**Dimensions**

- Width: 2.34 in (59.4 mm)
- Height: 1.77 in (45.0 mm)
- Depth: 0.78 in (19.8 mm)

**Input**
- Voltage: 0-5V, 0-10V
- Source Impedance: ≤100 ohms
- Drive: 10mA, max.

**Output**
- Voltage: 0-1mA, 0-20mA, 4-20mA
- Source Impedance: ≤100 ohms

**Compliance**
- 0-1mA, 7.5V, max. (7.5V, ohms max.)
- 0-20mA, 12V, max. (600 ohms, max.)
- 4-20mA, 12V, max. (600 ohms, max.)

**Lag Indication**
- RUN (green): On when unit is powered
- ON (red): Flashing at rate of 1 kHz

**Accuracy**
- ±0.1% of span, typical, ±0.2% max.
- ±0.5% of span, maximum (100mV range)

**Stability**
- ±0.025%/°C of selected input span, typical.

**Response Time**
- 10% to 90%: 50msec

**Humidity**
- Non-Condensing: 25-95%RH @ 45°C

**Temperature Range**
- Operating: 0 to 55°C (32 to 131°F)
- Storage: -25 to 70°C (-13 to 158°F)

**Power**
- Consumption: 1.5W typical, 2.5W max.

**Warranty**
- OMEGA ENGINEERING, INC., warrants this unit to be free of defects in materials and workmanship for a period of one (1) year product warranty (USA & Canada only). For Other Locations Visit omega.com/worldwide

**DISCLAIMER**
- The information contained in this document is believed to be correct, but OMEGA accepts no liability for any errors, or omissions, or inaccuracies in the information contained in this document. OMEGA reserves the right to make changes in design and specifications at any time without notice. The purchaser is responsible for inspecting the product upon receipt.

**Diagnostic LEDs**
- The DRI-AC has three diagnostic LEDs. The green (RUN) LED indicates that the unit is powered and functioning. The yellow (OUTPUT) LED indicates that the output is active. The red (FAIL) LED indicates that there is an error.

**Touch Calibration Technology**
- Provides an isolated DC output in proportion to an AC input.
- Eliminates Ground Loops
- Field Configurable Input Ranges
- Field Configurable Output Ranges
- Touch Calibration Technology

**Description**
- The DRI-AC is a DIN rail mount, AC input signal conditioner with 1800VDC isolation between input, output and power. The field configurable input and output offers flexible, wide ranging capability for scaling, converting or buffering AC inputs ranging from 5mA to 100mAAC or 50mV to 300VAC.

**For current inputs above 100mA, it is recommended that an input shunt resistor be used and the DRI-AC be configured for the proper input range. For example, a 5A current transformer output can use the CO66 shunt resistor (0.1 ohm, 5W) with the input of the DRI-AC set for 0-500mAAC.**

**Touch Calibration Technology**
- The DRI-AC utilizes Touch Calibration technology which greatly simplifies calibration. The thermal drift and mechanical variability of the potentiometers has been removed and replaced with a digitally stable circuit. Once the unit is configured via DIP switches for voltage or current, the pushbutton is used to precisely calibrate the maximum and minimum ranges.

**To set the input level within the dip switch configured range, simply apply the high input signal (voltage or current) and push the CAL button. The low input signal is then applied and pushing the CAL button again stores the low input signal. The high and low input levels are stored in nonvolatile memory and correspond to the high and low output levels. These output levels are precisely adjusted using the input signal.**

**Warranty/Disclaimer**
- OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of one (1) year product warranty (USA & Canada only). For Other Locations Visit omega.com/worldwide

**Diagnostic LEDs**
- The DRI-AC has three diagnostic LEDs. The green (RUN) LED is used for diagnostics to indicate that power is on. It will flash quickly if the input signal is above the calibrated range or slowly if the input signal is below the calibrated range.

**Application**
- The DRI-AC is useful in applications requiring an isolated, conditioned DC output from an AC signal. Typical applications include energy management, load shedding, motor current/load monitoring, locked rotor detection, isolation and data acquisition.

**Shipping Weight**
- 0.48 lbs.

**Agency Approvals**
- UL recognized per standard UL508 (File No. E99775)

**CE Compliance**
- EMC directive 89/336 EEC and Low Voltage 73/23EEC.

**Power**
- Consumption: 1.5W typical, 2.5W max.
- Range: 100 to 240 VAC ±10%, 50 to 400 Hz

**Wire Terminations**
- Screw terminals (12-22 AWG)

**Shipping Weight**
- 0.48 lbs.

**Agency Approvals**
- UL recognized per standard UL508 (File No. E99775)

**CE Compliance**
- EMC directive 89/336 EEC and Low Voltage 73/23EEC.

**Power**
- Consumption: 1.5W typical, 2.5W max.
- Range: 100 to 240 VAC ±10%, 50 to 400 Hz

**Wire Terminations**
- Screw terminals (12-22 AWG)

**Shipping Weight**
- 0.48 lbs.

**LED Indications**
- TURN (green): On when unit is powered
- ON (red): Flashing at rate of 1 kHz

**Accuracy**
- Accuracy (Including Linearity & Hysteresis): 
  - ±0.1% of span, typical, ±0.2% max.
  - ±0.5% of span, maximum (100mV range)

**Stability**
- ±0.025%/°C of selected input span, typical.

**Response Time**
- 10% to 90%: 50msec

**Humidity**
- Non-Condensing: 25-95%RH @ 45°C

**Temperature Range**
- Operating: 0 to 55°C (32 to 131°F)
- Storage: -25 to 70°C (-13 to 158°F)
WARNING: Do not change switch settings with power applied. Severe damage will result!

1. With power off, snap off the faceplate by lifting the right edge away from the heatsink. Slide the heatsink forward and off the module.

2. Choose the desired range from Tables 1-3. Return the heatsink to its original position and attach the faceplate before beginning calibration.

Calibration
For best results, calibration should be performed in the operating installation, allowing at least one hour for thermal stability of the system. If pre-calibration on a test bench is preferred, then an output load equal to the input impedance of the device connected to the DRI-AC output is recommended, along with a 1 hour warm up period.

1. For best results install the module on to a piece of DIN rail or the ACPB rail mounting accessories if desired. See the ACPB rail Data sheet for details.

Note: An ACPB rail is required to power the modules. See ordering information.

2. Connect the input to a calibrated AC source and the output to a voltage or current meter. Apply power and allow the system to reach thermal equilibrium (approx. 20 minutes).

3. Adjust the input signal to the desired maximum and observe that the green LED is on or flashing. Push the CAL button and hold it down for more than 5 seconds (until the yellow and Green LEDs are flashing), then release the button.

Note: To quit the calibration mode and reset the unit, push and hold the CAL button for more than 5 seconds. Or, wait for more than two minutes and the unit will timeout and automatically reset to the previously stored calibration.

4. When the yellow and green LEDs stop flashing, the yellow and red LEDs will be on. Push the CAL button momentarily (the yellow and green LEDs will now be on).

5. Apply the maximum input signal level desired and push the CAL button to store. The yellow LED will now be on.

6. Apply the minimum input signal level desired and push the CAL button to store. The green and red LED will now be on.

7. Adjust the input signal while monitoring the output signal until the output is at the desired maximum level (e.g. 20.00mA), then push the CAL button to store (the red LED will be on).

8. Adjust the input signal while monitoring the output signal until the output is at the desired minimum level (e.g. 4.00mA), then push the CAL button to store (the yellow, green and red LEDs will be on).

9. To finish calibration, push the CAL button once again. The green LED will be on if the input is within the calibrated range.

WARNING: Do not change switch settings with power applied. Severe damage will result!

At power on, the current transformer display is stable within 2 minutes. Snap off the faceplate (by lifting the right edge away from the heatsink) and slide the heatsink forward and off the module.

Connect a load to either the DRI-AC output or the ACPB rail. If the DRI-AC is being calibrated, apply the maximum input signal level desired and push the CAL button to store. The yellow LED will now be on.

Calibration
For best results, calibration should be performed in the operating installation, allowing at least one hour for thermal stability of the system. If pre-calibration on a test bench is preferred, then an output load equal to the input impedance of the device connected to the DRI-AC output is recommended, along with a 1 hour warm up period.

1. For best results install the module on to a piece of DIN rail or the ACPB rail mounting accessories if desired. See the ACPB rail Data sheet for details.

Note: An ACPB rail is required to power the modules. See ordering information.

2. Connect the input to a calibrated AC source and the output to a voltage or current meter. Apply power and allow the system to reach thermal equilibrium (approx. 20 minutes).

3. Adjust the input signal to the desired maximum and observe that the green LED is on or flashing. Push the CAL button and hold it down for more than 5 seconds (until the yellow and Green LEDs are flashing), then release the button.

Note: To quit the calibration mode and reset the unit, push and hold the CAL button for more than 5 seconds. Or, wait for more than two minutes and the unit will timeout and automatically reset to the previously stored calibration.

4. When the yellow and green LEDs stop flashing, the yellow and red LEDs will be on. Push the CAL button momentarily (the yellow and green LEDs will now be on).

5. Apply the maximum input signal level desired and push the CAL button to store. The yellow LED will now be on.

6. Apply the minimum input signal level desired and push the CAL button to store. The green and red LED will now be on.

7. Adjust the input signal while monitoring the output signal until the output is at the desired maximum level (e.g. 20.00mA), then push the CAL button to store (the red LED will be on).

8. Adjust the input signal while monitoring the output signal until the output is at the desired minimum level (e.g. 4.00mA), then push the CAL button to store (the yellow, green and red LEDs will be on).

9. To finish calibration, push the CAL button once again. The green LED will be on if the input is within the calibrated range.

Specifications
Inputs:
- Voltage: Ranges: 100mVAC to 300VAC
- Impedance: >100K ohms
- Overvoltage: 330VAC
- Frequency: 40Hz to 60Hz, factory calibrated at 60Hz
- Common Mode: (Input to Ground): 1800VDC, max.

Outputs:
- Current: Ranges: 1mA to 10mA
- Impedance: 20 ohms, typical
- Overcurrent: 170mAAC
- Overvoltage: 60V peak
- Frequency Range: 40Hz to 400Hz, factory calibrated at 60Hz
- Common Mode: (Input to Ground): 1800VDC, max.

Pushbutton Adjustment:
- Max. zero offset and span turn down is 50%