

3300 Series Rugged Seal Meter Relay



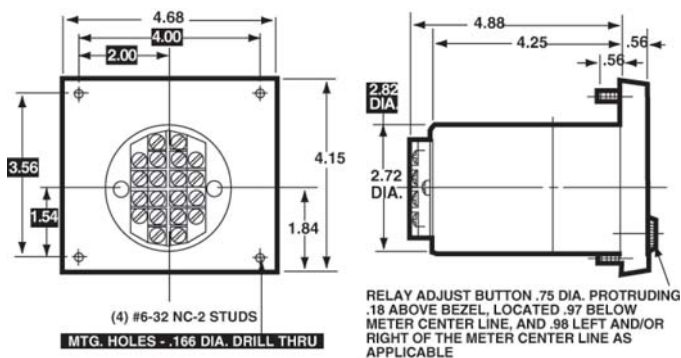
- **Wide Variety of Control, Alarm, and Limit Use**
- **Calibration Not Affected by Steel Panel Mounting**
- **Rugged Metal Case for Rigorous Environments**
- **Commercially-Sealed, Moisture and Dust Proof**

Specifications

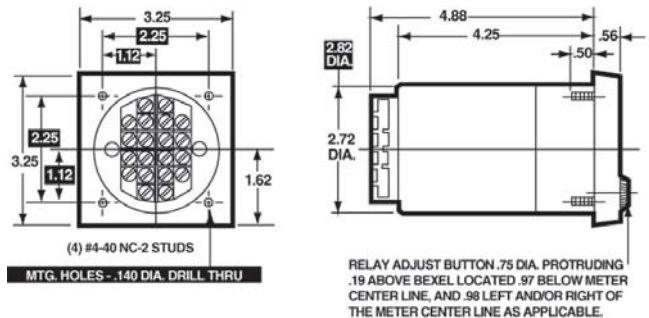
| | |
|-------------------------------|---|
| Accuracy: | AC: $\pm 3\%$ of full scale; DC: $\pm 2\%$ F.S. |
| Movement: | Annular, self-shielding |
| Suspension: | Pivot and jewel |
| Tracking: | $\pm 3\%$ |
| Repeatability: | Within 0.5% F.S. |
| Shielding: | Calibration is unaffected by magnetic panel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

Dimensions

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



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



1 = Panel Meter Cut-out Dimensions



3300 Series Rugged Seal Meter Relay

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

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