



| 81CP52/82CP59/82CP60/82CP76

HVAC/R PRESSURE SENSOR

The 81/82CP Series is ideal for demanding Air Conditioning and Refrigeration applications where long-term reliability and accuracy is a must. This series provides proven reliability at a competitive price.

The 81/82CP Series is compatible with a variety of refrigerants, including R410a, R12, R22, R134a, R404a, R407c, R410a, R502, R507, Propane (R290) and A2L (R32, R454A, R454B, R454C). Please reach out for other refrigerant options.



Features

- IP65
- ATEX and IECEx certified, ISO14903 certified
- Ceramic capacitive sensor
- Durable, compact design
- Low cost
- Accurate performance over wide temperatures
- Overvoltage and short circuit protected
- Thermal Isolation tube to allow accurate readings

Applications

- Discharge and suction pressure monitoring
- Subcooling and superheat calculations
- Compressor oil pressure monitoring
- Condenser fan control
- Compressor staging and unloading
- Electronic expansion valve control
- Remote systems diagnostics and trending
- Ideally suited for heat pump applications



SPECIFICATIONS

Technical

Pressure Ranges	0-10 Bar(a) 81CP52-01 0-20 Bar(a) 82CP59-01 0-35 Bar(a) 82CP60-01 0-46 Bar(a) 82CP61-01 0-51 Bar(a).....82CP76-01
Accuracy	±0.6% F.S. typ. (linearity, hysteresis, repeatability, and calibration) (Static Error Band @ 25°C)
Total Error Band	-20°C to +85°C ±0.8% F.S. typ -40°C to +125°C..... ± 1.0% F.S. typ. Values are typical. Higher accuracies are possible, consult factory
Operating Temperature	-40°C to 135°C
Storage Temperature	-40°C to 150°C
Maximum Seal Temperature Range	-40°C to 120°C
Proof Pressure	81CP52-01 3X 82CP59-01 3X 82CP60-01 2X 82CP61-01 2X 82CP76-01.....2X
Burst Pressure	150 Bar(a)
Cycle Life	10M F.S. cycles
Random Vibration (50-2000 Hz)	11 g
Drop (any Axis)	1.5 m
Electrical Connection	Nema 4X, IP65

Electrical

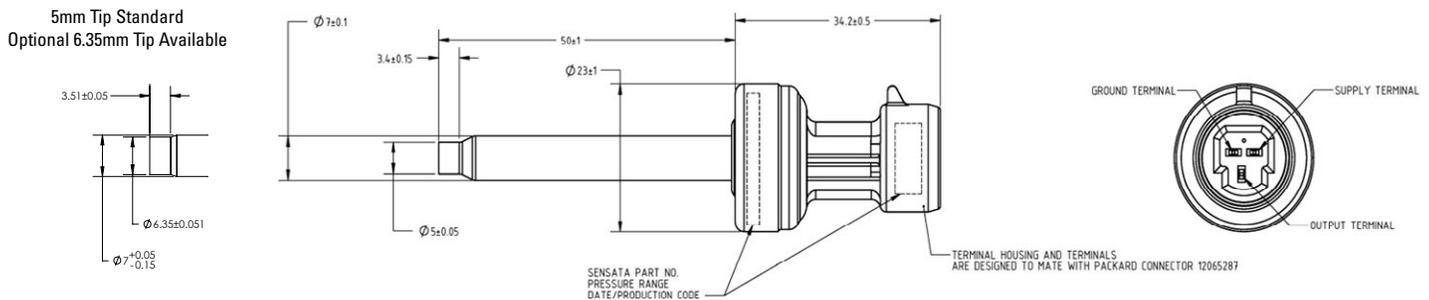
Supply Voltage (V_{in})	4.5 to 5.5 Vdc
Output Voltage (V_{out})	0.5 to 4.5 Vdc typical
Supply Current	8 mA max (Max @ 5.5Vdc with no load)
Output Current	2.5 mA (Max sink or source)
Output Load	10K ohms typical
Output Response time	10 mS
Overvoltage Protection	16 Vdc
Reverse Voltage	-14 Vdc
Short Circuit Protected	Yes
EMC (512 MHz-1 GHz)	50 V/m
EMC (1 MHz-512 MHz)	100 V/m
ESD (CDF-AEC-Q100-002)	15k V

Material

Housing	Stainless Steel
Connector	Polyetherimide Resin (PEI) 20% Glass, Color Black
Pressure Seal	Neoprene
Tube	CDA122 /305SS Copper clad stainless steel

DIMENSIONS

All dimensions in millimeters [inches].



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