Bimetal temperature switch TSK-Atex

Fluidcontrol

Since the viscosity of oil changes based on the temperature, operating temperatures must be monitored. Depending on the requirements, monitoring by means of indicating the minimum temperature to warning points and ending with shut down, will suffice. The warning or shut-off points are implemented using a bimetallic switch and in the process, hysteresis can also be used as a reset point.

The TSK-Atex series consists of simple electrical equipment. In the case of intrinsically safe connections as per EN 60079-14, the TSK-Atex can be used in Zone 1 (group IIC, device category 2G) explosive areas; this also applies to the inner zone of the tank. The temperature switches are classified as temperature class T4.

The temperature switch was designed to allow removing the electrical inner workings without having to remove the switching tube from the tank. This is convenient if the temperature switch is installed laterally inside oil.

ATEX applications: Zone 1 (cat. 2G), simple electrical equipment according to EN 60079-11
Simple, robust design
Electrical inner part, easy to remove
Optionally DIN connector or M12 base connector
Outlet direction adjustable in 90° steps
Elastic sealing ring

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Technical Data TSK-Atex

TSK-Atex	
Versions:	TSK-1 = with one temperature contact TSK-2 = with two temperature contacts
Switch element:	bi-metal
Switching function:	NC = NC contact/NO = NO contact
Switching temperature:	45 to 80 °C (also see chart)
Probe length L max.:	1000 mm
Probe material:	Brass
Max. operating pressure:	1 bar
Operating temperature:	max. +80 °C
Ambient temperature:	-20 to +80 °C
Temperature contacts	
Switch-back difference:	10 K ± 5 K

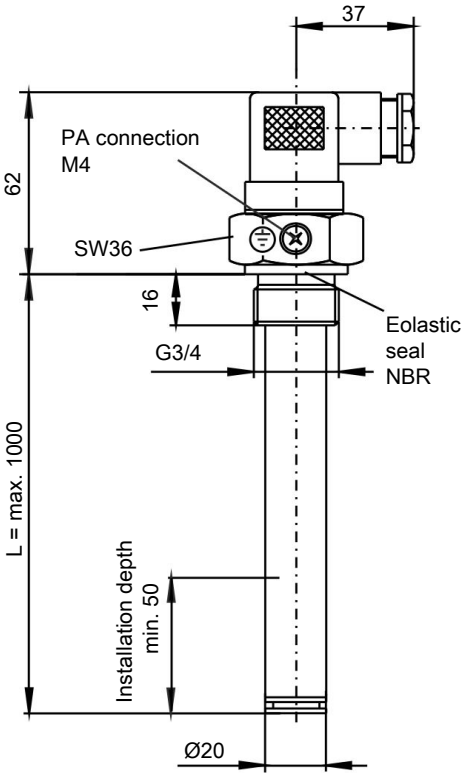
Switching point:	NC*	NO*
45 °C	TKÖ-45	TKS-45
55 °C	TKÖ-55	TKS-55
65 °C	TKÖ-65	TKS-65
75 °C	TKÖ-75	TKS-75

Other temperatures available upon request
*NC = NC contact/NO = NO contact All data for rising temperature

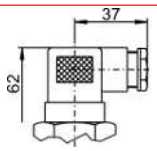
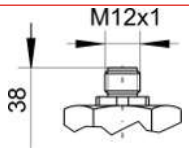
Accessories
Connection cable M12x1 (5-pin) 3.0 m long, item no.: 9144050018
Switch amplifier for temperature switches see data sheet no. 18 0003

The device is suitable for use in ATEX category II 2 G Ex ib IIC T4.
The temperature switch may only be operated on intrinsically-safe circuits!

Dimensions

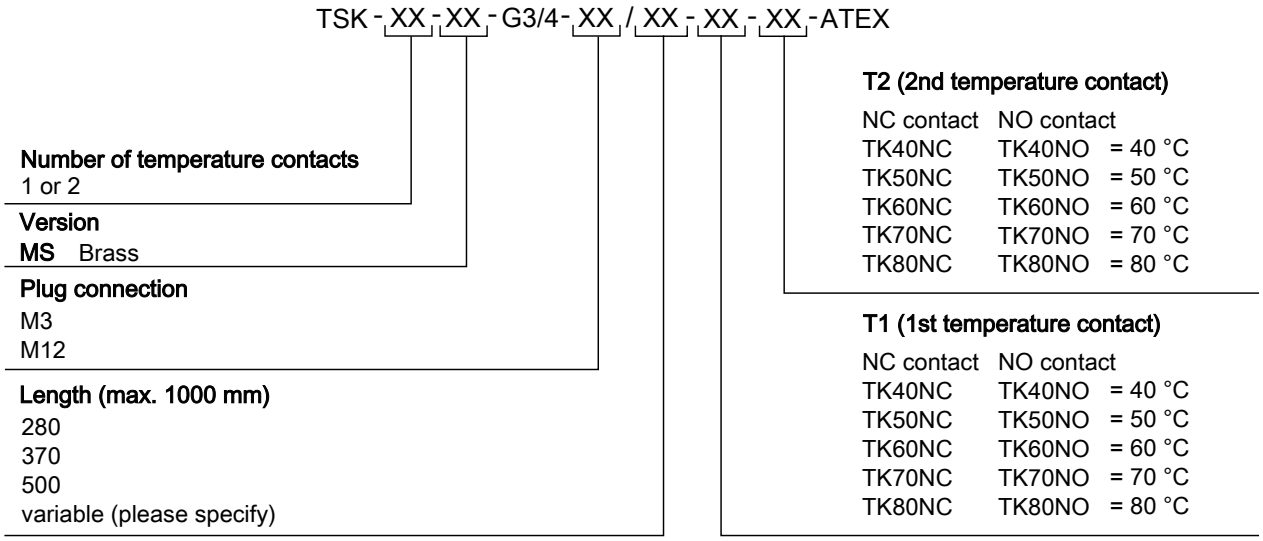


Temperature contacts	
P_i	100 mW
U_i	30 V
I_i	50 mA
L_i; C_i	Negligible

Plug connection	M3	M12 (base)
Dimensions:		
Number of pins:	3-pin + PE	4-pin+PE
DIN EN:	175301-803	
Protection class:	IP65	IP 67**
Cable fitting:	PG 11	PG 7**

**with respective plug top
Other plug connections available upon request

Model key for TSK temperature switch



Ordering example

You require:	Length L= 300 mm, 2 temperature contacts, 1st contact NC at 50 °C, 2nd contact NO at 70 °C, M3 plug
Order:	TSK-MS-G3/4-M3/300-TK50NC-TK70NO-ATEX