

PRESSURE TRANSMITTER

Models 245 / 345 High Range



FEATURES

- High accuracy
- Small size and weight
- Many options available
- All stainless steel construction
- 7.5K to 100K PSI (600 to 6900 bar)
- Shunt calibration circuit

TYPICAL APPLICATIONS

- Engine test stand
- Turbine-rocket
- Diesel-internal combustion
- Emission testing
- Production test stand
- Transmission testing
- Break Strength testing

COMPACT SIZE WITH STATE-OF-THE-ART CIRCUITRY

The compact size means more transmitters fit into a small space meaning more pressure points can be measured. An internal calibration signal circuit is also included allowing calibration of the transmitter without an external pressure source. This minimizes the need to send the 245 / 345 to a metrology lab.

Surface mount technology (SMT) allows the 245 / 345 to be equipped with electronic linearization, a compensation circuit that corrects for non-linearities in the sensor.

OPTIONAL OUTPUTS, PROOF PRESSURES AND MORE

Spikes and over pressures are a problem. To combat spikes, Viatran employs a bonded foil strain gage on a hardened stainless steel diaphragm. This solution withstands overpressure conditions inherent in your toughest applications.

EASILY ADAPTABLE

Viatran has been making Pressure Transducers for the Test and Control industry for the last 50 years, and we have the technical expertise and the proven track record to go along with it.

If your application requires the reliability and endurance of a rugged pressure transducer, Viatran's 245 / 345 is the answer. Keep in mind, if you need improved temperature compensation or lower pressure ranges, ask for the Viatran Digicomp 245 / 345.

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PERFORMANCE

	Full Scale Pressure Range	7500, 10K, 15K, 20K, 25K, 30K, 40K, 50K, 60K, 75K, 100K PSIA, PSIG (500, 700, 1000, 1400, 1700, 2000, 2700, 3500, 4000, 5000, 6900 barA, barG)
	Nonlinearity (Best Fit Straight Line)	≤±0.1% FSO (≤±0.25% FSO for 75 -100K PSI)
	Hysteresis	≤±0.06% FSO
	Repeatability	≤±0.03% FSO
Full Scale Output (FSO)	245	5 Vdc at 70°F (21°C) - standard (see options)
	345	16 mA at 70°F (21°C)
	Long Term Stability	≤±0.2% FSO per 6 months
	Compensated Temperature	70°F to 170°F (21°C to 76°C)
	Operating Temperature	-40°F to 250°F (-40°C to 121°) - process -40°F to 185°F (-40°C to 85°) - ambient
	Storage Temperature Limits	-40°F to 250°F (-40°C to 121°C)
	Temperature Effect on Zero	≤±0.01% FSO per 1°F - see options
	Temperature Effect on Span	≤±0.01% FSO per 1°F - see options

ELECTRICAL

Supply Voltage	245	9.5 to 40 Vdc at 3.5 mA nominal, 5 mA max (13 to 40 Vdc for 10 Vdc output option)
	345	9.5 to 40 Vdc
	Power Supply Regulation	≤±0.01% FSO per volt change over the supply voltage range
Output Signal	245	0 - 5 Vdc standard
	345	4 to 20 mA
Load Resistance	245	100K Ohms min
	345	1500 Ohms max at 40 Vdc
	Zero Adjustment	±10% FSO min
	Span Adjustment	±10% FSO min
	Calibration Signal	80% of FSPR, by shorting pins
	Calibration Signal Accuracy	≤±0.1% of the stated value
	Circuit Protection	Input polarity may be reversed. Output may be short-circuited indefinitely. Over voltage protection to 1000 volts for ≤1 mSec
	Insulation Resistance	≥200 MegOhms to case ground
	Response Time	≤4.0 mSec
	Electrical Connection	Bendix PT02E-10-6P, mates PT06E-10-6S (SR)
	245	345
Pin A	+Power	+Power/Signal
Pin B	-Power	-Power/Signal
Pin C	+Signal	Calibrate
Pin D	-Signal	Calibrate
Pin E	Calibrate	No connection
Pin F	Calibrate	No connection

MATERIALS OF CONSTRUCTION

Wetted Parts	7.5K to 15K PSI (500 to 1000 bar)	15-5 PH stainless steel
	20K to 100K PSI (1400 to 6900 bar)	PH 13-8 MO SST
	Housing	304 SS with a Cadmium plated electrical connector
	Weight	15 oz (425 g)
	Identification	Laser etched onto body

ACCESSORIES

Direct Mount digital Indicator/Power Supply
Mating Electrical Assembly

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MECHANICAL

Pressure Connection	7.5K to 15K PSI (500 to 1000 bar).....1/4" - 18 NPT female
	20K to 50K PSI (1400 to 3500 bar)..... 1/4" F250-C high pressure tube
	60K to 100K PSI (4000 to 6900 bar)..... 5/16" F312-C high pressure tube
Proof Pressure	7.5K to 15K PSI (500 to 1000 bar)..... 1.5 times range or 20K PSI (1400 bar) max
	20K to 100K PSI (1400 to 6900 bar)..... 1.2 times range or 100K PSI (6900 bar) max
Burst Pressure	7.5K to 20K PSI (500 to 1400 bar)..... 3 times range or 40K PSI (2800 bar) max
	25K to 100K PSI (1700 to 6900 bar)..... 1.5 times range or 125K PSI (8600 bar) max
Pressure Cavity Volume	7.5K to 15K PSI (500 to 1000 bar)..... 0.32 cubic in (5.2 ml)
	10K to 100K PSI (1400 to 6900 bar)..... 0.10 cubic in (1.6 ml)
Mounting May be supported by process piping

OPTIONS

Codes	BG.....DIN 43650
	BL.....WK6-32S
	BN.....(K)PTIH-8-4P
	BQ.....(K)PT02H-10-6P
	BR.....CF3102E-14S-6P
	ZU.....Direct Cable (175°F max temperature) (79°C)
	Y().....Multiple pressure ports available. Consult factory
Improved Performance	DG.....Improved temp performance to 0.005% FSO per 1°F
	DH.....Special ranging
	DK.....Special shunt calibration setting
	DM.....Modified full scale output
	DN.....Improved non-linearity
	DQ.....Cleaning for oxygen service
	EA.....Special calibration run
	NH.....Customer specified identification
	PW.....1/8 DIN digital indicator
	TW.....GOST-R

Note: Application of some available options may affect standard performance. Consult your Viatran representative for details.

