

# Series 16 Modules Controls – Solid State Plug-In Modules

- ▶ Compact Size    Solid State Reliability
- ▶ Modular Plug-in Design    LED Monitoring
- Various Time Delays    U.L. "Motor Control"
- Low Voltage Sensor

## Series 16M – General Purpose Control

- New Microprocessor Design

Designed for either differential or single-level service. U.L. "Motor Controller" listing, 8 pin socket with screw-type connections make the unit easy to install and service. Sensitivity of up to 1 million ohm/cm.

## Series 16HM – High Sensitivity Control

Series 16HM is similar to Series 16M but provides higher sensitivity up to 5.5 million ohm/cm. Probe voltage is 12 VDC for applications with low conductive media.

## Series 16DM – DPDT Load Contact

Similar to Series 16M but with DPDT load contacts. Eliminates the need for slave relays. 11 pin octal plugs. Requires little panel space. General purpose single-level or differential applications. U.L. listed.

## Series 16VM – Field Selectable Sensitivity

Similar to Series 16M but with the added flexibility of field adjustable sensitivity, made possible through external setpoint resistors. Uses 11 pin octal socket. U.L. listed.

## Specifications

<b>Contact Design</b>	
Series 16M & 16HM	1 N.O. & 1 N.C. (1 form C)
Series 16DM	2 N.O. & 2 N.C. (2 form C)
Series 16VM	1 N.O. & 1 N.C. (1 form C)
<b>Contact Rating (120, 240 VAC)</b>	
Series 16M & 16HM	10 amp Resistive 1/3 hp
Series 16DM	5 amp Resistive 1/10 hp
Series 16VM	10 amp Resistive 1/3 hp
<b>Mode of Operation</b>	
	Direct/Inverse, factory set
<b>Sensitivity</b>	
Series 16M	0-1M ohm, factory set
Series 16HM	0-5.5M ohm, factory set
Series 16DM	0-1M ohm, factory set
Series 16VM	0-1M ohm, field adjustable
<b>Primary Voltage</b>	
	24 VAC, 120 VAC, 240 VAC (+10%/-15%)
	208/240: 187 V min. to 255 V max. VAC 50/60 Hz
<b>Secondary Voltage</b>	
Series 16M	12 VAC, 1.5 mA
Series 16HM	12 VDC
Series 16DM & 16VM	12 VAC, 1.5 mA
<b>Temperature</b>	
	-40°F to +150°F (-40°C to +65°C)
<b>Approvals</b>	
	U.L. 508 File #E44426
<b>Terminal Style</b>	
	Screw connector
<b>Options</b>	
	Time Delays



Series 16M/16HM

Series 16DM/16VM

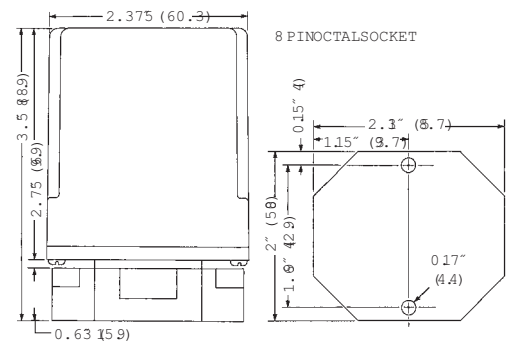


## Applications

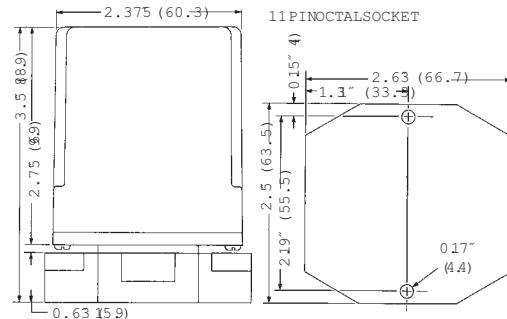
- Single-Level Service
- Point Level
- Valve Control
- Differential Service
- Alarms
- Pump Control

## Dimensions

### Series 16M & 16HM



### Series 16DM & 16VM

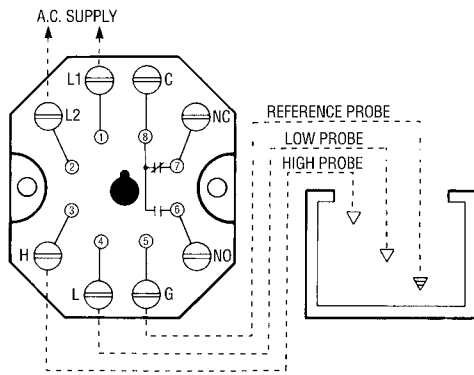


Note: Controls also available with DIN mount socket.

WARRICK CONDUCTIVITY SENSORS

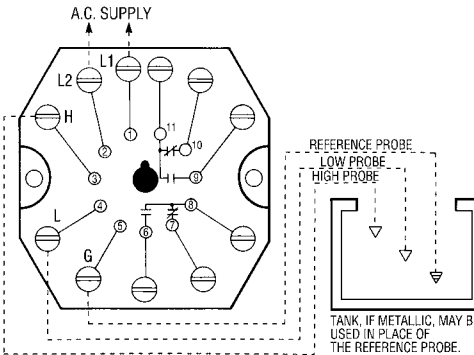
## Wiring

### Series 16M & 16HM

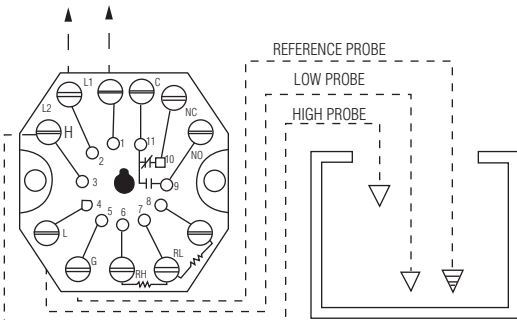


Note: For single level service, use "H" and "G" connections.

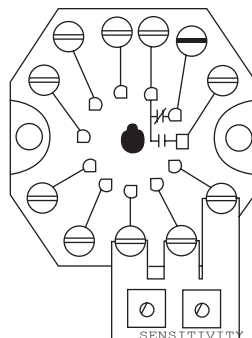
### Series 16DM



### Series 16VM



### Variable Sensitivity Option



Part number 16Z1VG Potentiometer Board available for 16VM only. Consult factory.

## How to Order

Use the **Bold** characters from the chart below to construct a product code.

### 16M Series – Microprocessor Version

	16M	X	X	X	X	X	XX	XX
1. Series	<b>16M</b> General Purpose;							
2. Mode of Operation	<b>Direct</b> A – 4.7K B – 10K C – 26K D – 50K <b>Inverse</b> E – 100K F – 470K G – 1M K – 4.7K L – 10K M – 26K N – 50K P – 100K R – 470K S – 1M							
3. Supply Voltage	<b>1</b> 120 VAC; <b>2</b> 240 VAC; <b>3</b> 24 VAC; <b>8</b> 208/240 VAC							
4. Socket Style*	<b>A</b> 8 Pin Octal <b>B</b> 8 Pin DIN <b>M</b> Module Only							
5. Enclosure	<b>0</b> None; <b>1</b> NEMA 1; <b>4</b> NEMA 4							
6. Time Delay (increasing level) Option	<b>00-90</b> seconds <b>Blank</b> 0 seconds							
7. Time Delay (decreasing level) Option	<b>00-90</b> seconds <b>Blank</b> 0 seconds							
8. Time Out Option	See page E-11, Chart A							

\*See page E-11 for descriptions.

### 16 HM, 16DM or 16VM Series

	16HM	X	X	X	X	XX	XX
1. Series	<b>16HM</b> High Sensitivity; <b>16DM</b> DPDT Load Contact; <b>16VM</b> Field Selectable Sensitivity <sup>1</sup>						
2. Mode of Operation <sup>2</sup>	<b>Direct</b> A – 4.7K <sup>4</sup> B – 10K <sup>4</sup> C – 26K <sup>4</sup> D – 50K <sup>4</sup> E – 100K <sup>4</sup> F – 470K <sup>4</sup> G – 1M <sup>4</sup> H – 3M <sup>3</sup> J – 5.5M <sup>3</sup> Y – 0-700K <sup>5,7</sup> <b>Inverse</b> K – 4.7K <sup>4</sup> L – 10K <sup>4</sup> M – 26K <sup>4</sup> N – 50K <sup>4</sup> P – 100K <sup>4</sup> R – 470K <sup>4</sup> S – 1M <sup>4</sup> T – 3M <sup>3</sup> W – 5.5M <sup>3</sup> Z – 0-700K <sup>5,7</sup>						
3. Supply Voltage	<b>1</b> 120 VAC; <b>2</b> 240 VAC; <b>3</b> 24 VAC; <b>8</b> 208/240 VAC						
4. Socket Style	<b>A</b> 8 Pin Octal (16M & 16HM), 11 Pin Octal (16DM & 16VM); <b>B</b> DIN Mount; <b>M</b> None, Module Only <sup>6</sup>						
5. Enclosure	<b>0</b> None; <b>1</b> NEMA 1; <b>4</b> NEMA 4						
6. Time Delay (increasing level) Option	<b>01-20</b> seconds; <b>0V</b> variable (16VM only)						
7. Time Delay (decreasing level) Option	<b>01-20</b> seconds; <b>0V</b> variable (16VM only)						

Notes:

- 16VM select modes **A, K, Y** or **Z** only.
- 16HM & 16DM only. Series 16VM includes full set of the resistors listed above. Specify a sensitivity to determine mode of operation.
- 16HM only.
- All Series except 16HM.
- 16VM only.
- Socket style M requires enclosure **0** – None.
- Mounting style A (11 pin octal only)

Socket Details and Option Availability are located on web site.