

# AUTOCON<sup>®</sup>

(An ISO 9001: 2015 & Crisil Certified)

## FLP PID CONTROLLER (PFLP-W-P4100)

### ❖ FEATURES :

- Flameproof enclosure – suitable for hazardous area
- Can be used in corrosive area also
- Flexible to install any standard brand / sized instruments  
i.e. 96mm X 96mm
- Control Types : Full PID with Pre-tune, Self-tune, Manual Tuning, or On-Off control. Heat only or heat & cool.
- Auto/Manual - Selectable from front panel or external selection via digital input, with bumpless transfer.
- Output Configuration - Up to 3 possible, for control (Heat & Cool), Alarm or retransmit of Process Value or Set point.
- Alarm 1 & 2 Types - Process high, process low, SP deviation, band, logical OR with adjustable hysteresis. Also 1 loop alarm for process security.
- Human Interface - 4 button operation, dual 4 digit 13mm & 10mm high LED displays with choice of Red/Red, Green/Green or Red/Green plus 5 LED indicators.
- Manual or PC Configuration - Off-line configuration from serial port to dedicated config socket (comms option not required).
- Transmitter Power Supply (Option) – 24VDC (910 Ohm minimum load resistance)



### ❖ TECHNICAL SPECIFICATIONS :

- **Product Name :** FLP Digital PID Controller P4100
- **Model No :** PFLP-W-P4100-0000000 (Choose from list at bottom as per requirement)
- **Temperature & RH :** 0 to 55°C (-20 to 80°C storage), 20% to 95%RH non-condensing.
- **Power Supply :** 100-240VAC 50/60Hz (standard) 7.5VA;  
20-48VAC 50/60Hz (option) 7.5VA &  
22-65VDC (option) 4W.
- **Front Panel Protection :** IEC IP66 (Behind panel protection is IP20).
- **Standards :** CE, UL & ULC. Recognized.

### ❖ INPUTS :

- **Thermocouple** - J, K, C, R, S, T, B, L, N & PtRh20% vs PtRh40%. Scalable within selected range.
- **RTD** - 3 Wire PT100, 50ohm per lead maximum (balanced). Scalable within selected range.
- **DC Linear** : 0-20/4-20mA, 0-50/10-50mV, 0-5/1-5/0-10/2-10V. Scalable -1999 to 9999, decimal point selectable.
- **Impedance** - >10Mohm for Thermocouple and mV ranges, 47Kohm for V ranges and 5ohm 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), control O/P's turn off, high alarms activate for T/C and mV ranges, low alarms activate for RTD, mA or V ranges.
- **Remote Set point (Option)** - 0-20mA, 4-20mA, 0-100mV, 0-5V, 1-5V, 0-10V, 2-10V or Potentiometer (2Kohm minimum) Scalable - 1999-9999. Local/Remote set point selected from digital input (supplied as part of Full RSP) or front panel.



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❖ **OUTPUTS :**

- ❖ **Control & Alarm Relays** - Contacts SPDT 2 Amp resistive at 240V AC, >500,000 operations. Output #1 module is now field replaceable
- ❖ **Control SSR Outputs** - Drive capability >10V DC in 500ohm min
- ❖ **Solid State (Triac) Outputs** - 0.01 to 1 Amp AC 20 to 280V, 47 to 63Hz.
- ❖ **Control DC Outputs** - 0-20/4-20mA into 500ohm max, 0-10/2-10/0-5V into 500ohm min. with 2% over and under drive applied to control outputs. Accuracy typically +/- 0.25%.
- ❖ **Communications** - 2 Wire RS485, 1200 to 19200 Baud, Modbus & ASCII protocol selectable).
- ❖ **Digital Input** – Selects between 2 Setpoints or Auto/Manual control using volt free or TTL input

❖ **APPLICATIONS :** Mainly used where Hazardous Chemicals are used and high temperature is there.

❖ **MODEL SELECTION (ORDERING CODE)**

ORDER CODE : **P6100** **X** **X** **X** **X** **X** **X** **X**

Input Type	
3 Wire RTD or DCmV	1
Thermocouple	2
DCmA	3
DC Voltage	4

Option Slot 1	
Not Fitted	0
Relay	1
DC for SSR	2
DC 0-10V	3
DC 0-20mA	4
DC 0-5V	5
DC 2-10V	6
DC 4-20mA	7
Triac	8

Option Slot 2	
Not Fitted	0
Relay	1
DC Drive for SSR	2
DC 0-10V	3
DC 0-20mA	4
DC 0-5V	5
DC 2-10V	6
DC 4-20mA	7
Triac	8

Display Colour	
0	Red Upper & Lower
1	Green Upper & Lower
2	Red Upper, Green Lower
3	Green Upper, Red Lower

Power Supply	
0	100-240V AC
2	24-48V AC or DC

Option Slot A	
0	Not Fitted
1	RS 485 Communication
2	Digital Input
3	Basic Remote Setup Input

Option Slot 2	
0	Not Fitted
1	Relay
2	DC Drive for SSR
3	DC 0-10V
4	DC 0-20mA
5	DC 0-5V
6	DC 2-10V
7	DC 4-20mA
8	Triac

• **HEAD OFFICE :**

1<sup>st</sup> Floor, Vora Building, Radhanpuri Bazar, Bhavnagar – 364001, Gujarat, India  
**Phone:** 0278-2511054, **E-mail:** [autocon@autocon.in](mailto:autocon@autocon.in) **Website:** [www.autocon.in](http://www.autocon.in)  
**E-Commerce Website :** [www.autocon.biz](http://www.autocon.biz)

• **BRANCH OFFICE :**

905-Dwarkesh Complex, B/S Hotel Welcome, RC Dutt Road, Vadodara-390007