MDC Series

DURAsense®
CONTENTS UNDER PRESSURE

Features

- Small Size
- MEMS Pressure
- Digital Trimming
- High Accuracy
- Wide Operating Temperature Range
- Harsh Media Compatibility
- Various color codes
- Long Life
- Small size Low profile

Applications

- Space Limited Applications
- Pumps
- Hydraulics
- Valves
- Hand Held devices
- Pneumatics

The MDC series (MEMS DURAsense®Core) is specially designed for use in applications where there is limited space. Our MEMS and special packaging, called DURAsense®, is designed for the most demanding environments, where small size and low cost are needed yet maintaining high accuracy, long term reliability, and long life. This series is also very well suited for many other applications like hydraulic and air compressor.

TECHNICAL SPECIFICATIONS

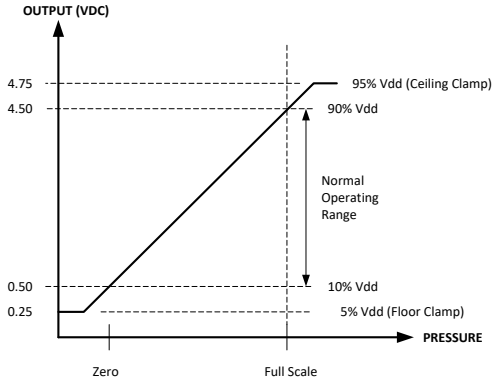
Accuracy @ 25C **Linearity, repeatability, and hysteresis**	±0.5 %Span
Total Error Band	±1.0 %Span 0°C to 80°C ±2.0 %Span -40°C to 125°C Typical Max
Pressure Ranges	0-15 psi through 0-750 psi (gage, sealed gage, or absolute)
Operating Temperature Range	-40°C to 125°C
Storage Temperature	-40°C to 150°C
Proof Pressure	3X rated pressure (Maximum 1500 psi)
Burst Pressure	5X rated pressure (Maximum 2500 psi)
Cycle Life	1 Million + FS cycles
Vibration	5g (33Hz)
Drop (any axis)	1 m
Housing Material	Al_2O_3 ceramic with plastic cap PBT 30% glass filled
Media	Refrigerant, Hydraulic fluid, Oils
Approvals and Marks (UL Listed File E480159, Class III)	RoHS

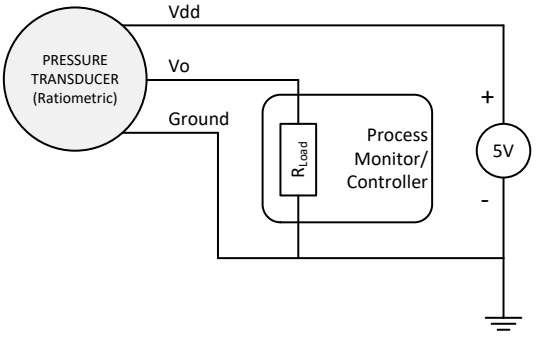
RATIOMETRIC (Output is proportional to Voltage supply)

Electrical Specifications	Min	Typ	Max	Unit
Supply Voltage (Vsupply)	4.75	5	5.25	VDC
Supply Current	-	6	8	mA
Output Voltage	10% to 90% typical, other ranges are available			Vsupply
Upper Clipping Level	-	-	95%	
Lower Clipping Level	5%	-	-	Vsupply
Overvoltage Protection	-	-	16	VDC
Reversed Polarity Protection	-16V	-	-	VDC
Short Circuit Protection	-	Yes	-	
Output Load	-	10	-	KΩ
Insulation Resistance @ 500VDC for 1 minute	100	-	-	MΩ
Dielectric Strength	-	1800 for 1 sec	-	VAC
Response Time	-	< 5	-	ms
IEC61000-4-2 ESD	±2KV Terminal / ±8KV Contact Discharge / ±15KV Air Discharge			
IEC61000-4-3 Radiated	50V/m (80-1000MHz)			
IEC61000-4-4 Transient/Burst	1KV			
IEC61000-4-6 Conducted	3V			

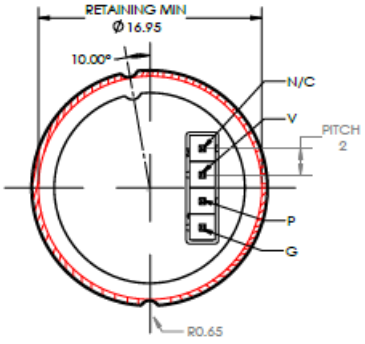
Application Schematic

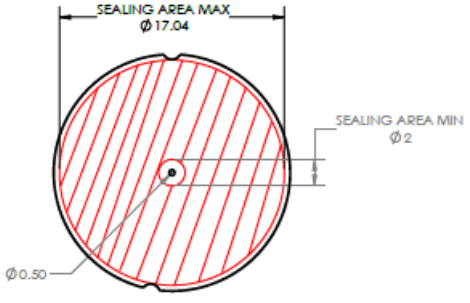
Ratiometric: Output Characteristic Graph and typical application schematic

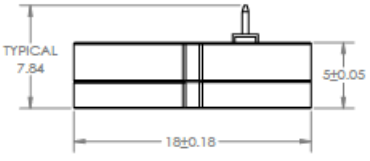




MECHANICAL DIMENSIONS (mm)







Abbreviation	Description
N/C	Not Connected
V	Voltage Supply
P	Pressure Output
G	Ground

Contact manufacturing for other configurations

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