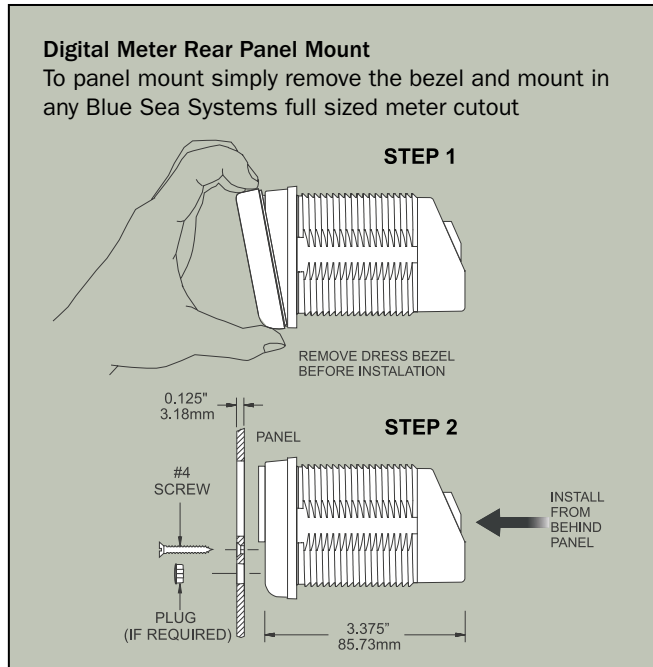
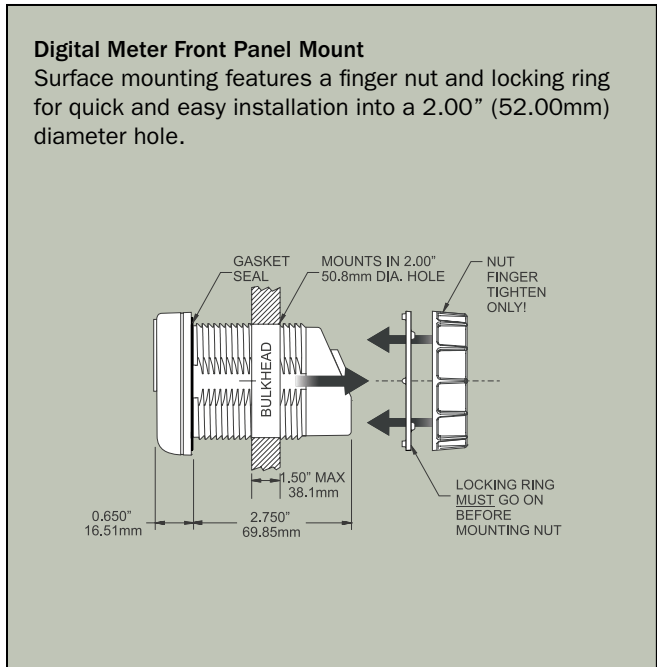
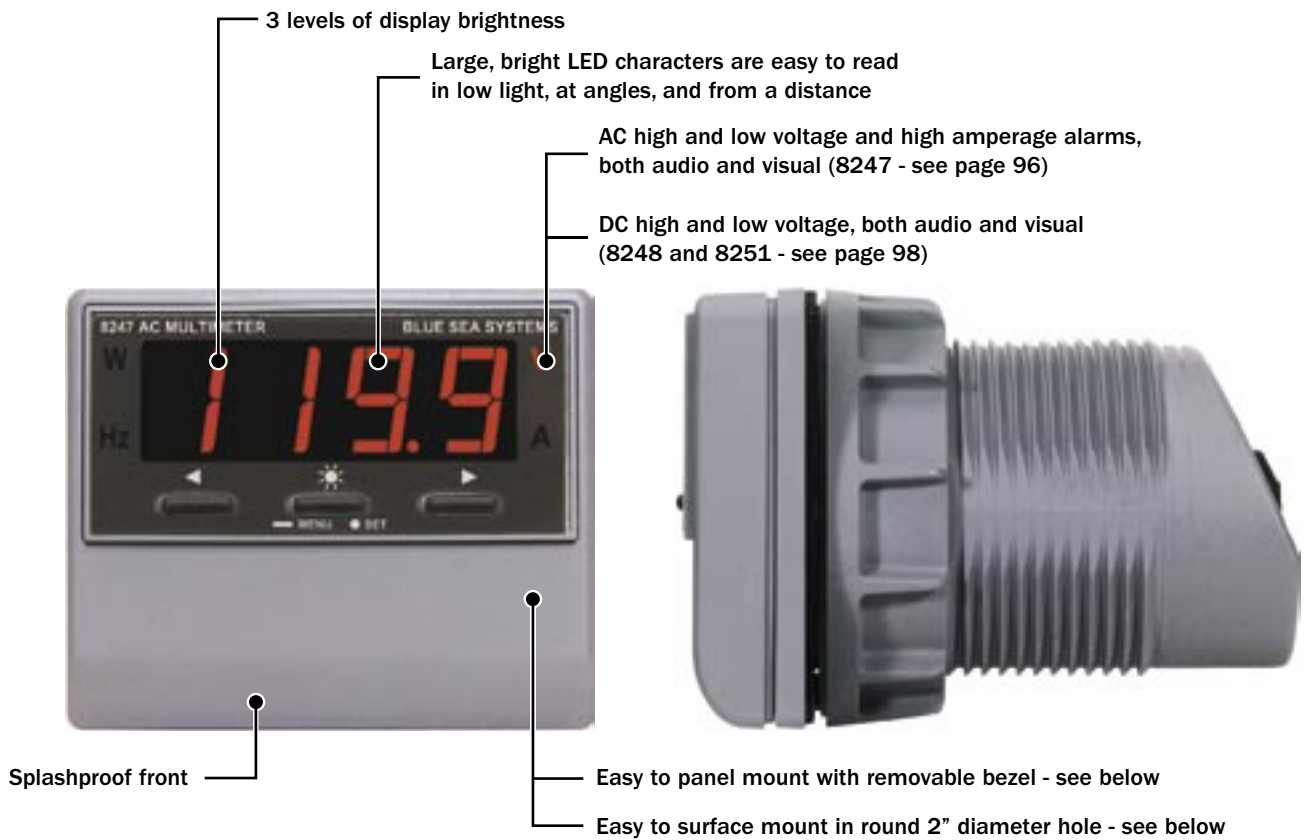


### AC and DC Digital Meters

- DC Digital Meters for Voltage and Amperage
- AC Digital Meters for Voltage, Amperage, Frequency, and Watts
- Voltmeters, Ammeters, Frequency Meters, and Multimeters
- Easy spin on mounting system
- Readable in low light
- Can be rear or front panel mounted
- Direct replacement for analog meters
- Scan mode on multi-function units
- Low current drain



## AC Digital Multimeter with Alarm

- Displays amperage from 0 to 150 Amperes
- Displays voltage from 80 to 270 Volts AC
- Displays power from 10 to 45 Kilowatts
- Displays frequency from 40 to 90 Hertz
- High and low voltage and high amperage alarms, both audio and visual
- 3 levels of display brightness
- Programmable sleep mode blanks display for power conservation
- Splashproof front
- Includes current transformer - reference 8256, (see page 103)

### Specifications

Display Character Size	9/16" (14.29mm)
Input Voltage	80-270V AC*
Minimum Power Consumption	0.010 Watt**
Maximum Power Consumption	0.027 Watt**
Dimensions	Width 2.90" (73.56mm) Height 2.43" (61.75mm) Depth 3.40" (86.36mm)
Weight	0.78Lb (0.35Kg)

\* For 120 & 240 Volt AC single phase systems

\*\* Variable with voltage, display intensity, segments illuminated and sleep mode



8247

## AC Digital Frequency Meter

- Displays frequency from 40 to 90 Hertz
- 3 levels of display brightness
- Splashproof front
- Manual sleep mode blanks display for power conservation

### Specifications

Display Character Size	9/16" (14.29mm)
Input Voltage	80-270V AC*
Minimum Power Consumption	0.010 Watt**
Maximum Power Consumption	0.027 Watt**
Dimensions	Width 2.90" (73.56mm) Height 2.43" (61.75mm) Depth 3.40" (86.36mm)
Weight	0.72Lb (0.35Kg)

\* For 120 & 240 Volt AC single phase systems

\*\* Variable with voltage, display intensity, segments illuminated and sleep mode



8239

## AC Digital Ammeter

- Displays amperage from 0 to 150 Amperes
- 3 levels of display brightness
- Splashproof front
- Includes current transformer - reference 8256, (see page 103)
- Manual sleep mode blanks display for power conservation

### Specifications

Display Character Size	9/16" (14.29mm)
Input Voltage	80-270V AC*
Minimum Power Consumption	0.010 Watt**
Maximum Power Consumption	0.027 Watt**
Dimensions	Width 2.90" (73.56mm) Height 2.43" (61.75mm) Depth 3.40" (86.36mm)
Weight	0.78Lb (0.35Kg)

\* For 120 & 240 Volt AC single phase systems

\*\* Variable with voltage, display intensity, segments illuminated and sleep mode



8238



8237

### AC Digital Voltmeter

- Displays voltage from 80 to 270 Volts AC
- 3 levels of display brightness
- Splashproof front
- Manual sleep mode blanks display for power conservation

#### Specifications

Display Character Size	9/16" (14.29mm)
Input Voltage	80-270V AC*
Minimum Power Consumption	0.010 Watt**
Maximum Power Consumption	0.027 Watt**
Dimensions	Width 2.90" (73.56mm) Height 2.43" (61.75mm) Depth 3.40" (86.36mm)
Weight	0.72Lb (0.33Kg)

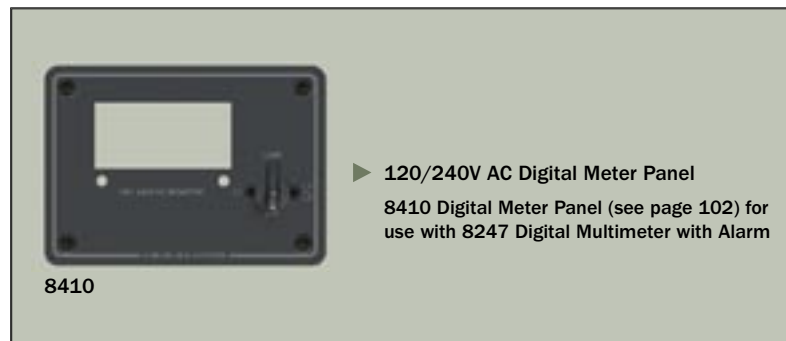
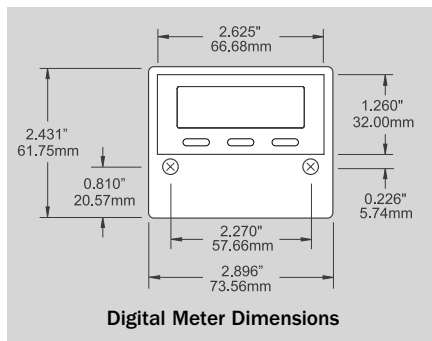
- \* For 120 & 240 Volt AC single phase systems
- \*\* Variable with voltage, display intensity, segments illuminated and sleep mode

### AC Digital Meter Specifications

PN	Description	Current Measurement	Voltage Measurement	Frequency Measurement	Power Measurement
8247	AC Digital Multimeter with Alarm	✓	✓	✓	✓
8239	AC Digital Frequency Meter	-	-	✓	-
8238	AC Digital Ammeter	✓	-	-	-
8237	AC Digital Voltmeter	-	✓	-	-

<b>Current Measurement</b> Current Transformer: 150A-50mV Range 1 (Resolution 0.01A): 0.00-9.99A AC (RMS) Range 2 (Resolution 0.10A): 10-150A AC (RMS) Accuracy (% of Reading): ±1.0% <sup>2</sup>	<b>Frequency Measurement</b> Range: 40-90Hz Resolution: 0.1Hz Accuracy (% of Reading): ±1.0% <sup>2</sup> (Calibrated with sine wave input)
<b>Voltage Measurement</b> Range: 80-270V AC <sup>1</sup> Resolution: 0.1V AC Accuracy (% of Reading) 90-270V AC (RMS): ±1.0% <sup>2</sup> Accuracy (% of Reading) 80-90V AC (RMS): ±5.0% <sup>2</sup>	<b>Power Measurement</b> Range 1 (Resolution 10W): 0.00-9990W Range 2 (Resolution 0.1kW): 10-45kW Accuracy (% of Reading): ±5.0% <sup>2</sup>

<sup>1</sup> For 120 & 240 Volt AC single phase systems  
<sup>2</sup> ±1 least digit of resolution



### DC Digital Multimeter with Alarm

- Displays amperage from -500 to +500 Amperes
- Displays voltage from 0 to 60 Volts DC in 0.01 Volt increments
- High and low voltage, audio and visual alarms
- Standard meter operates in negative side of circuit only. Shunt shifter required for positive side installation such as alternators - reference 8242 (see page 103)
- 3 levels of display brightness
- Programmable sleep mode blanks display for power conservation
- Splashproof front
- Includes 500 Amp shunt - reference 8255 (see page 103)

**Specifications**

Display Character Size	9/16" (14.29mm)
Input Voltage	7-60V DC*
Minimum Power Consumption	0.60 Watt**
Maximum Power Consumption	1.00 Watt**
Dimensions	Width 2.90" (73.56mm) Height 2.43" (61.75mm) Depth 3.40" (86.36mm)
Weight	1.12Lb (0.51Kg)

\* Applicable for 12, 24, 32, 36, and 42 Volt DC systems  
 \*\* Variable with voltage, display intensity, segments illuminated and sleep mode



8248

### DC Digital Voltmeter with Alarm

- Displays voltage from 0 to 60 Volts DC
- High and low voltage audio and visual alarms
- 3 levels of display brightness
- Programmable sleep mode blanks display for power conservation
- Splashproof front

**Specifications**

Display Character Size	9/16" (14.29mm)
Input Voltage	7-60V DC*
Minimum Power Consumption	0.60 Watt**
Maximum Power Consumption	1.00 Watt**
Dimensions	Width 2.90" (73.56mm) Height 2.43" (61.75mm) Depth 3.40" (86.36mm)
Weight	0.44Lb (0.20Kg)

\* Applicable for 12, 24, 32, 36, and 42 Volt DC systems  
 \*\* Variable with voltage, display intensity, segments illuminated and sleep mode



8251

### DC Digital Voltmeter

- Displays voltage from 0 to 60 Volts DC
- 3 levels of display brightness
- Splashproof front
- Manual sleep mode blanks display for power conservation

**Specifications**

Display Character Size	9/16" (14.29mm)
Input Voltage	7-60V DC*
Minimum Power Consumption	0.60 Watt**
Maximum Power Consumption	1.00 Watt**
Dimensions	Width 2.90" (73.56mm) Height 2.43" (61.75mm) Depth 3.40" (86.36mm)
Weight	0.44Lb (0.20Kg)

\* Applicable for 12, 24, 32, 36, and 42 Volt DC systems  
 \*\* Variable with voltage, display intensity, segments illuminated and sleep mode



8235



8236

### DC Digital Ammeter

- Displays amperage from -500 to +500 Amperes
- 3 levels of display brightness
- Splashproof front
- Manual sleep mode blanks display for power conservation
- Standard meter operates in negative side of circuit only. Shunt shifter required for positive side installation such as alternators - reference 8242 (see page 103)
- Includes 500 Ampere shunt - reference 8255 (see page 103)
- Manual sleep mode blanks display for power conservation

#### Specifications

Display Character Size	9/16" (14.29mm)
Input Voltage	7-60V DC*
Minimum Power Consumption	0.60 Watt**
Maximum Power Consumption	1.00 Watt**
Dimensions	Width 2.90" (73.56mm) Height 2.43" (61.75mm) Depth 3.40" (86.36mm)
Weight	1.12Lb (0.51Kg)

\* Applicable for 12, 24, 32, 36, and 42 Volt DC systems

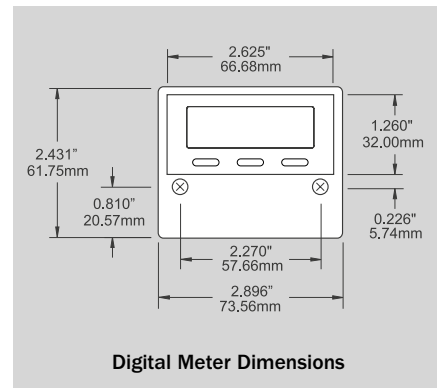
\*\* Variable with voltage, display intensity, segments illuminated and sleep mode

### DC Digital Meter Specifications

PN	Description	Current Measurement	Voltage Measurement
8248	DC Digital Multimeter with Alarm	✓	✓
8251	DC Digital Voltmeter with Alarm	-	✓
8235	DC Digital Voltmeter	-	✓
8236	DC Digital Ammeter	✓	-

Current Measurement		Voltage Measurement	
Shunt:	500A-50mV	Range:	0-60V DC
Range:	±500A DC	Resolution:	0.01V DC
Resolution (0.0-99.9):	0.1A DC	Accuracy (% of Reading)	±0.5% <sup>1</sup>
Resolution (100-500):	1.0A DC		
Accuracy (% of Reading):	±0.5% <sup>1</sup>		

<sup>1</sup> ±1 least digit of resolution



8403 with Digital Meter  
(see page 46-47)



8678 with Digital Meter  
(see page 45)

### AC Analog Voltmeters

- Dial marked in 5 Volt increments
- Simple 2-wire connection to AC hot and neutral
- Meter senses and powers from same connection

**Specifications**

Accuracy ±2.5% of scale range

Standard Size 2-3/4" Face Meters		
PN	Description	Weight Lb (Kg)
9353	Voltmeter 0-150V AC	0.26 (0.12)
9354	Voltmeter 0-250V AC	0.26 (0.12)

Compact 2" Face Micro Meters		
PN	Description	Weight Lb (Kg)
8244	Micro Voltmeter 0-150V AC	0.19 (0.09)
8245	Micro Voltmeter 0-250V AC	0.19 (0.09)



9353



8245

### AC Analog Ammeters

- 50 Amp dial marked in 2 Amperes increments
- Simple 2-wire connection
- Meter senses and powers from coil slipped over wire to be measured
- Includes AC current transformer (see page 103)

**Specifications**

Accuracy ±2.5% of scale range  
 Meter Current 50 Milliamperes AC at full scale

Standard Size 2-3/4" Face Meters		
PN	Description	Weight Lb (Kg)
9630	Ammeter 0-50A AC + Transformer	0.32 (0.15)
8258	Ammeter 0-100A AC + Transformer	0.32 (0.15)

Compact 2" Face Micro Meter		
PN	Description	Weight Lb (Kg)
8246	Micro Ammeter 0-50A AC + Transformer	0.26 (0.12)

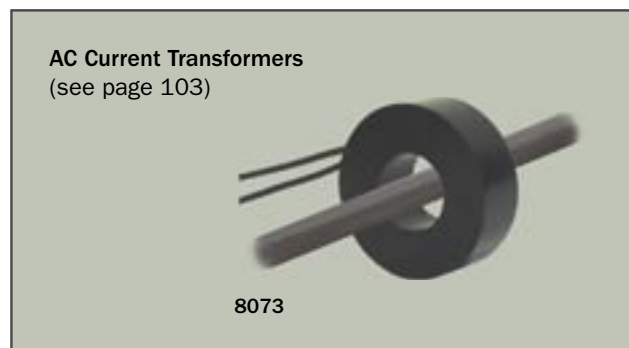
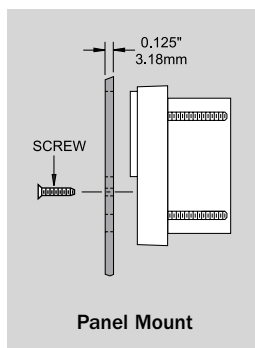
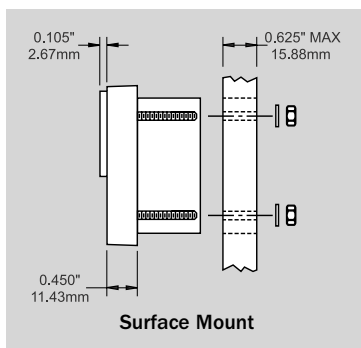
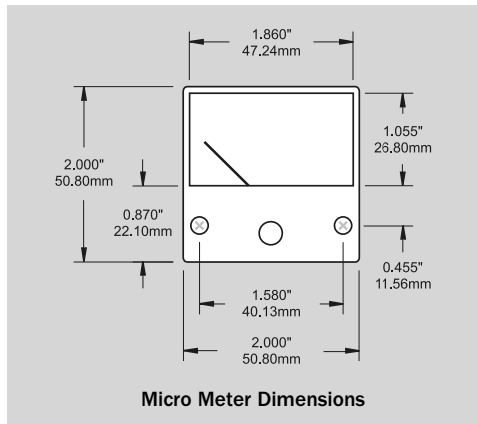
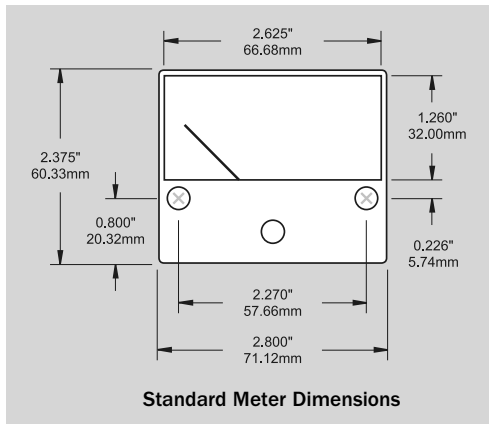


9630



8246

METERS AND ELECTRONIC CONTROLS



### DC Analog Voltmeters

- Simple 2-wire connection

**Specifications**

Meter Current 1 Milliampere at full scale  
 Accuracy ±2.5% of scale range



8240



8028

Standard Size 2-3/4" Face Meters		
PN	Description	Weight Lb (Kg)
8003	Voltmeter 8-16V DC	0.25 (0.11)
8240	Voltmeter 18-32V DC	0.25 (0.11)

Compact 2" Face Micro Meters		
PN	Description	Weight Lb (Kg)
8028	Micro Voltmeter 8-16V DC	0.19 (0.09)
8243	Micro Voltmeter 18-32V DC	0.19 (0.09)

### DC Analog Ammeters

- Simple 2-wire connection from shunt - no other power required
- Meter senses and powers from shunt connection
- Includes DC shunt (see page 103)
- (Except 8005 and 8038 meters with internal shunts)

**Specifications**

External Shunt Type 50 Millivolt at meter full scale  
 Meter Current 1 Milliampere at full scale  
 Accuracy ±2.5% of scale range



8005



8041

Standard Size 2-3/4" Face Meters			
PN	Description	Shunt Type	Weight Lb (Kg)
8005	Ammeter 0-25A DC	Internal	0.26 (0.12)
8022	Ammeter 0-50A DC + Shunt	External	0.54 (0.24)
8016	Ammeter 0-75A DC + Shunt	External	0.54 (0.24)
8017	Ammeter 0-100A DC + Shunt	External	0.54 (0.24)
8018	Ammeter 0-150A DC + Shunt	External	0.54 (0.24)
8019	Ammeter 0-200A DC + Shunt	External	0.54 (0.24)

Compact 2" Face Micro Meters			
PN	Description	Shunt Type	Weight Lb/Kg
8038	Micro Ammeter 0-15A DC	Internal	0.20 (0.09)
8041	Micro Ammeter 0-50A DC + Shunt	External	0.40 (0.18)
8250	Micro Ammeter 0-100A DC + Shunt	External	0.40 (0.18)

### DC Analog Zero Center Ammeters

- Meters read both discharge and charge current
- Simple 2-wire connection from shunt - no other power required
- Meter senses and powers from shunt connection
- Includes DC shunt (see page 103)

**Specifications**

External Shunt Type 50 Millivolt at meter full scale  
 Meter Current 1 Milliampere at full scale  
 Accuracy ±2.5% of scale range



8253



8254

Standard Size 2-3/4" Face Meters			
PN	Description	Shunt Type	Weight Lb (Kg)
8252	Ammeter 50-0-50A DC +Shunt	External	0.54 (0.24)
8253	Ammeter 100-0-100A DC +Shunt	External	0.54 (0.24)

Compact 2" Face Micro Meter			
PN	Description	Shunt Type	Weight Lb (Kg)
8254	Ammeter 50-0-50A DC +Shunt	External	0.40 (0.18)

DC Shunts power  
 Blue Sea Systems  
 DC Ammeters with  
 external shunt  
 (see page 103).



9228

### 120/240V AC Digital Meter Panel

- Perfect solution for monitoring 120/240 Volt AC systems
- Monitor Line 1 or Line 2 to Neutral and Line 1 to Line 2 voltages
- Monitor 120 Volt and 240 Volt currents
- Intended for use with 8247 AC Digital Multimeter (Not included) (see page 96)
- Includes two additional Current Transformers 8256 (see page 103)

**Specifications**

8247 AC Digital Multimeter See page 96  
 Dimensions 5.25" (133.35mm) x 3.75" (95.25mm)

PN	Description
8410	120/240V AC Digital Meter Panel



8410

### DC Voltmeter Panel

- 8003 DC Analog Voltmeter (see page 101)
- 8-16 Volts DC
- 3 position switch for multiple battery banks
- Full-size 2-3/4" meter

**Specifications**

Voltage 16 Volts DC Maximum  
 Dimensions 5.25" (133.35mm) x 3.75" (95.25mm)

PN	Description	Weight Lb (Kg)
8015	Panel with Analog Voltmeter	0.49 (0.22)



8015

### DC Digital Voltmeter Panel

- 8235 DC Digital Meter (see page 98)
- 7-60 Volts DC
- 4 digit display
- Full-size 2-3/4" meter

**Specifications**

Voltage 60 Volts DC Maximum  
 Dimensions 5.25" (133.35mm) x 3.75" (95.25mm)

PN	Description	Weight Lb (Kg)
8051	Panel with Digital Voltmeter	0.64 (0.29)



8051

### Meter Mounting Panels

- Surface mounts Blue Sea Systems 2-3/4" Analog or Digital Meters

**Specifications**

Panel Material 0.125" Aluminum 5052 Alloy  
 Panel Undercoating Chemical Treatment  
 Mil-C-5541C or equivalent  
 Panel Front Coating Two part polyurethane slate gray finish  
 Dimensions 8013 5.25" (133.35mm) x 3.75" (95.26mm)  
 Dimensions 8014 5.25" (133.35mm) x 7.50" (190.50mm)

PN	Description	Weight Lb (Kg)
8013	Mounting Panel For (1) 2-3/4" Meter	0.22 (0.10)
8014	Mounting Panel For (2) 2-3/4" Meters	0.36 (0.16)



8014



8013





8255



9228

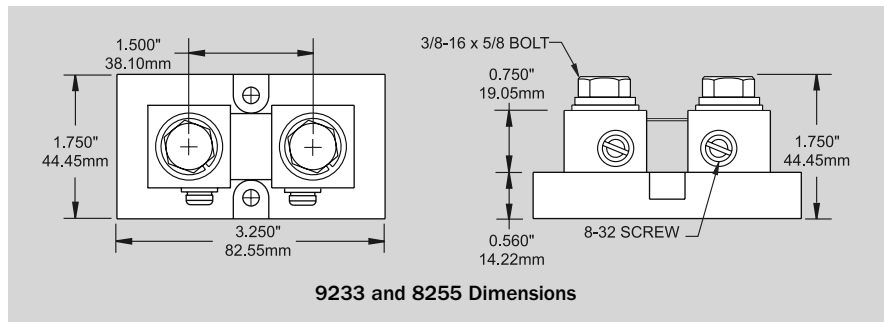
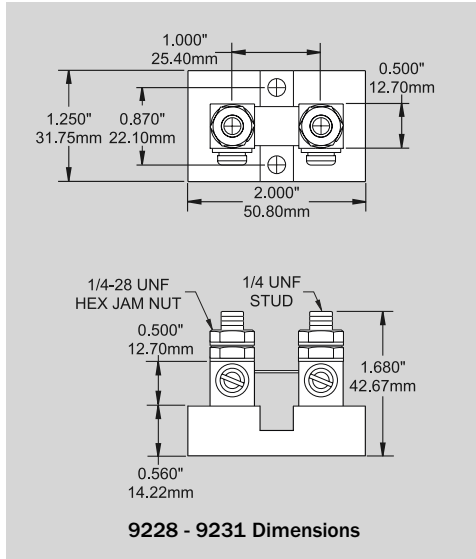
**DC Shunts**

- Power all Blue Sea Systems external shunt, DC ammeters
- For continuous operation, it is recommended that shunts not be run at more than two-thirds (66%) the rated current under normal conditions

**Specifications**

Shunt Type	Resistive, Manganin Metal Element
Full Scale Resistance	50 Millivolts
Accuracy	±0.25% Rated Current
Continuous Duty	66% of Rated Current
Intermittent Duty	100% - 5 Minutes 300% - 3 Seconds

PN	Description	Weight Lb (Kg)
9228	Analog Meter Shunt 50A/50mV	0.20 (0.09)
9229	Analog Meter Shunt 75A/50mV	0.20 (0.09)
9230	Analog Meter Shunt 100A/50mV	0.20 (0.09)
9231	Analog Meter Shunt 150A/50mV	0.20 (0.09)
9233	Analog Meter Shunt 200A/50mV	0.71 (0.32)
8255	Digital Meter Shunt 500A/50mV	0.71 (0.32)

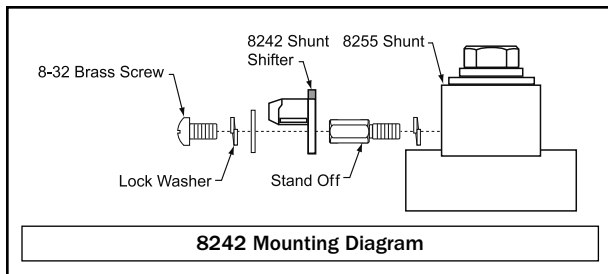


8242

**Shunt Shifter**

- Shunt adapter for DC Digital Ammeter positive side shunt applications, such as alternator measurement
- The Shunt Shifter is designed for use with Blue Sea Systems 8255 Digital Meter Shunt
- Advanced technology shifts the shunt's positive reference to negative as required by digital meters
- Easily installs directly onto shunt using existing sense screws
- Ideal for use with 12-36 Volt DC systems
- Includes all necessary hardware

PN	Description	Weight Lb (Kg)
8242	Shunt Adapter for DC Digital Ammeter	0.42 (0.02)



8073

**AC Current Transformers**

- For use with AC meters

**Specifications**

Dimensions	0.60" (15.24mm) Inside Diameter 1.38" (35.05mm) Outside Diameter
Accuracy	±1%

PN	Description	Ratio	Weight Lb (Kg)
8073	Analog Ammeter	50A AC/50mA AC	0.20 (0.09)
8257	Analog Ammeter	100A AC/50mA AC	0.20 (0.09)
8256	Digital Ammeter	150A AC/50mA AC	0.20 (0.09)

## 2 Ampere Digital Dimmer

- Continuous voltage control from 0 to 100% of input voltage
- Last setting memory - Power returns to previous setting with optional ON/OFF switch
- -20°C to +85°C operating temperature range
- Water resistant, sealed housings
- Operates on 10 to 32 Volt DC systems
- Rated for dashboard gauge or small single fixture interior dimming
- Small fans

### Specifications

Surge Rating: 10 sec 5 Amperes  
 Internal Over Current Protection 10 Amperes  
 Draw 0% output 5mA (0.005A)

PN	Continuous Rating	Width in" (mm)	Height in" (mm)	Depth in" (mm)	Weight Lb (Kg)
7501	2A	1.67 (42.42)	2.05 (52.07)	1.50 (38.10)	0.35 (0.16)



7501

## 5 Ampere Digital Dimmer

- Continuous voltage control from 0 to 100% of input voltage
- Last setting memory - Power returns to previous setting with optional ON/OFF switch
- -20°C to +85°C operating temperature range
- Water resistant, sealed housings
- Operates on 10 to 32 Volt DC systems
- Rated for medium to large single fixture interior dimming
- Most fans and small blowers

### Specifications

Surge Rating: 10 sec 10 Amperes  
 Internal Over Current Protection 20 Amperes  
 Draw 0% output 5mA (0.005A)

PN	Continuous Rating	Width in" (mm)	Height in" (mm)	Depth in" (mm)	Weight Lb (Kg)
7502	5A	2.16 (54.86)	3.06 (77.72)	1.60 (40.64)	0.62 (0.28)



7502

## 10 Ampere Digital Dimmer

- Continuous voltage control from 0 to 100% of input voltage
- Last setting memory - Power returns to previous setting with optional ON/OFF switch
- -20°C to +85°C operating temperature range
- Water resistant, sealed housings
- Operates on 10 to 32 Volt DC systems
- Rated for multiple fixture area lighting dimming
- Large fans and blowers
- Robust aluminum housing

### Specifications

Surge Rating: 10 sec 25 Amperes  
 Internal Over Current Protection 50 Amperes  
 Draw 0% Output 5mA (0.005A)

PN	Continuous Rating	Width in" (mm)	Height in" (mm)	Depth in" (mm)	Weight Lb (Kg)
7503	10A	2.16 (54.86)	3.06 (77.72)	1.60 (40.64)	0.97 (0.44)



7503

## 20 Ampere Digital Dimmer

- Continuous voltage control from 0 to 100% of input voltage
- Last setting memory - Power returns to previous setting with optional ON/OFF switch
- -20°C to +85°C operating temperature range
- Water resistant, sealed housings
- Operates on 10 to 32 Volt DC systems
- Rated for multiple fixture area lighting dimming
- Large fans and blowers
- Robust aluminum housing

### Specifications

Surge Rating: 10 sec 50 Amperes  
 Internal Over Current Protection 70 Amperes  
 Draw 0% Output 5mA (0.005A)

PN	Continuous Rating	Width in" (mm)	Height in" (mm)	Depth in" (mm)	Weight Lb (Kg)
7505	20A	2.16 (54.86)	3.06 (77.72)	1.60 (40.64)	1.10 (0.50)



7505



8216



8291

► For use with Blue Sea Systems DC Digital Dimmers (page 104)

**Water Resistant Contura Switches**

- Mounts in Blue Sea Systems water resistant panels
- Legend - BRIGHT and DIM
- Contura switch mounting panel and accessories (see page 55)

**Specifications**

Rating: 12 Volts DC	20 Amperes
Rating: 24 Volts DC	15 Amperes
Terminal Size	0.25" (6.35mm)
Terminal Type	Quick Connect Tab
Seals	Internal and External Gasket Panel Seal
Temperature Rating	-40°C to 85°C
Mounting Hole	1.45" (36.83mm) x 0.83" (21.08mm)

PN	Color	Pole/Throw	Action
8216	Gray	Single/Double	(ON)-OFF-(ON)
8291	Black	Single/Double	(ON)-OFF-(ON)



8208

► For use with Blue Sea Systems DC Digital Dimmers (page 104)

**Toggle Panel Switch**

- Mounts in Blue Sea Systems toggle panels

**Specifications**

Voltage 250 Volts AC	10 Amperes
Voltage 125 Volts AC	15 Amperes
Voltage 32 Volts AC	15 Amperes
Terminal Size	0.25" (6.35mm)
Terminal Type	Quick Connect Tab
Actuator Color	White

PN	Poles/Throw	Action	Weight Lb (Kg)
8208	Single/Double	(ON)-OFF-(ON)	0.42 (0.02)

