

MC58 P/I Transmitter



GENERAL: DESCRIPTION:

The Model MC58 P/I Transmitter is a solid state pressure to electric converter. It converts a pneumatic signal, within the ranges given below, to a 4-20 mA two wire output signal. Span and zero calibration adjustments are easily accessible when the cover is removed. The 4-20 mA loop output can be readily monitored from the test terminals which are adjacent to the transducer on top of the circuit board.

SPECIFICATIONS:

Inputs: Pneumatic signal ranges, PSIG
0-5, 0-10, 0-15, 0-30, 3-15

Overpressure: 3X Rated

Power: 24 to 40 VDC

Output: 2-Wire, 4-20 mA

Maximum Load: @ 24 VDC - 550 ohms
@ 40 VDC - 1350 ohms

Accuracy:

Linearity— .2% of span

Repeatability— .05% of span

Hysteresis— Negligible

Temperature— Maximum shift: $\pm 1\%$ of span over the temperature compensated range

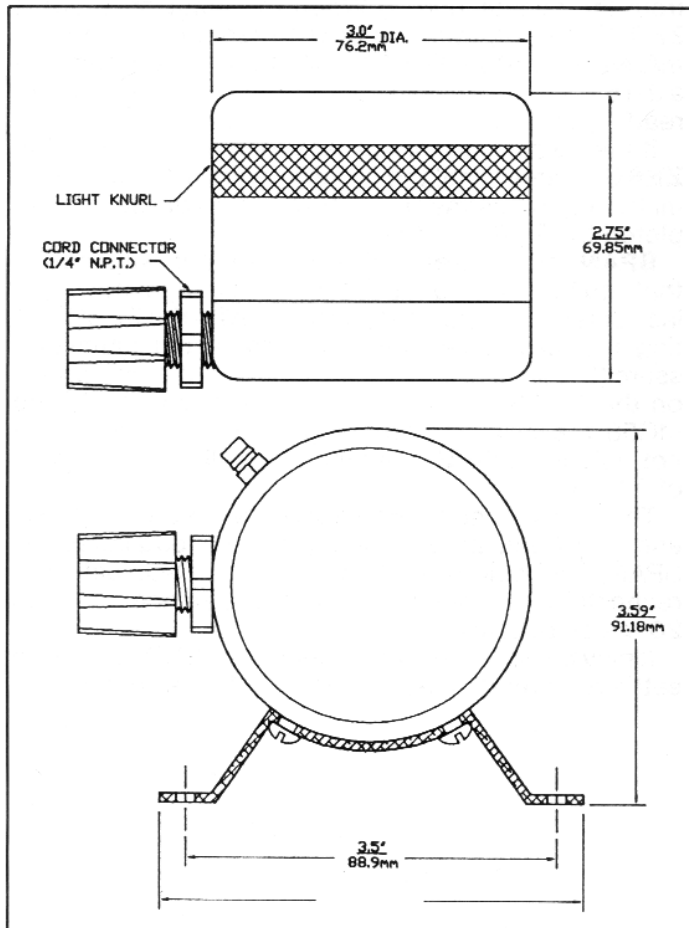
Operating Temp. Range: 0° to 250° F
(-17.8° to 121.0° C)

Compensated Temp. Range: 32° to 120° F
(0.° to 48.9° C)

Span Adjustment: $\pm 40\%$ of range
* Low range of the 0-5 PSI Model is adjustable to 0-1.5 PSIG Full Scale

Electrical Connections: 2-wire terminal through a 1/4" NPT Strain Connector

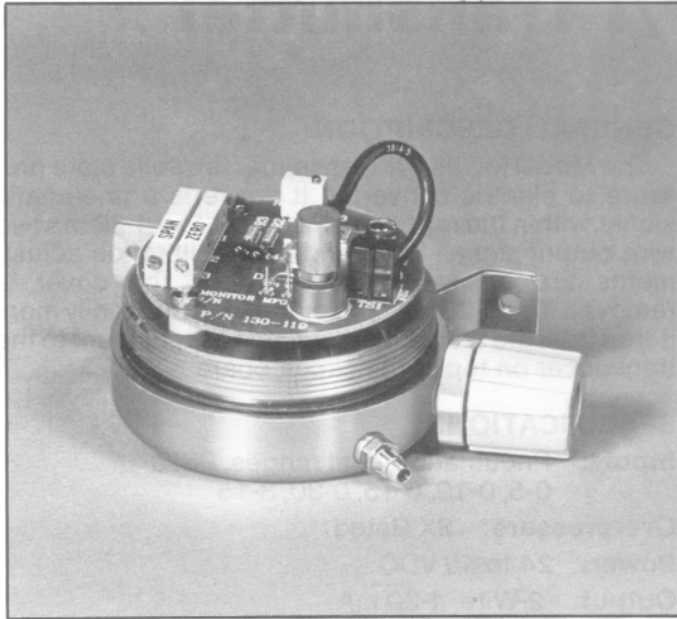
Housing: 3" OD aluminum, bracket mounted by 2 screws on 3 1/2" centers



— HOW TO ORDER —

MODEL	PART NO.	RANGE	
		(XX)	PSI
MC58 P/I	50-194-XX	-03	3-15
		-05	0-5
		-10	0-10
		-15	0-15
		-30	0-30

Installation: Model MC58 P/I Transmitter



The Model MC58 P/I Transmitter is a solid state pressure to electrical converter that translates a pneumatic (pressure) signal into a 4-20 mA two wire output signal. Span and zero calibration adjustments are easily accessible from the front of the unit when the cover is removed. The 4-20 mA loop can be monitored at the test terminals on the PC board without disconnecting the MC58 or creating a special hookup.

Wiring Hookup. (Fig. 1) For the MC58 to function properly it is necessary to hook up the incoming wires from the instrument loop with the correct polarity.

CALIBRATION:

Your MC58 has been adjusted for ZERO and SPAN at the factory, however, if it becomes necessary to check or to reset these adjustments, proceed according to the following instructions.

Do not attempt to make any adjustment requiring pressurized air unless you have a precision regulator with clean, dry instrument air available.

With the electrical and pneumatic circuits operating remove the cap and connect a multimeter, to the test terminals, TP1 and TP2.

Zero Adjustment. Disconnect the pneumatic input from the sensor. (Fig. 2) When the input pressure is ZERO, the output (milliammeter) reading should be 4 mA. **NOTE THIS EXCEPTION!** If your instrument has a 3-15 PSI transducer, at a 3 PSI input the milliammeter reading should be 4 mA.

If the current is more or less than 4 mA, adjust the **ZERO** trimmer until the current reads 4 mA. **DO NOT** make any adjustment to SPAN until you have completed the ZERO setting.

SPAN Adjustment. This adjustment will require that you furnish air directly from the air regulator at the instrument air supply to the MC58. With the ZERO setting in place set the air regulator to the maximum pressure (5, 10, 15 or 30 PSI) as stated on the nameplate on the MC58. When this pressure is applied to the MC58, the milliammeter reading should be 20 mA. If it is not, adjust the **SPAN** trimmer for a milliammeter reading of 20 mA.

There will be some interaction between the ZERO and SPAN adjustments, so if you have readjusted the SPAN, recheck the ZERO setting. Readjust, and recheck SPAN until the readings are as near to 4 and 20 mA as possible.

It may be necessary to recheck the ZERO and SPAN settings several times to complete this adjustment.

