Electronics TO Pneumatic Transducer
ETP Series

Greystone has an ISO 9001 registered quality system.

Peace of mind through reliable pneumatic transducers.

Features:
- Direct connection to PCs for pneumatic control
- Two-wire loop powered or three-wire voltage models
- Easily accessible wiring terminal blocks
- Quick panel mounting with supplied snap-track
- High accuracy with low hysteresis
- Driftless operation with high repeatability
- AC/DC operation

Precision pneumatic control
APPLICATIONS:
The ETP-9500 Series transducers convert an electrical input signal to a pneumatic output signal to position pneumatic damper and valve actuators in HVAC systems. The ETP-9520 accepts an industry standard 4 - 20mA current input signal and produces a proportional 21 - 103 kPa (3 - 15 psig) pneumatic output. The ETP-9500 offers more flexibility as it is field selectable to accept either a 4 - 20mA or a 0 - 10 VDC input signal to control the 21 - 103 kPa (3 - 15 psig) pneumatic output.

SPECIFICATIONS: ETP-9500 / 9510 / 9520

### Input Signal
- **ETP-9500**: 4-20 mA or 0-10 Vdc, jumper selectable
- **ETP-9510**: 2-10 Vdc, 2 wire
- **ETP-9520**: 4-20mA, 2 wire
- **ETP-9500-PW**: Dry contact to common, 5 to 24 Vdc, or 24 Vac ± 10%

### Input Impedance
- 4-20 mA input, 400 Ω minimum, 550 Ω maximum
- 0-10 Vdc input, >100 KO

### PWM Input Signal
- Time between pulses: 1 millisecond min, Pulse Duration: 0.02 to 5 sec; 0.59 to 2.93 sec; 0.1 to 10 sec; 0.1 to 25.5 sec
- Accuracy: ±3% of span for all ranges

### Power Supply
- 4-20 mA input, Loop powered
- 0-10 Vdc input, 24-30 Vac/Vdc, 1.0 watt max.
- ETP-9500-PW - Regulated 24 Vdc min, 35 Vdc max, Regulated 22-28 Vac

### Air Supply
- 138 kPa (20 psig) nominal, 207 kPa (30 psig) maximum
- Clean, dry, oil-free air required

### Air Consumption
- 5.66 ml/s (0.012 scfm) @ 138 kPa (20 psig) supply, maximum
- 141 ml/s (515 scim) maximum @ 138 kPa (20 psig) supply

### Output Air Capacity
- 141 ml/s (515 scim) maximum @ 138 kPa (20 psig) supply

### Maximum Span / Minimum Span
- 97 kPa (14 psig) / 55kPa (8 psig)

### Lowest Offset / Highest Offset
- 7 kPa (1 psig) / 41 kPa (6 psig)

### Output Signal
- 21 - 103 IPa (3 - 15 psig) nominal, direct acting

### Linearity
- ±1% of span

### Hysteresis
- ±1% of span

### Adjustments
- Zero and span potentiometers

### Operating Temperature
- 0°C - 60°C (32°F - 140°F)

### Operating Humidity
- 5 - 95% RH, non-condensing

### Dimensions H x W x D
- PW Option: 83x165x50 mm (3.25x7x2")

### PW Option
- Regulated 24 Vdc min, 35 Vdc max, Regulated 22-28 Vac

### Air Connections
- Male barbed fittings for flexible 1/4" OD pneumatic tubing

### Wiring Connections
- Screw terminals for 14-22 AWG wire

### Product Ordering Information:

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<tr>
<th>MODEL</th>
<th>Product Description</th>
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<td>ETP</td>
<td>Pneumatic transducer</td>
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<table>
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<tr>
<th>CODE</th>
<th>Input Signal</th>
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<tr>
<td>9500</td>
<td>Field selectable 0 - 10 Vdc or 4 - 20 mA</td>
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<tr>
<td>9510</td>
<td>0 - 10 Vdc, loop-powered</td>
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<tr>
<td>9520</td>
<td>4 - 20 mA, loop-powered</td>
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<table>
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<tr>
<th>CODE</th>
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<td>Enclosure (Not available with PW option)</td>
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<tr>
<td>EG</td>
<td>Enclosure c/w 0 to 30 psi Gage (Not available with PW option)</td>
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<tr>
<td>PW</td>
<td>PWM input (9500 series only)</td>
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ETP 9510 EG

The ETP-9520-PW accepts a field selectable pulse width signal to control the pneumatic output.

The ETP-9520 is powered by the process loop signal and requires no power supply. The ETP-9500 is also loop powered in the 4 - 20mA configuration and will accept a wide range of AC or DC power supply voltages in the 0 - 10 VDC mode. The ETP-9520-PW requires a 24 VDC or 22 to 28 VAC power supply.

Greystone Energy Systems Inc. reserves the right to make design modifications without prior notice.

OPTIONS:
- Pressure gauge (not mounted) PG-100-30, 0-30 psig
- Pneumatic air filter (not mounted) K-335, 0.5 micron