High static Indicating type differential pressure switch
Model: P631, P632

Spec. sheet no. PD06-11

Service intended
P631 to P632 series are designed to measure differential pressure from 30 kPa ro 1.5 MPa at Max. working pressure up to 25 MPa.P631 to P632 series are designed to control and alarm for differential pressure, providing right time to replace air and sluge filter during the process.

Nominal diameter
150 mm

Accuracy
±1.0% of full scale
±1.5 % or ±1.6 % of full scale

Scale range (MPa, kPa, bar)
0~30 kPa to 0~50 kPa
0~0.1 MPa to 0~1.5 MPa

Max. Working pressure (Static pressure)
25 MPa

Working temperature
Ambient : -20~65°C
Fluid : Max. 100°C

Degree of protection
EN60529/IEC529/IP56

Temperature effect
Accuracy at temperature above and below the reference temperature (20℃) will be effected by approximately ±0.5% per 10℃ of full scale

Standard features

Pressure connection
Stainless steel (316SS)

Element
Single Bellows
Stainless steel (316L SS)

Case
Black finished aluminium

Cover
Black finished aluminium
Screwed type

Window
Glass

Dial
White aluminium with black graduations

Conduit connection
M20x1.5P

Contact
Contact rating: AC 250 V 3 A / 125 V 5A
DC 250 V 0.2 A / 125 V 0.4 A / 30 V 4 A
Dielectric strength: AC 500 V /
MIN Type: Micro contact, One and two SPDT

Pointer
Black painted aluminium alloy

Process connection
¼" NPT(F)
½" NPT(F) at 3-way and 5-way manifold valve

Standard accessories
Mounting bracket for 2" pipe
mounting with silver gray finished steel

Optional
- Remote seal
- Mounting bracket with 316SS for 2" pipe mounting
- 3-way manifold valve (316SS, Monel)
- 5-way manifold valve (316SS, Monel)

Main order — Ordering information

1. Base model

P631	Indicating type differential pressure switch (Single contact)
P632	Indicating type differential pressure switch (Dual contact)

2. Nominal diameter (mm)

6	150

3. Type of mounting (Refer to mounting type & Dimension)

D	Bottom connection, mounting bracket for 2" pipe

4. Accuracy

3	±1.0% of full scale
4	±1.5 % or ±1.6 % of full scale

5. Process connection

C	¼" NPT(F)
E	½" NPT(F) (Only at 3-way and 5-way mainfold valve)

6. Mounting bracket

D	Standard bracket
E	304SS mounting bracket
F	316SS mounting bracket
W	Wall mounting bracket (316SS)

7. Unit

H	bar
I	MPa
J	kPa
S	mbar

8. Range

041	0~0.1 MPa
042	0~0.2 MPa
043	0~0.3 MPa
044	0~0.4 MPa
045	0~0.6 MPa
047	0~1 MPa
050	0~1.5 MPa
518	0~30 kPa, Not available with remote seal type
040	0~50 kPa

9. Conduit connection

0	None (STD M20X1.5P)
2	NPT ½"(F)
4	NPT ¾"(F)
Z	Other

10. Options

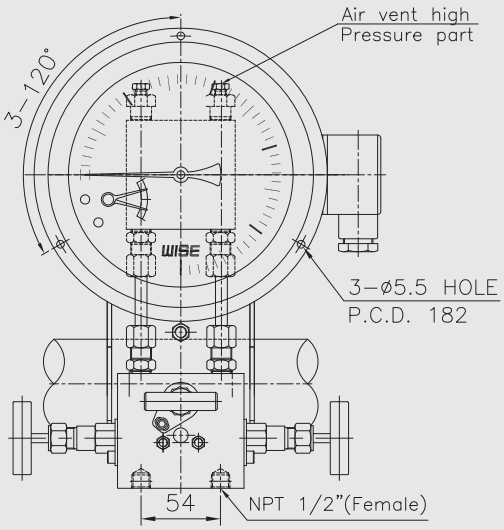
0	None
1	Accessories (3-way manifold valve)
2	Accessories (5-way manifold valve)

Sample ordering code

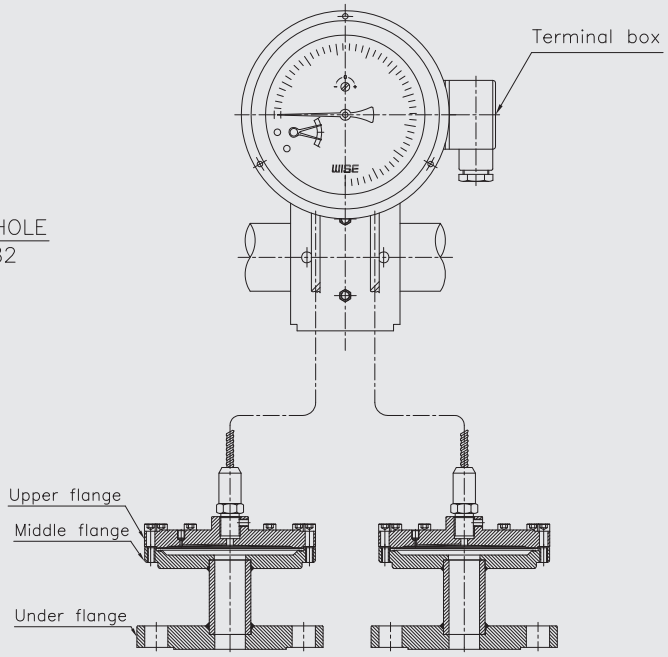
1	2	3	4	5	6	7	8	9	10
P631	**6**	**D**	**4**	**E**	**D**	**I**	**047**	**0**	**0**

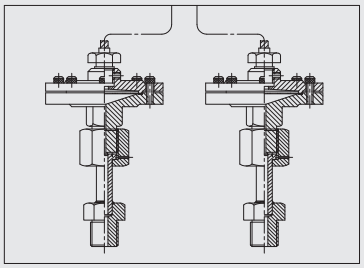
P631, P632 : Type of mounting

Code : P631, P632

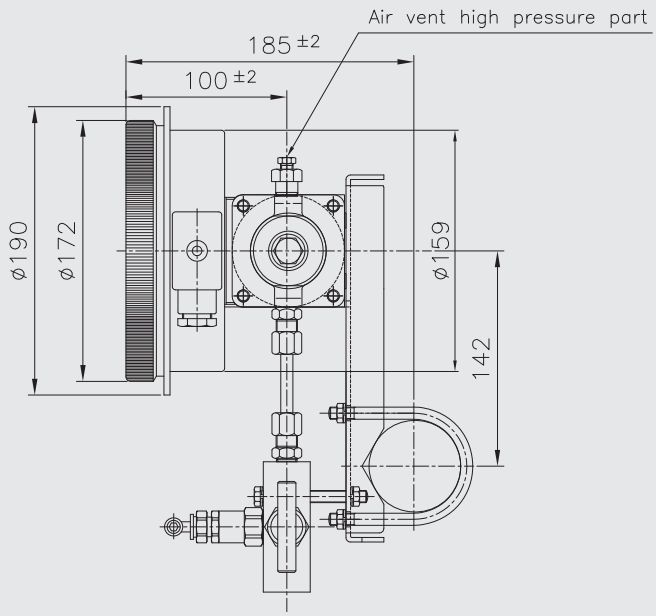


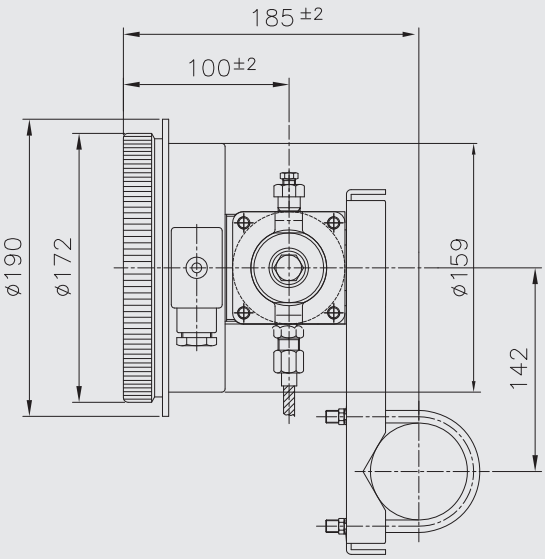
Code : P631, P632(Remote seal)





Staic pressure : 25 MPa





Micro contact

General

The micro contact has a large switching capacity with high repeat accuracy. The contact mechanism is a crossbar type with gold alloy contacts, which ensures highly reliable operations for micro loads.

Characteristics

Item	Micro switch
Operating speed	0.1 mm to 1 m/s
Mechanical operating frequency	400 operations/min
Insulation resistance	100 MΩ at 500 VDC
Contact resistance	50 MΩ max
Shock resistance	200 m/sec² max
Ambient temperature	-25~80 ºC
Ambient humidity	85 % RH

Specifications

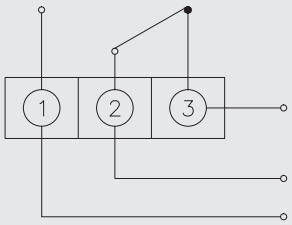
Rated voltage	Resistive load (A)		Inductive load (A)	
	NC	NO	NC	NO
125 V AC	5		3	
250 V AC	3		2	
8 V DC	5		5	4
14 V DC	5		4	4
30 V DC	4		3	3
125 V DC	0.4		0.4	0.4
250 V DC	0.2		0.2	0.2

SPDT switching element

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

One SPDT

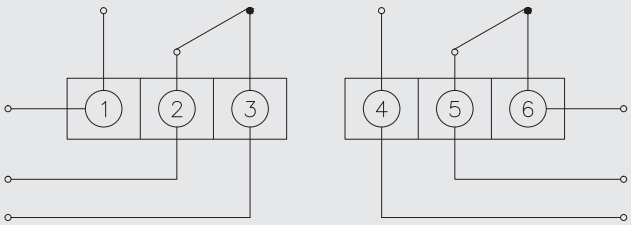
Pressure reach the upper or lower limit setpoint, circuit closed and opened.



①:NO ②:COM ③:NC

Two SPDT

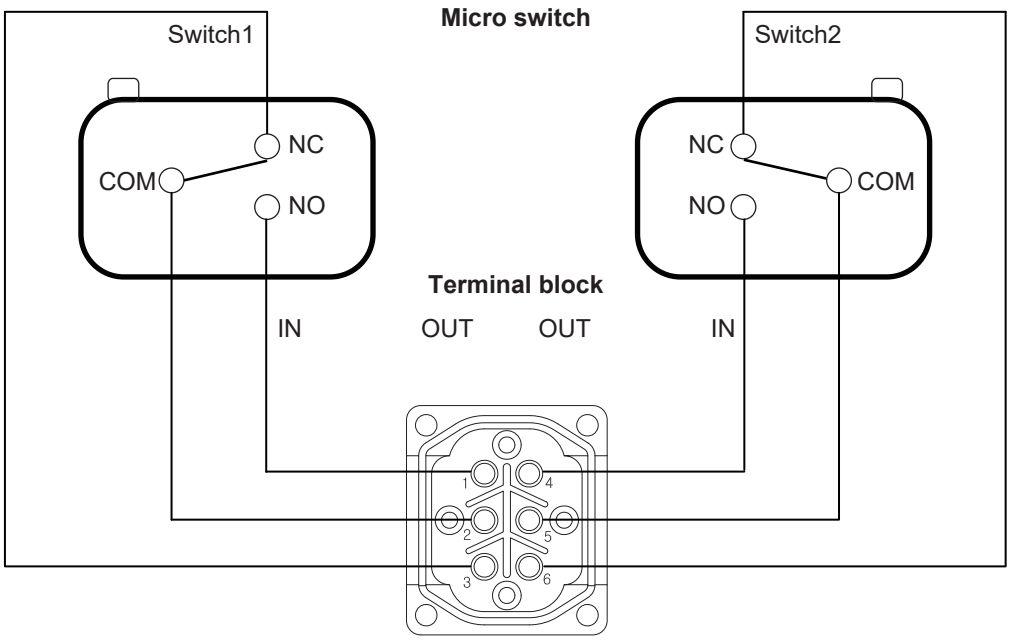
Pressure reach the upper or lower limit setpoint, two circuit simultaneous closed and opened.



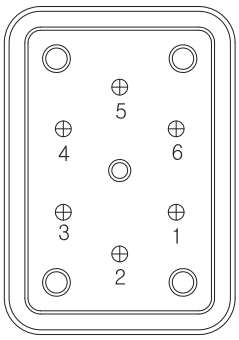
①,④:NO ②,⑤:COM ③,⑥:NC

NO : Normal open
NC : Normal close

Terminal block arrangement



	NO	COM	NC
Switch 1	1	2	3
	NC	**COM**	**NO**
Switch 2	4	5	6



1. High alarm
① Normal open
② Common
③ Normal close

2. High and low alarm
High alarm
① Normal open
② Common
③ Normal close

Low alarm
④ Normal open
⑤ Common
⑥ Normal close

3. Low alarm
① Normal open
② Common
③ Normal close

4. Two high alarm
No.1 High alarm
① Normal open
② Common
③ Normal close

No.2 High alarm
④ Normal close
⑤ Common
⑥ Normal open

5. Two low alarm
No.2 Low alarm
① Normal open
② Common
③ Normal close

No.1 Low alarm
④ Normal open
⑤ Common
⑥ Normal close

Memo