



# MM3200

## VALVE OR ACTUATOR CONTROLLER ADJUSTABLE DEADBAND POTENTIOMETER FEEDBACK

### FEATURES

- Provides Relay Contact Closures Comparing a DC Input to a Potentiometer Position Input
- Adjustable Deadband (Differential)
- Relay Safety Interlock
- Unlimited\* Choice of Input Ranges
- Potentiometer Values from 120 ohms to 100 kilohms
- 10 Year Warranty

### DESCRIPTION

The MM3200 controller compares a DC input signal to a DC signal from the slide position of a potentiometer in a valve or linear actuator. The module has two spst relays to provide bi-directional (*open-close*) ON/OFF switches. When the input signals are unequal, the MM3200 provides a contact closure to turn on a motor which drives the valve open or closed. When the signals become equal, the contact opens and the motor stops. The deadband control adjusts the sensitivity of the module and determines

the amount of error required before the relay closes. Adjustment of 0.25% to 50% of span is available.

Two relays are used for the open and close switches. Each relay has dpdt contacts. One set is used for motor control. The other set is used to control the supply voltage to the other relay coil. This relay safety interlock feature makes it impossible to have both relays closed (*both motors on*) at the same time.

The module can also be used with a manual potentiometer and the contact closures to drive a process until the DC input signal matches the potentiometer setting.

All Wilkerson products are designed with RFI filters and lightning protection to reduce susceptibility to electrical noise and damage by lightning. It utilizes a stable -1.23 V power supply to excite the potentiometer.

### TYPICAL APPLICATIONS

Valve or actuator position control, pH acid/base pump control, etc.

### SPECIFICATIONS

#### INPUT RANGE

Voltage  
select any range from  
0 to 1 VDC to  
0 to 10 VDC max

Current  
4/20 mA (others available)

#### INPUT IMPEDANCE

Voltage  
100 kilohms

Current  
62 ohms

#### POTENTIOMETER FEEDBACK

70% or greater rotation  
required to match  
full scale input

#### POTENTIOMETER RESISTANCE

select any value from  
120 ohms to 100 kilohms

#### DEADBAND

0.25% to 50% of span

#### EXCITATION

-1.23 V, 10 mA max load

#### RELAY CONTACT

(2 each spst)  
Resistive Load  
5 A max, 150 W max,  
220 VAC max, 30 VDC max

Inductive Load  
(Power factor  $\geq 0.4$ )  
2.5 A max, 75 W max,  
220 VAC max, 30 VDC max

#### RESPONSE TIME

120 ms typical

#### ACCURACY

$\pm 0.1\%$  of span

#### COMMON MODE REJECTION

120 dB, DC to 60 Hz

#### OPERATING TEMPERATURE

14°F to 140°F / -10°C to 60°C

#### TEMPERATURE STABILITY

$\pm 0.02\%$  of span/°C max

#### POWER

115 VAC  $\pm 10\%$ , 50 or 60 Hz  
(2.5 W max)

230 VAC  $\pm 10\%$ , 50 or 60 Hz  
(2.5 W max)

\* Within specified range limits.

**ORDERING INFORMATION**

**POWER**

- 115 VAC, 50/60 Hz Power
- 230 VAC, 50/60 Hz Power

**INPUT**

**Select Units**

- VDC
- mADC

**Enter Input**

Zero Scale

Full Scale

**OPTIONS**

- Conformal Coating

**TAGS**

**Specify Tag Numbers**

Tag number is typed on product label at no charge.

**Enter Tag Number(s)**

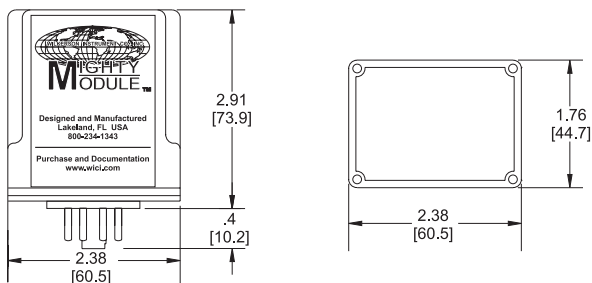
**ACCESSORIES**

**MM3200**

DR1	DIN-Rail, 35 mm Symmetrical, 39 inches (1 meter)	Qty _____
MP011	Plastic Socket, 11-pin, Panel Mount or PVC Snap Track	Qty _____
TRK48	PVC Snap-Track, 4 ft, for MP008, MP011, & DMP8500	Qty _____
DMP011	DIN-Rail Mounting Socket, 11-pin, 35 mm Symmetrical Rail	Qty _____
CLP1	Holddown Assembly for MP008 and MP011	Qty _____
HKB-HK2D-11	Explosion-Proof Housing with MP011 Installed	Qty _____

**DIMENSIONS**

Inches [mm]



**CONNECTIONS**

PIN 1	Power AC L1 or DC +
PIN 2	No Connection
PIN 3	Power AC L2 or DC -
PIN 4	Control Input +
PIN 5	Control Input -
PIN 6	Feedback (Pot) Common
PIN 7	Feedback (Pot) Wiper
PIN 8	Feedback (Pot) Excitation
PIN 9	Relay Common
PIN 10	Close Relay NO
PIN 11	Open Relay NO



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