
- Pt100/ Pt1000 resistance element
- 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
 - Registro Italiano Navale, RINA
 - American Bureau of Shipping, ABS
 - Korean Register of Shipping, KRS

Dimensions



Also available with:



Type: BM

Process connection	Width across flats
G 1/2 A, 1/2-14 NPT	HEX 27
G 3/4 A	HEX 32

All dimensions in millimeters

Ordering MBT 5252 Standard programme

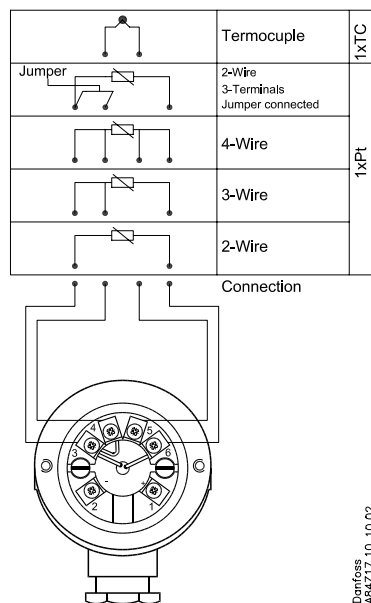
- Extension length: 50 mm
- Element: Pt 100, EN 60751, Class B
- Connection head: B-head
- Protection tube: Low temperature range: Ø10 x 2 mm
High temperature range: Ø11 x 1 mm

Temperature range [°C]	Insertion length [mm]	Connection	Transmitter output	Transmitter setting	Process connection		
					G ½A	G 3/4 A	½-14 NPT
					Code no.	Code no.	Code no.
-50 to 200	50	2-wire, 3 terminals	None	None	084Z8210	084Z8230	084Z6165
	80				084Z6140	084Z6164	084Z6166
	100				084Z8211¹⁾	084Z8231¹⁾	084Z6167¹⁾
	150				084Z8212¹⁾	084Z8232¹⁾	084Z6168¹⁾
	200				084Z8213¹⁾	084Z8233¹⁾	084Z6169¹⁾
	250				084Z6139	084Z6141	084Z6170
	50	2-wire	4 - 20 mA, standard	0 to +100°C	084Z8214	084Z8234	084Z6171
	80				084Z6142	084Z6144	084Z6172
	100				084Z8215¹⁾	084Z8235¹⁾	084Z6173¹⁾
	150				084Z8216¹⁾	084Z8236¹⁾	084Z6174¹⁾
	200				084Z8217¹⁾	084Z8237¹⁾	084Z6175¹⁾
	250				084Z6143	084Z6145	084Z6176

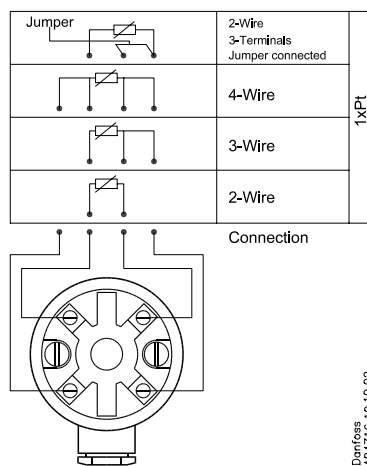
¹⁾ Preferred versions
400° C version is available on request

Electrical connection

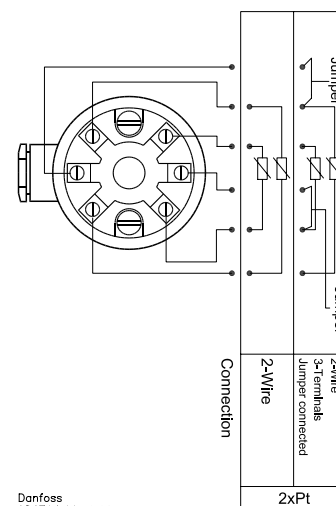
With temperature transmitter



Without temperature transmitter
1 x Pt100



Without temperature transmitter
2 x Pt100



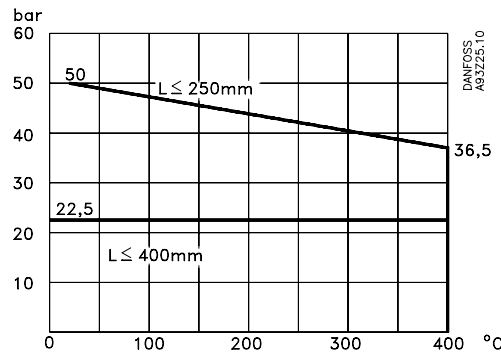
Technical data

Weight

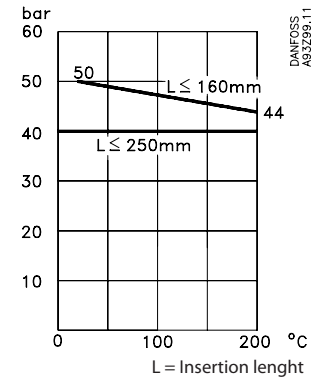
Insertion length [mm]	Electrical connection	Transmitter setting	Process connection		
			G 1/2 A	G 3/4 A	1/2-14 NPT
			Weight [g]	Weight [g]	Weight [g]
50	2-wire, 3 terminals	Sensors are without transmitter	430	480	430
100			460	510	460
150			490	540	490
200			520	570	520
250			550	600	550
50	4 - 20 mA, 2-wire universal temperature transmitter	0 -> +100°C	420	470	420
100			450	500	450
150			480	530	480
200			510	560	510
250			540	590	540

Max. load on protection tube according to DIN 43763

Ø 11 × 1, Ø 15 × 3



Ø 8 × 1, Ø 10 × 2



Protection tube		Ø 10 × 2
Max. tightening torque G 1/4 - M18		50 Nm
Permissible media velocity	Air	25 m/s
	Steam	25 m/s
	Water	3 m/s

Materials

Protection tube in contact with media	W. no. 1.4571 (AISI 316 Ti)
Process connection in contact with media	W. no. 1.4571 (AISI 316 Ti)
Extension length	W. no. 1.4571 (AISI 316 Ti)
Union nut	Nickel plated brass
Connection head	Die cast aluminium

Mechanical and environmental specifications

Max. temperature ¹⁾	Ambient:	90°C for sensors without temperature transmitter
	Transmitter:	85°C for sensors with temperature transmitter
Sensor tolerance	EN 60751 Class B: ± (0.3 + 0.005 × t) 1/3 EN 60751 Class B: ± (0.1 + 0.005 × t) 1/6 EN 60751 Class B: ± (0.05 + 0.005 × 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 65 according to IEC 529	
Cable entry B-head/screw-cap	PG 16	
Cable entry BM	PG 9	
Temperature transmitter MBT 9110	Supply voltage:	8 - 35V d.c.
	Output:	4 - 20 mA

¹⁾ The temperature of the temperature transmitter is influenced by media temperature, ambient temperature and ventilation in the engine room. If the temperature of the temperature transmitter exceeds the max. allowed temperature the temperature transmitter must be placed in a separated enclosure, as described in the separate data sheet for MBT 9110.