

JOHNSON CONTROLS

P399

Electronic Pressure Transducer

Description

The P399 Series Electronic Pressure Transducer is a compact, economical, rugged, direct-mount pressure transducer designed to produce a low voltage analog signal (0.5 to 4.5 VDC nominal) based on the sensed pressure. They are designed for use in commercial refrigeration and air-conditioning applications.

The P399 Transducer features welded stainless steel construction with environmentally sealed electronics. They are resistant to the effects of wide temperature swings, high humidity, condensation, and icing. They are suitable for use with all non-corrosive refrigerants as well as ammonia.

P399 Transducers are available in several pressure ranges (up to 750 psis), covering most common refrigeration and air conditioning applications.

Pressure connections are available in one of two standard styles:

- 1/4 in. SAE female flare fitting (with Schrader valve depressor)
- 1/8 in. NPT male fitting

The wiring harness is purchased separately or included with the P399xxx-1-200C.

Features

- affordable
- rugged stainless steel construction provides a durable assembly and eliminates potential refrigerant loss due to O-ring failures - resists Electromagnetic Interference (EMI) and damage due to shock, vibration, and pressure pulsations
- environmentally sealed electronics withstand the effects of adverse conditions found in typical equipment rooms



**P399 Series
Electronic Pressure Transducers**

- reliable, repeatable performance and long operating life minimizes service and replacement costs
- available in several pressure ranges (up to 750 psis) to provide a single line of transducers for all refrigeration and air conditioning application needs

Selection Chart

Part Number	Description
P399AAA-1C	Pressure Transducer, 0-100 psis, 1/8 in. NPTM pressure connection
P399AAC-1C	Pressure Transducer, 0-100 psis, 1/4 in. SAE female flare pressure connection with valve depressor
P399BAA-1C	Pressure Transducer, 0-500 psis, 1/8 in. NPTM pressure connection
P399BAC-1C	Pressure Transducer, 0-500 psis, 1/4 in. SAE female flare pressure connection with valve depressor
P399CAA-1C	Pressure Transducer, 0-750 psis, 1/8 in. NPTM pressure connection
P399CAC-1C	Pressure Transducer, 0-750 psis, 1/4 in. SAE female flare pressure connection with valve depressor
P399GAA-1C ¹	Pressure Transducer, 0-200 psis, 1/8 in. NPTM pressure connection
P399AAA-1-200C	Pressure Transducer, 0-100 psis, 1/8 in. NPTM pressure connection, with 6-1/2 ft (2m) wire harness with pigtails
P399AAC-1-200C	Pressure Transducer, 0-100 psis, 1/4 in. SAE female flare pressure connection with valve depressor, with 6-1/2 ft (2m) wire harness with pigtails
P399BAA-1-200C	Pressure Transducer, 0-500 psis, 1/8 in. NPTM pressure connection, with 6-1/2 ft (2m) wire harness with pigtails
P399BAC-1-200C	Pressure Transducer, 0-500 psis, 1/4 in. SAE female flare pressure connection with valve depressor, with 6-1/2 ft (2m) wire harness with pigtails
P399CAA-1-200C	Pressure Transducer, 0-750 psis, 1/8 in. NPTM pressure connection, with 6-1/2 ft (2m) wire harness with pigtails
P399CAC-1-200C	Pressure Transducer, 0-750 psis, 1/4 in. SAE female flare pressure connection with valve depressor, with 6-1/2 ft (2m) wire harness with pigtails

1. Not applicable to System 350™ Pressure Controls

Accessories

Part Number	Description
WHA-P399-200C	Wire Harness, 6 1/2 ft (2.0 m.) length with pigtails
WHA-P399-400C	Wire Harness, 13 ft (4.0 m.) length with pigtails
WHA-P399-600C	Wire Harness, 19-5/8 ft (6.0 m.) length with pigtails

Note: Wiring harness must be ordered separately.

Technical Specifications

P399 Electronic Pressure Transducer		
Overpressure	3x upper range limit, short term	
Burst Pressure	5x upper range limit	
Vacuum	30 microns max (0.03 mm Hg) short term	
Media Compatibility	Noncorrosive refrigerants, refrigeration lubricating oils, ammonia	
Supply Voltage	5.00 ± 0.25 VDC ratiometric range, 6.0 VDC maximum	
Current Draw	5 mA maximum @ 5.0 VDC	
Output Signal	Ratiometric, 10% to 90% of supply voltage (0.5 to 4.5 VDC nominal)	
Pressure Connections	1/8 in. NPT male, direct mount 1/4 in. SAE female flare with Schrader valve depressor, direct mount	
Temperature and Humidity	Storage	-40 to 257°F (-40 to 125°C)
	Ambient	-40 to 158°F (-40 to 70°C)
	Refrigerant	-40 to 300°F (-40 to 149°C); 0 to 100% RH
Accuracy	±1.5% Span, -4 to 212°F (-20 to 70°C); ±2.0% Span, -40 to -4 F (-40 to -20°C)	
Materials	Connector	Nylon, 30% glass filled
	Main Body	Stainless steel all welded construction (304L)
Vibration	10G, 20-2000 Hz maximum	