

# 3300 Series Rugged Seal Meter Relay



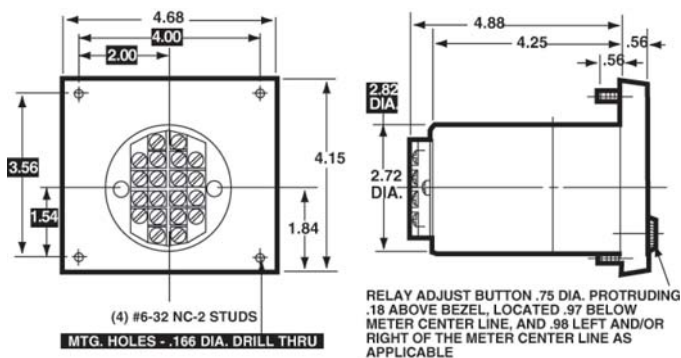
- **Wide Variety of Control, Alarm, and Limit Use**
- **Calibration Not Affected by Steel Panel Mounting**
- **Rugged Metal Case for Rigorous Environments**
- **Commercially-Sealed, Moisture and Dust Proof**

## Specifications

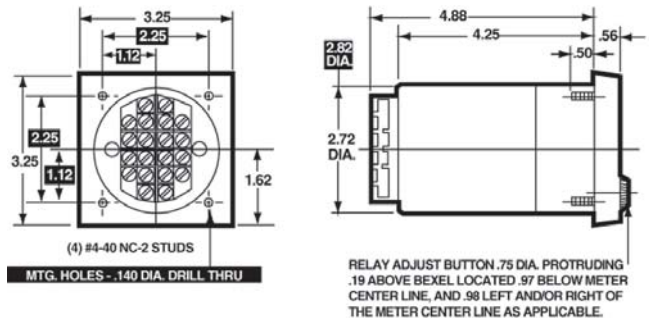
<b>Accuracy:</b>	AC: $\pm 3\%$ of full scale; DC: $\pm 2\%$ F.S.
<b>Movement:</b>	Annular, self-shielding
<b>Suspension:</b>	Pivot and jewel
<b>Tracking:</b>	$\pm 3\%$
<b>Repeatability:</b>	Within 0.5% F.S.
<b>Shielding:</b>	Calibration is unaffected by magnetic panel mounting
<b>Response Time:</b>	1.5 seconds maximum above 10mA
<b>Overload (1 sec.):</b>	AC: 7 amps; DC: 10 times F.S.
<b>Overload (Continuous):</b>	AC: 7 amps, DC: 1.5 times F.S.
<b>Dial:</b>	Sharp clear scale. Each dial arc is calibrated to track the specific type of movement used.
<b>Case:</b>	Sealed metal, plastic window
<b>Voltage Drop:</b>	50mV
<b>Pointer:</b>	Black, knife-edge
<b>Scale Length:</b>	4.05" (103.0mm)
<b>Net Weight:</b>	17oz (0.48kg)
<b>Control Point(s)</b>	Single, high limit, 0-100% of arc; double, low limit 0-95% of arc; high limit 5-100% of arc Adjustable to within 4° of each other
<b>Adjustments:</b>	
<b>Switching:</b>	Within 1% of indication
<b>Differential:</b>	"On," "Off" difference is within 0.5% of F.S.
<b>Auto/Manual Reset:</b>	Latching function can be enabled independently for each relay by removing jumpers on terminal block
<b>Contacts/Output Relay:</b>	DPDT relay contacts for each control point; Each set of contacts rated at 5 amps, 120/240 VAC resistive.
<b>Frequency Response:</b>	50-1000Hz
<b>Power:</b>	108-132 VAC, 50-400Hz
<b>Operating Temperature:</b>	+41°F to 122°F (5°C to +50°C)
<b>Circuit-to-Ground</b>	
<b>Voltage:</b>	250V rms maximum
<b>NOTE:</b>	DC meters meet ANSI specification C-39.1

## Dimensions

### 4 - 1/2"-Model 3344AIXA & 3324AIXA



### 3 - 1/2"-Model 3343AIXA & 3323AIXA





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## Ordering Information

### AC Voltmeters Rectified, Self-Shielding Movement

Range	Approx. Resistance (ohms)	Model/Size and Catalog Number			
		3-1/2" Model 3343AIXA		4-1/2" Model 3344AIXA	
		Single Set point (High Limit)	Dual Set point	Single Set point (High Limit)	Dual Set point
0-10	200 k	21675	21635	21679	21639
0-150	3 M	21676	21636	21680	21640
0-300	6 M	21681	21641	21682	21642

<> Available on special order.

### DC Microammeters, Self-Shielding Movement

Range	Approx. Resistance (ohms)	Model/Size and Catalog Number			
		3-1/2" Model 3323AIXA		4-1/2" Model 3324AIXA	
		Single Set point (High Limit)	Dual Set point	Single Set point (High Limit)	Dual Set point
0-25	2 k	21658	21618	<>	<>
0-50	1 k	21659	21619	21666	21626
0-100	500	21660	21620	21667	21627

<> Available on special order.

### DC Milliammeters, Self-Shielding Movement

Range	Approx. Resistance (ohms)	Model/Size and Catalog Number			
		3-1/2" Model 3323AIXA		4-1/2" Model 3324AIXA	
		Single Set point (High Limit)	Dual Set point	Single Set point (High Limit)	Dual Set point
0-1	50	21661	21621	21668	21628

### DC Millivoltmeters, Self-Shielding Movement

Ranges	Approx. Resistance (ohms)	Model/Size and Catalog Number			
		3-1/2" Model 3323AIXA		4-1/2" Model 3324AIXA	
		Single Set point (High Limit)	Dual Set point	Single Set point (High Limit)	Dual Set point
0-50	1 k	21663	21623	21670	21630

### DC Voltmeters, Self-Shielding Movement

Ranges	Approx. Resistance (ohms)	Model/Size and Catalog Number			
		3-1/2" Model 3323AIXA		4-1/2" Model 3324AIXA	
		Single Set point (High Limit)	Dual Set point	Single Set point (High Limit)	Dual Set point
0-1	20 k	21664	21624	21671	21631
0-50	1 M	21665	21625	21672	21632

<> Available on special order

### DC Ammeters, Self-Shielding Movement

Range	Approx. Impedance (ohms)	Model/Size and Catalog Number			
		3-1/2" Model 3323AIXA		4-1/2" Model 3324AIXA	
		Single Set point (High)	Dual Set Point	Single Set Point	Dual Set Point
0-5	.01	21662	21622	21669	21629

### AC Ammeters Rectifier, Self-Shielding Movement

Range	Approx. Impedance (ohms)	Model/Size and Catalog Number			
		3-1/2" Model 3343AIXA		4-1/2" Model 3344AIXA	
		Single Set point (High)	Dual Set Point	Single Set point (High)	Dual Set Point
0-5	.01	21673	21633	21677	21637

### Percent Motor Load Self-Shielding Movement

Scale	Range F.S.	Catalog Number Single Set point (High Limit)	Catalog Number Double Set point	Model
0-150%*	10 VAC	21684**	21644**	3344 AIXA 4-1/2"
0-150%**	5 amp AC	21683**	21643**	3344 AIXA 4-1/2"
0-150%**	5 amp AC	35096**	35097**	3343 AIXA 3-1/2"

\* Use with Model 186 current transformers, pages C4-C6

\*\* Use with current transformers, page C4

## Temperature Meters

### Specifications

<b>Accuracy:</b>	±2% F.S.
<b>Movement:</b>	Annular, self-shielding
<b>Suspension:</b>	Pivot and jewel
<b>Adjustments:</b>	Single, 0-100% of arc; double, low limit 0-95% of arc; high limit, 5-100% of arc, Adjustable to within 4° of each other.
<b>Switching:</b>	With 1% of indication
<b>Differential:</b>	"On", "Off" difference is within 0.5% of F.S.
<b>Auto/Manual Reset:</b>	Latching function can be enabled independently for each relay by removing jumpers on terminal block.
<b>Contacts/Output Relays:</b>	DPDT relay contacts for each control point except motor load types. SPDT low point. Each set of contacts rated at 5 amps, 115 VAC
<b>Tracking:</b>	±3%
<b>Repeatability:</b>	2%
<b>Shielding:</b>	Calibration is unaffected by magnetic panel mounting
<b>Response Time:</b>	1.5 seconds maximum
<b>Overload (1 sec.):</b>	10 times F.S.
<b>Overload (Continuous):</b>	1.5 times F.S.
<b>Dial:</b>	Sharp clear scale. Each dial arc is calibrated to track the specific type of movement used.
<b>Case:</b>	Sealed metal, plastic window
<b>Voltage Drop:</b>	50mV
<b>Pointer:</b>	Black, knife-edge
<b>Scale Length:</b>	4.05" (103.0mm)
<b>Net Weight:</b>	17oz (0.48kg)
<b>Frequency Response:</b>	50-1000 Hz
<b>Power:</b>	108-132 VAC, 50-400 Hz
<b>Operating Temperature:</b>	-4°F to +149°F (-20°C to +65°C)
<b>Circuit to ground voltage:</b>	250 RMS maximum
<b>Tracking:</b>	±3%

## Ordering Information

Temperature Range	Thermocouple Type	Catalog Number Model# 3324 AIXA 4 - 1/2"	
		SSP	DSP
0 to 300°F (0°C to +149°C)	Type J	21651	21611
0 to 500°F (0°C to +260°C)		21652	21612
0 to 750°F (0°C to +399°C)		21653	21613
0 to 1000°F (0°C to +538°C)		21654	21614
0 to 1500°F (0°C to +815°C)		21655	21615
0 to 2000°F (0°C to +1093°C)	Type K	21656	21616
0 to 2500°F (0°C to +1371°C)		21657	21617

Thermocouples are not supplied. Available separately from Accessory Section, page C2