

P401 Series

Explosion Proof Pressure Transmitter



◆ Feature

- Compact designed terminal Stainless Steel head
- Excellent corrosion and abrasion resistances
- Measuring ranges from 0~0.01 to 200 MPa gauge pressure
- Piezo resistive silicon or thin film sensor.
- High accuracy and low temperature drift
- Shock and vibration resistance
- Competitive price
- Micro processor based circuit
- Automatic zero setting of convenient push button method

◆ Applications

- Hydraulic and pneumatic equipments
- Process control and monitoring
- Machine tools and automatic machinery
- Construction equipments and automotive industries
- Metrology and hydrometry
- Servo valves and drives
- Chemical and petrochemical industries
- Air and gas compressors
- Loading devices and brake systems
- Water resource management
- Flow detection
- Liquid level measurement

Input

Pressure Range	0.01 to 200 MPa
Pressure reference	Gauge, absolute, vacuum and compound
Overload	2 × Rated range

Output

Current output signal	4~20mA DC 2-wire technique
Voltage output signal	1~5V DC 3wire technique(option)
	other output signal available on request

Electrical Specifications

Power supply	12~36V DC
Load resistance max	500 Ω at 24 V
Influence of excitation	0.01% FSO/V
Power ripple	$\leq 500\text{mV}$ P-P
Reverse Polarity	Protected
Response time(10~90%)	≤ 20 milliseconds

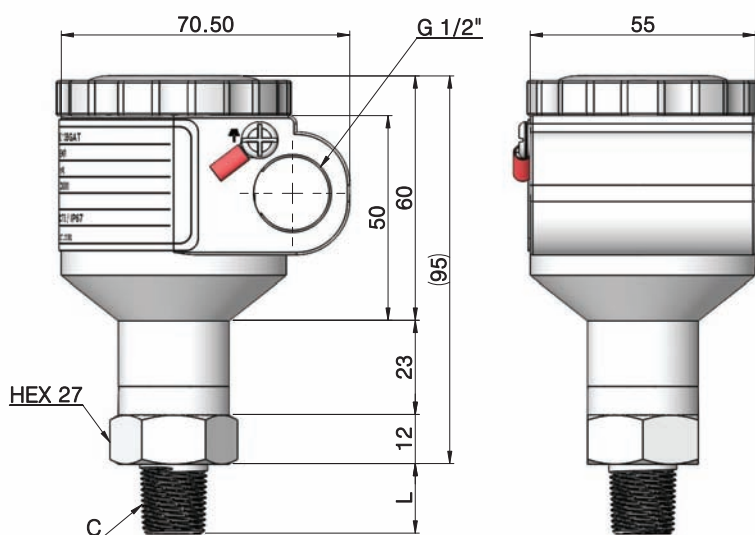
Performance Specifications

Accuracy	$\leq \pm 0.25\%$ FSO
Non-linearity	$\pm 0.100\%$ FSO typical $\pm 0.15\%$ FSO
Repeatability	$\pm 0.015\%$ FSO typical $\pm 0.10\%$ FSO
Pressure hysteresis	$\pm 0.010\%$ FSO typical $\pm 0.10\%$ FSO
Long term stability	$\pm 0.1\%$ FSO over 6month
Reference temperature	25 °C
Operating temperature range (Process)	-20 ~ 100 °C
Ambient temperature	-20 ~ 40 °C
Compensated temperature range	0 ~ 50 °C
Thermal sensitivity shift	$\leq \pm 0.2\%$ FSO in reference to 25 °C typical
Thermal zero shift	$\leq \pm 0.2\%$ FSO in reference to 25 °C typical
Thermal hysteresis	$\leq \pm 0.1\%$ FSO in reference to 25 °C typical

Physical Specifications

Process connection	PT 1/2", PT 3/8", PT 1/4" male thread Other connections available on request
Electrical connection	Cable gland port(Exlosion grade) : PF 1/2" Female (Cable gland : Ex d IIC T6 Above Grade)-2EA, Terminal
Process media	Compatible with stainless steel 316
Materials	Wetted parts : Stainless steel 316, Other Stainless steel 304 Housing & cover : Stainless steel 304
Enclosure rating	IP67
Explosion protection	Ex d IIC T6 (방호장치 의무안전인증 고시 / 고용노동부고시 제 2013-54 호, 개정일자 2013.12.18)
Weight	Approx. (0.8 kg)
Option	Sealed diaphragm with thread connection, Sealed diaphragm with flange mounting, siphon tube, Sealed diaphragm with remote
Shock resistance	No change in performance after 10gs for 11ms
Vibration	0.1g(1/M/s/s) maximum

Dimension(mm)



Electric Connection



Process Connection

C	L
PT 1/4"	14
PT 3/8"	17
PT 1/2"	19
UNF7/16"	14

Ordering Information

P 4 0 1 H 0 0 1 5 K G E T

Model Name

P401 : High accuracy ($\pm 0.25\%$)

Pressure Range

Refer to pressure range code
Select from the [next page](#)

Pressure Unit

M:MPa
B:bar
P:psi
K:kgf/cm²
H:mmH₂O
G:mmHg
T:torr

Pressure Type

G:Gauge
C:Compound
V:Vacuum
A:Absolute

Process Connection

A : PT3/8" H : PT1/4"(F)
B : PF3/8" I : PT3/8"(F)
C : PT1/4" J : PT1/2"(F)
D : PF1/4" P : NPT1/4"(F)
E : PT1/2" Q : NPT3/8"(F)
F : PF1/2" R : NPT1/2"(F)
N : NPT1/2" V : VCR1/4"
M : NPT3/8" W : VCR1/2"
L : NPT1/4" X : M20 x 1.5
O : Others

Electric Connection

T:Terminal

Out Put

H:2wire 4~20mA

— Pressure Range Code

CODE	kgf/cm ²	bar	psi	MPa
0001	0~1	0~1	0~15	0~0.1
0003	0~3	0~3	0~45	0~0.3
0005	0~5	0~5	0~70	0~0.5
0006	0~6	0~6	0~90	0~0.6
0010	0~10	0~10	0~150	0~1
0015	0~15	0~15	0~200	0~1.5
0020	0~20	0~20	0~300	0~2
0025	0~25	0~25	0~350	0~2.5
0030	0~30	0~30	0~450	0~3
0035	0~35	0~35	0~500	0~3.5
0050	0~50	0~50	0~700	0~5
0070	0~70	0~70	0~1000	0~7
0100	0~100	0~100	0~1500	0~10
0200	0~200	0~200	0~3000	0~20
0250	0~250	0~250	0~3500	0~25
0300	0~300	0~300	0~4500	0~30
0350	0~350	0~350	0~5000	0~35
0500	0~500	0~500	0~7000	0~50
0700	0~700	0~700	0~10000	0~70
1000	0~1000	0~1000	0~15000	0~100
2000	0~2000	0~2000	0~28000	0~200
V0000	-76~0 cmHg	-1013~0 mbar	-30~0 inHg	-0.1~0
V0001	-76 cmHg~1	-1013 mbar~1	-30 inHg~15	-0.1~0.1
V0002	-76 cmHg~2	-1013 mbar~2	-30 inHg~30	-0.1~0.2
V0003	-76 cmHg~3	-1013 mbar~3	-30 inHg~45	-0.1~0.3
V0004	-76 cmHg~4	-1013 mbar~4	-30 inHg~60	-0.1~0.4
V0006	-76 cmHg~6	-1013 mbar~6	-30 inHg~90	-0.1~0.6
V0010	-76 cmHg~10	-1013 mbar~10	-30 inHg~150	-0.1~1
V0015	-76 cmHg~15	-1013 mbar~15	-30 inHg~200	-0.1~1.5
V0020	-76 cmHg~20	-1013 mbar~20	-30 inHg~300	-0.1~2
L0600	0~600 mmH ₂ O	0~60mbar	0~0.9	0~0.006
L1000	0~1000 mmH ₂ O	0~100mbar	0~1.5	0~0.01
L2000	0~2000 mmH ₂ O	0~200mbar	0~3	0~0.02
L3000	0~3000 mmH ₂ O	0~300mbar	0~4.5	0~0.03
L4000	0~4000 mmH ₂ O	0~400mbar	0~5.5	0~0.04
L5000	0~5000 mmH ₂ O	0~500mbar	0~7	0~0.05
00000	Other Range			