

Euro gauge

Electrical contact type diaphragm pressure gauge

Model: P570 series

Spec. sheet no. PD05-08

Service intended

P570 series are equipped with a specially designed dry-type diaphragm, and also equipped with the electrical contact block which allows all the combinations of contact to be used. The contact block is mounted on the dial, and the window is fitted with a knob for the external adjustment or the set point.



Nominal diameter

100 and 160 mm

Accuracy

±1.0% of full scale

Scale range (MPa, kPa, bar)

0 ~ 1 kPa to 0 ~ 40 kPa (Flange 150 mm)

0 ~ 50 kPa to 0 ~ 2.5 MPa (Flange 100 mm)

Working pressure

Steady : Full scale value

Fluctuating : 90% of full scale value

Working temperature

Ambient : -20 ~ 65°C

Fluid : Max. 100°C

Degree of protection

EN60529/IEC529/IP67

Temperature effect

Accuracy at temperature above and below the reference temperature (20°C) will be effected by approximately ±0.4% per 10°C of full scale



Standard features

Upper flange (Gauge side)

Material : 304SS, 316SS

Diaphragm material

≤40 kPa stainless steel (316Ti SS)

> 40 kPa duratherm 600

Pressure connection and under flange

Material : 304SS, 316SS, 316L SS

Case

Stainless steel (304SS)

Cover

Stainless steel (304SS)

Bayonet type

Window

Safety glass : 100 mm only

Polycarbonate : 100 and 160 mm

Movement

Stainless steel

Dial

White aluminium with black graduations

Pointer

Black painted aluminium alloy

Conduit connection

M20 x 1.5

1. Base model**P571** Screwed process connection**P572** "I" type flange process connection**2. Nominal diameter and window material****4** 100 mm and safety glass**5** 100 mm and polycarbonate window**6** 160 mm and polycarbonate window**3. Contact function****1** High alarm, Normal open contact**2** High and low alarm**3** Low alarm, Normal close contact**4** High and hi/high alarm**5** Low and lo/low alarm**6** Failsafe high and low alarm**4. Process connection****XX** Refer to process connection type table**5. Flange material****B** 304SS**D** 316SS**E** 316L SS**6. Unit****H** bar**I** MPa**J** kPa**S** mbar**7. Range****XXX** Refer to pressure unit and range table**8. Liquid filling****0** None**9. Option****0** None**1** Accessories

1	2	3	4	5	6	7	8	9
P571	6	1	XX	D	H	XXX	0	0

Sample
ordering code

Snap - action contacts

General

Electromechanical limit switches in pointer type measuring instruments are auxiliary current switches which open or close electrical circuits at set limit values by means of a contact arm which is moved by the actual value pointer.

The snap action contact is a mechanical contact for switching capacities up to 30 W 50 VA max.

Contact making will be delayed and or advanced in relation to the movement of the actual value pointer.

To closed the circuit, the contact pin of the movable contact arm is attracted in a jump by the permanent magnet fastened to the supporting arm shortly before the set value has been reached.

Due to the retention force of the magnet, snap action contacts are more resistant against shock and vibration.

The switching safety is increased by the increased contact pressure.

When the circuit is opened, the magnet keeps the contact arm in its place until the restoring force of the measuring element exceeds the magnetic force, and the contact opens in a jump.

Specifications

Maximum contact rating with non-inductive (ohmic) load		Electric contacts type pressure gauge model P570 series	
		Dry gauges	Liquid filled gauges
Maximum voltage		250 V	250 V
Current ratings	Make ratings	1.0 A	1.0 A
	Break ratings	1.0 A	1.0 A
	Continuos load	0.6 A	0.6 A
Maximum load		30 W 50 VA	20 W 20 VA
Material of contact points		Silver-nickel alloy (80% Ag / 20%Ni / 10µm) gold-plated	
Ambient operating temperature		-20°C...+70°C	
Max. no. of contacts		2	
Voltage test		Circuit / protective earth conductor - 2,000 vac 1 minute	
		Circuit /circuit - 2,000 vac 1 minute	

Recommended contact ratings with ohmic and inductive load

Voltage (DIN IEC 38) DC / AC	Electric contacts type pressure gauge model P570 series					
	Dry gauges			Liquid filled gauges		
	Ohmic load		inductive load	Ohmic load		inductive load
	DC	AC	cosØ > 0.7	DC	AC	cosØ > 0.7
V	mA	mA	mA	mA	mA	mA
220 / 230	100	120	65	65	90	40
110 / 110	200	240	130	130	180	85
48 / 48	300	450	200	190	330	130
24 / 24	400	600	250	250	450	150

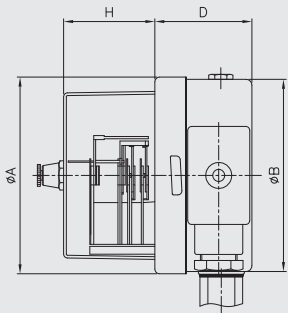
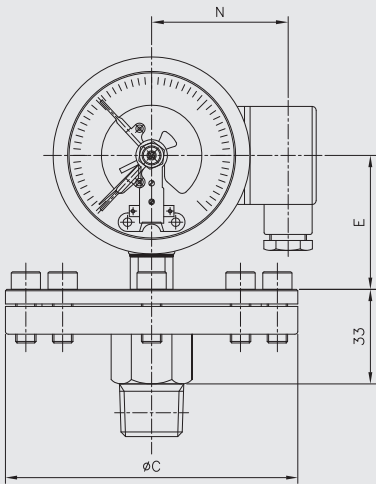
In order to ensure a high switching reliability of the contacts the switching voltage should not be below 24 V, also taking environmental influences in the long term into account.

Contact function table

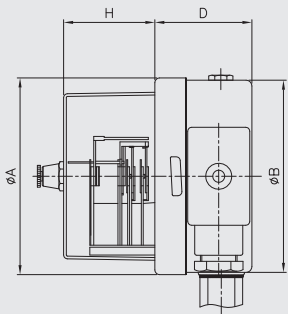
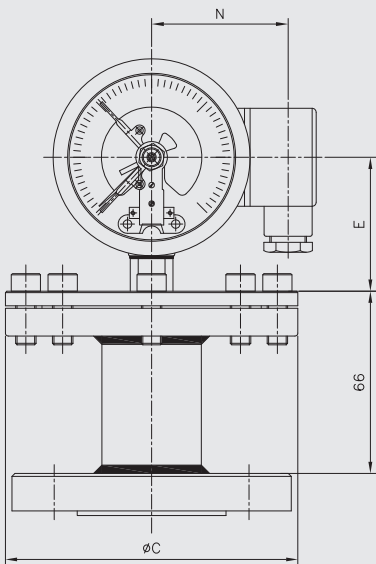
Code	Wiring scheme	Contact function		Wiebrock code no.	Slot sensor
		1 st contact	2 nd contact		
Single Contact					
1	Contact make when pointer reachse setpoint (Normal open - NO)			S/M-1	Normal use high alarm system
3	Contact break when pointer reachse setpoint (Normal close - NC)			S/M-2	Normal use low alarm system
Double Contact - Common Circuit					
4	1 st and 2 nd contact make when pointer reaches setpoint			S/M-11	Normal use high and hihigh alarm system
6	1 st contact make 2 nd contact break when pointer reaches setpoint			S/M-12	Normal use failsafe high and low alarm system
2	1 st contact break 2 nd contact make when pointer reaches setpoint			S/M-21	Normal use high and low alarm system
5	1 st and 2 nd contact break when pointer reaches setpoint			S/M-22	Normal use low and lolow alarm system

P57X : Type of mounting (Polycarbonate window 1/2)

P571



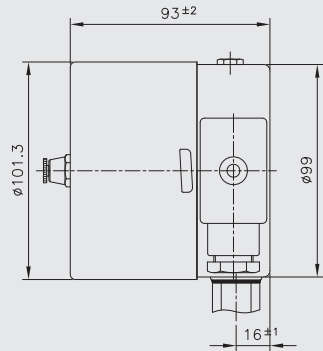
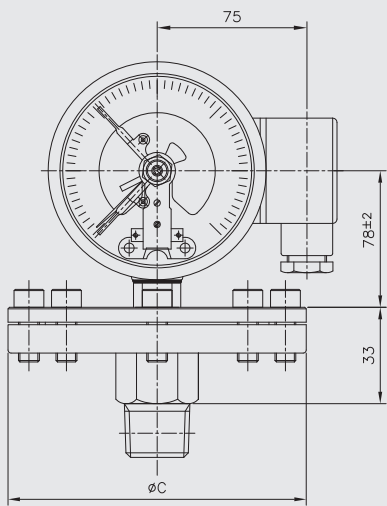
P572



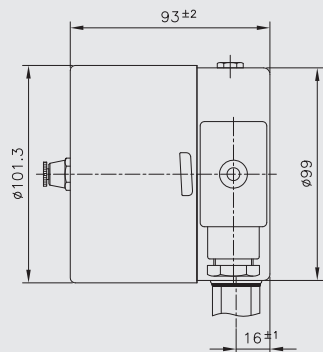
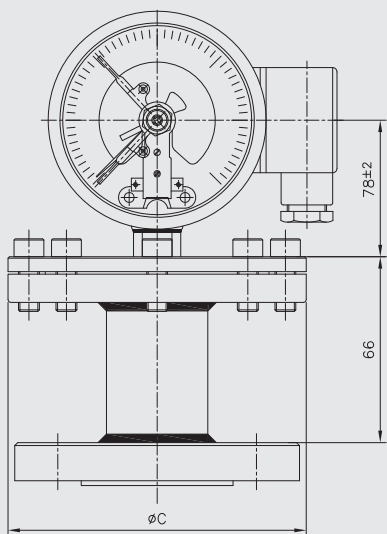
Dimensions (mm)							
Dial size	A	B	D±2	E±2	H	N	C
							≤ 40kPa > 40kPa
100	101.3	99	50	78	34.5	75	150 100
160	160.6	159	52.5	108	34	105	

P57X : Type of mounting (Safety glass window 2/2)

P571



P572



Dimensions (mm)

Dial size	C	
	≤ 40kPa	> 40kPa
100	150	100

Pressure unit and range table

Range and code	Unit and code				
	J : kPa	S : mbar	H : bar	I : MPa	Diaphragm material
797	0 ~ 1	0 ~ 10	X	X	316Ti (130Ø)
817	0 ~ 2.5	0 ~ 25	X	X	
826	0 ~ 4	0 ~ 40	X	X	
828	0 ~ 5	0 ~ 50	X	X	
830	0 ~ 6	0 ~ 60	X	X	
792	0 ~ 10	0 ~ 100	X	X	
810	0 ~ 16	0 ~ 160	X	X	
793	0 ~ 20	0 ~ 200	X	X	
818	0 ~ 25	0 ~ 250	X	X	
820	0 ~ 30	0 ~ 300	X	X	
130	0 ~ 40	0 ~ 400	0 ~ 0.4	X	Duratherm 600 (75Ø)
40	0 ~ 50	0 ~ 500	0 ~ 0.5	X	
131	0 ~ 60	0 ~ 600	0 ~ 0.6	X	
041	X	X	0 ~ 1	0 ~ 0.1	
042	X	X	0 ~ 2	0 ~ 0.2	
134	X	X	0 ~ 2.5	0 ~ 0.25	
043	X	X	0 ~ 3	0 ~ 0.3	
045	X	X	0 ~ 6	0 ~ 0.6	
143	X	X	0 ~ 16	0 ~ 1.6	
052	X	X	0 ~ 25	0 ~ 2.5	

O : Available X : Not available

Process connection type table - 8th and 9th characters

8 th character		9 th character			
Code	Connection size	For model P571		For model P572	
		Code	Connection type	Code	Flange rating
C *	1/4"	PF	PF	KA	JIS 5K RF
D *	3/8" (10A)	AB	PT	AC	ANSI 150 Lb RF
E	1/2" (15A)	AA	NPT	AE	ANSI 150 Lb FF
F	3/4" (20A)	FF	BSPT	AD	ANSI 150 Lb RFSF
G	1" (25A)	GG	BSPF	AF	ANSI 300 Lb RF
H	1 1/4" (32A)	HH	NPS	AH	ANSI 300 Lb FF
J	1 1/2" (40A)	JJ	M	AG	ANSI 300 Lb RFSF
K	2" (50A)			AJ	ANSI 600 Lb RF
L	2 1/2" (65A)			KT	JIS 5K FF
M	3" (80A)			AL	ANSI 600 Lb FF
N	4" (100A)			AK	ANSI 600 Lb RFSF
Z	Other			KL	JIS 10K RF
				KN	JIS 10K FF
				KM	JIS 10K RFSF
				KP	JIS 20K RF
				KR	JIS 20K FF
				KQ	JIS 20K RFSF
				KC	JIS 30K RF
				KU	JIS 30K FF
				KJ	JIS 30K RFSF
				AS	ANSI 900 Lb RF
				KD	JIS 40K RF
				KV	JIS 40K FF
				A8	ANSI 150 Lb RTJ
				A9	ANSI 300 Lb RTJ
				AV	ANSI 600 Lb RTJ
				ZZ	Other