

# EPW

## PWM to Pneumatic Output

The EPW converts a pulse or digital PWM signal into a proportional pneumatic signal ranging from 0 to 20 psig. The pneumatic output is proportional to the signal input, either direct or reverse acting, and features a manual override potentiometer to vary the pneumatic output. The EPW offers four jumper selectable input timing ranges (see ordering grid below). Output pressure ranges are jumper shunt selectable for 0-10, 0-15 and 0-20 psig, and adjustable in all ranges. A 0-5 VDC feedback signal indicating the resultant branch line pressure is also provided. This signal varies linearly with the branch pressure range selected. The EPW is designed with electrical terminals on one end and pneumatic connections on the other, allowing for maximum convenience in wiring and tubing installation when panel mounted. Three basic configurations are available: The EPW is a constant bleed interface with branch exhaust response time determined by the bleed orifice size and pressure differentials. If power fails to the EPW, it will continue to bleed through the bleed orifice until branch pressure is zero psig. The EPW2 incorporates two valves (one controls exhaust) and does not bleed air at set point. Its branch exhaust flow and response time are not limited by an internal restrictor and are similar to its load rate. If power fails to the EPW2, branch line pressure remains constant if the branch line does not leak air. The EPW2FS is a two valve fail safe model. Its 3-way branch exhaust valve allows exhaust of branch line air on a power failure. Custom calibration is available upon request for an additional charge. This will speed up installation time for the end user.

**Applications:** 3 Way Mixing Valve Control, Chiller Loading, Pilot Positioner Control, Pneumatic Valve and Damper Actuator Control, Fan Vane Control, DDC Control, Above ceiling applications(mixing and VAV boxes)

**The EPW is covered by ACI's Two (2) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, [www.workaci.com](http://www.workaci.com).**

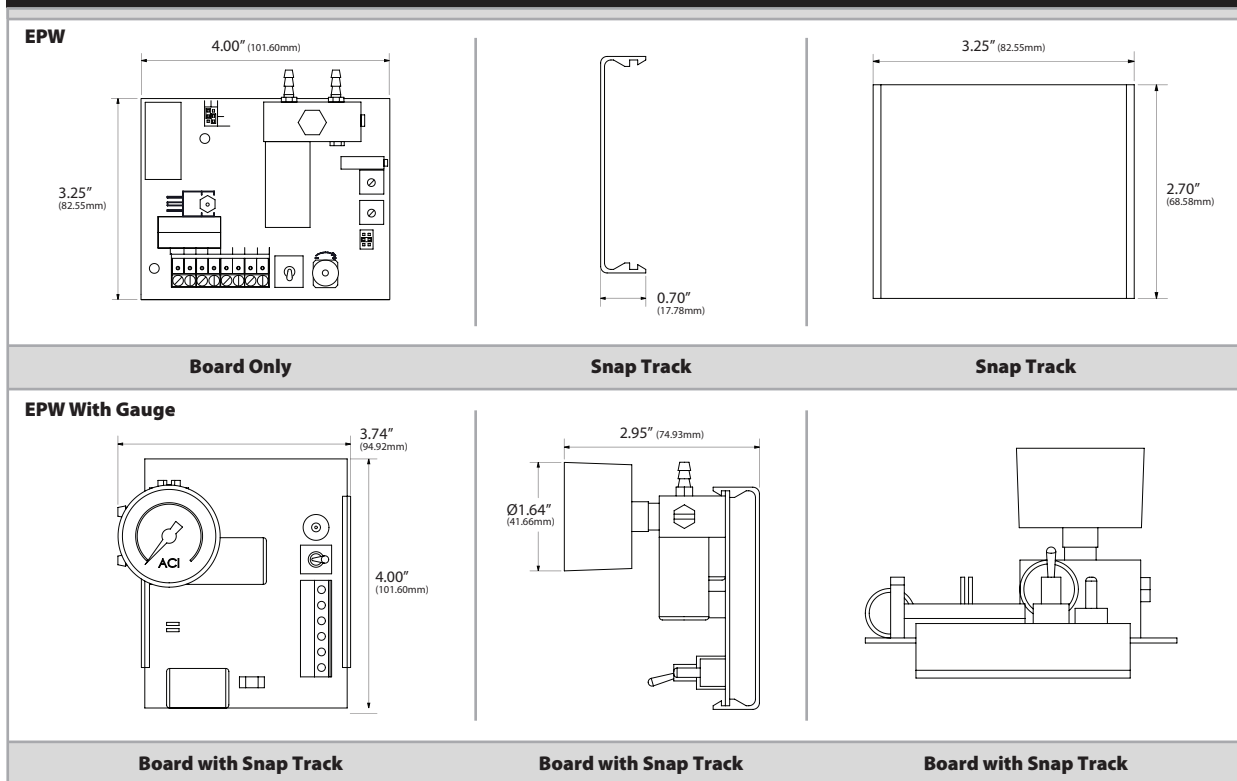
### PRODUCT SPECIFICATIONS

<b>Supply Voltage:</b>	24 VAC (+/-10%), 50 or 60Hz, 24 VDC (+10%/- 5%)
<b>Supply Current:</b>	50 mA, 150 mA on pressure excursions (standard)   200 mA on pressure excursions (fail-safe)
<b>Input Pulse Source:</b>	Relay Contact Closure, Transistor (solid state relay) or Triac
<b>Input Pulse Trigger Level (@ Impedance):</b>	9-24 VAC or VDC @ 750Ω nominal
<b>Off Time Between Pulses:</b>	10 milliseconds minimum
<b>Input Pulse Timing   Resolution:</b>	Selectable Ranges-See Ordering Grid   255 Steps
<b>Manual/Auto Override Switch:</b>	MAN function = output can be varied   AUTO function = output is controlled from input signal
<b>Manual/Auto Override Feedback Output:</b>	N.O. in AUTO operation (Optional: N.O. in MAN operation)
<b>Feedback Output Signal Range:</b>	0-5 VDC = Output Span
<b>Output Pressure Range:</b>	<b>Field Calibration Possible:</b> 0 to 20 psig (0-138 kPa) maximum
<b>Output Pressure Range-Jumper Selectable:</b>	0-10 psig (0-68.95 kPa), 0-15 psig (0-103.43 kPa) or 0-20 psig (137.9 kPa)
<b>Air Supply Pressure:</b>	Maximum 25 psig (172.38 kPa), minimum 20 psig (137.9 kPa)
<b>Air Consumption:</b>	See Ordering Grid
<b>Output Pressure Accuracy:</b>	2% full scale at room temperature (above 1 psig or 6.895 kPa) 3% full scale across operating temperature range (above 1 psig or 6.895 kPa)
<b>Air Flow:</b>	Supply valves @ 20 psig (138 kPa) main/15 psig (103 kPa) out, 750 scim Branch Line requires 2 in <sup>3</sup> or 33.78 cm <sup>3</sup> (min.). Branch line min. of 25 ft of 1/4" O.D. poly tubing
<b>Filtering:</b>	Furnished with integral-in-barb 80-100 micron filter (Part # PN004) Optional standard barb (PN002) with external 5 micron in-line filter (PN021)
<b>Connections:</b>	90° Pluggable Screw Terminal Blocks
<b>Wire Size:</b>	16 (1.31 mm <sup>2</sup> ) to 26 AWG (0.129 mm <sup>2</sup> )
<b>Terminal Block Torque Rating:</b>	0.5 Nm (Minimum); 0.6 Nm (Maximum)
<b>Connections   Pneumatic Tubing Size-Type:</b>	1/4" O.D. nominal (1/8" I.D.) polyethylene
<b>Pneumatic Fitting:</b>	Removeable brass fittings for Main & Branch in machined manifold, Plugged 1/8-27-FNPT gauge port
<b>Gauge Pressure Range (Gauge Models):</b>	0-30psig (0-200 kPa)
<b>Gauge Pressure Accuracy (Gauge Models):</b>	± 2.5% Midscale (± 3.5% Full Scale)
<b>Operating Temperature Range:</b>	35 to 120°F (1.7 to 48.9°C)
<b>Operating Humidity Range:</b>	10 to 95% non-condensing
<b>Storage Temperature:</b>	-20 to 150°F (-28.9 to 65.5°C)
<b>Snaptrack Material:</b>	Polyvinyl Chloride (PVC)
<b>Snaptrack Flammability Rating:</b>	UL94 V-0
<b>Product Dimensions:</b>	See table on back of product data sheet
<b>Product Weight:</b>	<b>EPWG:</b> 0.63 lbs. (0.2835 Kg)   <b>EPW2G &amp; EPW2GFS:</b> 0.76 lbs. (0.343 Kg)
<b>Agency Approvals</b>	RoHS2, WEEE





**DIMENSIONAL DRAWING**



**STANDARD ORDERING**

Model # Example: **EPW** -OR- **106328**

Model #	Item #	Firmware #	Exhaust	Input Pulse Range (Seconds)	Gauge	Additional Information
EPW	106328	0011Y0F.HEX	41 SCIM (0.6719 Liters)	0.1-10s, 0.02-5s, 0.1-25s, 0.59-2.93s		0.007" Bleed Orifice
EPWG	106329	0011Y0F.HEX	41 SCIM (0.6719 Liters)	0.1-10s, 0.02-5s, 0.1-25s, 0.59-2.93s	•	0.007" Bleed Orifice
EPW VERSION #2	130713	0302Y0B.HEX	41 SCIM (0.6719 Liters)	0.023-6s or 0-10s Duty Cycle		0.007" Bleed Orifice
EPWG VERSION #2	130025	0302Y0B.HEX	41 SCIM (0.6719 Liters)	0.023-6s or 0-10s Duty Cycle	•	0.007" Bleed Orifice
EPW VERSION #4	130952	0443Y0A.HEX	41 SCIM (0.6719 Liters)	Same as Version #1, reverse acting		0.007" Bleed Orifice
EPWG VERSION #4	138513	0443Y0A.HEX	41 SCIM (0.6719 Liters)	Same as Version #1, reverse acting	•	0.007" Bleed Orifice
EPW2	106330	0011Y0F.HEX	750 SCIM (12.29 Liters)	0.1-10s, 0.02-5s, 0.1-25s, 0.59-2.93s		Maintains Branch Pressure
EPW2G	106331	0011Y0F.HEX	750 SCIM (12.29 Liters)	0.1-10s, 0.02-5s, 0.1-25s, 0.59-2.93s	•	Maintains Branch Pressure
EPW2G VERSION #2	130117	0302Y0B.HEX	750 SCIM (12.29 Liters)	0.023-6s or 0-10s Duty Cycle	•	Maintains Branch Pressure
EPW2G VERSION #4	130000	0443Y0A.HEX	750 SCIM (12.29 Liters)	Same as Version #1, reverse acting	•	Maintains Branch Pressure
EPW2FS	106332	0011Y0F.HEX	750 SCIM (12.29 Liters)	0.1-10s, 0.02-5s, 0.1-25s, 0.59-2.93s		Exhausts on Power Failure
EPW2GFS	106333	0011Y0F.HEX	750 SCIM (12.29 Liters)	0.1-10s, 0.02-5s, 0.1-25s, 0.59-2.93s	•	Exhausts on Power Failure

**ACCESSORIES**

Model # Example: **A/DO008** -OR- **142583**

Model #	Item #	Description
A/DO008	142583	Transient Voltage Suppressor, Bi-directional, 56 VAC/DC, 1500W
A/DRC 2.7 X 3.25	142624	DIN Rail Adapter Kit
A/PN002	136499	10-32 X 1/8" ID, Barb Fitting
A/PN004	110831	80-100 Micron Filter Media in Barb Fitting
A/PN021	112219	In Line 10 Micron Filter, Installs in-between air supply and main barb connection
A/PN028	128307	Replacement Gauge

