

ENGINEERING  
TOMORROW

*Danfoss*

Data Sheet

# Temperature sensor Type **MBT 3560**

Industrial temperature transmitter.



With MBT 3560 we have combined the technology of our standard temperature sensors and the electrical connections from our MBS pressure transmitters with a new developed electronics which has resulted in a compact temperature sensor with a built-in transmitter.

The MBT 3560 is designed for use in harsh industrial environments where reliable, robust and accurate equipment is required.

Available with a wide selection of process and electrical connections. Can be delivered with a 33 mm extension length which makes it

## Temperature sensor, Type MBT 3560

### Product specification

### Technical data

**Table 1: Main specifications**

Features	Description
Process connections	See page <a href="#">Ordering</a>
Measuring ranges	Any combinations between -50 – 200 °C
Minimum span	25 °C
Output signals	4 – 20 mA or Ratiometric 10 – 90%
Electrical connections	See page <a href="#">Electrical connection</a>

**Table 2: Performance**

Features	Indicative response times			
	Water 0.2 m/s		Air 1 m/s	
	$t_{0,5}$	$t_{0,9}$	$t_{0,5}$	$t_{0,9}$
ø8 mm	10 s	35 s	95 s	310 s
Accuracy	Typical: < ± 0.5% FS, Maximum: < ± 1.0% FS			
Max. load protection tube	100 bar			

**Table 3: Electrical specifications**

Features	Nom. Output signal (short-circuit protected)	
	4 – 20 mA	Ratiometric 10 – 90% of supply voltage
Supply voltage [ $U_s$ ] polarity protected	10 – 30 V DC	4.75 – 8 V DC 5 V DC (Nom.)
Supply – current consumption	-	< 4 mA at 5 V DC
Insulation resistance	> 100 MΩ at 100 V DC	> 100 MΩ at 100 V DC
Supply voltage dependency	< ± 0.05% FS/10 V	-
Current limitation	30 mA	-
Output impedance	-	< 25 Ω
Load [ $R_L$ ]	$R_L < (U_s - 10) / (0.02 \text{ A})$ ohm	$R_L > 5 \text{ kohm}$ at 5 V DC

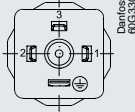
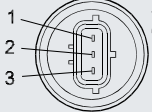
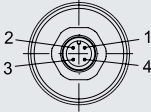
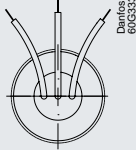
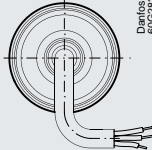
**Table 4: Environmental conditions**

Features	Description
----------	-------------

## Temperature sensor, Type MBT 3560

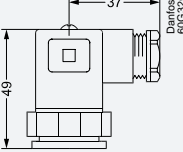
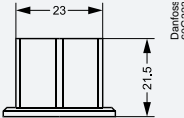
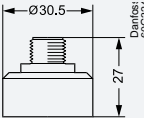
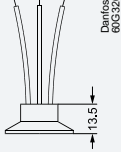
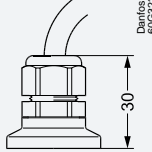
### Electrical connection

Table 6: Electrical connection

EN 175301-803	AMP Econoseal J series (male)	IEC 947-5-2 M12 × 1	Flying leads	2 m screened cable
				
<b>Enclosure</b>				
IP65	IP67	IP67	IP67	IP67
<b>Materials</b>				
Glass filled polyamid, PA 6.6	Glass filled polyamid, PA 6.6	Glass filled polyamid, PA 6.6	Glass filled polyamid, PA 6.6	PUR
<b>Electrical connection, 4 – 20 mA output (2 wire)</b>				
Pin 1: +supply Pin 2: +supply Pin 3: Not used Earth: Not connected to MBT housing	Pin 1: +supply Pin 2: +supply Pin 3: Not used	Pin 1: +supply Pin 2: Not used Pin 3: Not used Pin 4: +supply	Red wire: +supply Black wire: +supply	Red wire: +supply White wire: +supply Red/black wire: Not used Screen: Not connected to MBT housing
<b>Electrical connection, Ratio metric (3-wire) 10 – 90%</b>				
Pin 1: +supply Pin 2: +supply Pin 3: Output Earth: Not connected to MBT housing	Pin 1: +supply Pin 2: +supply Pin 3: Output	Pin 1: +supply Pin 2: not used Pin 3: Output Pin 4: +supply	Red wire: +supply Black wire: +supply Blue wire: Output	Red wire: +supply White wire: +supply Red/ Black wire: Output Screen: Not connected to MBT housing

### Dimensions

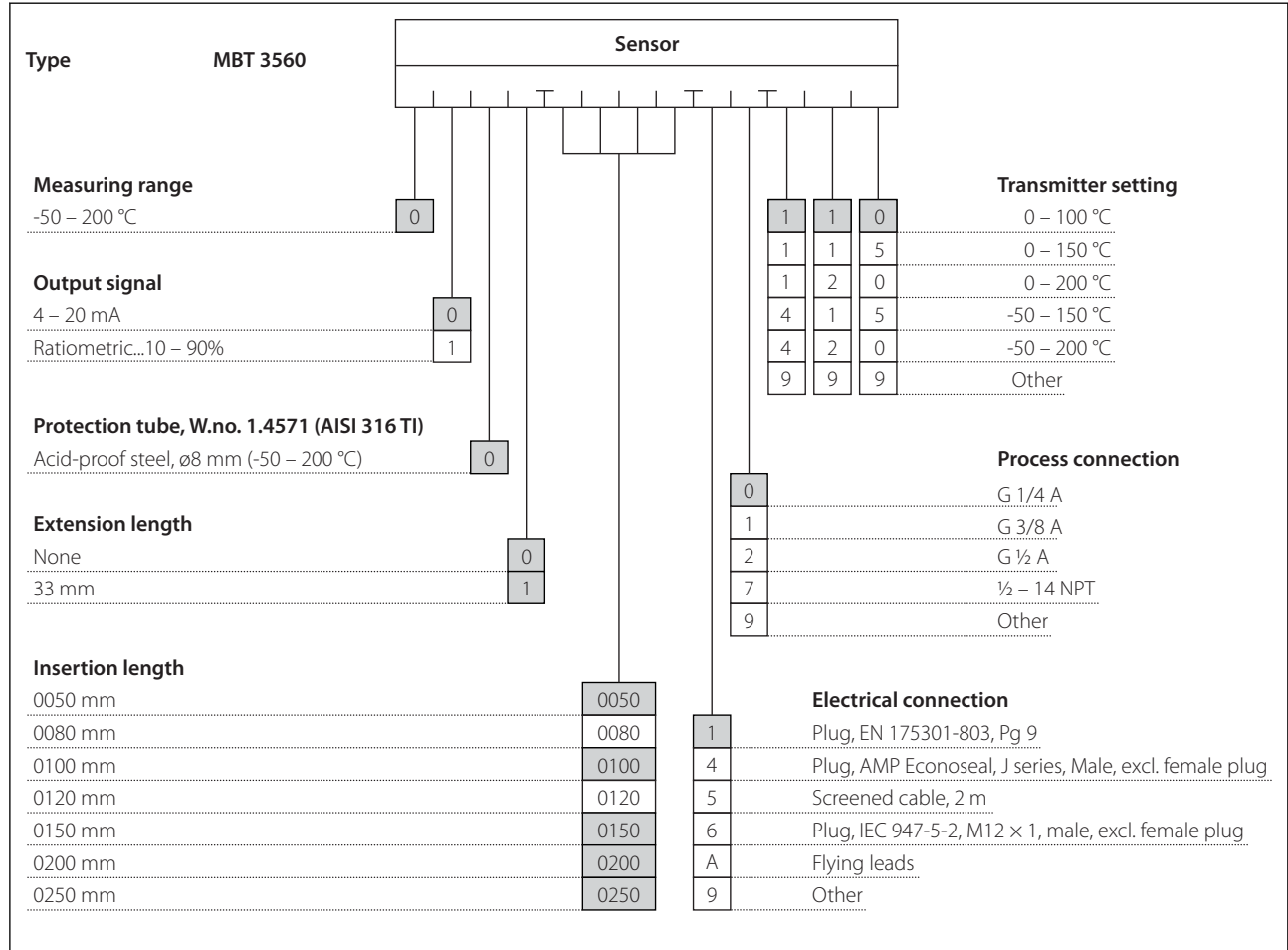
Table 7: Dimensions

EN 175301-803, Pg 9	AMP Econoseal J series (male)	IEC 947-5-2 M12 × 1, 4-pin	Flying leads	2 m Screened cable
				

# Temperature sensor, Type MBT 3560

## Ordering

Figure 1: Ordering for MBT 3560





Temperature sensor, Type MBT 3560

## Certificates, declarations, and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

Some approvals may change over time. You can check the most current status at [danfoss.com](http://danfoss.com) or contact your local Danfoss representative if you have any questions.

**Table 8: MBT 3560**

File name	Document type	Document topic	Approval authority
084R1019.01	EU Declaration	EMCD/ROHS	Danfoss
DK.C.32.004.A 41460	Measuring - Performance Certificate	-	GOST
RU Д-DK.A187.B.00022_19	EAC Declaration	EMC	EAC
084R1022.01	Manufacturers Declaration	China RoHS	Danfoss

Temp | Humidity | Pressure | Differential Pressure | Vacuum | Gases | Particle | Air Flow  
Moisture | Dissolved Oxygen | Radiation | Air Quality | Light / Lux | Distance | Vibration

## Instrukart

Ph : +91 (40)40262020 | Mob : +91 88865 50506;

Email : [info@instrukart.com](mailto:info@instrukart.com) | [www.instrukart.com](http://www.instrukart.com)

Head Office: #18, Street-1A, Czech Colony, Sanath Nagar, Hyderabad -500018, INDIA.

