

Refrigeration Pressure Transducer Installation Instructions

Description

Novar Controls' Pressure Transducer is a precision electronic sensing device designed to be used with Novar Controls' Spectrum[®] Rack Input Module, Condenser Control Module, or 8-IMR Module. The transducer uses a three-wire connection to receive power and return a 1–5 VDC analog signal. Two models are available:

- Low-Pressure Transducer
- High-Pressure Transducer

Specifications

Ranges:	Low-Pressure Transducer:	0–100 psig
	High-Pressure Transducer:	0–400 psig
Output:	1–5 VDC	
Pressure Port:	¼-inch, 18 NPT	
Accuracy:	±1.0 psig	

Mounting the Pressure Transducer

The sensor should be mounted in a location that allows sufficient wiring access and protects the signal wires.

Use the following procedure to mount the transducer.

Step	Procedure
1	Install a ¼-inch, 18 NPT, female well into piping for a pressure tap.
2	Seal the transducer threads to prevent leaks. <ul style="list-style-type: none">■ A product such as Teflon[®] tape can be used.
3	Insert the pressure transducer into the pressure tap and rotate clockwise to tighten.
4	Check the installation for leaks.

Wiring the Pressure Transducer

Table 1 indicates the terminals to which the Pressure Transducer leads should be connected on the Novar Controls modules.

NOTE! On the 8-IMR, identify the input to which the white lead should be connected and remove the 250-ohm resistor from that input.

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NOVAR CONTROLS MODULE	CONNECT THE RED LEAD TO:	CONNECT THE BLACK LEAD TO:	CONNECT THE WHITE LEAD TO:
Rack Input Module	Terminal 67 (Sensor PWR +24VDC)	Terminal 66 (Common)	Terminal 63, 64, or 65 (Suction Press 1, 2, or 3)
Condenser Control Module	+24 VDC terminal	GND terminal	Discharge Pressure terminal
8-IMR Module	External 24-VDC power supply	Any COM terminal	Any positive Sensor Input terminal

Checking the Installation

Once the transducer has been installed and the wiring connections completed, the following items should be checked to ensure proper operation.

- Check all wiring to make sure that polarity has been maintained and the connections are secure.
- Use the Refrigeration Controller keypad and display to monitor the transducer's input and verify proper operation.

Model and Part Numbers

Use the model numbers provided in Table 2 to order the necessary parts.

PRODUCT	MODEL NO.	PART NO.
Low-Pressure Transducer (0–100 psig)	—	733090000
High-Pressure Transducer (0–400 psig)	—	733091000



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