

Digital Instruments for AC/DC Systems

These highly versatile and sleekly designed digital instruments provide comprehensive monitoring of onboard AC and DC electrical systems. They give quick, accurate, up-to-the-moment information on all important aspects of electrical system status – voltage, current, power consumed, power available, AC frequency, abnormal system conditions, and more.

All read-outs and programming of these multiple functions are easily controlled via touch-pads on the instrument face. LCD displays are easily read in bright sunlight and feature five level adjustable red back-lighting for conservation of night vision. High/low voltage and frequency alarms are standard, and DC monitors are NMEA 0183 compatible. Typical accuracy is +/- 1%.

These instruments are waterproof and are suitable for installation in exposed above deck areas, such as open cockpits and flybridges (provided there is no water ingress to the rear of the mounting surface). The meter/touch-pad and surrounding bezel are fully waterproof and the ABS housing is UV stabilized.

All models are designed for through-bulkhead mounting; 2 1/2" models may also be installed in NEWMAR's Single Universal Series panel (see page 21).

All instruments are pre-calibrated for typical use settings at the factory prior to shipment, however they may be recalibrated via touch pad after installation to suit the special needs or conditions of any particular vessel.



DCE

DCE: DC Energy Monitor

Displays volts, amps, energy used and remaining for 12 or 24 volt systems up to 500 amps and up to 3,000 amp-hour capacity. Makes DC energy management a breeze. Monitor voltage on up to three separate banks. House bank (or battery bank of choice) may be also be programmed for the following functions: 1) Monitor charge/discharge amperage. 2) Total energy monitor can be set for amp-hours or percent-of-charge. 3) High/low voltage alarm, plus alarm set-point for low amp-hours remaining. 500 amp shunt included. NMEA 0183 compatible output for data logging. Available in 2 1/2" or 4 1/4" square face.

Available in 2 Sizes



ACE

ACE: AC Energy Monitor

For 115/230 volt systems. Reads: 90-300 VAC (True RMS), 0-150 amps, frequency from 40-70 Hz and power from 0-45 kW. Features alarm circuits for high/low voltage and high/low frequency. Can be programmed to provide automatic generator shutdown (see Remote Alarm Option below) in the event that voltage or frequency exceed predetermined range. Current and voltage transformers are included. 12 or 24 volt source required to power meter. Available in 2 1/2" or 4 1/4" square face.

Available in 2 Sizes



DCV

DCV: DC Voltmeter

For three battery banks, 12 and/or 24 volt systems. Reads to the nearest 1/10 volt. Features a programmable high/low voltage alarm circuit for each bank. NMEA 0183 compatible for PC interface. Only available in 2 1/2" version.



DCE-VAH-110

Large Scale Models Now Available

Our DCE and ACE Digital Instruments are now offered in a large LCD read-out design. Digits are an easy-to-read 1 1/4" tall, allowing monitoring from a distance. Large button keypads make programming and function selection a breeze!

All instrument ratings and functions are identical to standard scale instruments described at left. Mounting hole requirements and hardware are also identical to standard scale models. Instrument face dimensions: 4 1/4" x 4 1/4" (110 mm x 110 mm)

Models

DCE-VAH-110 Large scale version of DCE shown at left

ACE-VAF-110 Large scale version of ACE shown at left

Remote Alarm Relay Option

All instruments shown on this page have programmable alarms. A relay is now available that activates from the instrument alarm signal output terminal allowing remote activation and/or connection to the vessel's 12 or 24 volt alarm panel.

Model:

DIR Digital Instrument Relay

Input Signal: 5 VDC

Relay Rating: 12/24 VDC, 10 amps

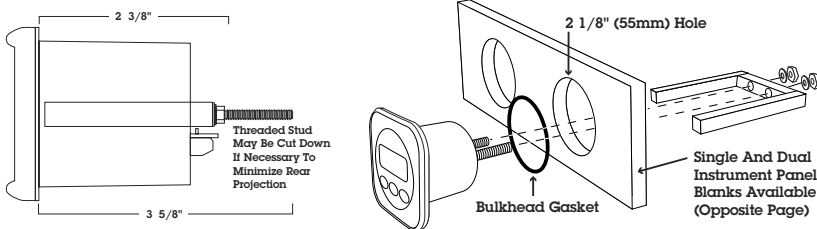
Size: 2.4" x 1.4" x 1.5"



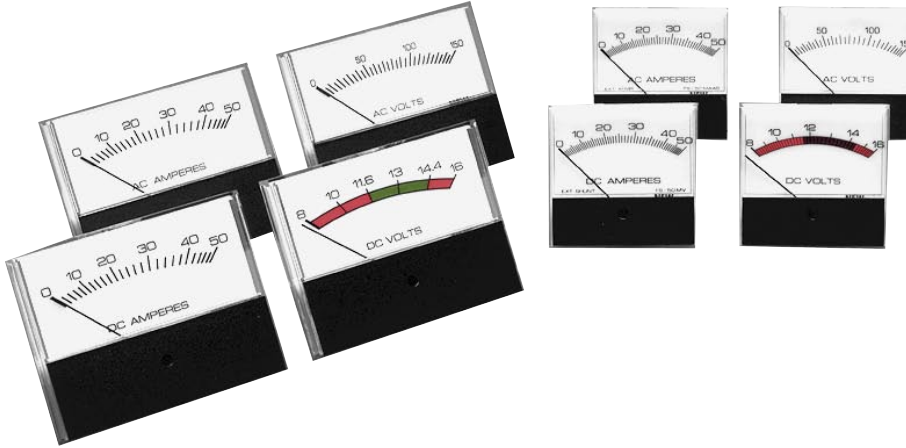
Model: DIR

Instrument Drawings & Mounting Options

2 1/2" model depicted: Large Scale Instruments use identical size mounting hole and hardware configuration



Metering



Assemble an electrical monitoring system using these meters and the panel blanks shown below. Meters are now available in Digital and Analog format in 2 1/2" and 3 1/2" sizes. One pre-fab meter panel accommodates the 2 1/2" meters and digital instruments (see page 20).

Analog Meters

Easy to read graphics with unit divisions give precise readouts at a glance. Designed for easy front or rear panel mounting. See below for meter panel blanks.

AC Meters

AC Volt 0-150
AC Volt 0-300
AC Amp 0-50 w/current transformer
AC Amp 0-100 w/current transformer

DC Meters

DC Volt 8-16
DC Volt 16-32
DC Amp 0-50 w/shunt
DC Amp 0-100 w/shunt

Replacement Shunts/Current Transformers For Analog Meters

- Shunt for 0-50 DC ammeter
- Shunt for 0-100 DC ammeter
- Current transformer for 0-50 AC ammeter
- Current transformer for 0-100 AC ammeter

Meter Face Measurements

3.5" scale: 3 3/4" W x 2 7/8"H (9.5 X 7.3 cm)
2.5" scale: 2.1/2" W x 2 3/8"H (6.3 X 6.0 cm)

Meter Panel Blanks

Universal Series

MPB-SU: Single Universal Panel; accommodates one 2 1/2" meter or one Digital Instrument in front-mount configuration; can be oriented for either horizontal or vertical mounting. Panel dimensions: 3 3/4" x 5 1/4"

