

## Vessel Monitoring

### 1800 Monitor

- Monitor includes head unit, surface mount bezel, surface mount gasket, DC current shunt 8255, AC current transformer 8256, battery temperature sensor 1820, connectors, mounting screw and screw driver
- Replace four separate systems monitors: DC (including battery state of charge), AC, tanks, and bilge pump



MONITOR

- CE Marked for E60945 electromagnetic interface
- IP67- protect against immersion up to 1 meter for 30 minutes
- VSM 422 surface mount gasket creates waterproof seal on unit face



SENDER

### Features 1810

- Anti slosh algorithms for accurate readings
- IP Protected
- Calibrated to the VSM422 and will not function with other monitors
- Tank floor must not be sloped and no deeper than 32"
- Sender must be mounted perpendicular to the surface of the liquid



TEMPERATURE SENSOR

Item Number	Description	Price
<b>Accessories</b>		
<b>For exclusive use with VSM 422</b>		
1810	32" Diesel/Water/Waste tank sender	\$129.34
1820	Battery temperature sensor	\$2.22

## Blue Seas Systems AC

- Large, bright LED characters
- Splash-proof front
- Multimeter, high and low voltage and high amperage alarms, both audio and visual
- Panel or surface mount
- Sleep mode on all units
- Input voltage 80-294 volt AC
- Blue Seas Systems AC meters are only compatible with Blue Seas Systems current transformers
- Surface mount in 2" round hole
- Dimensions:
- **Must use Blue Seas Systems current transformers calibrated with sine wave input**



BLUE SEAS METER

Item Number	Transformer	Volt Range	Hz.	Watt Range 1 & 2	Price
<b>Volt Meter</b>					
8237	-	70-90V AC(RMS) and 90-249V AC(RMS)	-	-	\$257.87
<b>Hz.</b>					
8239	-	-	40-90	-	\$257.87
<b>Ammeter</b>					
<b>Includes Current Transformer</b>					
8238	150/50mA	0-9.99A AC (RMS) & 10-150A AC (RMS)	-	-	\$314.40
<b>Multimeter with Alarm</b>					
<b>Includes Current Transformer</b>					
8247	150A/50mA	0-9.99A AC (RMS) & 10-150A AC (RMS)	40-90	0-9990 & 10-45kW	\$366.88

Images are representative of products listed and may not be actual product.

# Panel Meters

DIGITAL

## Blue Seas Systems DC

- Large, bright LED characters
- Splash-proof front
- Multimeter, high and low voltage, both audio and visual
- Easy to panel mount with a removable bezel, or surface mount
- Input voltage 8-50 volt DC
- Blue Seas Systems DC meters are only compatible with Blue Seas Systems shunts
- Applicable for 8-50V DC
- Dimensions:  
Width 2.896" (73.56mm)  
Height 2.43" (61.75mm)  
Depth 3.38" (85.73mm)
- 3 levels of brightness
- Display character size 9/16"
- Easy to surface mount in a 2" round hole
- **Must use Blue Seas Systems Shunt**



BLUE SEAS METER

Item Number	Volt	Shunt	Shunt Range	Price
<b>Multimeter with Alarm</b>				

**Includes Shunt**

8248	0-60	500A/50mV	+/-500A DC	\$333.23
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Item Number	Volt Range	Shunt	Shunt Range	Price
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**Volt**

8251	0-60 (with alarm)			\$244.41
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8235	0-60			\$217.89
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Item Number	Shunt Range	Shunt	Shunt Range	Price
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**Ammeter**

**Includes Shunt**

8236		+/- 500A DA , 50mV		\$257.87
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## DEIF



### Multi-instrument, MIB

The MIB multi-instrument is a microprocessor-based measuring unit providing measurement of most electrical quantities on a 3-phase electric energy distribution network. The measurements are shown on the built-in display. The product family includes the basic MIB 7000, MIB 7000C Basic Plus RS485 modbus communication. A large number of standard analogue instruments can be replaced by the MIB in all electrical measuring applications. The MIB contains all necessary measuring circuits and presents all values on a display with white backlight. The display has 4 digits resolution for all measurements. The backlight on-time is selectable.



### Multi-instrument, MIC-2

Versatile and intuitive, DEIF's multi-instrument MIC-2 MKII is perfectly suited for monitoring and analysis of all types of power systems.

Capable of logging all applications from single low voltage to multiple high voltage applications, the sturdy unit offers a complete overview of your SCADA system.

A microprocessor-based measuring unit for most electrical quantities on 2-phase or 3-phase electric energy distribution networks, readings are displayed on a large built-in LCD screen.

Fitted with the Ethernet TCP/IP module, the unit offers direct access to modbus data and is easy to access remotely via standard browsers.

KWh counter reset and change of settings can be password protected, and using DEIF's free utility software it is a simple and fast job to configure and adapt the unit to fit most applications

Item Number	Description	Price
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**MIB**

**100-415V AC, 100-300V DC, 50/60Hz.**

MIB7000	Multi-instrument (basic)	\$206.15
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MIB7000C	Multi-instrument (modbus)	\$246.62
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**MIC-2**

MIC-2 MK11	Multi-instrument	\$607.07
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List pricing in catalog is subject to change without notice.

## DEIF 72 MM

- Scale 90 degree
- (+/-)1.5% accuracy
- Dimensions:  
Width 2.83" (72mm)  
Height 2.61" (66.5mm)  
Depth 3.42" (87mm)
- All meters also available 96 mm
- IP 52 rating
- Panel cut out dimensions:  
68x68mm +/-0.4



Item Number	Range	Price
<b>AC Ammeter</b>		
<b>Must order scale separate to complete meter (input from Current Transformer)</b>		
PM72-ACA-5	5 Amp	\$43.96
<b>AC Amp Scale</b>		
72SAC-50	0-50	\$11.22
72SAC-100	0-100	\$11.22
72SAC-150	0-150	\$11.22
72SAC-200	0-200	\$11.22
72SAC-300	0-300	\$11.22
72SAC-400	0-400	\$11.22
<b>AC Volt Meter</b>		
<b>*Other scales available special order</b>		
PM72-ACV-150	0-150	\$52.31
PM72-ACV-300	0-300	\$52.31
<b>Kw. Meter</b>		
PM72-KW-100	20-0-100	\$94.79
<b>Ground Fault Meter</b>		
<b>Both items needed to complete Ground Fault Meter</b>		
PM72-GFM-10A (Meter)	0-50mA	\$194.20
ASK 31.3 (Transformer)	100/1A 2.5V	\$44.60
<b>Hz. Meter</b>		
<b>+ /- .5% Accuracy</b>		
PM72-HZ-120/240	45-65 (85-265V AC)	\$129.67

Item Number	Range	Price
<b>DC Ammeter</b>		
<b>Must order scale separate to complete meter (input from Shunt)</b>		
PM72-DMV-50	50mV input from Shunt	\$93.07
<b>DC Amp Scale</b>		
72SDC-50	0-50	\$11.22
72SDC-100	0-100	\$11.22
72SDC-150	0-150	\$11.22
72SDC-200	0-200	\$11.22
<b>DC Volt Meter</b>		
PM72-DCV-15	0-15	\$94.79
PM72-DCV-40	0-40	\$94.79

# Panel Meters

ANALOG

## DEIF 96MM



### Insulation Monitor, ADL-111Q96

The ADL is used for supervision of the insulation resistance between an isolated voltage distribution network and an earth/safety cable. The insulation monitor is applicable with DC networks for voltages of 24, 110 or 220V DC. The ADL is equipped with a relay output with adjustable set point. By means of a built-in switch, the relay can be configured to either NE (normally energized) or ND (normally de-energized).

### Check Synchronizing Relay, CSQ-3

The CSQ-3 integrates synchroscope and check synchronizing relay into a microprocessor-controlled, easy-to-install package with no moving parts, making it a superior solution with four obvious advantages.

**Safe:** the CSQ-3 unit is operated from the front using pushbuttons behind the removable front cover, protecting users from the near hazardous voltages during set point programming: an innovative DEIF feature usually seen in similar products where switchboards have to be opened to operate the synchroscope.

**Accurate:** pushbuttons, rather than potentiometers, are used for programming the unit, and exact settings are clearly visible on an LED scale.

**Flexible:** the standard CSQ-3 can be calibrated on-site for virtually all possible settings, eliminating the need to buy customized versions to fit the unit to your specific application.

**Robust:** effectively solving problems with broken and reflective glass, the unit's front has been protected with an extremely robust front cover.

**\*Call for pricing and more information**

## DEIF 96MM (continued)

- Compact Q96 design
- Extremely easy pushbutton programming
- Individual programming of each input: N/O or N/C, time delay, alarm inhibit, output and cable supervision
- Up to five units connected in master/slave configuration
- Clear identification of first alarm received in case of successive alarms
- Approved by classification societies, call for more details.



### Alarm Panel, AL8-2

With eight digital alarm inputs, three relay outputs, and many flexible features, the AL8-2 alarm panel is suitable for alarm monitoring at industrial and marine plants.

**Alarm inputs:** the alarm panel is provided with eight alarm inputs to facilitate external mechanical alarm contact connections. The inputs are individually programmable for N/O or N/C alarm contacts.

**Time delay:** the alarm inputs are individually programmable with a time delay to allow alarm condition registration at pre-set times within the 0.40 s range in steps of 1 s.

**Alarm indicators:** the AL8-2 is equipped with eight LEDs marked 1 to 8 for precise indication of alarm conditions for the individual alarm inputs. When an alarm condition occurs, the LED for the relevant input channel will flash with a red light. If more than one alarm occurs before the pushbutton "LAMP RESET" is activated, the first alarm LED will flash ahead of the others.

**Alarm outputs:** the alarm panel is provided with three relay outputs, one of which is used for connection to an audible/visual alarm. The remaining two relay outputs are individually programmable by the user to follow certain alarm inputs.

**\*Call for pricing and more information**

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## Hoyt 2.5 Inch

- Industrial style; high impact plastic
- +/- 2% accuracy
- Full scale, spring loaded pivot and jewel movement
- Window mount option requires part#3100-WMC (special order)
- Dimensions:  
Width 2.9" (76mm)  
Height 2.28" (58mm)  
Depth 2.10" (53.5mm)



AC METER

Item Number	Range	Price
<b>AC Ammeter</b>		
PM25-ACA-5 (separate scale required)	5A (input from CT)	\$67.50
<b>AC Amp Scale</b>		
ST75-50AAC-SO	0-50	\$8.13
ST75-100AAC-SO	0-100	\$8.13
ST75-150AAC-SO	0-150	\$8.13
ST75-200AAC-SO	0-200	\$8.13
ST75-300AAC-SO	0-300	\$8.13
<b>AC Volt Meter</b>		
PM25-ACV-150	0-150	\$67.50
PM25-ACV-300	0-300	\$67.50
PM25-ACV-500	0-500	\$67.50
<b>DC Ammeter</b>		
PM25-DCA-30SC (self contained does not require separate shunt/scale)		\$67.50
PM25-DMV-50 (separate scale required)	50mV (input from Shunt)	\$67.50
<b>DC Amp Scale</b>		
ST75-50ADC-SO	0-50	\$8.13
ST75-80ADC-SO	0-80	\$8.13
ST75-100ADC-SO	0-100	\$8.13
ST75-150ADC-SO	0-150	\$8.13
ST75-200ADC-SO	0-200	\$8.13
ST75-300ADC-SO	0-300	\$8.13
<b>DC Volt Meter</b>		
PM25-DCV-8/16	8-16	\$67.50
PM25-DCV-20/34	20-34	\$67.50
PM25-DCV-26/44	26-44	\$67.50
PM25-DCV-150	0-150	\$67.50
<b>Hz. Meter</b>		
<b>Range 45-65 Hz.</b>		
PM25-HZ-120	120	\$125.00
PM25-HZ-230	230	\$125.00

# Panel Meters

ANALOG

## Blue Sea Systems

### Micro Meters

- Backlit meter face for low light conditions
- Separate wire provided for 12 or 24 volt DC connection
- Dimensions:  
Height 2.0" (50.80mm)  
Width 2.0" (50.80mm)  
Depth 1.35" (34.42mm)
- 16m amp @ 12 volt DC, 20m amp @ 24 volt DC
- AC voltmeter: operating amp for meter only 1mA @ full scale, with back light
- AC ammeter: operating amp for meter only 50mA @ full scale
- DC voltmeter: operating amp for meter 1mA @full scale
- DC ammeter: external 50mV @full scale



AC VOLT METER



AC AMMETER



DC VOLT METER



DC AMMETER



BACK MICRO

Item Number	Range	Price
<b>AC Volt Meter</b>		
<b>Connection: 2 wire to AC hot and neutral, 3 connections for backlighting</b>		
8244	0-150V AC	\$46.89
8245	0-250V AC	\$57.42
<b>AC Ammeter</b>		
<b>Connection: 2 wire from coil slipped over wire to be measured 3 connections for backlighting</b>		
8246	0-50A AC	\$83.24
<b>DC Volt Meter</b>		
<b>Connection: 2 wire to DC positive (+) and negative (-) 3 connections for backlighting</b>		
8028	8-16V DC	\$45.97
<b>DC Ammeter</b>		
<b>Connection: 2 wire from shunt, no other power required 3 connections for backlighting</b>		
8041	0-50A DC	\$98.64

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# AC Current Transformers



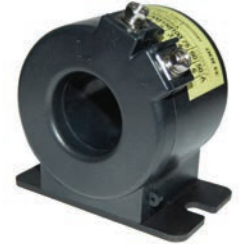
UNIVERSAL DONUT



UNIVERSAL FOOTED



BLUE SEAS DONUT



FOOTED BLUE SEAS

Item Number	Dimensions in "(mm)	Description	Current Ratio	Type	Price
<b>Blue Seas Systems</b>					
8256	I/S: .60(15.24), O/S:1.38(35.05)	Use with Digital M2 Ammeter	150A AC/ 50mA AC	donut	\$29.36
8073	I/S: .60(15.24), O/S:1.38(35.05)	Use with Analog Ammeter	50A AC/ 50mA AC	donut	\$25.80
BS1829	I/S: 1.25(31.75), O/S: 2.68(68.07)	Use with Digital AC Ammeters	300A AC/ 50mA AC	footed	\$39.99
Item Number	Ratio	Power Rating VA @ 60hz.	Price		

### Universal Donut

#### Window Size 1.05" (26.67mm) inside diameter

2RL-50-5	50:5	2.0	\$45.77
2RL-100-5	100:5	2.0	\$45.77
2RL-150-5	150:5	4.0	\$45.77
2RL-200-5	200:5	4.0	\$45.77
2RL-300-5	300:5	8.0	\$45.77
2RL-400-5	400:5	10.0	\$37.67

#### Window Size 1.56" (34.7mm)

5RL-300-5	300:5	12.5	\$60.75
5RL-400-5	400:5	12.5	\$60.75

### Universal Footed

2SFT-50-5	50:5	2.0	\$54.12
2SFT-200-5	200:5	4.0	\$54.12
2SFT-300-5	300:5	8.0	\$54.12

# Panel Meters

## SHUNTS

### 50MV



BASE MOUNT SHUNT

Item Number		Current Ratio		Price
<b>Base Mount</b>				
<b>Dimensions LxWxH in "(cm) 3.25(8.25) x 1.75(4.45) x 1.75(4.45)</b>				
TMC-50-50		50A:50mV		\$49.03
TMC-100-50		100A:50mV		\$49.03
TMC-150-50		150A:50mV		\$49.03
TM-200-50		200A:50mV		\$72.78
Item Number	Description	Current Ratio	Dimensions W x L x H in " (mm)	Price
<b>Blue Seas Systems DC Shunt</b>				
8255	For use with Digital Ammeter	500 DC/50mV DC	1.26(32) x 3.27(83) x 1.69(43)	\$73.51
9228	For use with Analog Ammeter	50A DC/50mV DC	1.26(32) x 2.01(51) x 1.53(38)	\$46.29