Explosion proof temperature switch
Model : T953

Service intended
This temperature switch is installed with a micro contact, and it is suitable for measuring the temperature of corrosive fluid. Dead band is fixed.

Repeatability
±1.0% of adjustable range

Dimension
Refer to type of mounting

Measuring system
Organic gas : 0 ~ 200°C
Inert gas : -200 ~ 700°C

Working range
Maximum scale value

Standard features

Location of stem
Bottom connection, surface, case mounting

Case
Silver gray finished aluminium

Cover
Silver gray finished aluminium

Capillary
Capillary : 1.6/0.2 mm, 316SS
Armored tube : 7.5/5.5 mm, 304SS

Stem
8.0, 10.0 and 12.0 mm
316SS and 316L SS

Stem, process connection
⅜", ½", ¾" PT, NPT and PF

Switch form
Micro contact type
One SPDT (Model : T953-1B3)
Two SPDT (Model : T953-2B3)

Approval
Ex d IIC T6
II 2G (Ex d IIC T6 GB)
IECEx (Ex d IIC T6)

1. Base model

T953 Explosion proof temperature switch
(Only available with single setpoint)

2. Switch form

1 One SPDT
2 Two SPDT

3. Unused character

B3 None

4. Stem material

1 316SS
2 316L SS

5. Stem, process connection

A None
D ⅜"
E ½"
F ¾"

6. Stem connection type (CF: Compression fitting)

A None
B PF
C PT
D NPT
E CF + PT
F CF + NPT
G CF + PF
H MT + PT (Movable thread)
I MT + NPT (Movable thread)
J MT + PF (Movable thread)

7. Stem outer diameter (mm)

2 8.0
3 10.0
4 12.0

8. Range

XXX Refer to temperature range table

9. Capillary length

A Direct mounting type
P 2 metre
Q 3 metre
S 5 metre
V 8 metre
X 10 metre
Z Other

10. Accessories

0 None
1 Thermowell

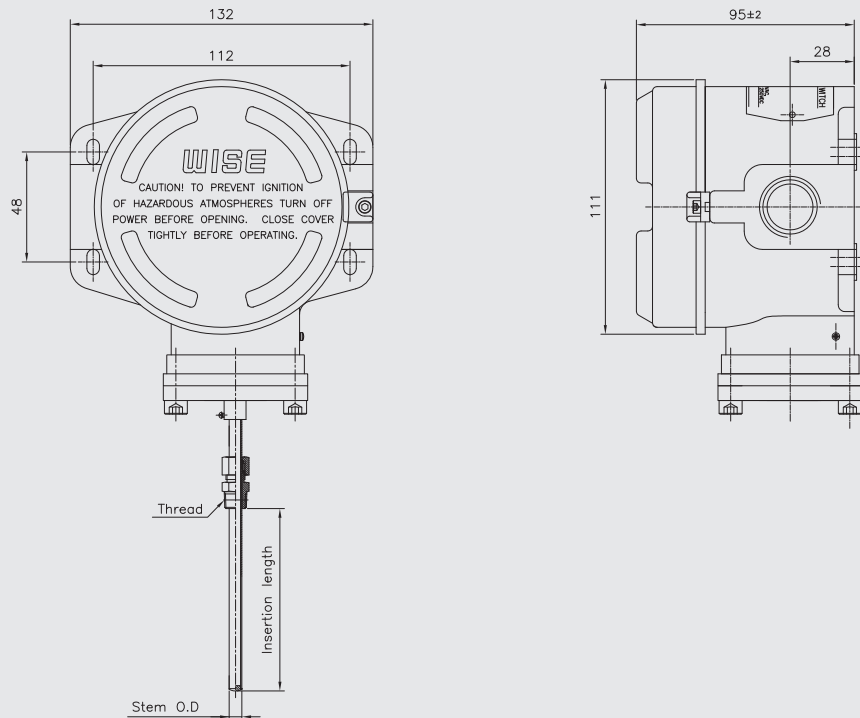| 1	2	3	4	5	6	7	8	9	10	**Sample**
T953	1	B3	1	E	C	3	XXX	P	1	**ordering code**

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* Remote reading type
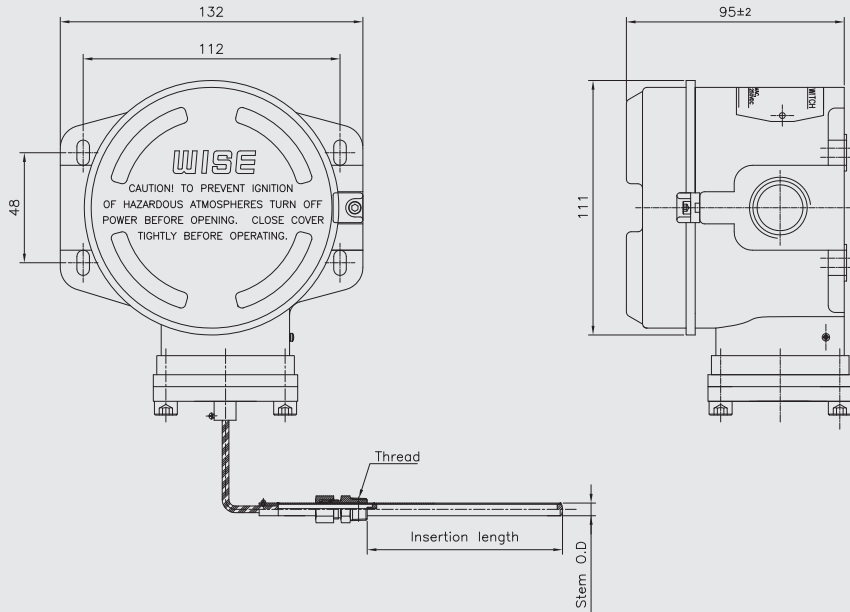
* Direct mounting type

Temperature switch

A bi-stable electro-mechanical device than actuates/deactuates one or more electrical switching element at a predetermined discrete temperature upon rising or falling.

Adjustable range

The span of temperature between upper and lower limited within which the temperature switch can be adjusted to actuate/deactuate.
It is expressed for increasing temperature.

Setpoint

That discrete temperature at which the temperature switch is adjusted to actuate/deactuate on rising or falling temperature. It must fall with the adjustable range and be called out as increasing.

Dead band

The difference in temperature between the increasing setpoint and decreasing setpoint.

Proof pressure

The maximum input temperature that can be continuously applied to the pressure switch without causing permanent change of setpoint, leakage or falling, material failure.

Burst temperature

The maximum input temperature that can be continuously applied to the temperature switch without causing leakage or catastrophic material failure. Permanent change of setpoint may occur, or the device may be rendered inoperative.

Repeatability

The ability of a temperature switch to successively operate at a setpoint that is approached from a starting point in the same direction and returns to the starting point over three consecutive cycles to establish a temperature profile.

Temperature range table

Code	Adjustable setting range (°C)	Maximum working temperature (°C)	Minimum stem length (mm)			Standard stem length (mm)		
			8.0	10.0	12.0	8.0	10.0	12.0
032	-50 ~ 30	35	100	85	65	200	130	130
037	-50 ~ 80	90	100	88	65	200	130	130
074	-10 ~ 65	75	100	85	65	200	130	130
104	20 ~ 90	95	100	85	65	200	150	130
109	50 ~ 120	130	100	85	65	200	130	130
114	100 ~ 170	180	100	85	65	200	130	130
119	150 ~ 220	230	100	85	65	200	130	130
124	190 ~ 260	270	100	85	65	200	130	130
129	230 ~ 300	310	100	85	65	200	130	130

Insertion length

Code	1	2	3	4	5	6	7	8	9	A	B	C
Length (mm)	50	60	70	80	100	120	130	150	175	200	225	250

Code	D	E	F	G	H	J	K	L	M	N	P
Length (mm)	275	300	350	375	400	450	500	550	1,000	1,500	2,000

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Rated voltage	Resistance load		Inductive load	
	NC	NO	NC	NO
125 V AC	15 (10)		15 (10)	
250 V AC	15 (10)		15 (10)	
480 V AC	10		10	
8 VDC	15		15	
14 V DC	15		10	
30 V DC	2		1	
125 V DC	0.4		0.03	
250 V DC	0.2		0.02	

SPDT switching element

Single-pole, double throw(SPDT) has three connection : C-common, NO-normally open and NC-normally closed, which allows the switching element to be electrically to the circuit NO or NC state.

DPDT switching element

Double-pole, double throw(DPDT) is two SPDT switching elements operated by a common lever assembly so simultaneous actuation/deactuation occurs at both the increasing and the decreasing set point. Two independent electrical circuits can be switched, i.e. one AC and one DC.
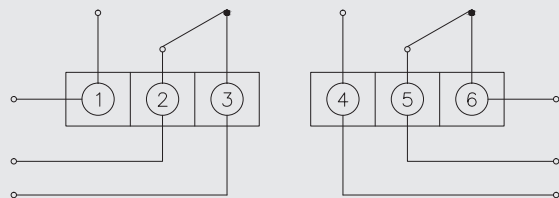
Single type
When the input pressure reach the upper or lower limit setpoint.
The circuit is closed and opened.
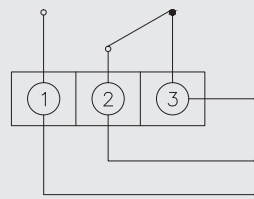
①:N.O ②:COM ③:N.C

Double type
When the input pressure reach the upper or lower limit setpoint.
Two circuit are simultaneously closed and opened.

①,④:N.O ②,⑤:COM ③,⑥:N.C

N.O : Normal open
N.C : Normal close

Memo

626 |