

# Application Work Sheet (Pressure)

Quotation

Purchase Order

For better support to the customer, please fill this form out when you request a quotation or place an order. It will help us to provide you the correct solution and minimize a risk which is our goal for the customer.

## General Information

Client \_\_\_\_\_ Date \_\_\_\_\_  
Name \_\_\_\_\_ End-User \_\_\_\_\_  
TEL. No. \_\_\_\_\_ Project \_\_\_\_\_  
FAX. No. \_\_\_\_\_ Required delivery \_\_\_\_\_  
Model \_\_\_\_\_  
Quantity \_\_\_\_\_

## Performance Specifications

Pressure Range \_\_\_\_\_  
Operating Range \_\_\_\_\_  
Measuring Unit  MPa  bar  kPa  mmHg  mmH2O  mbar  
Pressure reference  kgf/cm2  Torr  psi  °C  °F  
Output Signal  mV/V  4 ~ 20 mA  1 ~ 5 V  0 ~ 10 V  
Power Supply  24 V DC  12 V DC

## Physical Specifications

Process Connection  PT 1/4"  PT 3/8"  PT 1/2"  G1/4"  G1/2"  
 PF 1/4"  PF 3/8"  PF 1/2"  NPT1/4"  NPT1/2"  
 Flush 1/2"  Flush 3/4"  Flush 1"  
 40A Flange  50A Flange  80A Flange  100A Flange  
 Sanitary Diaphragm \_\_\_\_\_  Other \_\_\_\_\_  
Electrical Connection  Terminal  DIN 43650  M12 Connector  Cable(1,5 m)  
Local Display Unit  None  LCD  LED

## Process Conditions

Process Media \_\_\_\_\_  
Operating Temperature \_\_\_\_\_  
Humidity \_\_\_\_\_  
Vibration \_\_\_\_\_  
Explosion Protection  Required  No required  
Weather Protection  Required  No required

# Pressure Range Code

CODE	kgf/cm <sup>2</sup>	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 mmH2O	0~60 mbar	0~0.9	0~0.006
L1000	0~1000 mmH2O	0~100 mbar	0~1.5	0~0.01
L2000	0~2000 mmH2O	0~200 mbar	0~3	0~0.02
L3000	0~3000 mmH2O	0~300 mbar	0~4.5	0~0.03
L4000	0~4000 mmH2O	0~400 mbar	0~5.5	0~0.04
L5000	0~5000 mmH2O	0~500 mbar	0~7	0~0.05
00000	Other Range			

# P601N Series Digital Pressure Switch & Transmitter



## Feature

- High reliability digital pressure switch & transmitter with local display for industrial application
- Measuring ranges from 0~0.01 to 100 MPa
- Advanced piezoresistive or SOS silicon sensitive pressure sensor
- Long term stability
- Customized LCD display with backlight
- Ex d II C T6 / KGS
- 의장등록 제30-0366814호

## Applications

*The P601N series pressure Switch & transmitter is ideal for measurements which require a local display and a need to remote data acquisition equipment in industrial applications.*

- Hydraulic and pneumatic system
- Regulation system of transmission line LPG and LNG
- Machine tools and automatic machinery
- Oil and off-shore industry
- Equipments for chemical petrochemical industry
- Automation system and plant engineering

Input	
Technology	Advanced piezoresistive or SOS silicon sensitive pressure sensor
Pressure range	0 ~ 0.01 to 100 MPa Gauge, Vacuum or Compound pressure
Pressure reference	0 ~ 0.1 to 3.5 MPa Absolute pressure
Overload pressure	Gauge, including vacuum and compound and absolute 1.5 times of F.S. (Max. 100 MPa)

Output	
Current out put signal	4 to 20 mA DC
Relay out put	2 x SPDT(5 A @ 30 V DC, 0.5 A @ 125 V AC)
Local display	Customized LCD with backlight
	Other out put signal available on request
	Voltage output 3 or 4 Wire technique

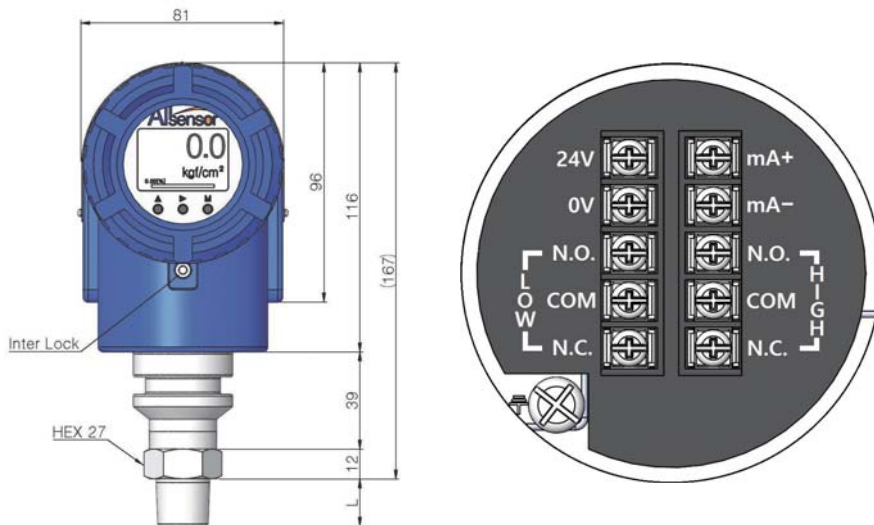
Electrical Specifications	
Power supply	24 V DC
Load resistance max@24 V	500 Ω at 24 V
Power ripple	≤ 500 mV P-P
Insulation resistor	≥ 20 MΩ, 25 V DC

Performance Specifications	
Accuracy	≤ ± 0.25 % F.S.
Non-linearity	± 0.05 % F.S. typical
Repeatability	± 0.02 % F.S. typical
Pressure hysteresis	± 0.02 % F.S. typical
Long term stability	± 0.05% F.S. over 1 year
Response time(10 % to 90 %)	≤ 20 ms
Reference temperature	25 °C
Working temperature range(Process)	-40 ~ 120 °C
Compensated temperature range(Process)	-10 ~ 80 °C
Ambient temperature range	-20 ~ 60 °C
Thermal sensitivity shift	≤ ± 0.05 % F.S. in reference to 35 °C typical
Thermal zero shift	≤ ± 0.05 % F.S. in reference to 35 °C typical

**Physical Specifications**

Process connection	Rc(PT) 3/8" (M) standard Other connections available on request
Process media	Gases and liquids compatible with STS 316L
Materials	Wetted parts : STS 316L Housing & rear cover : Aluminum Die-casting(Al-remainder, Si-10.682 Fe-0.722, Cu-2.102, Mn-0.177, Mg-0.246, Sn-0.028, Ni-0.035, Zn-0.978, Ti-0.017, Zr-0.001, Pb-0.005) Front cover : Aluminum Die-casting & Tempered glass adhesion assembly(Cemented joint, Loctite243)
Enclosure rating	IP67
Explosion protection	Exd II C T6 (방호장치 의무안전인증 / 고용노동부고시 제2013-54호)
Vibration	0.1 g(1/M/s/s) Maximum
Weight	Approx.(1.5 kg)

**Dimension(mm)**

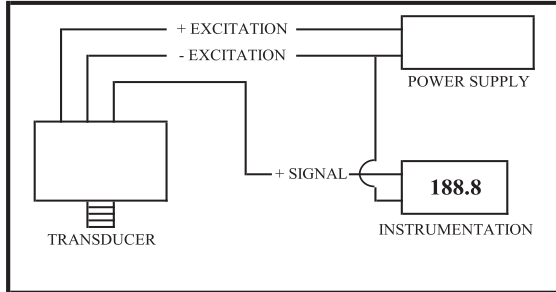


**Ordering Information**

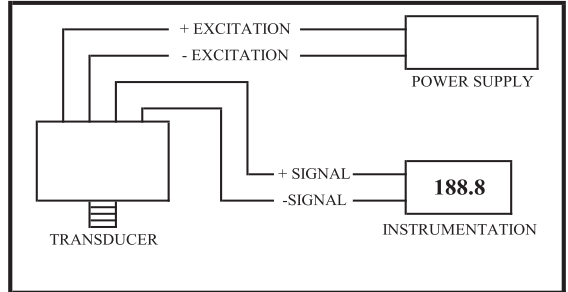
<b>P</b>	<b>6</b>	<b>0</b>	<b>1</b>	<b>N</b>	<b>G</b>	<b>H</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>M</b>	<b>P</b>	<b>E</b>	<b>T</b>	
<b>Model Name</b> P601N : Digital Pressure Switch & Transmitter						<b>Pressure Range</b> Refer to pressure range code				<b>Pressure Unit</b> M : MPa    H : mmH2O B : bar    G : mmHg P : psi    T : torr K : kgf/cm²		<b>Process Connection</b> A : PT3/8"    G : M20 x 1.5P B : PF3/8"    L : NPT 1/4" C : PT1/4"    M : NPT 3/8" D : PF1/4"    N : NPT 1/2" E : PT1/2"    V : VCR1/4" F : PF1/2"    W : VCR1/2" O : Others			
<b>Pressure Type</b> A : Absolute / G : Gauge						<b>Out Put</b> H : 2Wire 4-20 mA				<b>Pressure Sensor</b> P : Piezo-Resistive H : SOS S : Strain gauge		<b>Electrical Cable Entry</b> T : G(PF) 1/2" Female			

# Pressure Transducer & Transmitter

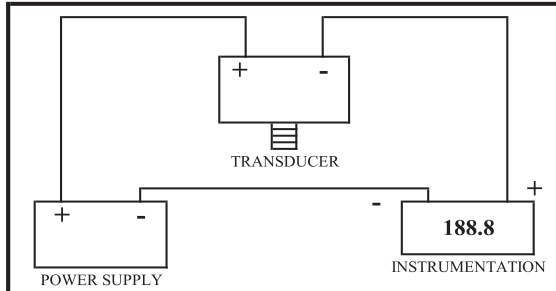
## Installation and Wiring



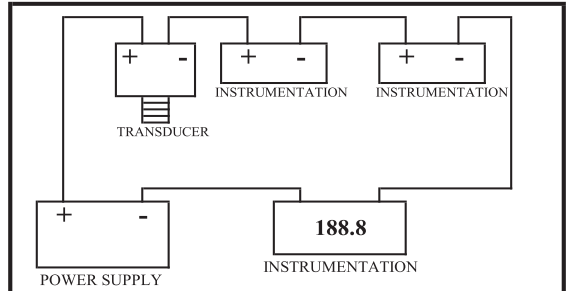
**3Wire Configuration for voltage output Transducer**  
 ("-"Excitation and "-"Signal Are Common)



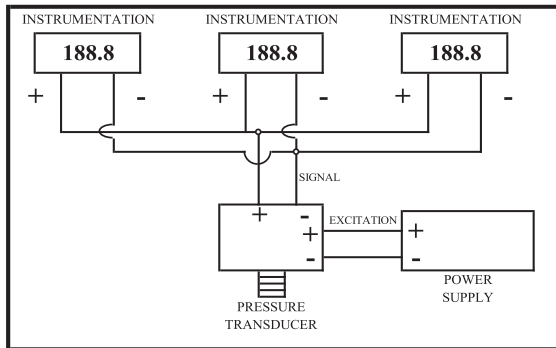
**4Wire Configuration Millivolt Output Transducer**



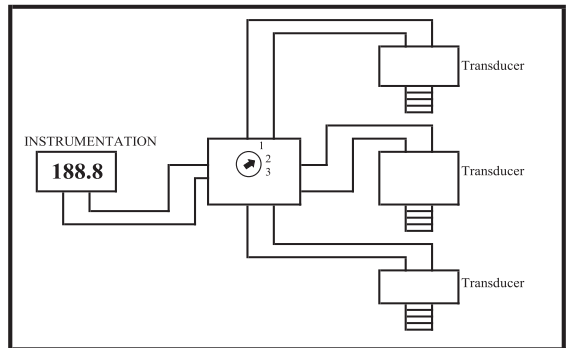
**2Wire Configuration for Current output Transducer**



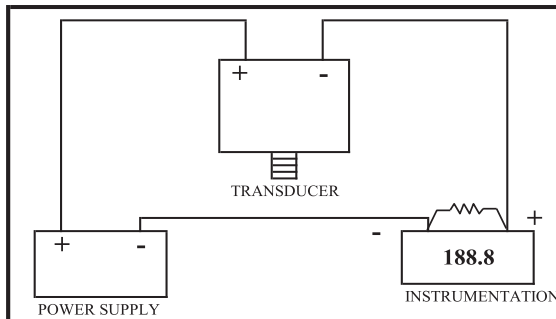
**Multi-instrument 4-20mA Current Loop**  
 (Panel Meters, Chart Recorder, Computers, etc)



**Multiple Instruments Wired In Parallel to a Voltage Output**



**Multiple Transducer Wired to One Meter and One Switch**  
 (Transducer With Built-in Zero & Span Adjustments, Same outputs & Same Pressure Range)



**Converting Current Into Voltage For Instrumentation Set Up For Voltage**