



# Model 424 Pressure Transducer



## MODEL 424 PRESSURE TRANSDUCER

0-5 VDC, 0-3 TO 5000 PSI  
FOR USE IN APPLICATIONS  
REQUIRING SMALL  
FOOTPRINT

Developed for engine test stands with space constraints, the Model 424 is small in size, but packs a high-performance punch. The electronics and silicon sensor design have a combined accuracy of better than  $\pm 0.08\%$ .

Available standard output is 0-5 Vdc for PSIA or 0.25 - 5.25 Vdc for PSIG measurements.

### PERFORMANCE

Full Scale Pressure Range (FSPR)	0-3 thru 0-5000 PSI (0-0.2 to 0-345 bar)
Zero balance	$\leq \pm 0.25\%$ FSO
Non-Linearity (Best Fit Straight Line)	$\leq \pm 0.06\%$ FSO standard, optional $\pm 0.04\%$
Hysteresis & Repeatability	$\leq \pm 0.06\%$ FSO standard
Full Scale Output	5 Vdc $\leq \pm 0.25\%$ FSO
Long Term Stability	$\leq \pm 0.3\%$ FSO per 6 months
Compensated Temperature	32°F to 180°F (0°C to 82°C)
Operating Temperature Range	-40°F to 185°F (-40°C to 85°C)
Storage Temperature	-40°F to 250°F (-40°C to 121°C)
Maximum Fluid Temperature	250°F (121°C)
Combined Thermal Effect (zero & span)	$\leq \pm 2\%$ FSO per 100°F typical
Compensated Temperature Range	32°F to 180°F (0°C to 82°C)

### ELECTRICAL

Supply Voltage	9 to 30 Vdc
Power Supply Regulation	$< \pm 0.05\%$ FSO per Volt
Output Signal	0-5 Vdc (PSIA) 0.25 - 5.25 Vdc (PSIG)
Circuit Protection	Short circuit and reverse polarity protected
Voltage Spike Protection	Withstand 1000 volt spike per EN6100-4-5
RFI / EMI Suppression	CE marked, EN 61326
Insulation Resistance	$< 5\text{nS}$ conductance
Response Time	$\leq 2$ milliseconds
Electrical Connections	6-pin bayonet style SST (standard)
Pin Outs	Pin A +Power Pin B -Power Pin C +Signal Pin D -Signal Pin E DC ground (standard) Pin F No connection
Connector Options	BP Micro change (M12) BN 4-pin bayonet ZU Cable gland

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All Stainless Steel construction



High Accuracy



RoHS Compliant

## HIGH-PERFORMANCE

The Model 424 is a versatile high-performance test and control sensor that offers a fast response time, noise immunity, and is CE compliant. Viatran takes pride in offering excellent customer support combined with a technically superior product.

## INSPIRED BY SMALL SPACES

Developed for engine test stands with space constraints, the Model 424 is small in size, but packs a high-performance punch. The electronics and silicon sensor design have a combined accuracy of better than  $\pm 0.08\%$ . Available standard output is 0-5 Vdc for PSIA or 0.25 - 5.25 Vdc for PSIG measurements.

## EASILY ADAPTABLE

Viatran's ability to customize products provides extreme flexibility, allowing the 424 to easily fit into your existing system. Options include alternate pressure ports, electrical connectors, direct coupled cable, and various electrical outputs. The "424" series is just one of the latest additions to Viatran's portfolio of pressure sensors. They are designed to fit a wide range of applications where accuracy, stability, and reliability are important. The RoHS compliant 6-pin bayonet circular connector is one of many standard features.

## MECHANICAL

Pressure Connection	1/8" NPT female
Proof Pressure	3x range or 1,200 PSI (whichever is less) for 0-3 thru 0-500 PSI 3x range or 9,000 PSI (whichever is less) for 0-1,000 thru 5,000 PSI
Burst Pressure	5x range or 2,400 PSI (whichever is less) for 0-3 thru 0-500 PSI 5x range or 10,000 PSI (whichever is less) for 0-1,000 thru 0-5,000 PSI
Pressure Cavity Volume	1.5 mL
Mounting	May be supported by process piping

## MATERIALS OF CONSTRUCTION

Wetted Parts	316L stainless steel
Housing	316 stainless steel
Weight	3.5 oz nominal
Identification	Laser etched onto body

## OPTIONS

DC	Extended Compensated Temperature Range (Cold) -40°F to 170°F (-40°C to 77°C)
DG	Improved temperature performance Combined zero & span ( $\leq \pm 1\%$ FSO per 100°F typical)
DN	Improved linearity $\pm 0.04\%$ FSO
DQ	Cleaning for oxygen service
DX	Modified FSO < 5Vdc
EA	Special calibration
EH	Extended Compensated Temperature Range (Hot) +70°F to 185°F (21°C to 85°C)
NH	Customer specified marking

### Alternate Pressure Ports

VB	G 1/8" ( DIN3852-2 ) (Male)
VC	G 1/8" ( DIN3852-2 ) (Female)
VE	1/4 AN bulkhead mount
VF	1/4 tube Swagelok bulkhead
VG	M12 x 1.5 mm female
VH	M12 x 1.5 mm (Male)
WQ	G 1/4" (Female)
YA	MS33649-04 (7/16-20 UNJF-3B) (Female)
YC	MS33656-04 (7/16-20 UNF-3A) (Male)
YH	1/8" NPT (Male)
YL	1/8" NPT (Female) (Standard)
YJ	1/4" NPT (Female)
YK	1/4" NPT (Male)

# Model 424 Pressure Transducer



Model 424 EMC  
Declaration of  
Conformity

CE Declaration of  
Conformity (RoHS)

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ALL DIMENSIONS ARE NOMINAL, IN INCHES  
AND FOR REFERENCE PURPOSES ONLY

