

DYNAMIC PRESSURE TRANSDUCERS

HIGH FREQUENCY, ACCELERATION COMPENSATED

DPX101 Series

0-250 to 0-5000 psi

Starts at
\$495

- ✓ Ideal for Monitoring Explosion or Pulsation Pressures
- ✓ 1 μ s Rise Time
- ✓ Welded Flush Diaphragm
- ✓ Pressure Ranges Up to 5000 psi
- ✓ High-Level 5 V Output
- ✓ Calibration Certificate Supplied

OMEGA's DPX101 dynamic pressure transducers are ideal for measuring pressure transients or dynamic pressure pulsations in liquids or gases. With their wide dynamic range, they can measure pressure events with rise times as fast as 1 μ s, frequencies to hundreds of kHz, and pressure levels down to fractions of a psi. Using pure synthetic quartz crystals under high compressive preload, these transducers produce a clean, low-impedance voltage signal compatible with many readout instruments.

SPECIFICATIONS

Excitation: 2 mA nominal @ 18 to 30 Vdc, constant current
Rated Output: 5 V nominal FS
Rise Time: 1.0 μ s
Resonant Frequency: 500 kHz
High Frequency Range: 170 kHz (approx. $\frac{1}{3}$ of resonant frequency)
Low Frequency Range (-3 dB): 0.08 Hz (101-250), 0.03 Hz (101-500), 0.02 Hz (101-1K), 0.003 Hz (101-5K)
Acceleration Sensitivity: 0.002 psig
Discharge Time Constant: 2 s (DPX101-250), 5 s (DPX101-500), 10 s (DPX101-1K), 50 s (DPX101-5K)
Proof Pressure: 5000 psi (DPX101-250), 10,000 psi (DPX101-500), 10,000 psi (DPX101-1K), 15,000 psi (DPX101-5K)

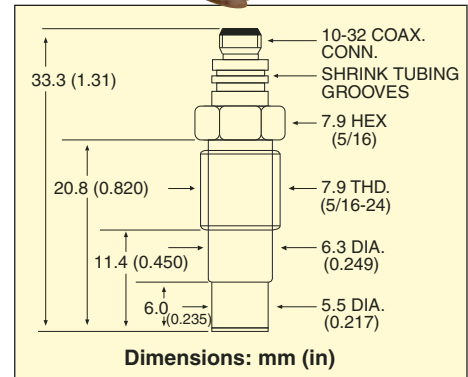


DPX101, \$495, shown actual size.



DPX101, \$495, with DPX-NPT $\frac{1}{8}$ NPT adaptor, \$65, shown actual size, see "To Order" chart below.

Overload Recovery: 10 μ s for 2x range
Maximum Shock: $\pm 10,000$ g peak
Maximum Vibration: ± 5000 g
Amplitude Linearity: $\pm 1\%$ FS (BSFL/0)
Temperature Range: -100 to 250°F (-75 to 120°C)
Temperature Sensitivity Effect: 0.03% FS/°F
Output Impedance: 100 Ω
Bias Voltage: 10 V nominal
Noise Floor (Wideband, RMS): 0.004 psi (DPX101-250), 0.007 psi (DPX101-500), 0.014 psi (DPX101-1K), 0.07 psi (DPX101-5K)
Weight: 14 g (0.5 oz) nominal
Material: 316L SS diaphragm, 17-4 SS housing
Connector: 10-32 male termination (cable not included; order Model No. ACC-CB2-10)



MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)

MODEL NO.	PRICE	RANGE (psig)
DPX101-250	\$495	0 to 250
DPX101-500	495	0 to 500
DPX101-1K	495	0 to 1000
DPX101-5K	495	0 to 5000
ACC-CB2-10	55	3 m (10') coaxial cable (10-32/BNCM) required

ACCESSORIES

MODEL NO.	PRICE	DESCRIPTION
DPX-NPT	\$65	$\frac{1}{8}$ NPT flush mount adaptor
DPX-3824	70	$\frac{3}{8}$ -24 flush mount adaptor
DPX-6600	2	Replacement brass seals

POWER SUPPLIES

ACC-PS1	\$205	Battery power supply (BNC connections)
ACC-PS2	530	Battery power supply/amplifier (BNC connections)
ACC-PS3	475	AC power supply (BNC connections)

CABLES

ACC-CB4-15	\$65	4.6 m (15') coaxial cable (BNCM/BNCM)
ACC-CB5-2	25	0.6 m (2') coaxial cable (BNCM/banana plug)
ACC-CB6	15	178 mm (7") coaxial cable (BNCM/pigtail)
ME-1740	160	Reference Book: Diesel Engine Engineering

Notes: Each unit comes with 2 DPX-6600 seals.

See pages K-20 through K-22 for details on the above power supplies and cables.

Ordering Example: DPX101-250, 0 to 250 psig transducer, DPX-NPT, 3.2 mm ($\frac{1}{8}$ ") flush mount adaptor, ACC-CB2-10, 3 m (10') coaxial cable, ACC-PS1, power supply, ACC-CB5-2, banana plug cable, \$495 + 65 + 55 + 205 + 25 = \$845.

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