

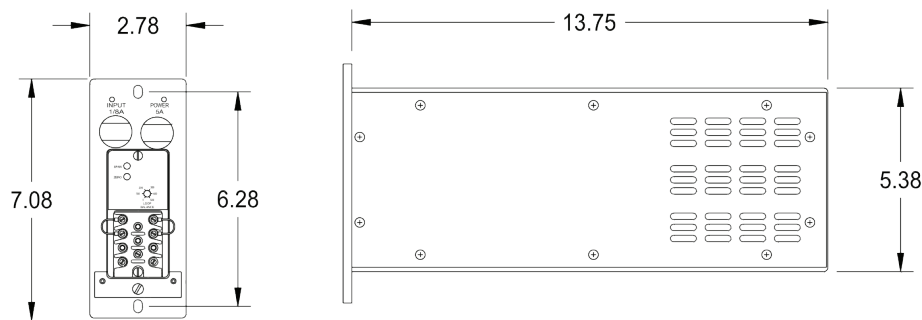
### PIR500 Class 1E Powered Input Repeater

The PIR500 Class 1E Powered Input Repeater replaces the obsolete Foxboro 610A and 66B modules. The PIR500 is a one-input module that provides one output, and power for one loop transmitter at the input, while also providing electrical isolation between the input and the output, and between the input and chassis ground.

The PIR500 contains an I/O conditioning board and an input loop power module, which supplies power to a single force balance transmitter. The input loop impedance is set by adjusting the loop balance potentiometer. The input loop current is sensed by a dropping resistor in the module. This current is converted to a voltage and applied as the input to the I/O conditioning board. The I/O board provides isolation and converts the signal to the desired output range.



PIR500



### SPECIFICATIONS

Time Response:	Less than 1 ms from application of a step change at the input to a change in the output (resistive load) of 63% of the final value (filters bypassed or not in the circuit)
Accuracy:	$\pm 0.1\%$ of output full scale, repeatable to 0.05%
Input to Power Isolation:	580 Vac and 250 Vdc common mode rejection (line to line and line to ground)
In to Out Isolation:	3000 Vdc and 1000 Vac (RMS) from input to output 1000 Vdc and 1000 Vac (RMS) from input to case
Credible Live Fault:	480 Vac or 140 Vdc at 20 amps on the output
Surge Withstand:	No damage when the waveform of IEEE-472-1974 is applied to any port
Frequency Response:	Direct current to 20 Hz or as specified
Electrical Qualification:	Plant protection, qualified to IEEE 323-1974/1983, and IEEE 344-1975/1987
Ambient Temperature:	35 °F to 122 °F (2 °C to 50 °C) (normal operation) 122 °F to 135 °F (50 °C to 57 °C) (abnormal operation for 200 hours) -40 °F to 185 °F (-40 °C to 85 °C) (storage)
Temperature Effects:	Less than 0.025% of output full scale change for each 1 °F change in temperature
Relative Humidity:	0% RH to 95% RH, non-condensing
Pressure:	Atmospheric
Radiation Limits:	104 rad TID gamma

# NUSI 500 Series

Powered Input Repeater

## HOW TO ORDER

The model number and configuration typically should be specified as follows:

PIR500-01-12-01-01/3

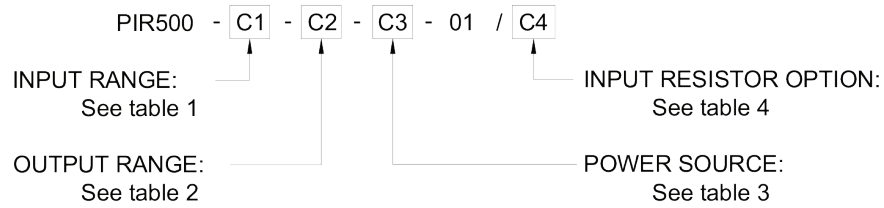


Table 1 – Input Range			Table 2 – Output Range		
Code	Input Range	Impedance $\Omega$	Code	Output Range	Impedance $\Omega$
00	Not Loaded		04	0 to 5 Vdc	1650
01	24 (21 to 30) Vdc, 0 to 25 mA	700	06	0 to 10 Vdc	1000
02	82 (77.5 to 89.5) Vdc, 0 to 60 mA	1000	07	4 to 20 mA dc	1050
03	30 (28 to 35) Vdc, 0 to 25 mA	950	08	10 to 50 mA dc	600
			11	0 to 20 mA dc	1050
			12	0 to 50 mA dc	600
			17	0 to 22.49 mA dc	750
			18	0 to 56.22 mA dc	550
Table 3 – Power Source			Table 4 – Input Resistor Option		
Code	Power		Code	Option	
01	117 Vac without surge suppression on the power inputs		3	High precision input resistor for range 4 to 20 mA dc	
02	117 Vac with surge suppression on the power inputs		6	High precision input resistor for range 10 to 50 mA dc	

### CONTACT INFORMATION:

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