

SDB-T-1

Duct temperature sensor

Features

- Thermistor, PT and NI sensing elements to fit your system
- Simple and secure installation
- Wide range of temperature probes
- Compact size and modern design

Applications

- On return air ducts to measure room temperatures
- On supply air ducts to measure heating/cooling supply air
- In heat exchangers and air handling units to control heating/cooling coils
- As frost protection sensor

Temperature sensor

The sensor measures the temperature by use of a NTC-, PT-, or NI-sensing element. The sensing element is either a glass packed thermistor with a negative temperature coefficient, a platinum film or a nickel thin layer based probe. Its resistance changes according to the temperature. The change follows a specified curve. Contact our sales department for curves not yet listed below.



Ordering

Item name	Article #	Protype	Definition	Length	Comments
SDB-Tn3-12-1	40-20 0123	NTC 3kΩ at 25 °C (77 °F)	B _{25/50} 3935	120mm (4.7in)	Vector standard
SDB-Tn10-12-1	40-20 0124	NTC 10kΩ at 25 °C (77 °F)	B _{25/50} 3935	120mm (4.7in)	
SDB-Tn11-12-1	40-20 0125	NTC 10kΩ at 25 °C (77 °F)	B _{25/50} 3630	120mm (4.7in)	
SDB-Tn12-12-1	40-20 0126	NTC 10kΩ at 25 °C (77 °F)	B _{25/50} 3380	120mm (4.7in)	
SDB-Tn20-12-1	40-20 0127	NTC 20kΩ at 25 °C (77 °F)	B _{25/50} 4200	120mm (4.7in)	
SDB-Tn100-12-1	40-20 0128	NTC 100kΩ at 25 °C (77 °F)	B _{25/50} 4200	120mm (4.7in)	
SDB-Tp1-12-1	40-20 0129	PT100	EN60751	120mm (4.7in)	
SDB-Tp2-12-1	40-20 0130	PT1000	EN60751	120mm (4.7in)	
SDB-Tk5-12-1	40-20 0131	NI1000, 5000 ppm/K	DIN 43760	120mm (4.7in)	
SDB-Tk6-12-1	40-20 0199	NI1000, 6180 ppm/K	DIN 43760	120mm (4.7in)	

SDB-Tn3-20-1	40-20 0132	NTC 3kΩ at 25 °C (77 °F)	B _{25/50} 3935	200mm (7.9in)	Vector standard
SDB- Tn10-20-1	40-20 0133	NTC 10kΩ at 25 °C (77 °F)	B _{25/50} 3935	200mm (7.9in)	
SDB- Tn11-20-1	40-20 0134	NTC 10kΩ at 25 °C (77 °F)	B _{25/50} 3630	200mm (7.9in)	
SDB-Tn12-20-1	40-20 0135	NTC 10kΩ at 25 °C (77 °F)	B _{25/50} 3380	200mm (7.9in)	
SDB- Tn20-20-1	40-20 0136	NTC 20kΩ at 25 °C (77 °F)	B _{25/50} 4200	200mm (7.9in)	
SDB- Tn100-20-1	40-20 0137	NTC 100kΩ at 25 °C (77 °F)	B _{25/50} 4200	200mm (7.9in)	
SDB- Tp1-20-1	40-20 0138	PT100	EN60751	200mm (7.9in)	
SDB- Tp2-20-1	40-20 0139	PT1000	EN60751	200mm (7.9in)	
SDB- Tk5-20-1	40-20 0140	NI1000, 5000 ppm/K	DIN 43760	200mm (7.9in)	
SDB- Tk6-20-1	40-20 0200	NI1000, 6180 ppm/K	DIN 43760	200mm (7.9in)	

Accessories

Depending on installation requirements add conduit connector.

SDB-T does not include conduit connectors. They need to be ordered separately.

Item name	Article #	Length
AMC-2	40-50 0074	Conduit connector NPT 1/2

Combine with AMI immersion stainless steel pocket for use as immersion sensor.

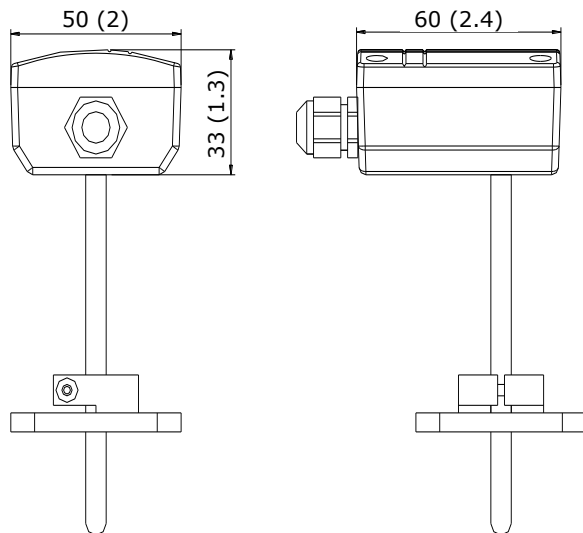
Spring loaded		Fixing screw		Immersion length (L)
Item name	Article #	Item name	Article #	
AMI-S05	40-51 0001	AMI-S05-1	40-51 0012	5 cm (2")
AMI-S07	40-51 0002	AMI-S07-1	40-51 0013	7.5 cm (3")
AMI-S10	40-51 0003	AMI-S10-1	40-51 0014	10 cm (4")
AMI-S15	40-51 0004	AMI-S15-1	40-51 0015	15 cm (5.9")
AMI-S20	40-51 0021	AMI-S20-1	40-51 0016	20 cm (7.9")
AMI-S30	40-51 0019	AMI-S30-1	40-51 0017	30 cm (11.8")
AMI-S40	40-51 0020	AMI-S40-1	40-51 0018	40 cm (15.7")

Installation

See installation sheet no. 70-000532 (www.vectorcontrols.com).

Technical specification

Sensing probe	Thermistor:	NTC
	Range: (Probe only)	-40...100°C (-94...212°F)
	Accuracy -40...0 °C (-40...32 °F):	0.5 K
	0...50 °C (32...122 °F):	0.2 K
	50...100 °C (122...212 °F):	0.5 K
	Platinum-film:	PT according EN 60751
	Accuracy	EN 60751, Class B +/- 0.3 at 0°C (32°F), 0.005 x t[K] for values away from 0°C (32°F).
	Nickel thin layer:	1000 Ω at 0°C (32°F), 5000 ppm/K
	Accuracy	DIN 43760 +/- 0.4 at 0°C (32°F), <0°C(32°F) 0.028 x t[K], >0°C(32°F) 0.007 x t[K]
Connection	Terminal connectors	For wires 0.34...2.5 mm ² (AWG 22...13)
Environment	Operation	To IEC 721-3-3
	Climatic conditions	class K5
	Temperature (Housing)	-40...100°C (-40...212°F)
	Humidity	<95% RH non-condensing
	Transport & storage	To IEC 721-3-2 and IEC 721-3-1
	Climatic conditions	class 3K3 and class 1K3
	Temperature	-40...100°C (-40...212°F)
Standards	Humidity	<95% RH non-condensing
	Mechanical conditions	class 2M2
	 conformity	
	EMC directive	2004/108/EC
	Low voltage directive	2006/95/EC
	Automatic electrical controls for household and similar use	EN 60 730-1
	Special requirement on temperature dependent controls	EN 60 730-2-9
	Pollution class	Normal acc. to EN 60730, RoHS compliant
	Degree of protection	IP65 to EN 60529
	Safety class	III (IEC 60536)
Housing	Material cover & mounting plate	Fire proof ABS plastic(UL94 class V-0)
	Material probe	Stainless steel
	Standard color	White: RAL9003
	Dimensions (H x W x D)	Cover: 33 x 60 x 50 mm (1.3 x 2.4 x 2 in)
	(Diameter x L)	Probe: ø 6 x YY (ø 0.2 x YY/2.54 in)
	Weight (including package)	114 g (4.0oz)

Dimension

Mounting plate
