PXU PID Controller
Red Lion Automation Series

red lion®

The PXU series is the newest addition to the Red Lion PID controller portfolio, offering outstanding control in a small form-factor for industrial environments.

Available in 1/16, 1/8 and 1/4 DIN models, our PXU PID controllers accept a wide variety of thermocouple and RTD sensor inputs to meet varying application requirements. Featuring one of the industry's largest dual line 4-digit displays, the PXU allows for simultaneous viewing of temperature/process and setpoint values. The PXU also offers on demand auto-tuning for easy set up and provides two control outputs, which can be individually configured for reverse or direct applications using front panel push-button or Crimson® software.

With IP65 ingress protection, flush-mounting installation and easy-to-read displays, our robust PID controllers deliver the reliability and ease of use required for temperature and process control applications.

APPLICATIONS

> Food & Beverage
> Factory Automation
> Manufacturing
> Plastic Extrusion

PRODUCT HIGHLIGHTS

> Full PID Control
> Dual Relay Alarms
> Universal Inputs (Temperature or Process)
> UL Listed, 61010-1 Approved

FEATURES & BENEFITS

> Universal Inputs
- Thermocouple
- RTD
- 0-10 VDC
- 4 – 20 mA (0 – 50 mA)
> Full PID Control
- On demand auto-tuning
- Independently configured outputs

> Easy Programming
- Front panel push-button or Crimson software
> AC Powered
- 100 to 240 VAC
> Reduced Case Depth
> IP 65 Ingress Protection

industrial automation

CE

c(UL)us LISTED
13RW
PROCESS CONTROL EQUIPMENT

DISPLAY PROPERTIES

LCD negative image transmissive with backlighting. Top (process) display with orange backlighting, bottom (parameter) display with green backlighting.

4 digits each line

1/4 DIN Model Digit Size: Line 1 - 0.87" (22 mm); Line 2 - 0.55" (14 mm)

1/8 DIN Model Digit Size: Line 1 - 0.47" (12 mm); Line 2 - 0.47" (12 mm)

1/16 DIN Model Digit Size: Line 1 - 0.43" (11 mm); Line 2 - 0.27" (7.0 mm)

POWER CONNECTION

Line Voltage Models: 100 to 240 VAC -20/+8 %, 50/60 Hz, 5 VA

INPUT CAPABILITIES

Temperature/RTD Indication Accuracy:
± (0.3% of span, +1°C) at 25°C

Thermocouple Inputs:
Types: T, E, J, K, R, S, B, N, L, U, and TXK
Resolution: 1° for types R, S, B and 1° or 0.1° for all other types

RTD Inputs:
Type: 2 or 3 wire
Excitation: 180 µA

Process Inputs:
0-5 or 0-10 VDC
0-20 or 4-20 mA
0-50 mV

COMMUNICATION

RS-485 Serial Communication (optional)

OUTPUTS

Time proportioning or DC Analog

Alarms: 2 relay alarm outputs.
Type: Form A or Form C, model and alarm dependent
Contact Rating: 3 A @ 250 VAC

CERTIFICATIONS & COMPLIANCES

CE Approved
EN 61326-1 Immunity to Industrial Locations
Emission CISPR 11 Class A
EN 61010-1
RoHS Compliant
UL Listed: File #E179259
IP65 Enclosure rating (Face only)

ENVIRONMENTAL

Operating Temperature Range: 0 to 50°C
Storage Temperature Range: -20 to 65°C
Operating and Storage Humidity: 80% max relative humidity (non-condensing) from 0°C to 50°C
Vibration Resistance: Operational 10 to 55 Hz, 1 g
Shock Resistance: Operational 30 g
Altitude: Up to 2000 meters

MECHANICAL

Construction: Black plastic alloy case and panel latch. Black plastic textured bezel with transparent display window. Controller meets IP65 requirements for indoor use when properly installed. Installation Category II, Pollution Degree 2.

Weight: 1/4 DIN: 11.0 oz (312 g)
1/8 DIN: 7.8 oz (221 g)
1/16 DIN: 5.3 oz (150 g)

ORDERING GUIDE

PART NUMBER	DIN SIZE	DESCRIPTION
PXU10020	1/16	Relay, AC
PXU11A20	1/16	Dual Relay, RS485, AC
PXU20020	1/16	Logic, AC
PXU21A20	1/16	Logic, Relay, RS485, AC
PXU30020	1/16	4-20 mA, AC
PXU31A20	1/16	4-20 mA, Relay, RS485, AC
PXU10030	1/8	Relay, AC
PXU11A30	1/8	Dual Relay, RS485, AC
PXU20030	1/8	Logic, AC
PXU21A30	1/8	Logic, Relay, RS485, AC
PXU31A30	1/8	4-20 mA, Relay, RS485, AC
PXU11A50	1/4	Dual Relay, RS485, AC
PXU31A50	1/4	4-20 mA, Relay, RS485, AC

DIMENSIONS *In inches (mm)*

1/16 DIN
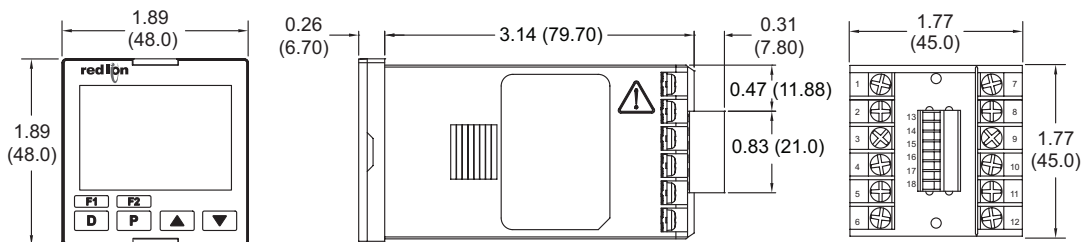
1/8 DIN
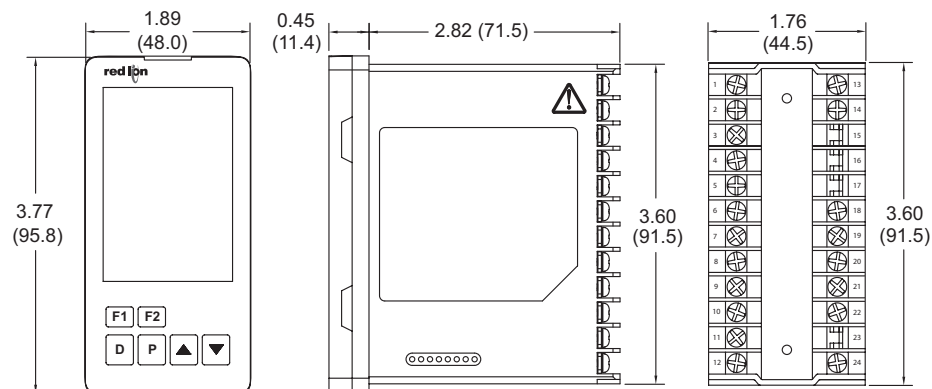
1/4 DIN
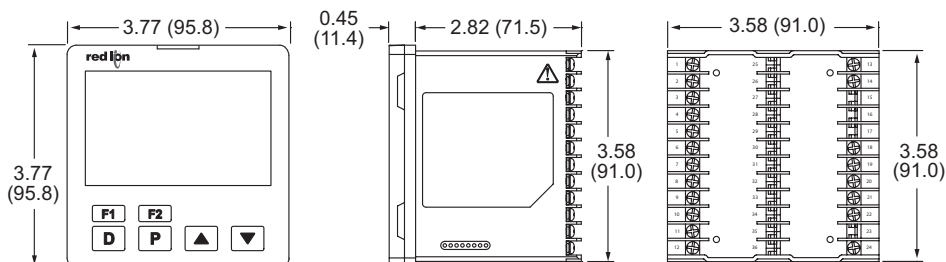
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