

Custom-made Pressure Transmitter

VMS series

Low-cost, custom-made pressure transmitters (pressure sensors with built-in amplifier) available at a minimum order quantity of 50 units per lot.

High Cost Performance

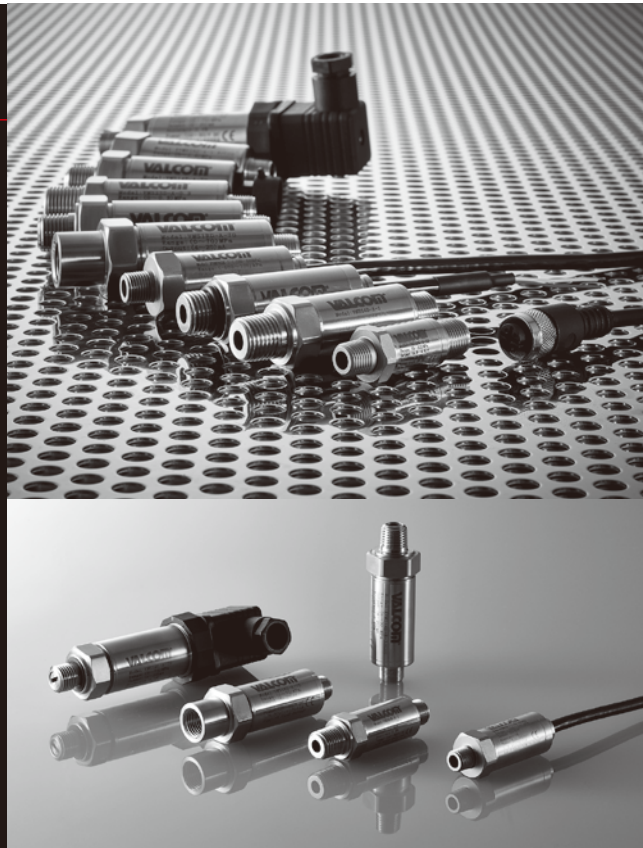
Abundant Specification Choices

High Accuracy, Long-term Stability

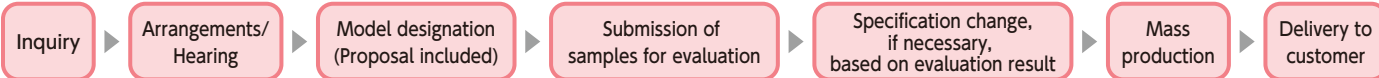
Custom-made pressure transmitters offered by a pressure measurement expert are available with a variety of ranges, accuracy levels and output signals to suit to your application needs. High cost performance product specialized in desired specs, without any unnecessary features.

[ATTENTION] • Cannot be used in applications involving viscous fluids.
• Cannot be used in explosion-proof areas.
• Minimum order quantity: 50

- High-accuracy total error band (TEB) • CE and RoHS2 compliant
- Wide pressure and temperature ranges • IP65~67 equivalent
- Rigid structure integrated with sensor • Safe overload rating 200%F.S. (Material : 17-4PH)
- Selectable connectors types • Abundant output support
- Various connecting thread types • Various connecting thread types (Customer-designated connectors also available)



Flow from Order to Delivery



Survey Form

Application	①Application ②Type of fluid ③Fluid temperature (°C) ④Environmental temperature (°C) ⑤Viscous or not	Impact resistance ※2	980m/s ² (6msec or lower), 1960m/s ² (6msec or lower)
Quantity	50 or more	Protection rating ※2	IP67 (M12 connector, Pack connector), IP66 (Pigtail cable), IP65 (DIN connector)
Pressure Range	Positive pressure / Compound pressure ※-100 to 300 kPa or above, up to 100 MPa ※Absolute pressure not supported	Electrical connectors ※2	①M12 ②Pigtail cable ③Pack connector ④DIN connector (DIN43650A) ⑤Mini DIN connector ⑥Other
Power	DC10~30V, DC5V (Output 0.5~4.5V, I ² C ^{※1} only)	Materials of diaphragm/connecting thread	17-4PH (Integral structure)
Output	4~20mA, 1~5V, 0~10V, 0.5~4.5V, I ² C ^{※1} , 20mV/V, Other	Screw (M:Male / F:Female) ※2	R1/2 (M), R1/4 (M/F), R1/8 (M), R3/8 (M/F), G1/2 (M), G1/4 (M/F), G3/8 (M/F), 1/2NPT (M), 1/4NPT (M/F), 1/8NPT (M), 3/8NPT (M/F), M10X1 (M), M12X1 (M/F), M14X1 (M/F), M16X1.5 (M/F), M20X1.5 (M/F), M22X1.5 (M), 7/16-20UNF (M/F), 9/16-18UNF (M/F), 3/4-16UNF (M/F), Other ※Some connecting threads are not available depending on the pressure range.
Accuracy level to be selected from (1)~(3) ※2:Some restrictions apply depending on the specifications.	(1) Non Linearity, hysteresis, repeatability @25°C selected from ①~④ ①±0.1% ②±0.25% ③±0.5% ④±1% TEB※3 [±1.0%F.S. (-20~85°C), ±1.5%F.S. (-40~20°C), ±1.5%F.S. (85~125°C)] (2) Non Linearity, hysteresis, repeatability @25°C selected from ①~③ ①±0.25%F.S. ②±0.5%F.S. ③±1%F.S. Temperature effect on zero balance, Temperature effect on span load selected from ①~③ ①±0.1%F.S./10°C ②±0.25%F.S./10°C ③±0.5%F.S./10°C (3) Other	Cable	□□ m, Optional end connector (Y/N) / Connector type
Compensated temperature range ※2	-40~125°C, -20~85°C	Throttle※4	φ0.7, φ0.5
Operating temperature range ※2	-40~125°C	Oil-free & water-free	Oil-free, water-free
Storage temperature range ※2	-40~125°C	Europe conformity	CE mark, RoHS2
Safe overload rating ※2	200%F.S.	Other	Manuals and related documents are available. Contact our sales office for details.
Burt overload rating ※2	500%F.S.		
Stability	±0.25%F.S./year		
Vibration resistance ※2	196m/s ² (10Hz~2kHz), 490m/s ² (10Hz~2kHz)		

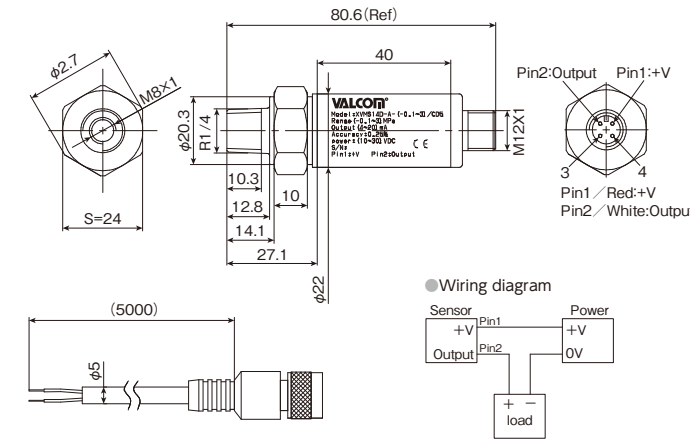
Product Examples



(※1) Inter-Integrated Circuit (※3) Total Error Band (※4) Available for 5 MPa or above

Reference Examples

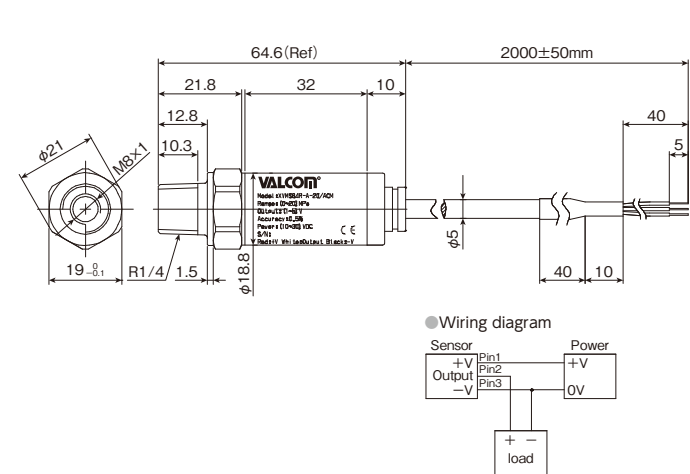
Reference Examples 1



Pressure Range	-0.1~3MPa
Power	10~30V DC
Output signal	4~20mA
Accuracy (※1)	±0.25%F.S. (@25°C)
Compensated temperature range	-40~125°C
Operating temperature range	-40~125°C
Storage temperature range	-40~125°C
Safe overload rating	200%
Burst overload rating	500%
Stability	±0.25%F.S./year
Total Error Band (includes the following)	±1.5%F.S. (-40~20°C), ±1.0%F.S. (-20~85°C), ±1.5%F.S. (85~125°C)
Response time	<1.5ms
Protection rating	IP67 (Using mating connectors)
Diaphragm	17-4PH
Screw	17-4PH
Case	SUS304
Dielectric strength	250V DC / >100MΩ
Withstand voltage	100V AC (1 minute between all terminals and case)
Sensor weight	105g (Body)
Load Resistance	150Ω (@11V), 500Ω (@24V)
CE marking	EMC directive, Europe RoHS directive conformity product

(※1) Non Linearity/Hysteresis/Repeatability

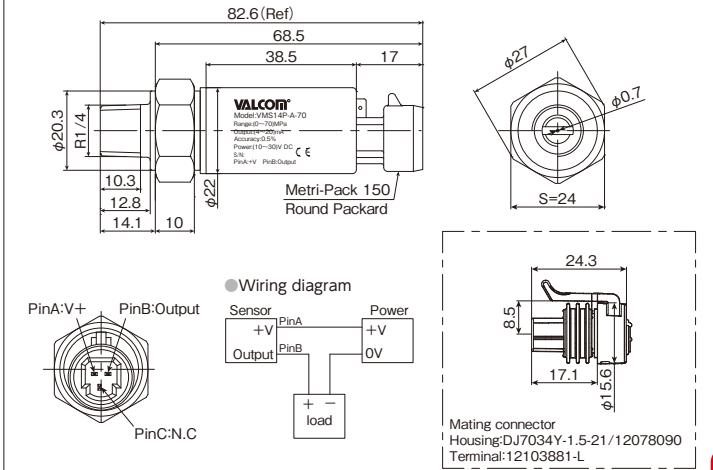
Reference Examples 3



Pressure Range	0~20MPa
Power	10~30V DC
Output signal	1~5V
Accuracy (※1)	±0.5%F.S. (@25°C)
Compensated temperature range	-20~85°C
Operating temperature range / Storage temperature range	-40~125°C
Safe overload rating	200%
Burst overload rating	500%
Stability	±0.25%F.S./year
Temperature effect on zero balance / Temperature effect on span load	±0.5%F.S./10°C
Shock-proof	980m/s ² (11msec or less)
Vibration-proof	196m/s ² (10Hz~2kHz)
Response time	<1.5ms
Protection rating	IP66 (Body)
Diaphragm / Screw	17-4PH
Case	SUS304
Dielectric strength	>100MΩ (@250V DC)
Withstand voltage	100V AC (1 minute between all terminals and case)
Sensor weight	70g (Body)
Load Resistance	≥2kΩ
Operating current	5mA (Max)
CE marking	EMC directive, Europe RoHS directive conformity product

(※1) Non Linearity/Hysteresis/Repeatability

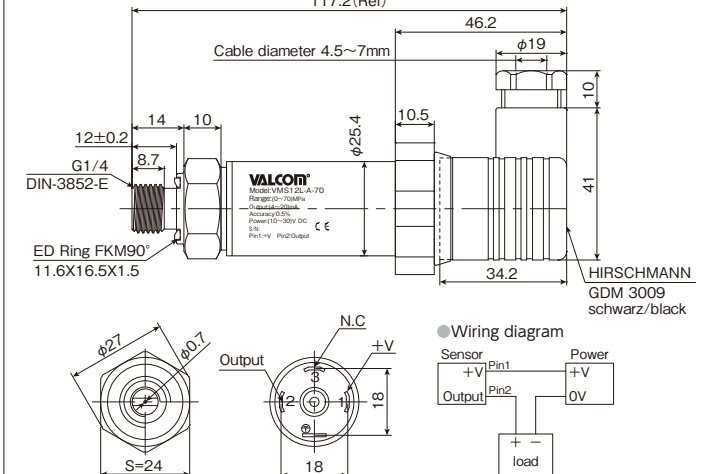
Reference Examples 2



Pressure Range	0~70MPa
Power	10~30V DC
Output signal	4~20mA
Accuracy (※1)	±0.5%F.S. (@25°C)
Compensated temperature range	-20~85°C
Operating temperature range	-40~125°C
Storage temperature range	-40~125°C
Safe overload rating	200%
Burst overload rating	500%
Stability	±0.25%F.S./year
Temperature effect on zero balance	0.25%F.S./10°C
Temperature effect on span load	0.25%F.S./10°C
Response time	<1.5ms
Protection rating	IP67 (Using mating connectors)
Diaphragm	17-4PH
Screw	17-4PH
Case	SUS304
Dielectric strength	>100MΩ (@250V DC)
Withstand voltage	100V AC (1 minute between all terminals and case)
Sensor weight	95g (Body)
Load Resistance	150Ω (@11V), 500Ω (@24V)
CE marking	EMC directive, Europe RoHS directive conformity product

(※1) Non Linearity/Hysteresis/Repeatability

Reference Examples 4



Pressure Range	0~70MPa
Power	10~30V DC
Output signal	4~20mA
Accuracy (※1)	±0.5%F.S. (@25°C)
Compensated temperature range	-20~85°C
Operating temperature range	-40~125°C
Storage temperature range	-40~125°C
Safe overload rating	200%
Burst overload rating	500%
Stability	±0.25%F.S./year
Temperature effect on zero balance	0.25%F.S./10°C
Temperature effect on span load	0.25%F.S./10°C
Response time	<1.5ms
Protection rating	IP65 (Body)
Diaphragm	17-4PH
Screw	17-4PH
Case	SUS304
Dielectric strength	>100MΩ (@250V DC)
Withstand voltage	100V AC (1 minute between all terminals and case)
Sensor weight	150g (Body)
Load Resistance	150Ω (@11V), 500Ω (@24V)
CE marking	EMC directive, Europe RoHS directive conformity product

(※1) Non Linearity/Hysteresis/Repeatability