



MCS-500-XP

Description & Specifications

All Stainless Steel Construction

- Wide Operating Temperature
- Low Static and Thermal Errors
- Rugged Design Withstands Harsh Environments
- Suitable for High Shock and Vibration



Part #
MCS-500-XP



Description

The **MCS-500-XP Explosion Proof** pressure transducer is an economic and durable option for dealing with high-pressure industrial applications where an explosion proof transducer is required.

The high strength one-piece stainless steel construction contains no silicone oil, no welds, and no internal "O" rings, offers a full hermetic seal against corrosive media.

In addition to being CE and UL approved, the MCS-500-XP is capable of surviving high vibration. It includes a cavity built out of solid 316L stainless steel with 1/4" SAE Female Flare fitting; 7/16-20 UNF pipe thread which creates a leak-proof, all metal sealed system that makes the MCS-500-XP ideal for use with rugged HVAC environments.

MCS-500-XP has an output voltage of 0.5 to 4.5vdc (ratio metric) and is also overvoltage-protected in both positive and reverse polarity, which adds an extra layer of safeguard against short-circuiting caused by unpredictable power surges.



Option

-H Explosion proof Housing

Certification

Approved to CSA 30 (UL 1203) Class 1, Div. 1, Explosion proof, Groups A,B,C and D.

Specifications

Pressure Range..... 500 PSI
 other ranges available upon request
 Housing 316L Stainless Steel wetted
 Pressure Connection 1/4" SAE Female Flare fitting
 Electrical Connection 1/2" MNPT UNF fitting
 Operating Ambient..... -40 to 85°C (-40 to 185°F)
 Storage -55 to 105°C (-67 to 221°F)

Thermal Limits

Compensated Range..... 0 to 55°C (30 to 130°F)
 TC Zero: <±1.5% of FS
 TC Span: <±1.5% of FS
 and IEC 68-2-32

EMI/RFI Protection Yes
 Rating: IP-66 (factory sealed)

Performance @ 25°C (77°F)

Accuracy* < ±0.25% BFSL (<±0.5% from 7,500 up to 20,000 PSI)
 Stability (1 year)..... ±0.25% FS, typical
 Over Range Protection 2X Full Scale = 100 PSI
 Burst Pressure 5X Full Scale = 2500 PSI
 Pressure Cycles > 100 Million

Electrical

Length..... 2ft. 18 AWG wires
 Type..... 4-conductor, 18 awg stranded
 Output..... 0.5-4.5V ratiometric
 Excitation 5VDC regulated
 Output Impedance..... <100 Ohms, Nominal
 Current Consumption: <10mA
 Bandwidth..... (-3dB): DC to 1kHz
 Output Noise:..... < 2mV RMS
 Zero Offset:..... <±1% of FS
 Span Tolerance:..... <±1.5% of FS
 Output Load:..... 10K Ohms, Min.

VDC to PSI Chart

SI (VDC)	(PSI) 0-100	(PSI) 0-500	(PSI) 0-667
0.5	0	0	0
0.7	5	25	33
0.9	10	50	67
1.1	15	75	100
1.3	20	100	133
1.5	25	125	167
1.7	30	150	200
1.9	35	175	233
2.1	40	200	267
2.3	45	225	300
2.5	50	250	333
2.7	55	275	367
2.9	60	300	400
3.1	65	325	433
3.3	70	350	467
3.5	75	375	500
3.7	80	400	533
3.9	85	425	567
4.1	90	450	600
4.3	95	475	633
4.5	100	500	667

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