Data sheet

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
Korean Register of Shipping
RINA

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	0101-0175-000-1-0200-002	**087U4041**
	Angle	Ø 6		Accessories	4000	0101-0175-000-1-0400-002	**087U4042**
	Angle	Ø 6		Accessories	6000	0101-0175-000-1-0600-002	**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 × 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

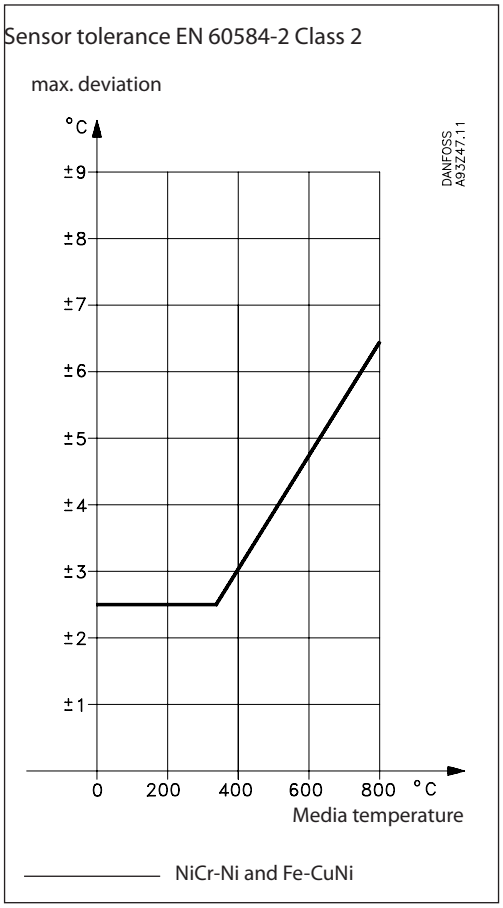
Type	Indicative response times. Typical measured values.	
	Water 0.2 m/s	
	T0.5	T0.9
MBT 5111 straight Ø12	15 s	45 s
MBT 5111 angle Ø 6	2 s	5 s
With pocket	12 s	38 s

Weight

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

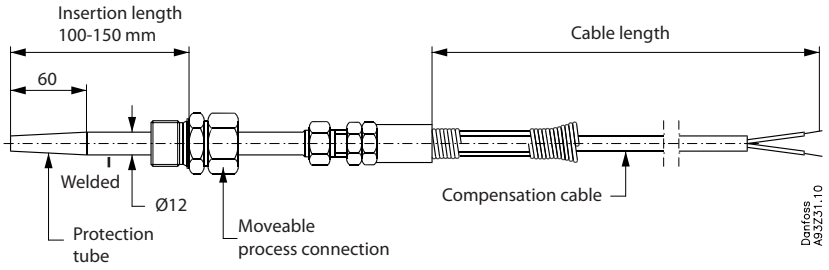
Mechanical and environmental specifications

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 mm², armoured silicone (max. 200°C
	MBT 5111 angle	2 × 0.5 mm², armoured teflon (max. 260°C)
Materials	Protection tube	W. no. 1.4571 (AISI 316 Ti)



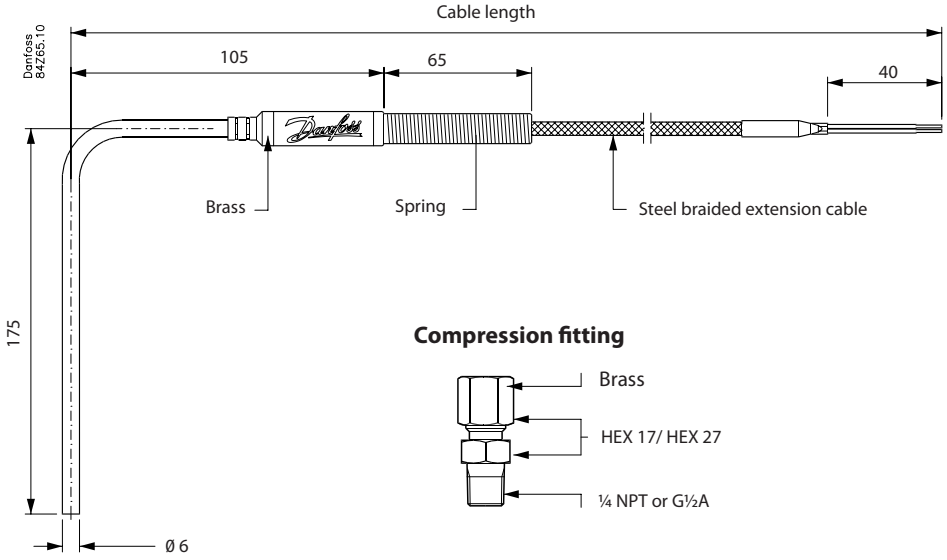
Dimensions

MBT 5111 Straight version



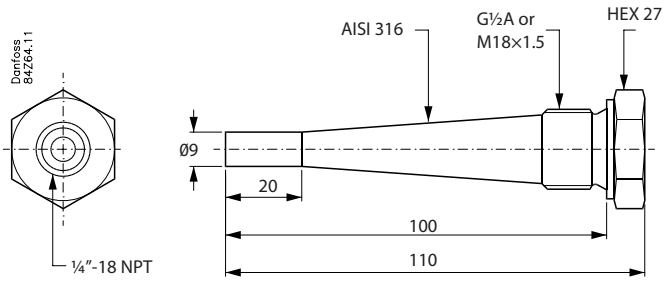
All dimensions are in millimeters

MBT 5111 Angle version



Compression fitting

Pocket for MBT 5111 Angle



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