



Regtronic Pneumatic Transducers



Part No.
5520500



Part No.
5521500U

Metal Work Regtronic Series electropneumatic transducers utilize two internal solenoid valves to convert an electronic signal from a PLC or other controller to a regulated precision linear pneumatic output pressure. Used in paper and paper converting, food and drug, petrochemical, HVAC, textile, and energy management industries, Regtronic Series transducers provide highly reliable and repeatable operation of pneumatic valve positioners, valve actuators, air cylinders, damper and louver actuators, web tensioners, clutches and brakes.

The Regtronic Series can be controlled from analog input signals of 4-20 mA, 0-5 V or 0-10 V, as well as, RS232 communication or the integral keypad. The minimum and maximum output pressure range can be configured up to a maximum pressure of 145 psig. Models are available with low flow and exhaust capacity for controlling small volume pneumatic loads without overshoot, and high flow and exhaust capacity for fast response time with

large volume pneumatic loads. Each Regtronic transducer includes a 0-10 VDC or 4-20 mA output signal, model dependent, representative of the output pressure and two digital output switches that can be set as alarm points at high or low output pressures. The integral digital display eliminates the need for external pressure gauges and the pushbuttons enable menu driven configuration of all operating parameters without requiring air pressure to be connected to the device. Additional settable performance parameters include regulation speed control to dampen overshoot of the output pressure, an analog input filter to prevent excessive internal solenoid valve cycling due to small changes in input signal, and noise dampening filter to eliminate unwanted pressure regulation due to input signal noise. Regtronic transducers can be easily panel mounted using the optional mounting bracket accessories, use an 8-pin, M12 quick disconnect cable, and have an environmental protection rating of IP65.

Features

- Compact transducer housing
- 4-20 mA, 0-5 V, and 0-10 V input compatible with PLCs and other controllers
- Settable minimum and maximum pressure range up to a maximum of 145 psi applicable for industrial pneumatic and process control applications
- Models with low flow and exhaust capacity for controlling small volume pneumatic loads without overshoot, and high flow and exhaust capacity for fast response time with large volume pneumatic loads
- Internal dual solenoid design eliminates continuous supply air consumption
- Models with M5, 1/8 NPT, and 1/4 NPT female pneumatic connections available
- Integral digital display eliminates the need for external pressure gauges
- 4-20 mA or 0-10 VDC output and two switch outputs provided
- Operating parameter configuration is easily accomplished using the pushbuttons without needing air connected
- 8-pin M12 quick disconnect electrical connection
- Optional mounting brackets available
- IP65 environmental rating



See www.AutomationDirect.com for a wide variety of cable and fitting options



Click on the thumbnail or go to <https://www.automationdirect.com/VID-PR-0031> for a short video on Endress+Hauser Cerabar Pressure Transmitters

Metal Work Regtronic Pneumatic Transducers

| Part No. | Price | Weight (lbs) | Input | Output | Inlet(s) | Outlet(s) | Drawing Link | Manufacturer Manual |
|--------------------------|------------|--------------|--|--|------------------|------------------|---------------------|---------------------|
| 5520500 | \$,;05!fi: | 0.57 | 4-20 mA, 0-5 VDC, 0-10 VDC, RS232, or Keypad | 0.05 to 10 bar adjustable output pressure, 0-10 VDC, switch (N.O./N.C.) PNP/NPN output | M5 x 0.8 female | M5 x 0.8 female | PDF | PDF |
| 5540500 | \$,;05!fn: | 0.57 | | 0.05 to 10 bar adjustable output pressure, 4-20 mA, switch (N.O./N.C.) PNP/NPN output | | | PDF | |
| 5521500U | \$,;05!fo: | 1.0 | | 0.05 to 10 bar adjustable output pressure, 0-10 VDC, switch (N.O./N.C.) PNP/NPN output | 1/8in female NPT | 1/8in female NPT | PDF | |
| 5541500U | \$,;05!fp: | 1.0 | | 0.05 to 10 bar adjustable output pressure, 4-20 mA, switch (N.O./N.C.) PNP/NPN output | | | PDF | |
| 5522500U | \$,;05!fq: | 1.0 | | 0.05 to 10 bar adjustable output pressure, 0-10 VDC, switch (N.O./N.C.) PNP/NPN output | 1/4in female NPT | 1/4in female NPT | PDF | |
| 5542500U | \$,;05!fu: | 1.0 | | 0.05 to 10 bar adjustable output pressure, 4-20 mA, switch (N.O./N.C.) PNP/NPN output | | | PDF | |

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).





Regtronic Pneumatic Transducers

| Metal Work Regtronic Pneumatic Transducer Specifications | | | | | | | |
|--|--|--|---|--|---|--|---|
| Part No. | | <u>5520500</u> | <u>5540500</u> | <u>5521500U</u> | <u>5541500U</u> | <u>5522500U</u> | <u>5542500U</u> |
| Media | Filtered, unlubricated air | | | | | | |
| Inlet and Outlet Port Size | M5 x 0.8 female | | | 1/8in female NPT | | 1/4in female NPT | |
| Minimum Inlet Pressure | Regulation pressure + 1 bar | | | | | | |
| Maximum Inlet Pressure | 11 bar | | | | | | |
| Temp Range | 0 to 50°C | | | | | | |
| Pressure Regulation Range | 0.05 to 10 bar, adjustable | | | | | | |
| Flow Rate at 6.3 bar ΔP 0.5 | 10 NI/min | | | 1300 NI/min | | 1500 NI/min | |
| Flow Rate at 6.3 bar ΔP 1 | 10 NI/min | | | 1450 NI/min | | 1700 NI/min | |
| Exhaust flow rate at 6.3 bar with 0.1 bar Overpressure | 2 NI/min | | | 600 NI/min | | 1300 NI/min | |
| Exhaust flow rate at 6.3 bar with 0.5 bar Overpressure | 9 NI/min | | | 1000 NI/min | | 1500 NI/min | |
| Response Time with ΔP = 1 bar | Volume | 100cc | | 100/1000cc | | 100/1000cc | |
| | From 6 to 7 bar | 0.5s | | 0.1s/0.15s | | 0.1s/0.15s | |
| | From 7 to 6 bar | 0.55s | | 0.1s/0.15s | | 0.1s/0.15s | |
| Class of Protection | IP65 | | | | | | |
| Supply Voltage Range | 10.8 to 31.2 VDC | | | | | | |
| Maximum Admissible Voltage | 32VDC (Note: Voltage greater than 32VDC will damage the unit irreparably.) | | | | | | |
| Current Absorption | Max 220mA at 12VDC | | | | | | |
| Input Signal (Input Impedence) | Voltage | 0 to 5 VDC, 0 to 10 VDC (approx. 6.3KΩ) | | | | | |
| | Current | 4 to 20 mA (approx. 100Ω) | | | | | |
| Communication | RS232 | | | | | | |
| Output Signal | Voltage | 0 to 10 VDC (1 VDC = 1 bar) - 1mA max | N/A | 0 to 10 VDC (1 VDC = 1 bar) - 1mA max | N/A | 0 to 10 VDC (1 VDC = 1 bar) - 1mA max | N/A |
| | Current | N/A | 4 to 20 mA (4mA = 0 bar, 20mA = 10bar) | N/A | 4 to 20 mA (4mA = 0 bar, 20mA = 10bar) | N/A | 4 to 20 mA (4mA = 0 bar, 20mA = 10bar) |
| | Digital | PNP open collector output: max 24VDC, 60mA NPN open collector output: max 24VDC, 60mA | | | | | |
| Hysteresis | ± 0.2% (full scale) | | | | | | |
| Repeatability | ± 0.2% (full scale) | | | | | | |
| Sensitivity / Dead-band | Setting range 10 to 300 mbar | | | | | | |
| Display Accuracy | ± 0.3% (full scale) | | | | | | |
| Display Unit of Measurement | Bar, MPa, psi, selectable | | | | | | |
| Display Minimum Resolution | 0.01 bar - 0.001 MPa - 0.01 psi | | | | | | |
| Analog Output Accuracy | ± 0.1% of the reading | | | | | | |
| Temperature Characteristics | Max 2mbar / °C | | | | | | |
| Installation Position | Any position | | | | | | |
| Electrical Connection | 8-pin M12 quick disconnect | | | | | | |



Regtronic Pneumatic Transducer Accessories

| Metal Work Regtronic Pneumatic Transducer Accessories | | | | | | |
|---|--------------------------------|--------------|---------------------|---|----------------------------|----------------------------|
| <i>Item Photo</i> | <i>Part No.</i> | <i>Price</i> | <i>Weight (lbs)</i> | <i>Description</i> | <i>Drawing Link</i> | <i>Manufacturer Manual</i> |
|  | <u>9200711</u> | \$,;5!fs: | 0.04 | Metal Work mounting bracket, for use with Regtronic pneumatic transducers with M5 ports. | <u>PDF</u> | <u>PDF</u> |
|  | <u>9200710</u> | \$,;5!fs: | 0.06 | Metal Work mounting bracket, for use with Regtronic pneumatic transducers with NPT ports. | <u>PDF</u> | |