

Density monitoring system

Model: P580 series

Spec. sheet no. PD05-09

Service intended

P580 series are designed to monitor the gas density of closed SF₆ tank (for switchgear). It is capable of the measuring real time status of SF₆ gas density. These series are equipped with the relay contact which has the three configurable independent units to sense and measure the instantaneous pressure rise.



Display

Analog indicator, operation and alarm status LED

Accuracy

±1.0% at ambient temperature +20°C (Indicator)
±2.5% at ambient temperature -20°C / +60°C (Indicator)
±0.25% at ambient temperature 0°C ~ +50°C (Current output)

Scale range

-0.1 ~ 0.1 MPa to -0.1 ~ 1.2 MPa

Working temperature

Ambient : -20 ~ 65°C (Gas phase)
Storage : -50 ~ 60°C maximum

System configuration

HART communication

Degree of protection

EN60529/IEC529/IP67



Standard features

Mechanical

Pressure connection

Stainless steel (316SS)

Element

Stainless steel (316SS)
C-type bourdon tube

Case and cover

Stainless steel (304SS)
Bayonet type

Window

Safety glass

Movement

Stainless steel (304SS)
Bimetal link (Temperature compensation)

Pointer

Black painted aluminium alloy

Process connection

G $\frac{1}{2}$ "

Helium leak rate

Tested to confirm leakage rates of less than
10⁻⁸ mbar.L/sec

Electrical

Input power and current consumption

12 ~ 36 V DC input, Max. 60 mA@DC 24 V

Display

Operating and alarm status LED

Parameter input

HART configurator

Output

Current output (4 ~ 20 mA, DC)
One instantaneous pressure rising alarm relay
Three pressure limit alarm relay

Relay contact rate

Contact resistance : Max. 70MΩ
Contact rating : 2 A 30 VDC, 0.5 A 125 DC (Res.load)
Max switching voltage : 220 VDC / 250 VAC
Max switching power : 60 W / 62.5 VA

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1. Base model

P580 Gas density monitoring system

2. Contact

- 1 Single contact
- 2 Double contact (seperated circuit)
- 3 Triple contact (seperated circuit)

3. Type of mounting

- A Bottom connection, direct
- B Bottom connection, case mounting plate
- G Lower back connection, direct
- L Lower back connection, 4 hole bracket

4. Accuracy

- 3 ± 1.0 % of full scale at ambient temperature +20°C (Indicator)
 ± 0.25 % of full scale at ambient temperature
 0°C ~ 50°C (current output)

5. Connection type

EI G½"

6. Unit

- H bar
- I Mpa
- J kPa

7. Range

- 007 -0.1 ~ 0.15 MPa
- 014 -0.1 ~ 0.9 MPa
- 029 -0.1 ~ 0.3 MPa
- 030 -0.1 ~ 0.4 MPa
- 031 -0.1 ~ 0.6 MPa
- 000 Special range

8. Pressure connection material and dial colors

- 7 316SS and 5 colors

9. Option

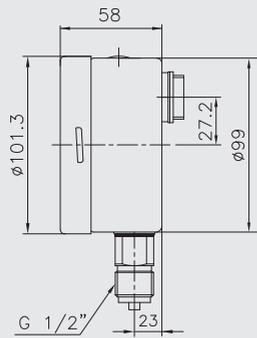
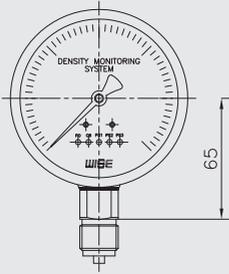
- 0 None
- 1 Special requirement

1	2	3	4	5	6	7	8	9
P580	2	B	3	EI	H	014	7	0

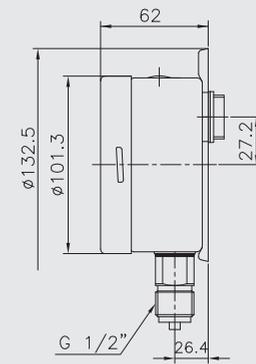
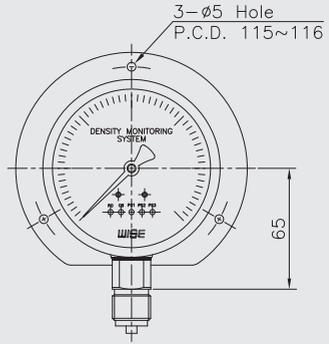
Sample
ordering code

P580 : Type of mounting

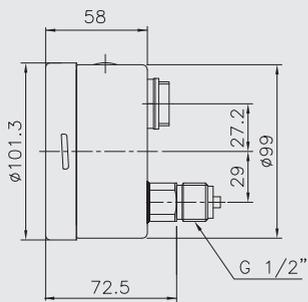
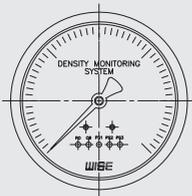
Code A



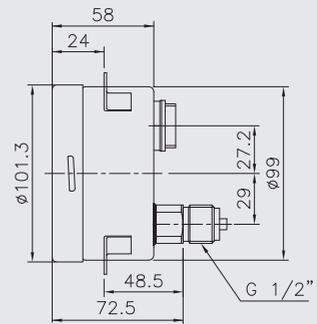
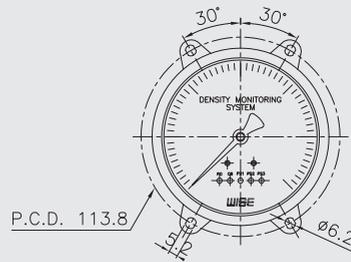
Code B



Code G



Code L



Large empty rectangular area for writing or drawing.