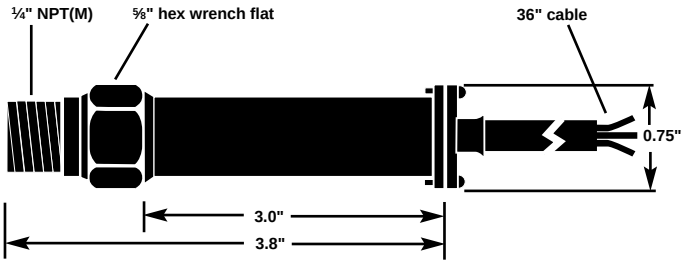
07356- and 68001-series Pressure Transmitters Instruction Sheet

Mounting

This thin-film pressure transmitter requires no special mounting hardware, and can be mounted in any plane with negligible position error. Although the unit can withstand substantial vibration without damage or significant output deviations, we recommend you mount the transmitter where there is minimal vibration. **NOTE:** Ground the transmitter body before making electrical connections.

Apply Teflon® tape or an equivalent sealant to the threads before installing. When tightening, apply a wrench to the hex wrench flats located just above the pressure fitting. DO NOT apply the wrench directly to the housing.

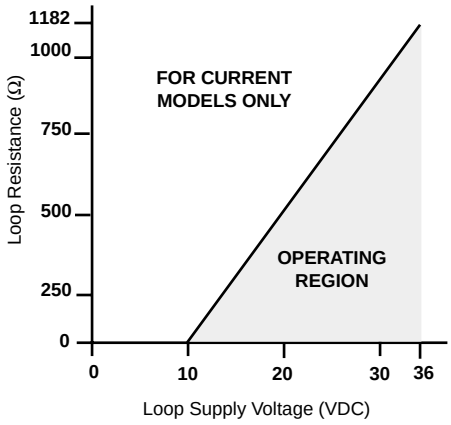


Teflon—Reg TM E.I. du Pont de Nemours & Co.

Power Requirements

Current output transmitters
Maximum supply voltage required: 36 VDC
Minimum supply voltage required: depends on loop resistance of circuit (see diagram below). Make sure the total loop resistance is within the operating region.

Voltage output transmitters
Maximum supply voltage required: 30 VDC
Minimum supply voltage required: 10 VDC



V_{min} = 10 V + [0.022 A* (R_{LOOP})]
R_{LOOP} = R_{SENSE} + R_{WIRE}

Noise

For minimum noise susceptibility, do not run the transmitter's cable in a conduit that contains high current AC power cables. Where possible, avoid running the cable near inductive equipment.

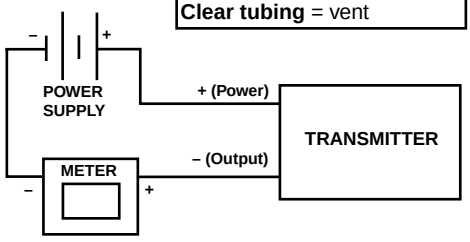
Electrical Connections

WARNING

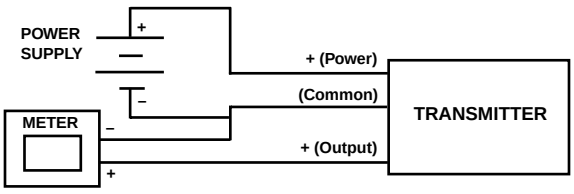
CAUTION: Electrical shock hazard—DC voltage used to power transmitter. Failure to properly wire instrument could cause minor shock or injury, or damage to transmitter. See "Electrical Connections" diagrams below for proper wiring instructions.

NOTE: Cut green and white cables are not used to wire current models.

Current Models
(4 to 20 mA output)
Red cable = + power
Black cable = output
Silver cable = shield
Clear tubing = vent



Voltage Models
(1 to 5 VDC output)
Red cable = + power
White cable = common
Green cable = output
Silver cable = shield
Clear tubing = vent



Specifications

Accuracy	07356-series	68001-series
Non-linearity (BFSL)*	±0.4%	±0.25%
Full-scale	±1.0%	±0.5%
Non-linearity (terminal pt.)*	±0.7%	±0.4%
Hysteresis	±0.2%	±0.15%
Non-repeatability	±0.07%	±0.05%

*Includes hysteresis

Power: 10 to 30 VDC
Output: 4 to 20 mA or 1 to 5 VDC (depending on model)
Storage temperature: –65°F to 250°F (–53°C to 121°C)
Operating temperature: –20°F to 180°F (–28°C to 71°C)
Compensated temperature: –20°F to 160°F (–28°C to 71°C)
Media compatibility: materials compatible with 17-4 PH stainless steel and 300-series stainless steel
Response time: less than 5 msec
Connections
Process: ¼" NPT (M) fitting
Electrical: six-pin screw-on connector

Cable: 24 AWG, shielded, vented, UL-approved, 36" PVC
Housing: 300-series stainless steel construction; NEMA Type 4X housing (NEMA Type 1 housing for models with pressure ranges from 0/15 to 0/60)
Weight: 2 oz

Maximum overpressure	0/15 to 0/2000	0/3000 to 0/5000	0/7500 to 20,000
Proof	200%	150%	120%
Burst	800%	300%	150%

Thermal coefficients (at 68°F; % FS/°F)	07356-series	68001-series
Zero	±0.04%	±0.028%
Span	±0.04%	±0.028%

Calibration

This transmitter was calibrated at the factory using equipment traceable to NIST standards. DO NOT ATTEMPT TO RECALIBRATE TRANSMITTER. If you need recalibration or other services, please return your instrument to the factory.

WARNING

Fluid hammer and surges can destroy any pressure transmitter and must be avoided. Fluid hammer occurs when a liquid flow suddenly stops, as with quick closing solenoid valves. Install a pressure snubber to eliminate the damaging hammer effects. Surges occur when flow suddenly starts, as when a pump is turned on at full power or a valve is quickly opened.

Liquid surges are particularly damaging to pressure transmitters if the pipe is originally empty. To avoid damaging surges, keep fluid lines full (if possible), bring pumps up to power slowly, and open valves slowly. To avoid damage from both fluid hammer and surges, install a surge chamber.

Symptoms of fluid hammer and surge's damaging effects:

1) Pressure transmitter exhibits an output at zero pressure (large zero offset). If zero offset is less than 10% FS, you can usually re-zero transmitter, install proper snubber, and continue monitoring pressures.
2) Pressure transmitter output remains constant regardless of pressure.
3) In severe cases, there will be no output.

Warranty

The Cole-Parmer Instrument Company warrants this product to be free from significant deviations in material and workmanship for a period of one year from date of purchase. If repair or adjustment is necessary and has not been the result of abuse or misuse within the one year period, please return—freight pre-paid—and correction will be made without charge. Cole-Parmer alone will determine if the product problem is due to deviations or customer misuse.

Out of warranty products will be repaired on a charge basis.

Return of Items

Authorization must be obtained from our Customer Satisfaction Department before returning items for any reason. When applying for authorization, please include data regarding the reason the items are to be returned. For your protection, items must be carefully packed to prevent damage in shipment and insured against possible damage or loss. Cole-Parmer will not be responsible for damage resulting from careless or insufficient packing. A restocking charge will be made on all unauthorized returns.

NOTE: The Cole-Parmer Instrument Company reserves the right to make improvements in design, construction, and appearance of products without notice.

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