

Partlow 1161+, 1801+ & 1401 Limit control



- High or Low Trip Points
- 5 Amp Latching Limit Relay
- Remote Reset Option
- Exceed & Relay Indicators
- Jumperless Configuration
- Auto Detected Hardware
- Modbus & ASCII Comms
- Two Annunciators or Alarms
- Available in 1/16, 1/8 & 1/4 DIN Formats



The Partlow range of 1161+, 1801+ and 1401+ have a programmable safety cut out with optional outputs for annunciators and alarms. A latched relay cuts power to your process if safe values are exceeded. These units must be reset before the process can continue. They have the improved Plus Series hardware and user interface for optimal ease of use.

Specification

Features

Output Configuration	Up to 3 possible, for latching trip relays, alarm/annunciator relays, 24VDC transmitter power supply or retransmit of process value or limit trip setpoint
Alarm 1 & 2 Types	Process high, process low, Limit SP deviation, band, logical OR alarms or trip annunciator. Alarms have fully adjustable hysteresis.
Output Reset Action	Limit output can be reset only when exceed condition is absent. Local or remote reset options.
Annunciator Reset Action	Annunciator output can be reset at any time. Local or remote reset options.
Human Interface	4 button operation, dual 4 digit 10mm & 8mm (6700+ & 8700+), 13mm & 10mm (4700+) high LED displays, optional choice of colours (Red/Red, Red/Green, Green/Red or Green/Green), plus 4 LED indicators
PC Configuration	Off-line configuration from PC serial port to dedicated config socket (comms option not required). Configuration Software for Windows 98 or higher. West Part Number: PS1-CON

Input

Thermocouple	J, K, C, R, S, T, B, L, N & PtRh20%vsPtRh40%.
RTD	3 Wire PT100, 50Ω per lead maximum (balanced)
DC Linear	0 to 20mA, 4 to 20mA, 0 to 50mV, 10 to 50mV, 0 to 5V, 1 to 5V, 0 to 10V, 2 to 10V. Scaleable -1999 to 9999, with adjustable decimal point
Impedance	>10MΩ for Thermocouple and mV ranges, 47KΩ for V ranges and 5Ω for mA ranges
Accuracy	±0.1% of input range ±1 LSD (T/C CJC better than 1°C)
Sampling	4 per second, 14 bit resolution approximately
Sensor Break Detection	<2 secs (except zero based DC ranges), Limit trip and annunciators activate. High alarms activate for Temperature and mV ranges, low alarms activate for, mA or V ranges

Output & Options

Limit Trip Relay Outputs	Latching SPDT, contacts 5Amp resistive at 240V AC, >100,000 operations
Alarm Relay Outputs	Non-latching SPDT, contacts 2Amp resistive at 240V AC, >500,000 operations
SSR Driver Alarm Outputs	Drive capability >10V DC in 500Ω minimum
Triac Alarm Outputs	0.01 to 1 Amp AC, 20 to 280Vrms, 47 to 63Hz
DC Linear Retransmit Outputs	0 to 20mA, 4 to 20mA into 500Ω max, 0 to 10V, 2 to 10V, 0 to 5V into 500Ω min. Accuracy ±0.25% at 250Ω (degrades linearly to 0.5% for increasing burden to specified limits)
Transmitter Power Supply	Output 24VDC (nominal) into 910Ω minimum to power external devices
Communications	2 Wire RS485, 1200 to 19200 Baud, Modbus and ASCII protocol (selectable)
Digital Input	Volt free or TTL input. -0.6 to 0.8V or contact closure resets latched relays and annunciators

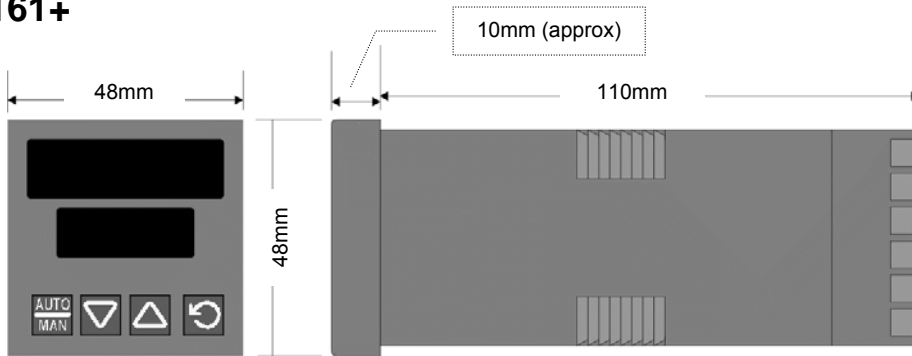
Operating & Environment

Temperature & RH
Power Supply
Front Panel Protection
Standards

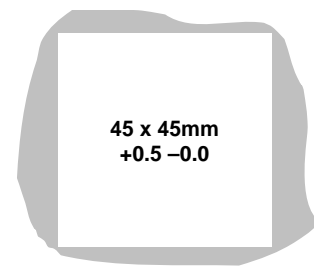
0 to 55°C (-20 to 80°C storage), 20% to 95% RH non-condensing
100 to 240V ±10% at 50/60Hz 7.5VA, (optional 20 to 48V AC 7.5VA/22 to 65V DC 5 watts)
IEC IP66 (Behind panel protection is IP20)
FM, CE, UL & ULC recognised

Dimensions

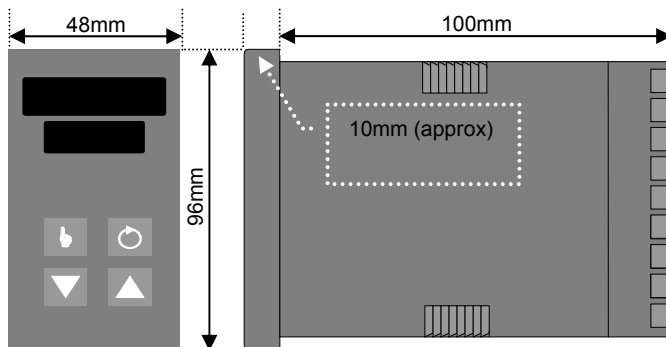
1161+



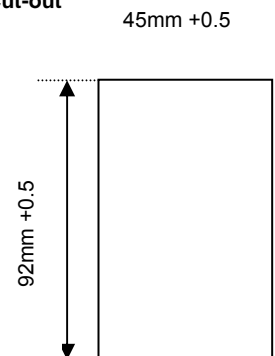
Cut-out



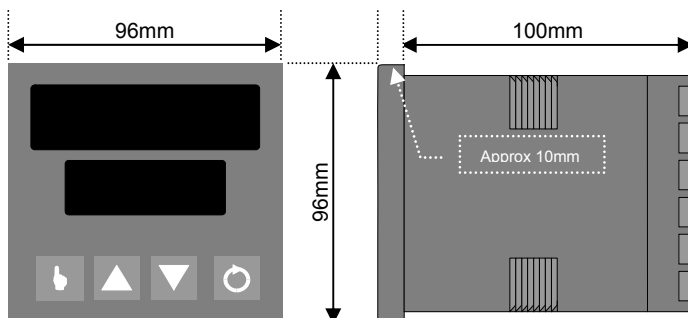
1801+



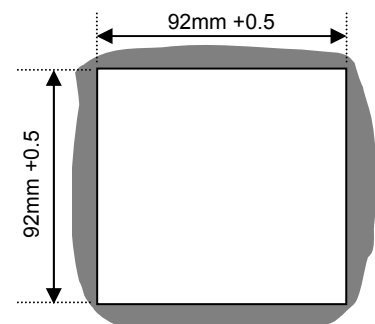
Cut-out



1401+

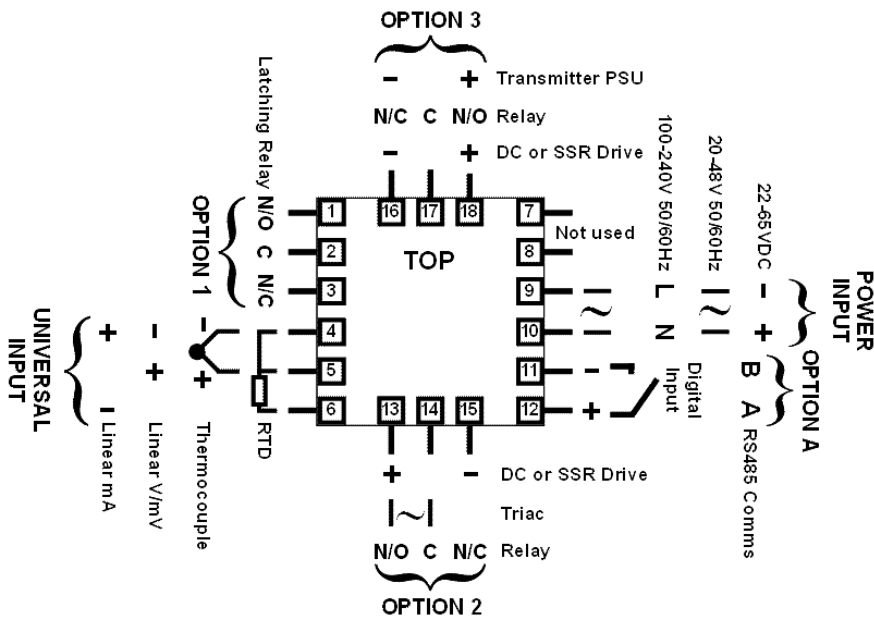


Cut-out



Wiring Connections

1161+



Field Reconfiguration

Input

Jumper-free configuration for any type
(no extra parts required)

Option Slot 1

Latching Limit Relay *Fixed*

Option Slot 2

Relay Output **Part Number**
PO2-C10

Linear mA/V DC Output **PO2-C21**

SSR Driver Output **PO2-C50**

Triac Output **PO2-C80**

Option Slot 3

Relay Output **Part Number**
PO2-C10

Linear mA/V DC Output **PO2-C21**

SSR Driver Output **PO2-C50**

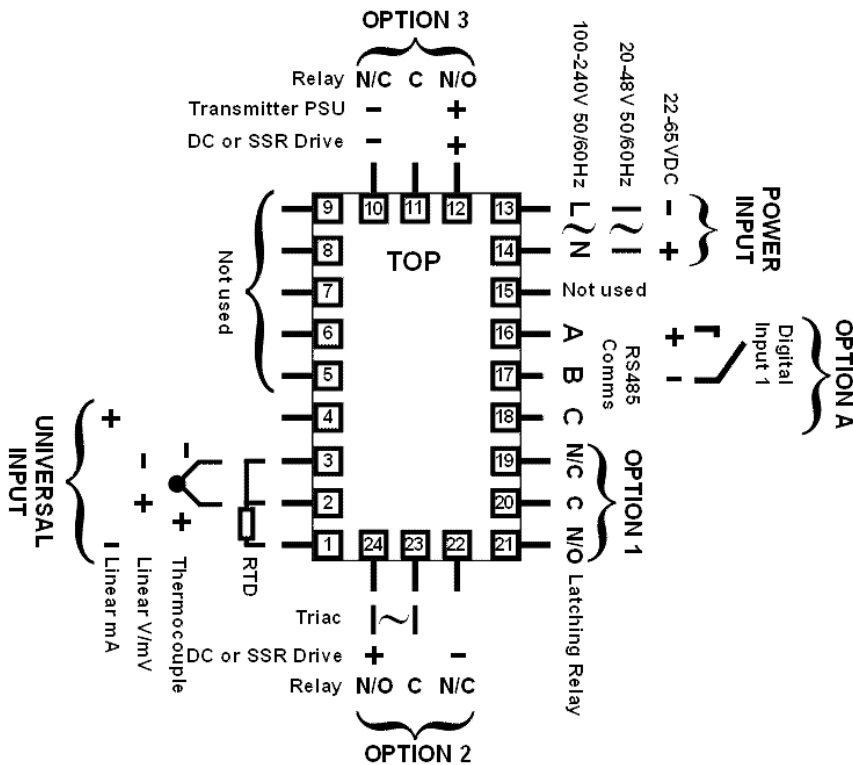
24VDC Transmitter PSU **PO2-W08**

Option Slot A

Digital Input **Part Number**
PA1-W03

RS485 Comms **PA1-W06**

1801+ & 1401+



Order Code

	P					1								
MODEL														
1/16 DIN Limit Controller		1	1	6	1									
1/8 DIN Limit Controller		1	8	0	1									
1/4 DIN Limit Controller		1	4	0	1									
OPTION SLOT 1														
Relay (Required)						1								
OPTION SLOT 2														
No Output							0							
Relay							1							
DC SSR Driver Output							2							
Linear DC							3							
Triac Output							8							
OPTION SLOT 3														
No Output								0						
Relay Output								1						
DC SSR Driver Output								2						
Linear DC Output								3						
Transmitter Power Supply								4						
OPTION SLOT A / DISPLAY COLOR														
No Option A	Red Upper & Lower Display												0	
RS-485 Serial Comms	Red Upper & Lower Display												1	
No Option A	Green Upper, Red Lower Display												2	
RS-485 Serial Comms	Green Upper, Red Lower Display												3	
No Option A	Red Upper & Green Lower Display												4	
RS-485 Serial Comms	Red Upper & Green Lower Display												5	
No Option A	Green Upper & Lower Display												6	
RS-485 Serial Comms	Green Upper & Lower Display												7	
Digital Input	Red Upper & Lower Display												8	
Digital Input	Green Upper, Red Lower Display												9	
Digital Input	Red Upper, Green Lower Display												A	
Digital Input	Green Upper, Red Lower Display												B	
VOLTAGE														
100-240 VAC													0	0
24-48 V AC/DC													0	2

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