



Precise Sensors

"Defining Higher Expectations"

1/8 DIN Digital Process Controller

Model 4220

Description

The Model 4220 is a low cost solution to a wide range of monitoring and control applications. Plug-in signal conditioners for voltage and current or low level mV/V are available. Input signals may be displayed as voltage or current or scaled five full digits from 0 to 99,999 to read directly in engineering units. No calibration equipment is required when changing ranges, all ranges are digitally precalibrated at the factory. The Model 4220 provides an isolated 5, 10, or 24 VDC output to power strain gages and transmitters, eliminating the need for an external power supply. The meter has two alarm indicators with the setpoints programmed by front panel push buttons. RS-232 or RS-485 communication is optional and is implemented through factory provided software.



Features

- **Universal inputs at a dedicated price**
mV/V (millivolts/volt), mA (current), VDC (voltage)
- **60 conversions per second**
Fast control response, true peak reading, analog outputs that track the input
- **Scalable to 5 digits**
Engineering units to +/-99,999
Setup by front panel push buttons
- **Worldwide input power**
85 to 264VAC and 90 to 370VDC
- **Isolated 5, 10, 24 VDC output**
Powers sensors with mV/V, VDC, or mA signal outputs

Plug-in Options

- **Dual setpoint controller**
10 Amp, 250 VAC Form C relays or isolated solid state relays
- **Isolated linearized analog outputs**
0 to 10VDC and 0 to 20mA
- **Isolated digital communications**
RS-232 for interface and meter setup,
RS-485 to interface with multiple meters,
baud rates from 300 to 19,200
Parallel BCD output
- **Isolated low voltage power supply**
9 to 37VDC and 8 to 28VAC inputs
Isolated 5, 10, or 24 VDC output

Model 4220 Specifications

A to D Conversions

Technique
(Pat. 5,262,780) Concurrent Slope™
Rate 60/s at 60Hz operation
50/s at 50Hz operation
Output update rate 56/s at 60Hz, 47/s at 50Hz
Display update rate 3.5/s at 60Hz, 3/s at 50Hz
Analog output
response time 17ms

Accuracy at 25°C

DC volts, Amps, ratio 0.01%FS ±1 count
Strain gage meter 0.01%FS ±1 count
Span tempco
Process input 0.003% of reading/°C
Strain gage meter 0.0015% of reading/°C
Zero tempco 0.1 counts/°C

Noise Rejection

CMV from DC to 60Hz Safety rated to 250 VAC
4.2kVp per high voltage test
CMR from DC to 60Hz 130 dB
NMR to 50/60Hz line 90 dB with minimum filtering

Environmental

Operating
temperature 0°C to 55°C
Storage
temperature -40°C to 85°C
Relative Humidity 95% at 40°C,
non-condensing
NEMA 4X When panel mounted

Specifications are subject to change without notice.

Operating Power

Voltage (standard) 85 to 264 VAC,
90 to 370 VDC
Voltage (optional) 8-28 VAC, 9 to 37 VDC
Frequency DC and 47 to 440Hz

Excitation Power Supplies

Outputs 5 VDC, 5%, 100mA max
10VDC, 5%, 120mA max
24VDC, 5%, 50mA max
Isolation (power gnd) Safety-rated to 250VAC,
4.2kVp per high voltage test

Display

Type 5 digit LED, 7 segment,
14.2mm (0.56") high digits
and 3 LED indicators
Color Red
Range -99999 to 99999 and
-99990 to 99990

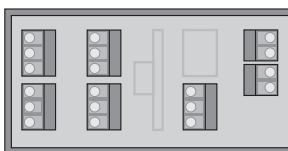
Dimensions

1/8 DIN size front panel
1.89"(H) x 3.78"(W) x 4.02" (depth behind panel)
(48 x 96 x 102mm)

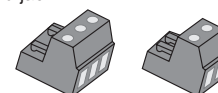
Panel cutout

1.772" +0.024/-0 x 3.622" +0.032/-0
(45 +0.6/-0 x 92 +0.8/-0)

Rear View

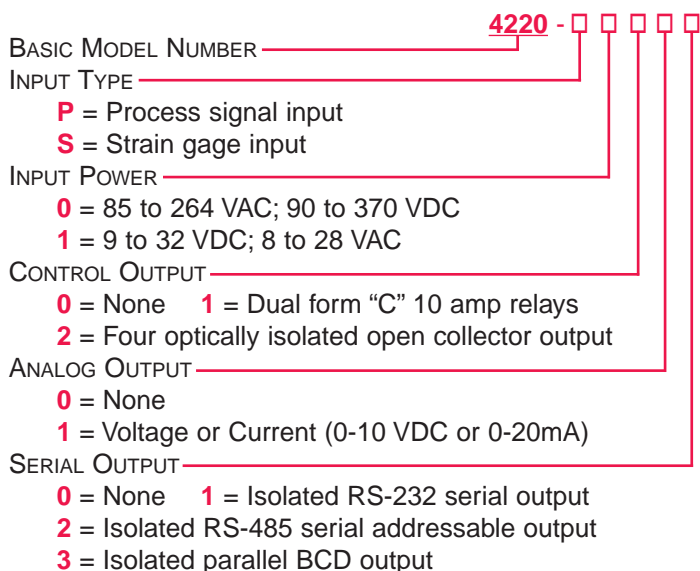


The 4222 uses UL/VDE approved screw terminal connections that plug into mating printed circuit board jack.



How to order

Example: 4220 - P 0 1 1 3



Options

S3 = Provides mating indicator to pressure sensor and 13 point NIST traceable calibration certificate

Accessories

- 417-1** = 2 pin Connector for J5 (2 req'd)
- 417-2** = 3 pin Connector for J1, J2, (2 req'd for each) and J4 (1 req'd)
- E2001** = Power cord, 110 VAC
- E2042** = Power cord, 220 VAC



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