



## INSTRUCTION MANUAL MODEL IPT-E CURRENT TO PRESSURE TRANSDUCER

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### 1. INTRODUCTION / DESCRIPTION

The IPT-E is a pressure controller to be mounted on a machine frame. The control signal is 4 to 20 mdc. The IPT-E incorporates an inlet valve, an exhaust valve, and a pressure sensor all on a common manifold. The IPT-E operates by comparing the actual pressure, as measured by the pressure sensor, to the set point reference input signal. If the actual pressure is less than the set point, the inlet valve is opened to increase the pressure. If the actual pressure is greater than the set point, the exhaust valve is opened to decrease the pressure. The device can be mounted in any orientation without need for recalibration.

### 2. INSTALLATION

#### Installation

The Model IPT-E is intended for mounting on any flat vertical surface capable of supporting it. See Figure 1 for dimensions. The IPT-E meets the environmental and mechanical requirements of EN50178 with the exception that the degree of protection provided by the IPT-E enclosure is IP65 which is more stringent than the standard. Four mounting holes are provided for attachment of the IPT-E to the mounting surface. The mounting method should comply with the essential requirements of the appropriate standard(s) and is the responsibility of the installer.

Wiring to and from the enclosure must be done with double or reinforced insulation or protective screening which provides protective separation. All wiring outside either of the IPT-E enclosure should comply with the essential requirements of the appropriate standard(s) and is the responsibility of the installer.

#### Air Line Connections

Connect the air inlet, output, and exhaust air line connections to the IPT-E through the 1/8 NPT ports on the manifold. The exhaust port can have a muffler installed, or can be routed away from the enclosure. The inlet port incorporates a 40-micron filter screen for large contaminants, but the air supply to the unit must be filtered, dry and free of oil. Input pressure must be greater than the maximum required output pressure and less than 150 psi. Input air pressure above 150 psi can damage the unit.

The IPT-E should be located as close as possible to the clutch or brake being controlled. Long, oversized air lines connecting the IPT-E to the clutch or brake must be avoided, since they reduce system response. Also, avoid the use of undersized fittings that will limit air flow and cause excessive pressure drop downstream of the IPT-E.

If using the optional accessory kit (see figure 2), connect the filter kit and gage kit to the air inlet and output ports, respectively.



**WARNING: DISCONNECT MAINS BEFORE OPENING ENCLOSURE**

## Maintenance

The only maintenance that may be required on the IPT-E is fuse replacement. Replacement of any fuse requires opening the enclosure, which circumvents the enclosure IP rating. To replace a fuse:

1. Disconnect the supply mains.
2. Remove front cover.
3. Remove and replace the blown fuse.
4. Install front cover.
5. Reconnect supply mains.

## 3. ELECTRICAL CONNECTIONS

Figure 3 shows the electrical connections that are required for the IPT-E.

Set SW1 to match the voltage of the AC line, 115 or 230 vac. Connect AC power to terminals ACL1 and ACL2 on TB1. Connect the control input signal to terminals IN+ and IN- on TB2. Terminal IN- is the lower potential line.

Route AC power away from control wiring. Run all wiring in shielded cable. Connect shields to the enclosure using the standoffs provided. Maximum shield length and maximum length of wires outside of the shield is 3 inches (75mm). The larger strain relief accepts a .28 to .47 in. diameter cable. The smaller strain relief accepts a .16 to .31 in. diameter cable.

## 4. TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION OR DIAGNOSTIC
No pressure output	No AC power. Wrong AC voltage.  No signal input.  No air source connected.	Connect AC power. Check voltage and set SW1 to 115 or 230vac. Connect 4-20madc to TB2.  Connect air source to the air in port.

## IPT-E SPECIFICATIONS

Supply Voltage:	115 or 230 vac, $\pm 10\%$
Supply Frequency:	50 or 60 Hz.
Fuses: F1, F2	1.6 amp, Littelfuse Part No. 21601.6, or Wickmann Part No. 19194-053-FS
Enclosure:	IP65 (IEC529)
Climate Class:	3K3 (EN60721)
Temperature Range:	
Operating (TB)	0°C to 40°C
Storage	-30°C to +80°C
Relative Humidity:	5% to 85%
Pollution Degree:	2 (IEC664-1)
Altitude:	0 to 2000 meters
Compatible Residual Current Device Types:	A or B (IEC755)
Worst Case Fault Current:	1.6 amperes
Inputs:	
Signal Input	4 to 20 madc, 249 $\Omega$ input impedance
Pressure:	0 to 80 psig (0 to 5.5 bar)
Maximum Input Pressure (PB):	150 psig (10.3 bar)
Volume (V):	0.02L

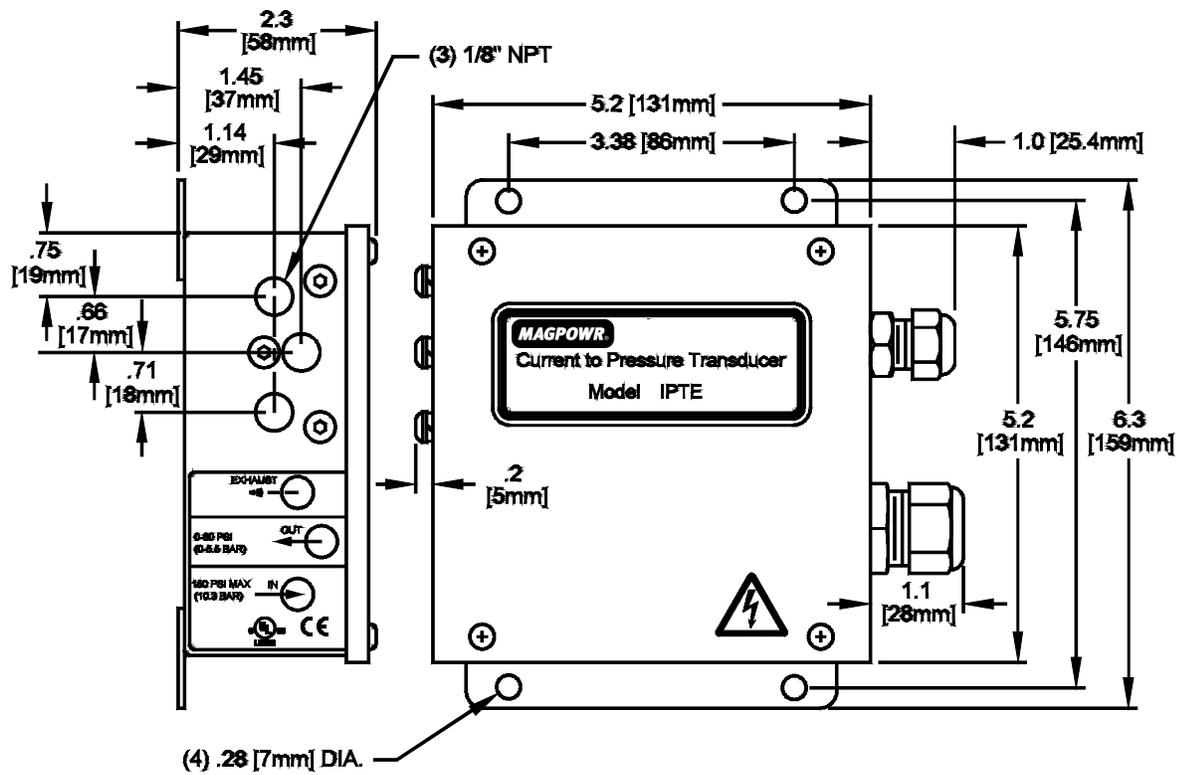


Figure 1

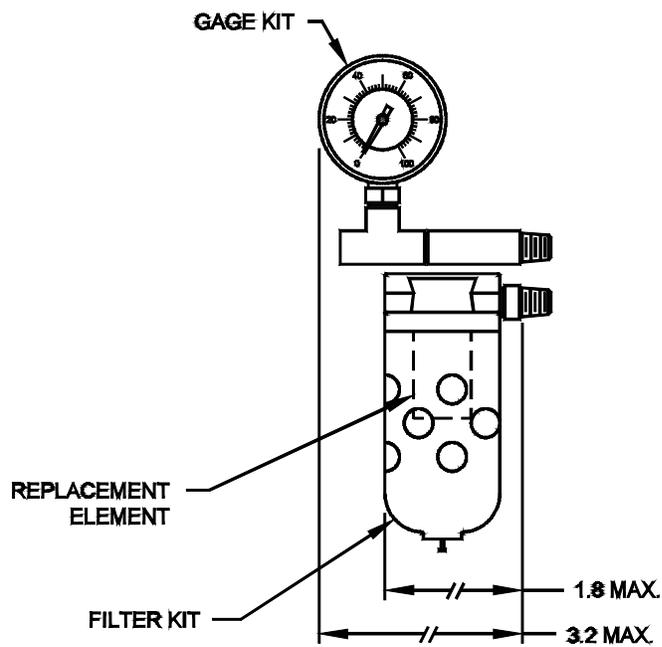


Figure 2

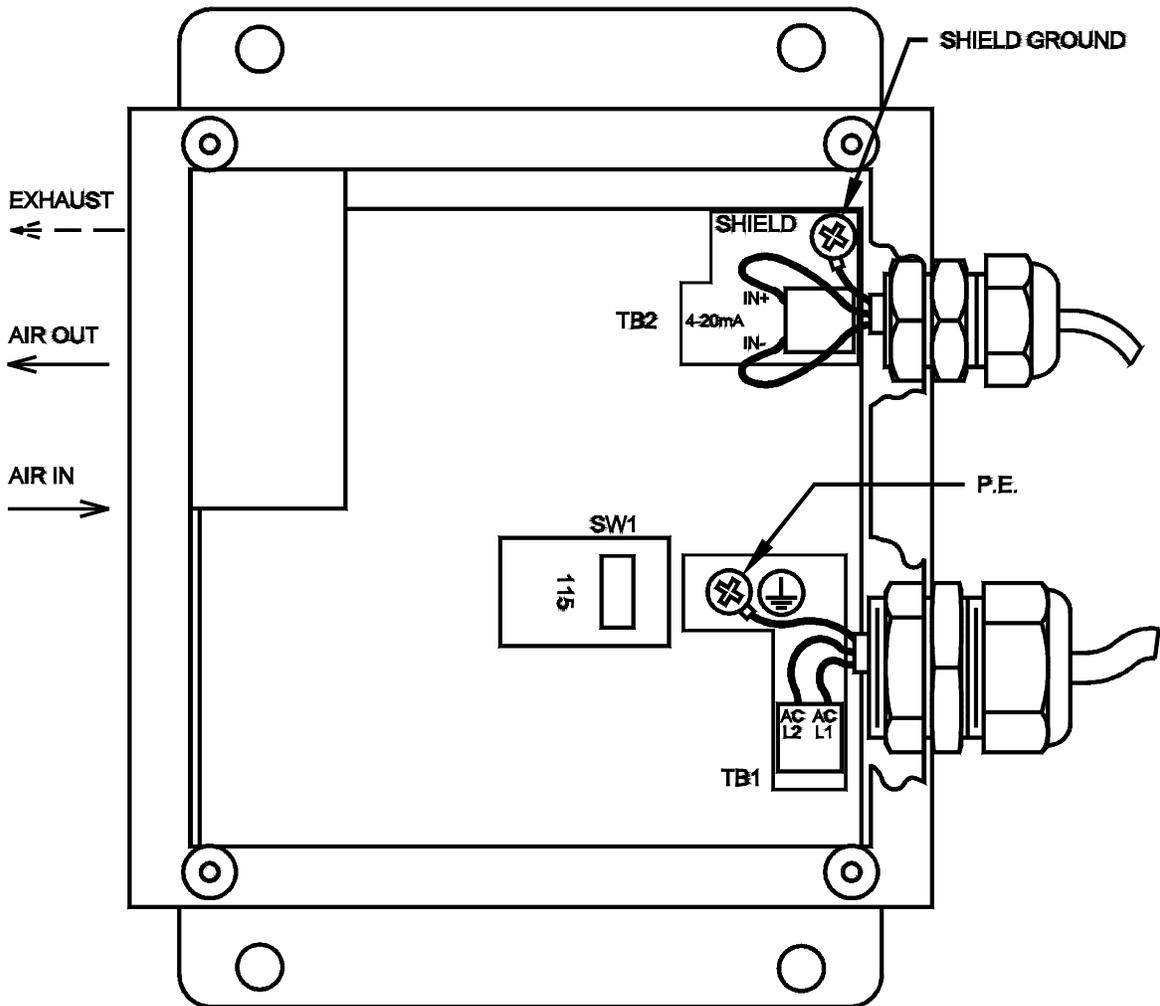


Figure 3



MAXCESS INTERNATIONAL COMPANIES



GUIDING · INSPECTION



TENSION CONTROL



SLITTING · WINDING