

4-20mA Pressure Sensor

sensor for head pressure control

Part Number : 450-75-0010

This pressure sensor features a regulated input voltage and 4-20mA out device, making the supply current and output current equal. The current varies between 4 to 20mA over 0 to 500 PSI. The 450-75-0010 transducer provides proven high volume performance and is ideal for demanding HVAC and refrigeration applications where long-term reliability is a must. Wiring is efficiently managed with a rugged, weatherproof automotive-grade connector.

Technical Specifications:

Pressure Range: 0 to 500 PSI

Accuracy: Static Error (25C) +/- 0.75 % Full Scale Span

Total Error (-20C to 100C) +/- 2.0% Full Scale Span

Linearity +/- 0.3 % Full Scale Span

Supply voltage (at sensor): 6 to 32 Vdc

Over Voltage: 38 Vdc max.

EMC: 30 V/m

ESD: 8kV air, 4kV contact

Proof Pressure: 750 PSI

Burst Pressure: 1500 PSI min.

Random Vibration: MILSTD202F 11Grms (25 to 2000Hz)

Cycle Life: 10 million Full Scale cycles

Drop (any axis): 1.5 m

Electrical Connector: NEMA 4X, IP65

Mating Harness Included: 2-wire with 2 meter long, 18AWG twisted strands with x-linked polyethylene insulation

Applications:

- Discharge and Suction pressure monitoring
- Condenser fan control
- Remote Systems diagnostics and trending with EC Systems



Seal Material

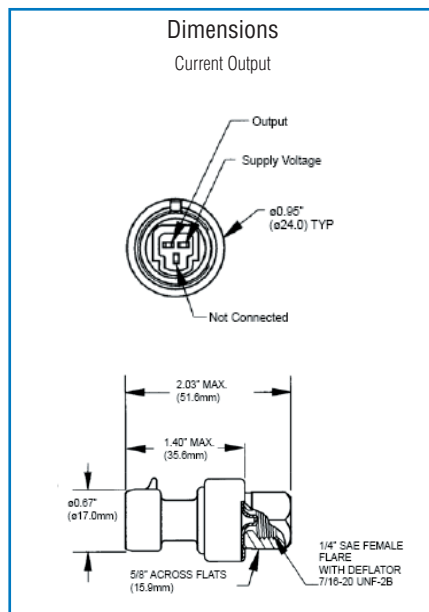
Neoprene

Refrigerant Compatibility

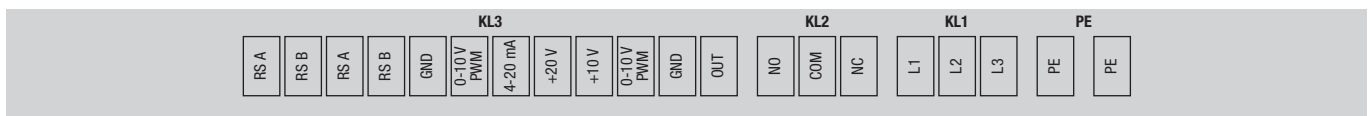
R12, R22, R134a, R404a, R407c, R410a, R502, R507

Maximum Seal Temperature Range

Minus 40 degrees to 135 degrees Celsius



EC motors (size 112 / 150, 3-phase line-fed)



Connector	Signal	Assignment / function
PE	PE	Protective earth
KL1	L3	Mains; L3
	L2	Mains; L2
	L1	Mains; L1
KL2	NC	Alarm relay, break for failure
	COM	Alarm relay, COMMON (2A, 250 VAC, AC1)
	NO	Alarm relay, make for failure

Connector	Signal	Assignment / function
KL3	OUT	Master output 0-10 V max. 3 mA
	GND	GND
	0-10 V / PWM	Control / Actual value input (Impedance 100 kΩ)
	+10 V	Supply for external potentiometer, 10 VDC (+10 %) @ 10 mA
	+20 V	Supply for external sensor, 20 VDC (±20 %) @ 50 mA
	4-20 mA	Control / Actual value input
	0-10 V / PWM	Control / Actual value input
	GND	GND
	RSB	RS485 interface for ebmBUS; RS B
	RSA	RS485 interface for ebmBUS; RS A
	RSB	RS485 interface for ebmBUS; RS B
	RSA	RS485 interface for ebmBUS; RS A

Connection diagram: Condensing pressure control with master-slave fans

