

Electric to Pneumatic Transducer and Enclosures

The AO-P transducer converts an electronic signal into a linear pneumatic signal for the accurate positioning of valve and damper actuators typically used in heating and air conditioning systems. The transducer is available in two different mounting styles: Remote Mount with its own integral enclosure and conduit connection; or Panel Mount for mounting in control cabinet applications. The transducer includes provisions for manual override, and does not require calibration.

Features

- Insensitive to vibration and mounting position to allow mounting directly on equipment and give stable performance
- Hand-Auto switch and override dial allow for manual control of output pressure for troubleshooting and emergencies
- Optional electrical connections to remotely monitor Hand-Auto switch position and output pressure
- Accurate and repeatable output pressure signal
- Easy to install, no setup or calibration is required
- The unit can be mounted directly on the wall or equipment without an additional enclosure to reduce cost
- Factory installed 0 to 30 psi (0 to 207 kPa) gauge is included
- High capacity, non-bleed device.



Figure 1. AO-P Transducer - Remote Mount.



Figure 2. AO-P Transducer – Panel Mount.

Specifications

Supply Voltage	19 to 26 Vac (24 Vac typical)
Power Consumption	1 VA
Input Signal/Impedance	0 Vdc to 10 Vdc/20 K Ω 180 Ohms for 4-20 mA
Output Signal	0 to 20 psig (0 to 138 kPa) for 0 to 10V input 3 to 15 psig (20 to 103 kPa) for 4 to 20 mA input
Output Capacity	500 SCIM (8.2 SLPM) minimum @ 5 psi (34.5 kPa) Drop (20 psi input, 15 psi output)
Overall Dimensions:	
Remote Mount	4-1/4" H x 7-1/4" W x 3-1/16" D (108 mm x 184 mm x 78 mm)
Panel Mount	4-1/4" H x 5-3/4" W x 3-1/16" D (108 mm x 146 mm x 78 mm)
Output Accuracy	@ 77°F (25°C) ± 0.50 psig (1.72 kPa) Max. 32°F to 122°F (0°C to 50°C) ± 0.50 psig (3.45 kPa) Max. 122°F to 185°F (40°C to 85°C) ± 1.0 psig (6.90 kPa) Max.
Output Repeatability	0.1 psig (0.7 kPa) Max. (Includes Hysteresis)
Air Supply Pressure	20 psig (138 kPa) absolute minimum (must be 5 psig minimum above maximum output) 30 psig (207 kPa) maximum safe pressure (oil-free and dry)

Air Consumption for Compressor	10 SCIM (164 SCCM)
Tubing Connection	2 ea. 1/4" (6 mm) O.D. nominal, barbed fittings
Conduit Connections	Remote mount model has 2 ea. 1/2" (12.7 mm) conduit connections
Operating Temp.	32°F to 185°F (0°C to 85°C)
Operating Humidity	95% RH maximum (non-condensing)
Storage Temperature	-40°F to 185°F (-40°C to 85°C)
Agency Listing	FCC Compliant
Override Controls	The AO-P Transducer provides a continuous variable output override (the override does not function without power).
Override Monitoring Hand Auto	The AO-P Transducer provides a dry contact to indicate the position of the Hand-Auto Switch to an external device.
Hand-Auto Override Dry Contact Rating	0.3A, Class 2 Voltage
Override Monitoring Output Pressure	The AO-P Transducer provides an optional signal to monitor output pressure. Accuracy is ± 0.25 psig (1.72 kPa) @ 77°F (25°C).
Feedback Voltage Output	0-5 VDC = 0-20 p.s.i.

Product Ordering Information

Description	Product Part Number
AO-P Transducer - Remote Mount	545-208
AO-P Transducer - Panel Mount	545-113

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