SETPOINT CONTROLLER
PXR4

DESCRIPTION

The **Fuji Electric Model PXR4 Set Point Controller** is one of the most technically advanced instruments in the industrial and commercial markets today. It is also one of the least expensive controllers of its kind. Through the use of a specially designed Fuji microprocessor, the **Model PXR4** incorporates the latest technology for controlling applications. With simple, finger-tip programming from the front panel, the operator can tailor the operation of the controller quickly and easily. By automatically setting proportional band, integral (reset) time, and derivative (rate) time by means of the autotuning function, control parameter guesswork is eliminated. In addition, this controller employs Fuji's patented fuzzy logic algorithms. The **Model PXR4** can learn processes, using the PID parameters as a starting point. This intelligence allows your process to reach its set point in the shortest time possible while virtually eliminating overshoot.

PXR4   **PXR4 Controls**

FEATURES

- *Any type single-loop control application*
- *Input 4-20 mA, 1-5 VDC; Output 4-20 mA*
- *PID control or fuzzy logic control*
- *Manual or autotuning*
- *Programmable control action, reverse or direct*
- *LED indication of the process variable and setpoint*
- *Output status indication*
- *Fault indication of input sensor*

- *Selectable indication resolution*
- *Digital filtering to suppress electrical noise*
- *Easily programmed with two-level, menu-driven format*
- *Nonvolatile memory, no battery required*
- *1/16 DIN package*
- *NEMA 4X faceplate*

SPECIFICATIONS

Supply Voltage	100-240 VAC, 50/60 Hz
Supply VA	10 VA at 120 VAC
Input	
Current	4-20 mA DC, impedance: 250Ω with external resistor
Voltage	1-5 VDC, impedance: 450 kΩ minimum
Input Scaling Range	-1999 to 9999
Input Sampling Cycle	0.5 seconds
Input Filter	0-900.0 seconds in 0.5 second step
Output	
Current	4-20 mA DC, 600Ω maximum
Control Type	PID control or fuzzy logic control, manual or autotuning
Proportional Band	0% to 999.9% in 0.1% steps
Integral Time	0-3200 seconds in 1-second steps
Derivative Time	0-999.9 seconds in 1-second steps
Action	Direct or reverse, programmable
Indication Accuracy	±0.5% full scale ±1 digit at 73°F
Memory	Nonvolatile, no battery required
Diagnostics	Monitored by watchdog timer

Noise Reduction	
Normal Mode	(50/60 Hz), 50 dB or more
Common Mode	(50/60 Hz), 140 dB or more
Termination	8-pin socket
Enclosure	ABS plastic, black, 1/16 DIN NEMA 4X front panel
Mounting	Flush panel or surface mount
Operating Temperature	14° to 122°F (-10° to 50°C)
Operating Humidity	0 to 90% RH (non-condensing)
Dimensions	
SR2P-056	1.89" x 1.89" x 3.33" (4.8 × 4.8 × 8.47 cm)
Weight	0.5 lb (0.23 Kg)
Approvals	UL Listed File #E131280, CE certified
Warranty	1 year

APPLICATION

INPUT

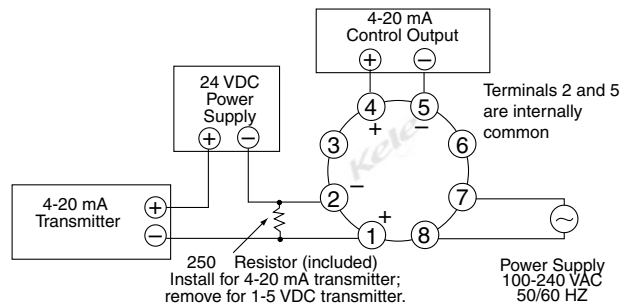**Scalable 4-20 mA/1-5 VDC input allows monitoring of the following:**

- *Temperature*
- *Humidity*
- *Pressure*
- *Air flow*
- *Water flow*
- *Any 4-20 mA/1-5 VDC transmitter within a range of -1999 to 9999*

OUTPUT

4-20 mA output allows control of the following:

- *Valve actuators*
- *Damper actuators*
- *Variable speed drives*
- *Resistance transducers*
- *I/P transducers*
- *Step controllers*

WIRING

4-20 mA Control Output
24 VDC Power Supply
Terminals 2 and 5 are internally common
4-20 mA Transmitter
250 Resistor (included) Install for 4-20 mA transmitter; remove for 1-5 VDC transmitter.
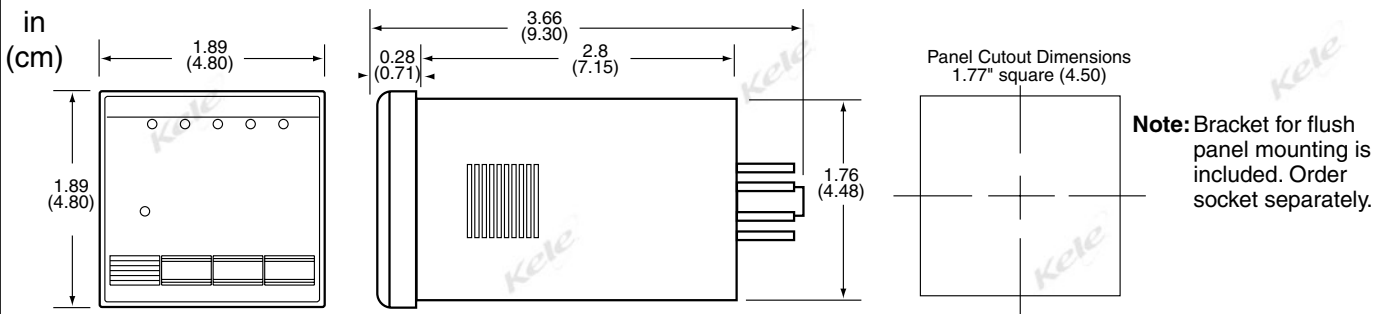Power Supply 100-240 VAC 50/60 HZ

INSTALLATION

The controller should be installed as far away as possible from any device generating high frequency noise. Input signal and power cables connected to the instrument should be wired away from power line and load line to minimize inductive noise. Preferably, the instrument power cable should be twisted to avoid noise.

The following guidelines for location should also be observed:

1. Do not install in a location with corrosive gases (sulfuric gas, ammonia, etc.)

2. Do not install in a location subject to vibration, impact, water, or high temperatures.

DIMENSIONS

in (cm)

1.89 (4.80)
1.89 (4.80)
3.66 (9.30)
0.28 (0.71)
2.8 (7.15)
1.76 (4.48)
Panel Cutout Dimensions 1.77" square (4.50)

Note: Bracket for flush panel mounting is included. Order socket separately.

ORDERING INFORMATION

MODEL	DESCRIPTION
PXR4	Setpoint controller, 100 to 240 VAC power
SR2P-06	Relay socket, DPDT pin type, DIN/surface mount
ATXINS	Hooded solder-type socket for flush panel mount

THERMOSTATS & CONTROLLERS

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