Indicating type differential pressure switch
Model: P631 series

Spec. sheet no. PD06-05

Service intended
The P631 series are designed to measure a differential pressure from 30 kPa to 1.5 MPa at static pressure up to 5 and 25 MPa and have electrical contact. These models are designed to control and alarm for a differential pressure, providing a right time to replace air and sludge filter during the process.

Nominal diameter
150 mm

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

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

Static pressure
5 MPa : Model P63X1
25 MPa : Model P63X2

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

Degree of protection
EN60529/IEC529/IP65

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
Bellows
Stainless steel (316L SS)

Case
Black finished aluminium

Bezel ring
ALDC12.1, Black painted
Screwed type

Window
Safety glass

Dial
White aluminium with black graduations

Pointer
Black painted aluminium alloy

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

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

Optional
- Remote seal
- ½" (N)PT female conduit connection
- ¾" (N)PT female conduit connection
- Mounting bracket with 316SS for 2" pipe mounting
- 3-way manifold valve (316SS, Monel)
- 5-way manifold valve (316SS, Monel)

Conduit connection
M20 x 1.5

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

Main order — Ordering information

1. Base model

P631	High alarm contact differential pressure switch
P632	High and low alarm contact differential pressure switch
P633	Low alarm contact differential pressure switch
P634	High and hi/high alarm contact differential pressure switch
P635	Low and lo/low alarm contact differential pressure switch

2. Static pressure

1	5 MPa
2	25 MPa

3. Type of mounting

D	Bottom connection, mounting bracket for 2" pipe

4. Accuracy

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

5. Process connection

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

6. Mounting bracket

D	Standard bracket
E	304SS mounting bracket
F	316SS mounting bracket
W	Wall mounting bracket (316SS)
N	None

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. Dial color

3	2 colors

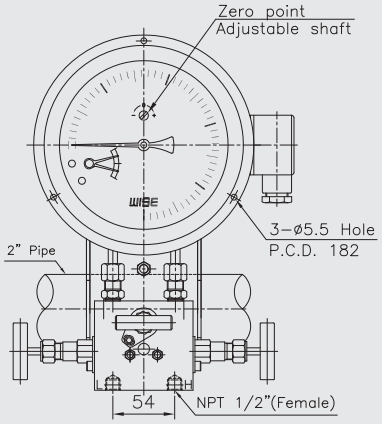
10. Options

0	None
1	Manifold valve
8	½" or ¾" NPT(F) conduit connection

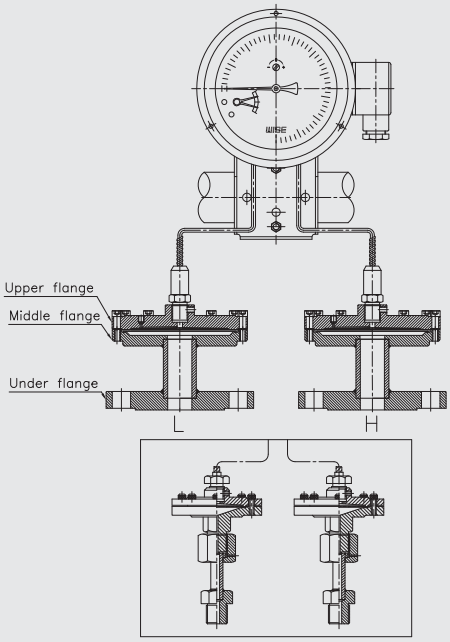
1	2	3	4	5	6	7	8	9	10	
P631	**1**	**D**	**4**	**E**	**D**	**I**	**047**	**3**	**1**	**Sample ordering code**

P63X : Type of mounting

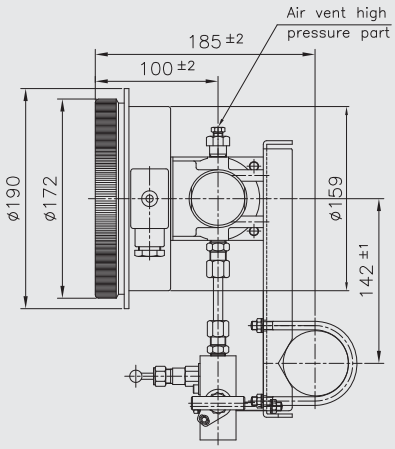
Code P641, 642, 643, 644, 645

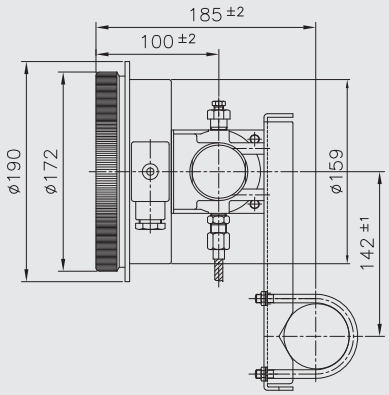


Code P641, 642, 643, 644, 645(Remote seal)

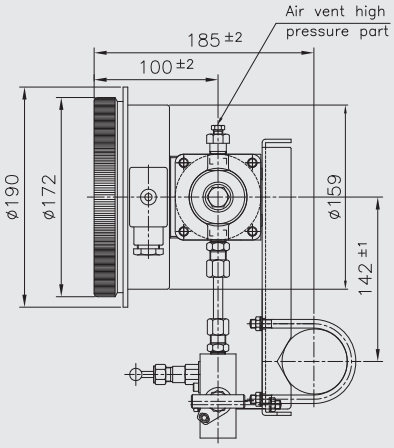


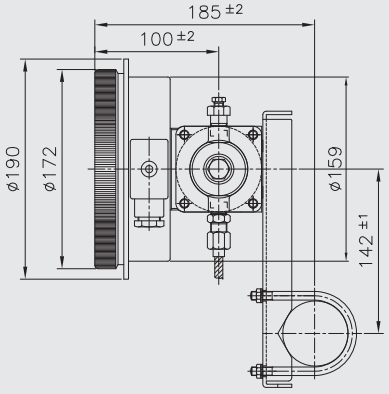
Staic pressure : 5 MPa



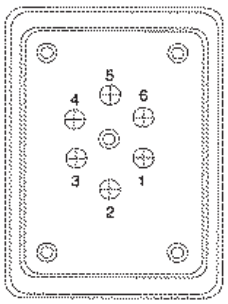


Staic pressure : 25 MPa





Terminal block arrangement



1. P631 (High alarm)

① Normal open
② Common
③ Normal close

2. P632 (High and low alarm)

High alarm	Low alarm
① Normal open	④ Normal open
② Common	⑤ Common
③ Normal close	⑥ Normal close

3. P633 (Low alarm)

① Normal open
② Common
③ Normal close

4. P634 (High and h/High alarm)

High alarm	High and high alarm
① Normal open	④ Normal open
② Common	⑤ Common
③ Normal close	⑥ Normal close

5. P635 (Low and l/Low alarm)

High alarm	Low and low alarm
① Normal open	④ Normal open
② Common	⑤ Common
③ Normal close	⑥ Normal close