

Exhaust gas temperature sensor type MBT 5111

Features



- For measuring and regulating exhaust gas in stationary and marine
 - diesel engines
 - turbines
 - compressors
- With thermocouple for up to 800°C media temperature
- MBT 5111 with adjustable insertion length, up to 150 mm using moveable compression fitting

Approvals

Lloyds Register of Shipping, LR
Germanischer Lloyd, GL
Bureau Veritas, BV
Det Norske Veritas, DNV
Nippon Kaiji Kyokai, ClassNK

Approval for the angle version has been applied for.

Ordering - Standard programme

- Measuring range: Max. 800°C
- Thermocouple: 1 x NiCr-Ni, type K
- Protection tube: MBT 5111: W. no. 1.4571 (AISI 316 Ti)
- Tolerance: EN 60584-2 Class 2
- Design of MBT 5111: Straight or angle

Type	Design	Diameter	Insertion length	Process connection	Cable length	Specification code	Code no.
MBT 5111	Straight	Ø 12	Adjustable	G½A compression fitting	6000	010-150-111-0600	084Z7278
	Angle	Ø 6		Accessories	2000	0101-0215-000-1-0190-002	087U4041
	Angle	Ø 6		Accessories	4000	0101-0215-000-1-0590-002	087U4042
	Angle	Ø 6		Accessories	6000	0101-0215-000-1-0590-002	087U4043

Accessories

Type	Process connection	Material	Insertion length	Code no.
Compression fitting	G½A	Brass		087U8013
	¼"-18NPT	Brass		087U8014
Sensor pocket	G½A	AISI 316	100 mm	087U8015
	M18 x 1.5	AISI 316	100 mm	087U8016

Technical data

Main specifications

Measuring range	−40°C to 800°C
Thermocouple design	According to EN 61515
Tolerances	According to IEC 584-2 Class 2

Response times

Type	Indicative response times. Typical measured values.	
	Water 0.2 m/s	
	T0.5	T0.9
MBT 5111 straight Ø 12	15s	45s
MBT 5111 angle Ø 6	2s	5s
With pocket	12s	38s

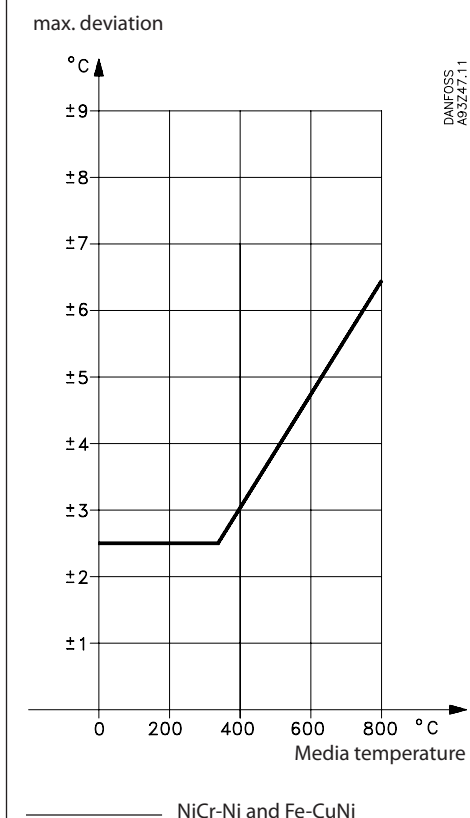
Weight

MBT 5111 straight	0.45 kg
MBT 5111 angle	0.16 kg
1 m cable increases weight with	approx. 40 g

Mechanical and environmental specifications

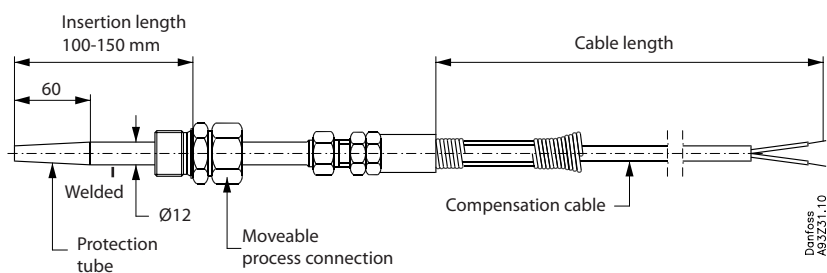
Ambient temperature	Depending on cable	
Vibration stability	Shock:	100 g in 6 ms
	Vibrations:	4g sine function 2 - 100 Hz, measured acc. to IEC 68-2-6
Cable	MBT 5111 straight	2 × 1.5 mm ² , armoured silicone (max. 200°C)
	MBT 5111 angle	2 × 0.5 mm ² , armoured teflon (max. 260°C)
Materials	Protection tube:	W. no. 1.4571 (AISI 316 Ti)

Sensor tolerance EN 60584-2 Class 2



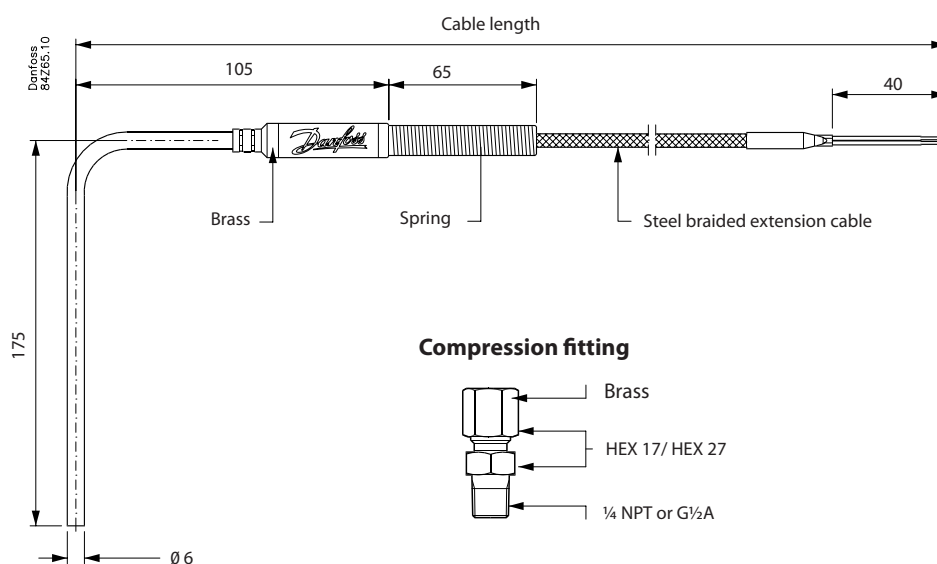
Dimensions

MBT 5111 Straight version



All dimensions are in millimeters

MBT 5111 Angle version



Pocket for MBT 5111 Angle

