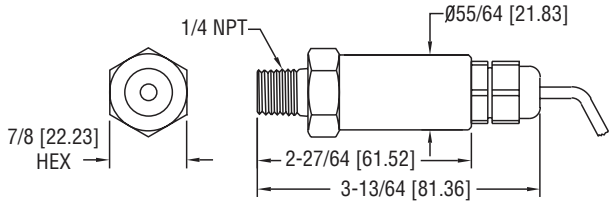
REOTEMP INSTRUMENTS

Series TC6 - General Purpose Pressure Transmitter

Specifications - Installation and Operating Instructions



CAUTION: Do not exceed specified supply voltage ratings. Permanent damage not covered by warranty will result. This device is not designed for 120 or 240 volt AC operation. Use only on 13 to 30 VDC.

Pressure Ranges		
Pressure Range (psig)	**Maximum Pressure (psig)**	**Over Pressure (psig)**
30 Hg-0	30	150
30-0-15	30	150
30-0-30	60	300
30-0-45	100	300
30-0-60	200	500
30-0-100	200	500
0-5	10	50
0-15	30	150
0-30	60	300
0-50	100	300
0-100	200	500
0-150	300	750
0-200	400	1000
0-300	600	1500
0-500	1000	2500
0-1000	2000	5000
0-1500	3000	5000
0-2000	4000	5000
0-3000	6000	7500
0-5000	7500	10000
0-8000	10000	12000
0-30 Hg (vacuum)	30	150

INSTALLATION:

1. Location: Select a location where the temperature of the transmitter will be between 0 and 175˚F (-18 to 79˚C). Distance from the receiver is limited only by total loop resistance. The tubing or piping supplying pressure to the unit can be practically any length required but long lengths will increase response time slightly.

2. Position: The transmitter is not position sensitive. However all standard models are originally calibrated with the unit in a position with the pressure connection downward. Although they can be used at other angles, for best accuracy it is recommended that units be installed in the position calibrated at the factory.

3. Pressure Connection: Use a small amount of plumber's tape or other suitable sealants to prevent leaks. Be sure the pressure passage inside the port is not blocked.

4. Electrical Connections

Wire Length - The maximum length of wire connecting the transmitter and receiver is a function of wire size and receiver resistance. Wiring should not contribute more than 10% of the receiver resistance to total loop resistance. For extremely long runs (over 1000 feet), choose receivers with higher resistance to minimize the size and cost of connecting leads. Where wiring length is under 100 feet, wire as small as 22 AWG can be used.

MAINTENANCE

After final installation of the pressure transmitter and its companion receiver, no routine maintenance is required. A periodic check of system calibration is suggested. The Series TC6 transmitters are not field repairable and should be returned if repair is needed (field repair should not be attempted and may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return goods authorization number before shipping.

Current Output

CURRENT (4-20 mA) OUTPUT OPERATION

An external power supply delivering 13-30 VDC with minimum current capability of 40 mA DC (per transmitter) is required to power the control loop. See Fig. A for connection of the power supply, transmitter and receiver. The range of appropriate receiver load resistance (R_L) for the DC power supply voltage available is expressed by the formula:

$$R_L \text{ Max} = \frac{Vps - 13}{20 \text{ mA DC}}$$

Shielded cable is recommended for control loop wiring.

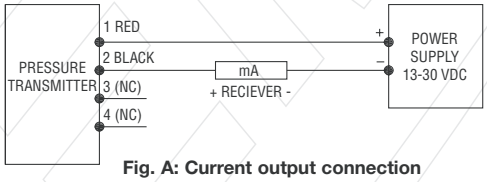


Fig. A: Current output connection

Connections for current output (4-20mA). When using cable version of TC6, black wire is negative (-) and red wire is positive (+). When using optional Heirschman DIN Plug, remove top-center screw and lift off the terminal block assembly. Wire to terminals shown below in Fig. D. For optional 4-pin M-12 connector, wire to pins as shown in Fig. E.

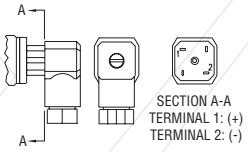


Fig. D

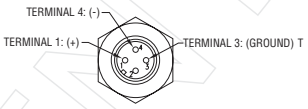


Fig. E

Voltage Output

VOLTAGE (0-5, 1-5, 0-10, 1-6 or 2-10 Volt) OUTPUT OPERATION

(Other outputs contact the factory) See Fig. F for connection of the power supply, transmitter and receiver.

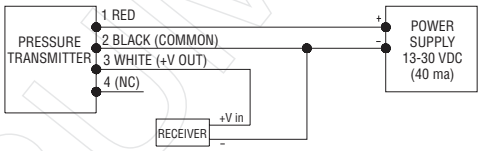


Fig. F: Voltage output connection

Connections for voltage output. When using cable version, black wire is negative (-), red wire is positive (+) and white wire is output. When using optional Heirschman DIN Plug, remove top-center screw and lift off the terminal block assembly. Wire to terminals shown below in Fig. H. For optional 4-pin M-12 connector, wire to pins as shown in Fig. I. If utilizing optional A-164 cable for M-12 connection, brown wire corresponds to pin #1, white #2, blue #3, and black #4.

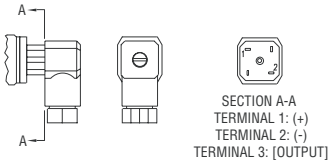


Fig. H

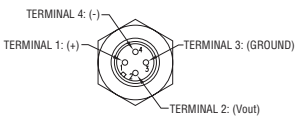


Fig. I

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