

TSDC - S Temperature Switch

Product Photo:



Main Features:

- ❖ ATEX & IECEx certified
- ❖ Ex db IIC T6 Gb, Ex tb IIIC T80°C Db
- ❖ IP66
- ❖ Ambient temperature -55°C to 70°C
- ❖ Zone 1, Zone 2, Zone 21 and Zone 22 application
- ❖ Bimetal fixed temperature switch
- ❖ NC or NO type
- ❖ Temperature range 30 to 155°C
- ❖ Trigger temperature tolerance $\pm 5^\circ\text{C}$
- ❖ Automatic reset temperature tolerance $\pm 15^\circ\text{C}$
- ❖ Enclosure material SS316
- ❖ Permanently connected-high temperature resistant-braid armoured cable
- ❖ With integrated Ex cable gland

Product Description

TSDC-S temperature switch is designed according to IEC/EN 60079-0, IEC/EN 60079-1, IEC/EN60079-2 and IEC/EN 60079-31 standards. This product can be used in Zone 1 and Zone 2 for explosive gas environment, Zone 21 and Zone 22 for explosive dust environment.



TSDC-S temperature switch is bimetal fixed temperature switch. Bimetal temperature switches are generally used to monitor the temperature of machinery and equipment. Bimetal temperature switches consist of a bimetal disc, which snaps over when the nominal switching temperature (NST) is reached. When the machinery or equipment cools down to the reset switching temperature (RST), the switch returns to its original state. For example, if temperature limits are reached, the temperature switch engages to switch off machinery, preventing it from overheating or the temperature switch may activate a fan to cool the equipment.

TSDC-S temperature switch is suitable for temperature control with low accuracy ($\pm 5^{\circ}\text{C}$), closed space, and will respond to rapid temperature changes, such as storage paint room, kitchen fire temperature control, compressor outlet temperature control, cabinet internal environment temperature control, liquid tank heating control, equipment surface temperature control etc.

Data Sheet:

Certification Data:	
Notification Body:	(DNV-GL) Presafe
Certification Body:	LCIE
Certification:	IECEX and ATEX
Application Zone:	Zone 1, Zone 2 (Gas)
	Zone 21, Zone 22 (Dust)
Ex Category:	II 2 G D
Gas/Dust Classification:	IIC (Gas)
	IIIC (Dust)
Temperature Class:	T6 (Gas)
	T80°C (Dust)
Ambient Temperature:	-55°C to +70°C
Ingress Protection:	IP66
Marking:	 II 2 G D, Ex db IIC T6 Gb ; Ex tb IIIC T80°C Db
IECEX Certification No.:	IECEX LCIE 17.0027X
ATEX Certification No.:	LCIE 17 ATEX 3015X
Standards Conformity:	IEC 60079-0:2011 Ed. 6.0, IEC 60079-1:2014-06 Ed. 7.0 , IEC 60079-31:2013 Ed. 2;
	EN 60079-0:2012 + A11:2013, EN 60079-1:2014, EN 60079-31:2014



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Mechanical Data:	
Enclosure Material:	Stainless Steel (SS316)
Integrated Cable Gland Material:	Stainless Steel (SS316)
Product Finish:	Natural Finish
Finish Color:	Natural Metallic Color

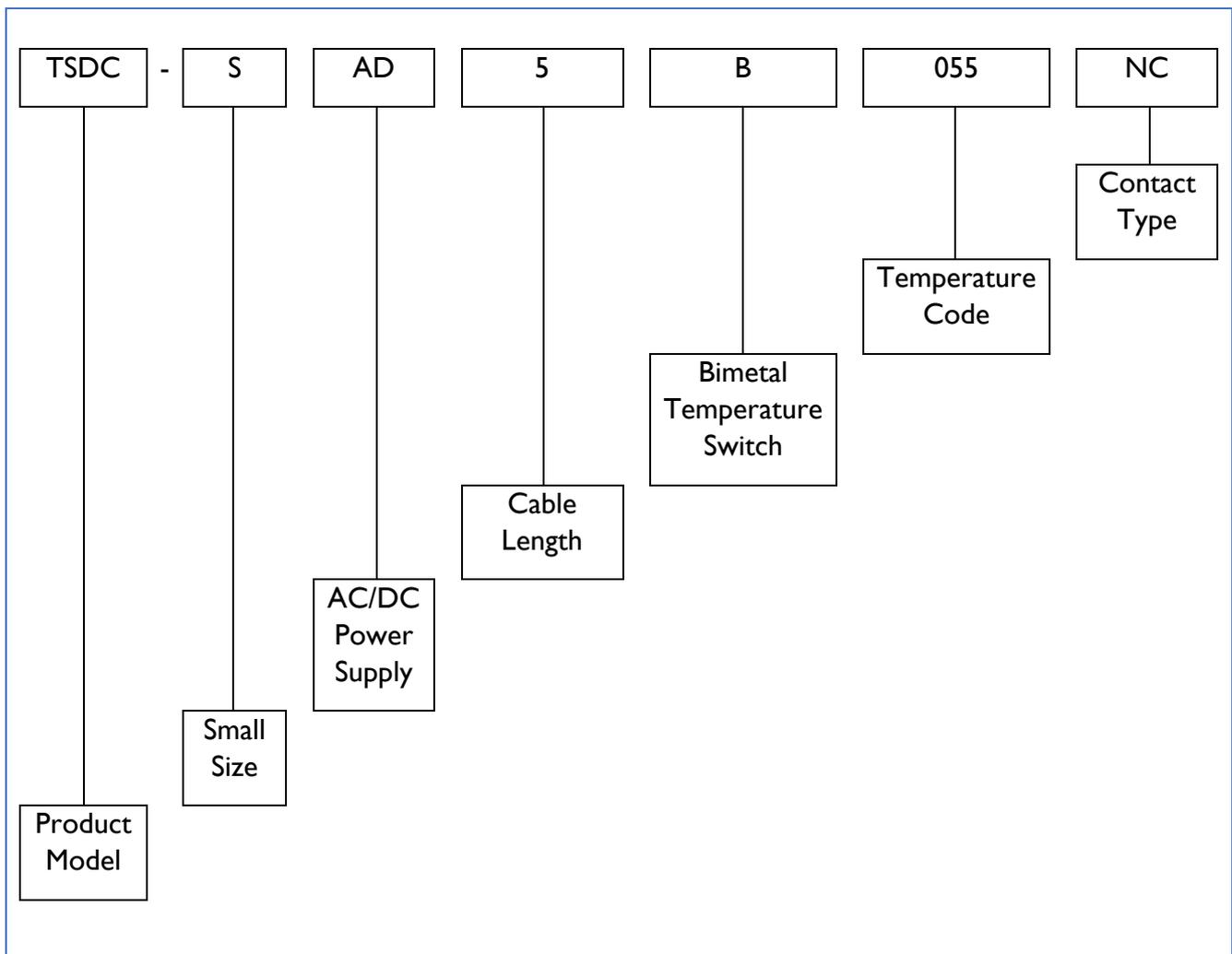
Electrical Data:	
Contact Rating:	4A @ 12VDC
	3A @ 24VDC
	3A @ 125VAC
	2A @ 250VAC

Trigger Temperature and Reset Temperature:		
Temperature Code	Trigger Temperature	Reset Temperature
30	30 ± 3.5°C	≥ 20°C
35	35 ± 4°C	≥ 25°C
40	40 ± 4.5°C	≥ 30°C
45	45 ± 5°C	≥ 33°C
50	50 ± 5°C	≥ 35°C
55	55 ± 5°C	42 ± 6°C
60	60 ± 5°C	45 ± 8°C
65	65 ± 5°C	48 ± 10°C
70	70 ± 5°C	50 ± 12°C
75	75 ± 5°C	53 ± 14°C
80	80 ± 5°C	55 ± 15°C
85	85 ± 5°C	60 ± 15°C
90	90 ± 5°C	65 ± 15°C
95	95 ± 5°C	70 ± 15°C
100	100 ± 5°C	70 ± 15°C
105	105 ± 5°C	75 ± 15°C
110	110 ± 5°C	75 ± 15°C
115	115 ± 5°C	80 ± 15°C



120	$120 \pm 5^{\circ}\text{C}$	$85 \pm 15^{\circ}\text{C}$
125	$125 \pm 5^{\circ}\text{C}$	$85 \pm 15^{\circ}\text{C}$
130	$130 \pm 5^{\circ}\text{C}$	$90 \pm 15^{\circ}\text{C}$
135	$135 \pm 5^{\circ}\text{C}$	$95 \pm 15^{\circ}\text{C}$
140	$140 \pm 5^{\circ}\text{C}$	$100 \pm 15^{\circ}\text{C}$
145	$145 \pm 5^{\circ}\text{C}$	$100 \pm 15^{\circ}\text{C}$
150	$150 \pm 5^{\circ}\text{C}$	$105 \pm 15^{\circ}\text{C}$
155	$155 \pm 5^{\circ}\text{C}$	$110 \pm 15^{\circ}\text{C}$

Type Explanation:



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Ordering Table:

Product Model	Size	Supply Voltage	Cable Length	Sensor / Switch / Transmitter Type	Temperature Code	Contact Type
TSDC	S-Small	AD-AC/DC	2-2m	B-Bimetal Temperature Switch	030-30°C	NC-Normal Close
					035-35°C	
					040-40°C	
			3-3m		045-45°C	
					050-50°C	
					055-55°C	
			5-5m		060-60°C	
					065-65°C	
					070-70°C	
			10-10m		075-75°C	
					080-80°C	
					085-85°C	
					090-90°C	
			XX-Other (Specify)		095-95°C	
					100-100°C	
					105-105°C	
					110-110°C	
					115-115°C	
					120-120°C	
					125-125°C	
			130-130°C			
			135-135°C			
			140-140°C			
145-145°C						

II 2 G D, Ex db IIC T6 Gb, Ex tb IIIC T80°C Db
 IP66, -55°C ≤ Tamb ≤ +70°C



					150-150°C	
					155-155°C	

E.g.: TSDC-SSWAD5B055NC

TSDC	S	SW	AD	5	B	055	NC
Product Model	Small Size	Switch	AC/DC Power Supply	Cable Length 5m	Bimetal Temperature Switch	Trigger Temperature 55°C	Normal Close Contact

Accessories:

Part No.	Description	Photo
TSDC-SFS-201	Surface Mounting Bracket	

If you need more information, you can always send an email to technicalsupport@fonteck.com for assistance.

Downloadable product data sheets as well as further information about our products are available at our website:
www.fonteck.com

