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 ☐ ℃ ☐ ℉
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/cm²	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			

P201 Series General Purpose Pressure Transmitter

Feature

- General purpose pressure transmitter for industrial applications
- Measuring ranges from 0~0.01 to 100 MPa, including vacuum & compound
- Advanced Piezoresistive or SOS measuring cell
- All welded structure(Except < 1 bar)
- Excellent accuracy and long term stability

Applications

Wide range of applications such as process control and below.

- Hydraulic system and pneumatic equipments
- Freon and ammonia refrigerator
- Machine tools and automatic machinery flow control
- On and off-shore industry
- Chemical and petrochemical industry
- Engine monitoring and control
- Fire fighting equipments and braking system for railway

Input

Technology	Piezoresistive silicon pressure sensor, thin film or strain gauge
Pressure range	0 ~ 0.01 to 100 MPa Gauge, Vacuum or Compound pressure
	0 ~ 0.1 to 3.5 MPa Absolute pressure
Pressure reference	Gauge, including vacuum, compound and absolute
Overload pressure	1.5 times of F.S. (Max. 100 MPa)

Output

	Current output		Voltage output	
Electrical connection type	2Wire technique		3 or 4 Wire technique	
Full scale output signal	20 mA	± 0.05 %	5 V	± 0.05 %
Zero measured output	4 mA	± 0.03 %	1 V	± 0.03 %
	Other signals available on request			

Electrical Specifications

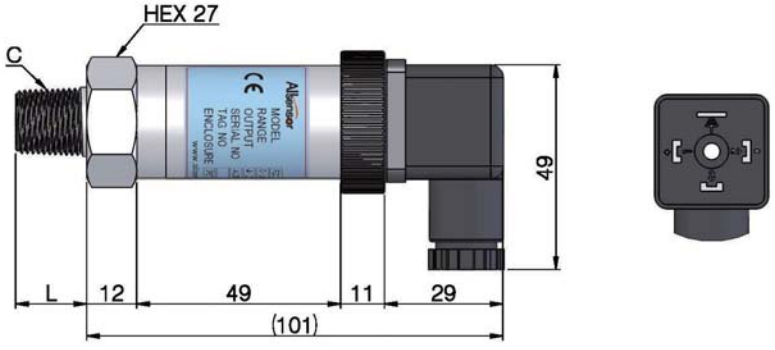
Power supply	12 ~ 36 V DC (It is not free voltage)
Load resistance max@24 V	500 Ω at 24 V
Power ripple	≤ 500 mV P–P
Insulation resistor	≥ 20 MΩ, 25 V DC

Perfirmance Specifications

Accuracy	≤ ± 0.25 % F.S.
Non–linearity	± 0.100 % F.S. typical
Repeatability	± 0.03 % F.S. typical
Pressure hysteresis	± 0.03 % F.S. typical
Long term stability	± 0.1 % F.S. over 1 year
Response time (10 % to 90 %)	≤ 20 ms
Refernce temperature	25 ℃
Working temperature range (Process)	–40 ~ 120 ℃
Compensated temperature range(Process)	–10 ~ 80 ℃
Ambient temperature range	–20 ~ 60 ℃
Thermal sensitivity shift	≤ ± 0.1 % F.S. in reference to 35 ℃ typical
Thermal zero shift	≤ ± 0.1 % F.S. in reference to 35 ℃ typical

Physical Specifications	
Process connection	Rc(PT) 3/8" (M) standard
	Female thread & other connections are available on request.
Electrical connection	DIN 43650, Cable or M12 X 1.0 connector
Process media (fluid)	Gases and liquids compatible with STS 316L
Materials wetted by process	STS 316
	Stainless steel (housing – non wetted part)
Enclosure rating	IP65
Influence of mounting position	Not critical
Weight	Approx. 250g
Option	Remote or Flush Diaphragm Seal

Dimension(mm)



Process Connection		Output	mV	V, mA	V, mA	mA
		Wire	4 Wire	4 Wire	3 Wire	2Wire
C	L	①, Red	Excitation +	Power +	Power +	Power +
PT 1/4"	14	②, Black	Excitation –	Power –	Common	Return –
PT 3/8"	17	③, Green	Signal +	Signal +	Signal +	
PF 1/2"	18	④, White	Signal –	Signal –		
UNF7/16"	14	Power	V	12~33 V DC		

Ordering Information

P	2	0	1	G	H	0	0	1	0	M		P		A		D

Model Name
P201 :
General Pressure Transmitter

Pressure Type
A : Absolute
G : Gauge

Out Put
H : 2Wire 4~20 mA
A : 4Wire mV
C : 3Wire 0~5 V
E : 3Wire 1~5 V
F : 4Wire 4~20 mA
J : 3Wire 0~10 V DC
K : 4Wire 0~10 V DC

Pressure Range
Refer to pressure range code

Pressure Unit
M : MPa
B : bar
P : psi
K : kgf/cm²
H : mmH_2O
G : mmHg
T : torr

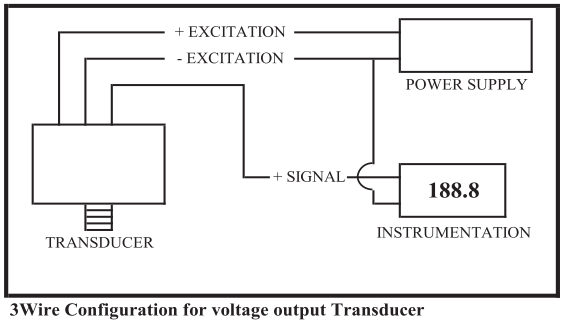
Pressure Sensor
P : Piezo-Resistive
H : SOS
T : Tantalum Diaphragm

Process Connection
A : PT3/8"
B : PF3/8"
C : PT1/4"
D : PF1/4"
E : PT1/2"
F : PF1/2"
O : Others
G : M20 x 1.5P
L : NPT 1/4"
M : NPT 3/8"
N : NPT 1/2"
V : VCR 1/4"
W : VCR 1/2"

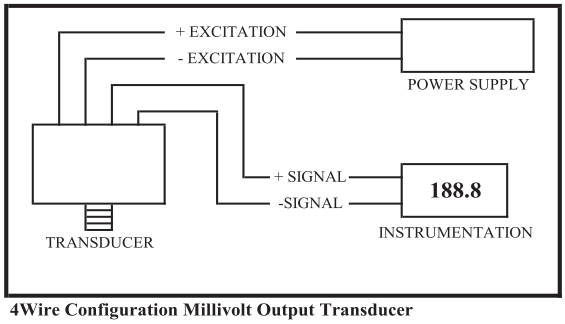
Electric Connection
D : DIN 43650
C : Cable
M : M12 Connector

Pressure Transducer & Transmitter

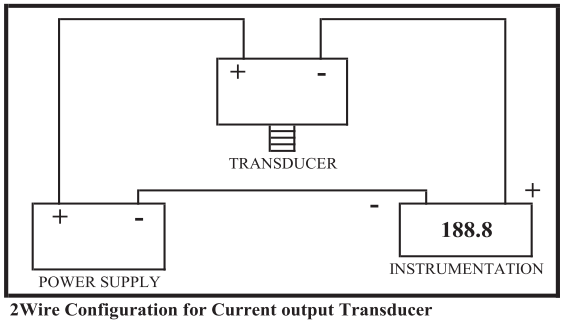
Installation and Wiring



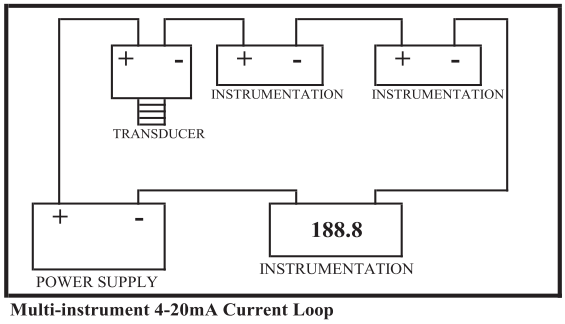
3Wire Configuration for voltage output Transducer ("-"Excitation and "-"Signal Are Common)



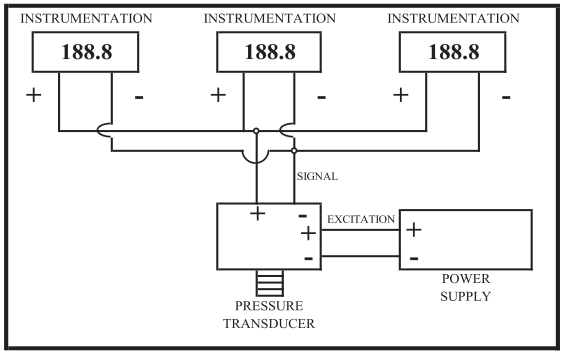
4Wire Configuration Millivolt Output Transducer



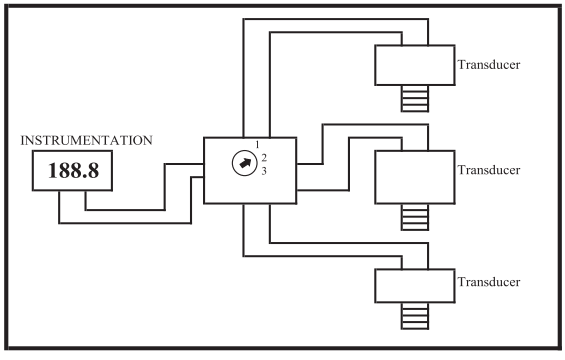
2Wire Configuration for Current output Transducer



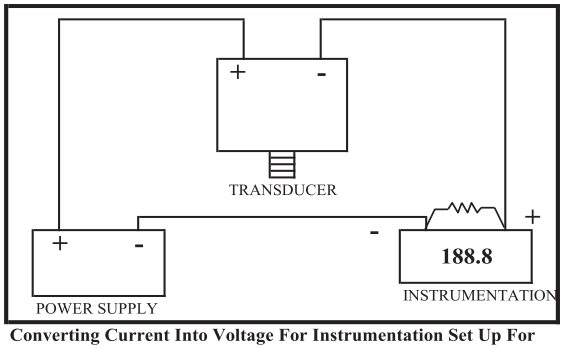
Multi-instrument 4-20mA Current Loop (Panel Meters, Chart Recorder, Computers, etc)



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