



OVERVIEW

A PID controller is an instrument used in industrial control applications to regulate temperature, flow, pressure, speed and other process variables. PID (Proportional Integral Derivative) controllers use a control loop feedback mechanism to control process variables and are the most accurate and stable controller.

The ASHE PX-72 is a fully configurable micro-controller based universal Digital Process Indicator with PID control or ON/OFF control action. It's offered in a highly compact, rugged and reliable execution. The instrument has three keys on the front panel, with which the operator can set the parameters and configure the instrument. A four-digit red LED digital display is provided to indicate the process value and set value. The display can indicate any scale range between -999 to +9999 units. The analog PID controller output indicates on bargraph display.

The Indicators accept all industrial standard input signals, like 4 to 20 mA DC, DC Voltage, and Temperature sensors like RTD Pt-100, Thermocouples (type J,K,R,S). The instrument also provides RS 485 communication signal on Modbus RTU with four baud rate selection options.

The PX-72 can provide PID control action for Relay1, while Relay2 has ON/OFF control action and the PX-72 provides two control relay set points, which may be configured for either Heating & Cooling setting with independent Hysteresis value through the Keypad on the front panel. The instrument operates on 90 to 270 VAC universal AC power supply and is offered in Panel-mount execution.

The ASHE Universal PX-72 PID Controller offers a high degree of reliability owing to its inherent accuracy in process measurement and control, besides other characteristics like total immunity to shocks, dust, ambient temperatures, humidity and corrosive atmospheres. Further, the instruments are manufactured using selected high-grade components which guarantee their functional reliability and long operational life.

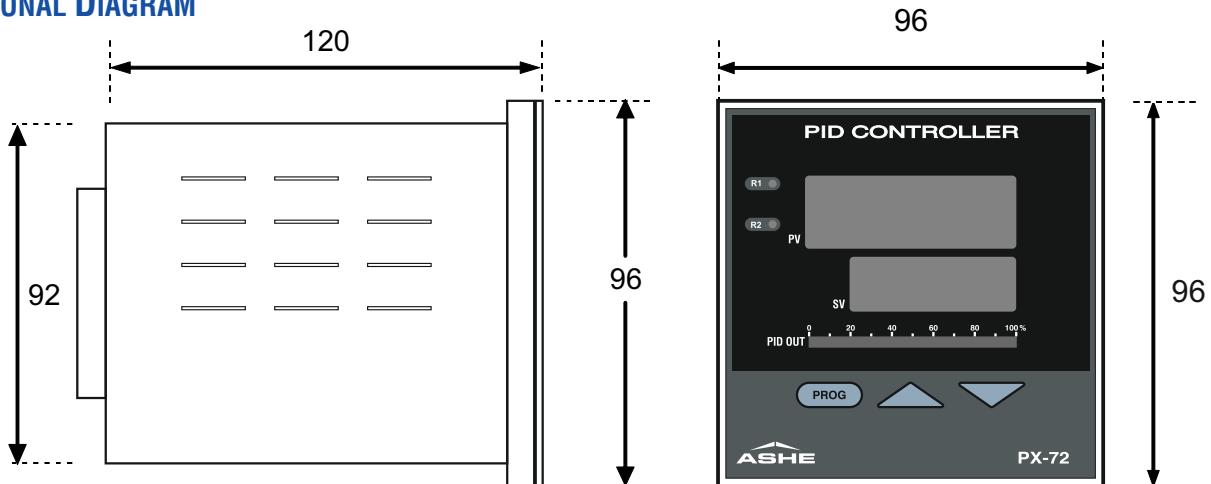
SPECIFICATIONS

Model	ASHE PX-72
Type	Universal PID Controller
Input Signals	4 to 20 mA DC, DC Voltage, RTD Pt-100, Thermocouples-Types J,K,R,S (Universal Input)
Output Signal	4 to 20 mA DC
Load Driving Capacity	600 ohms
Displays	4 digit 0.5" and 0.39" seven segment displays and Bargraph display
Scale Range	-999 to +9999
Linearity	± 0.1%
Calibration	Configurable from front Keypad
Control Output	Two Relay change over contacts
Contact Rating	10 Ampere @ 230 VAC (resistive loads).
Control Logic	PID control action with Auto tune or Manual tune option and ON-OFF control Action with Heating and Cooling option (Selectable)
Accuracy	±0.1 % of FSD
Communication	RS-485 on Modbus RTU Protocol
Auxiliary Output	24 V DC at 100mA for Aux Transmitter Power (Optional)
Power Supply	90 to 270 VAC, 50 Hz
Dimensions	96x96x110 mm [HxWxD]
Enclosure	Industrial Grade ABS
Execution	Panel Mounting
Weight	Approximately 0.5 Kg.
Operating Temperature	0 to 55°C

FEATURES

- Universal Input selection options
- PID Tuning Auto or Manual selectable
- Two control Relay outputs
- 4 to 20 mA DC output signal
- Aux 24VDC Power output option
- High accuracy and linearity
- Fully configurable
- Bargraph display indication for analog output
- RS-485 on Modbus RTU communication option
- Baud rate selection options available
- Configuration settings on front panel keyboard
- Ambient temperature indication on display
- Panel / Field / Hazardous-area installation in IP66 execution
- Proven record of several thousand installations

DIMENSIONAL DIAGRAM



HOW TO ORDER

UNIVERSAL PID CONTROLLER	PX-72					
Configuration and add-on options						
1 CONTROL RELAY OUTPUTS						
▶ One Relay Output		1				
▶ Two Relay Outputs		2				
2 INPUT SIGNALS						
▶ 4 to 20 mA DC						
▶ 0 to 10 VDC						
▶ RTD Pt-100 (three-wire)						
▶ J type Thermocouple (0 to 750°C)						
▶ K type Thermocouple (0 to 1200°C)						
▶ R type Thermocouple (0 to 1600°C)						
▶ S type Thermocouple (0 to 1750°C)						
3 POWER SUPPLY						
▶ 90 to 270 V AC, 50/60 Hz						
▶ 24 VDC (±10%)					A D	
4 OUTPUT SIGNAL						
▶ 4 to 20 mA DC with aux. 24 VDC @ 100mA Power for transmitter						Q
▶ 4 to 20 mA output signal						G
▶ Output signal not required						N
5 EXECUTION						
▶ Front Panel mounting						
▶ Field mounting in Weather-proof execution (Polycarbonate enclosure, Ingress protection)						
▶ Field mounting in Flame/Explosion-proof Ex-d execution (Cast Aluminum Alloy LM6 enclosure, for Gas groups IIA, IIB)						P W X

OUR OTHER PRODUCTS



Designed and Manufactured by :
ASHE CONTROLS PRIVATE LIMITED

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