

MODEL EA & EAF • PRESSURE TRANSDUCERS

APPLICATIONS

•
AIR CONDITIONING
AND REFRIGERATION
•
AIR AND GAS
COMPRESSORS
•
DYNAMOMETERS
AND ENGINE
TEST STANDS
•
ENGINE CONTROLS
AND MONITORS
•
ENVIRONMENTAL
CONTROL SYSTEMS
•
PROCESS
CONTROL
EQUIPMENT
•
ROBOTICS
•
TRANSMISSIONS
•
WATER
MANAGEMENT

The EA is designed for OEM uses requiring high output and corrosion-resistance. It has operated through millions of pressure cycles without damage and is well-suited for the cycling regimes found in automatic equipment, robots, and hydraulic systems.

The EA has been approved by Underwriters Laboratories as a component in float and pressure operated motor controllers (FILE #E93356). Its pressure port, amplifier, and voltage supply regulator are packaged in a Valox case. A mating electrical connector is included with this low priced transducer.

The EAF outputs a low frequency digital signal which is ideal for electrically noisy environments as well as applications requiring long distance signal transmission or an interface to a microprocessor. The output signal is a frequency modulated square wave set from 1 to 6 kHz.



FEATURES

- Low cost/amplified output
- 0-6 to 0-5000 PSIG
- Valox case
- 1-6 Vdc output or 1-6 kHz
- 1% accuracy

BENEFITS

- For use by the OEM
- Wide range of application
- Rugged, lightweight
- Compatible with microprocessors
- Suitable for a broad range of applications

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TECHNICAL SPECIFICATIONS

RANGE

	0-6, 15, 25 PSIG	0-50, 100, 200, 300 PSIG	0-500, 1000, 2000, 5000 PSIG
	(0-0.4, 1, 2 bar g)	(0-3.5, 7, 14, 21 bar s)	(0-35, 70, 138, 345 bar g)
	(bar values are approximate)		

PHYSICAL

Proof Pressure	2 x rated range	2 x rated range	1.5 x rated range
Burst Pressure	20 x rated range	10 x rated range	5 x rated range
Material in Contact With Media	Braze assembly of 300 series stainless steel		
Shock	50 g's peak (5 milliseconds)		
Vibration	Meets MIL-STD 810-C, Figure 514.2-5, Curve AK, 20.7 g rms minimum		
Weight	Less than 3 oz (85 gm) with connector		

ELECTRICAL

Full Scale Output	EA: 5 ± 0.1 mVdc @ 25°C (1-6V) EAF: 5 ± 0.1 kHz @ 25°C (1-6kHz)
Zero Output	EA: 1.0 ± 0.15 Vdc @ 25°C* EAF: 1.0 ± 0.15 kHz @ 25°C**
Excitation	EA: 8 to 24Vdc @ 15 mA nominal EAF: 10 to 20 Vdc @ 20 mA nominal
Output Current (nominal)	Source: 10 mA Sink: 5 mA (8 mA EAF)
Output Voltage (EAF only)	18 Vdc Maximum
Reverse Polarity Protection	No
Enable Voltage (inhibit, EAF only)	8 Vdc maximum
Enable Current Source (EAF only)	9 Vdc maximum
Insulation Resistance	1000 M @ 50 Vdc
Electrical Connection	Automotive type, Valox housing w/crimp pins (supplied)

PERFORMANCE

Accuracy	$\pm 1\%$ of FSO from best fit straight line including effects of nonlinearity, hysteresis and nonrepeatability
Operating Temperature Range	EA: -55° to 100°C (-67° to 212°F) EAF: -40° to 85°C (-40° to 185°F)
Compensated Temperature Range	-1° to 85°C (30° to 185°F)
Thermal Effect on Zero	Less than $\pm 1\%$ FSO for any 55°C (100°F) change within the compensated range
Thermal Effect on Full Scale Output	Less than $\pm 1\%$ within the compensated range

* For 6 PSI, zero output is: 1.0 ± 0.20 Vdc @ 25°C

** For 6 PSI, zero output is: 1.0 ± 0.20 kHz @ 25°C

Note: • All specifications are measured at 25°C and rated excitation unless otherwise stated

OPTIONS

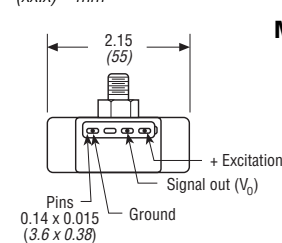
Packard connector for Model EA only.

ACCESSORY

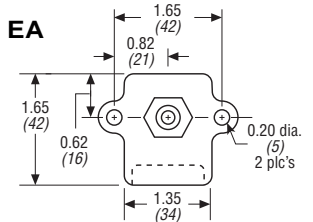
Automotive type Valox connector with crimp pins is supplied with transducer.

DIMENSIONS

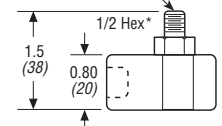
xx.xx = inches
(xx.x) = mm



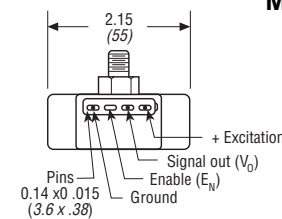
Model EA



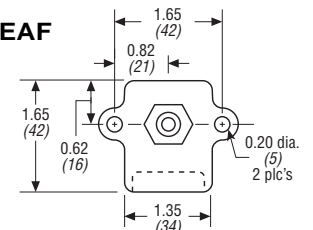
Available ports:
1/4 (6.35) O.D. straight SS port (0-6 to 0-50 PSI)
1/8-27 NPT (for EA/6 through 5000)
3/8-24 UNF (optional on 5000)



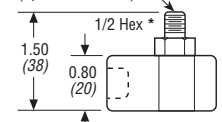
*9/16 Hex for 3/8-24 UNF port



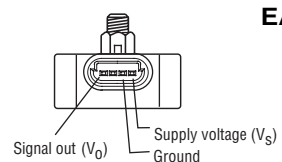
Model EAF



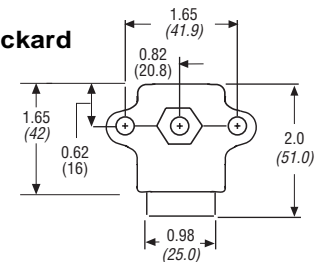
1/4 (6.35) O.D. straight SS port (0-6 to 0-50 psi)
1/8-27 NPT (for EAF/100 through 5000)
3/8-24 UNF (optional on 5000)



*9/16 Hex for 3/8-24 UNF port



EA Packard



Mates with # 1262188 Packard connector

*Dimension with mating connector installed

