



MCS-050-DIFF

Description & Specifications



Part # **MCS--050-DIFF-xx**

Description

The MCS-050-DIFF sets the price and performance standard for differential pressure transducers used in demanding environments.

The sensor exceeds the latest heavy industrial CE requirements including surge protection and reverse polarity protection. The amplified and mV output pressure transducer has two pressure ports for high and low pressures and all wetted parts are made of 316L stainless steel.

- As Low As $\pm 0.1\%$ Pressure Non Linearity
- Tank Level Measurement
- Rugged Construction:
Can Withstand 50g Shock/20g Vibration
- Filter Performance Monitoring
- Up to -40°C to $+125^{\circ}\text{C}$ Operating Temperature Range
- Corrosive Fluids and Gas Measurement Systems
- Excellent Stability
- Flow Measurements
 - Measure Differential Pressure Across Chiller Barrels
 - Proof of Flow
 - Can Be Used to Calculate Flow Rate

SPECIFICATIONS

Pressure Range.....	0-50 psi differential
Housing	316L Stainless Steel Wetted
Environmental Protection.....	IP66*
Operating Temp.	-40°C - $+85^{\circ}\text{C}$ (-40°F to 185°F)
Storage	-40°C to $+125^{\circ}\text{C}$ (-40 to 257°F)
Accuracy*	-0.3 - $+0.3$ - 5 psi: -0.25 $\leq 15\text{psi}$: -0.1
Agency Approvals.....	CE, IEC61000-4-2 thru 4.9
Proof Pressure.....	10x or 150 psi, whichever is less
Burst Pressure (low).....	10x or 150 psi, whichever is less
Burst Pressure (high).....	12x or 1000 psi, whichever is less
Input Voltage.....	4.5 to 5.5vdc
Output Voltage.....	0.5-4.5vdc (ratio metric)
Connection	1/4" SAE Packard Connection
Total Error Band.....	-1.5 - $+1.5$
Bandwidth.....	DC to 1 KHz (typical)
Sensor Type	Differential Pressure Sensor with Unidirectional Calibration
Shock.....	50g, 11 msec Half sine shock per MIL-STD-202F, Method 213B, Condition A

OPTION - 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:

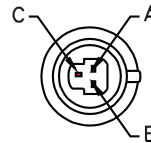
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xx..... 20' 40' or 60' wire length



WARNING
Wiring as follows:

PIN A - Black - +5vdc
PIN B - Red - Ground
PIN C - White - SI



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.

*IP66 Code

Able to protect against powerful water jets
Water projected in powerful jets (12.5 mm nozzle) against the enclosure from any direction shall have no harmful effects.
Test duration: at least 3 minutes
Water volume: 100 litres (26.42gals) per minute
Pressure: 100 kPa (14.50psi) at distance of 3 m (9.84ft)

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