

# P3100 Universal Process Control I/O Module



## FEATURES

- Direct replacement for 3000 series product line.
- Universal inputs include Thermocouples, RTD's, mADC, VDC, and mVDC
- Universal Power Supply, 100-240VAC and 24VDC
- Alpha Numeric Display
- Input to Output to Input Power Isolation
- Extended 4 year Warranty

The P3100 universal I/O Module is designed as a direct replacement for the 3000 series line of signal conditioning and alarm units. It can also be used as a stand alone module for new applications.

By using the latest state of the art technology, the P3100 is able to incorporate a wide variety of I/O signal conditioning and alarm applications. These applications cover everything performed by the 3000 series and more. The P3100 can accept a wide variety of inputs including T/C's, RTD's, mADC, VDC, mVDC and frequency. Other features include a universal power supply, 4-character alpha numeric display, simple PC configuration and isolation. Whether using the P3100 in a new installation or to replace older existing 3000 series units, your process will be using a product with the latest most reliable technology which is backed up by a full 4-year warranty.

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Pyragon Inc.

# P3100 SPECIFICATIONS

Models Replaced	3510A, 3520A, 3530A, 3540A, 3610A, 3620A, 3630A, 3640A, 3650A, 3660A, 3510DRA, 3520DRA, 3530DRA, 3540DRA, 3610DRA, 3620DRA, 3630DRA, 3640DRA, 3650DRA, 3660DRA, 3510T, 3530T, 3610T, 3630T, 3650T, 3654T, 3900F, 3909F. For Series 200, 300, 500 and 600 consult factory.
Input Power	100 to 240 VAC, 50/60 Hz; 125 VDC and 24 VDC +/- 10%; jumper selectable
Display	4-Digit 5X7 plus decimal point LED Display Decimal Point Configurable for 0, 1, 2 or 3 Places
Input Types	Thermocouple: J, K, T, E, R, S, B, L, U, N, RTD (2 or 3 wires): 100 Pt (= .00385, .00392, .003916); 200, 500 & 1000 Pt (= .00385): 120 Ni and 10 Cu Current +/- 20 & +/- 90 mA DC ranges Voltage: +/- 10 VDC Millivolts: +/- 15, 70, 100 & 650 mV Potentiometer (3 wire) & Resistance (2 wire) 37, 75, 175, 250, 350, 500, 1625 & 3250 ranges Frequency: Counts/Minute, Hz & kHz ranges
Thermocouple Cold Junction Compensation	Standard for Thermocouple Inputs
Output Types	Dual 240 VAC/24 VDC 5A SPDT Relay Contacts 0-20mA (XX=02), 0-50mA (XX=01), 0-5V (XX=12) and 0-10V (XX=11)*
Display Functions	Input & Alarm state (normal display); Relay Trip & Recovery Parameters and Output (push button selectable displays)
Front Panel Push Button Functions	Relay Trip & Recovery parameters, Relay state override, Latch reset and output manual mode
Analog Accuracy	0.1% of Span or $\mu$ 10 V Referred to input whichever is greater
Analog Repeatability	0.1% of Span or 10 $\mu$ V Referred to input whichever is greater
Deadband	Configurable for each Relay
Alarm Indication	Flashing Display Message
Latching	Configurable for each Relay
Time Delay	1 to 240 seconds, Configurable for each Relay
Burnout	Configurable for Up or Down Scale
Reverse Output	Configurable
Loop Power Supply	24 VDC supply to power input mA signals up to 21 mA Enabled via jumper
Input Power Fuse	Standard 1.0 A 250 VAC, 3AG Type
Single DPDT Relay	Configurable
Configuration Interface	9 pin RS232 Communication Port via special cable plugged into the front panel 1200 BAUD, 8 + 1 stop bits, no parity; Standard ASCII half duplex
Configuration Memory Retention	Flash Memory
Working Voltage	300 VAC Input to Output to Input Power
Isolation	1000 VDC Input to Output to Input Power
Common Mode Rejection Ratio	120 db
Normal Mode Rejection Ratio	60 db Nominal at 50/60 Hz
Operating Ambient Temperature Range	Normal 0 - 50°C, Operative -20 - 65°C
Ambient Temperature Effect	0.018% of Span or 18 $\mu$ V per °C whichever is larger
Connector	Compatible with Buchanan 12 Place Screw Terminal Connector

## ORDERING INFORMATION

Model #	Description
P3100-XX	P3100 Alarm/Transmitter with metal case
P3100-XX-WOC	P3100 Alarm Transmitter without case
P3100T-XX	P3100 Transmitter only Module
* -XX	02 (0-20mA), 01 (0-50mA), 12 (0-5V), 11 (0-10V)
101000-009	Configuration Cable
P3100-CONFIG	Factory Configuration
500108-131	200/300/500/600 Series Adapter Plate
3570T	AC Current Converter



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