

Pressure Transducer

DIFFERENTIAL PRESSURE

MODEL X20



Viatran's "20" Series is a rugged, wet - wet (process fluids can be applied to either or both parts) differential pressure transducer for medium to high differential ranges of 0 to 500 through 0 to 5000 PSID. Proof pressure of 3 times the rated range to a maximum of 7500 PSID, combined with a differential static line pressure of 10,000 PSI, provides transducer protection against over-pressure. Stainless steel construction provides corrosive protection for most industrial applications and environments.

Viatran's unique shunt calibration circuit allows the user to calibrate the instrument's output signal without an external pressure source.

For low range differential applications, Viatran's "74" and "76" Series offer high accuracy and small size. For gage and absolute pressure applications, Viatran's "45" and "49" Series offer small size, high accuracy and rugged construction.

Viatran's "20" Series differential pressure transmitters are extremely rugged units, especially made for higher pressure ranges. The bonded strain gage sensing technology provides durability.

FEATURES

- High differential pressure
- High static line pressure (10K PSI)
- High differential over-pressure
- External zero & span adjustments
- Internal calibration circuit (Models 22 & 320)

TYPICAL APPLICATIONS

- Test stands - Engine
Hydraulic/Valves
Aerospace
- Laboratory/Research
- Core analysis
- Destructive tests

Contact Viatran for approval options



For product availability, or to order please call 1-800-688-0030

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An ISO 9001: 2001 Certified Company

SPECIFICATIONS

Performance

Full Scale Pressure Range (FSPR)	0-500, 1000, 2000, 3000, 4000, 5000 PSID
Linearity (Best Fit Straight Line)	< ±0.25%
Hysteresis	< ±0.2% FSO
Repeatability	< ±0.25% FSO
Full Scale Output (FSO)	
Model 120	2.7mV/V
Model 220	5 VDC
Model 320	16 mA
Resolution	Infinite
Long Term Stability	< ±0.25% FSO per 6 months
Response Time	< 10 mSec to reach 90% FSO
Zero Balance	
Model 120	Fixed at 0mV ±5%FSO @ 70°F
Model 220, 320	Adjustable to ±10% FSO
Operating Temperature Range	-30° F to +180° F
Storage Temperature Range	-50° F to +250° F
Temperature Effect on Zero	< ± 2.0% FSO per 100° F typical
Temperature Effect on Span	< ± 1.0% FSO per 100° F typical

Electrical

Supply Voltage	
120	10 VDC regulated, 15 V maximum
240	10 to 48 VDC, ±12 to ±18 VDC optional
340	9.5 to 36 VDC
Circuit Protection	
120	None
220, 320	Reverse polarity does not affect calibration
Range Calibration Signal	
120	80% FSO by applying specified resistance across pins 2 and 4
220	80% FSO by shorting pins 5 and 6
320	100% FSO by shorting pins 3 and 4
Span Adjustments	
120	None
220, 320	Adjustable to ±10% FSO
Bridge Resistance	350 Ohms nominal (120 only)
Insulation Resistance	>2000 MegOhms to case ground at 50 VDC

Mechanical

Pressure Connections	1/4" NPT Female
Proof Pressure	3 times range (7500 PSID Max)
Static Line Pressure	10K PSI
Burst Pressure	≥ 12K PSID
Mounting	May be supported by process piping or optional mounting bracket
Position Sensitivity	Mounts in any position with no effect on zero
Materials of Construction	
Wetted Parts	303 SS, 316 SS, Hastelloy C & Viton "O"-Ring, Alternate material available
Housing Material	316, 304 stainless steel,
Weight	44 Oz
Identification	Laser etched onto body

Options

Codes	Description
BF	(K)PT1H-10-6P
BI	CF3102E-14S-2P
BL	WK6-32S
BM	WKA7-32S
BN	(K)PTIH-8-4P
BQ	(K)PTO2H-10-6P
BR	CF3102E-14S-6P
BS	CF3102E-14S-5P
BY	(K)PTO2E-10-6P
DF	Bleed Port
DH	Special ranging
DM	Modified full scale output
DN	Improved accuracy (±0.2% FSO)
DQ	Cleaning for Oxygen service
EA	Special calibration run
GB	Teflon O-ring
GE	Buna-N O-ring
NH	Customer specified ID
PW	1/8 DIN Digital indicator
YA	MS33649-04
YC	MS33656-04 (37° Flared)
YG	MS16142-04
YR	1/2" NPT Female
ZU	Direct coupled cable (175°F Max)

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

Electrical Connections

Model 120	Cannon WK4-32S
Pin 1	+ Power
Pin 2	- Power
Pin 3	+ Signal
Pin 4	- Signal
Model 220	Cannon WK6-32S
Pin 1	+ Power
Pin 2	- Power (Common)
Pin 3	+ Signal
Pin 4	- Signal (Common)
Pin 5	Calibrate
Pin 6	Calibrate
Model 320	Cannon WK4-32S
Pin 1	+ Signal
Pin 2	- Signal
Pin 3	Calibrate
Pin 4	Calibrate

NOTE:

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

