

MCS-500 **Description & Specifications**



Description

The MCS-500 pressure transducer is one of the most economic and durable options on the market for dealing with high-pressure industrial applications.

In addition to being CE and UL approved, the MCS-500 is capable of surviving high vibration. It includes a cavity built out of solid 17-4 PH stainless steel 1/4" SAE Female Flare fitting & Schrader valve; 7/16-20 UNF pipe thread which creates a leakproof, all metal sealed system that makes the MCS-500 ideal for use with rugged HVAC environments. The MCS-500 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.

Specifications

Pressure Range 0 to 500 psi (Gauge) Housing 17-4 ph Stainless Steel wetted
Environmental Protection IP66*
Operating Temperature40°F to 257°F (-40°C to 125°C)
Accuracy± 1% -4°F to 185°F (-20°C to 85°C)
± 2.5% -40°F to -4°F (-40°C to -20°C)
± 2.5% 185°F to 257°F (85°C to 125°C)
Agency ApprovalsCE, UL 508
Proof Pressure 2 x Full Scale = 1000 psi
Burst Pressure 5 x Fule Scale = 2500 psi
Random Vibration 20 G @ 10-2000 Hz
Input Voltage 5vdc
Output Voltage 0.5 to 4.5vdc (ratio metric)
Connection
Schrader valve; 7/16-20 UNF thread
Cable:

Connector	. Packard with Neoprene seal
Length	. 20', 40' or 60' feet
Type	. 3-conductor, 20 awg stranded
Shield	. Foil shield with 25% overlap
Drain	Stranded tinned copper drain

Part number description when ordering (MCS-500-xx) xx...... 20' 40' or 60' wire length



The cable is available in either 20', 40 or 60' lengths with a removable Packard connector to provide easy serviceability. The wire is sealed and crimped to the Packard connector providing a liquid tight environment and strain relief. Media compatibility: Refrigerants (freons) and ammonia.

PSI to VDC Chart

PSI	SI (vdc)										
0	0.50	100	1.30	200	2.10	300	2.90	400	3.70		
10	0.58	110	1.38	210	2.18	310	2.98	410	3.78		
20	0.66	120	1.46	220	2.26	320	3.06	420	3.86		
30	0.74	130	1.54	230	2.34	330	3.14	430	3.94		
40	0.82	140	1.62	240	2.42	340	3.22	440	4.02		
50	0.90	150	1.70	250	2.50	350	3.30	450	4.10		
60	0.98	160	1.78	260	2.58	360	3.38	460	4.18		
70	1.06	170	1.86	270	2.66	370	3.46	470	4.26		
80	1.14	180	1.94	280	2.74	380	3.54	480	4.34		
90	1.22	190	2.02	290	2.82	390	3.62	490	4.42		
							_	500	4.50		

^{*} IP66 Enclosure - IP rated as "dust tight" and protected against heavy seas or powerful jets of water.