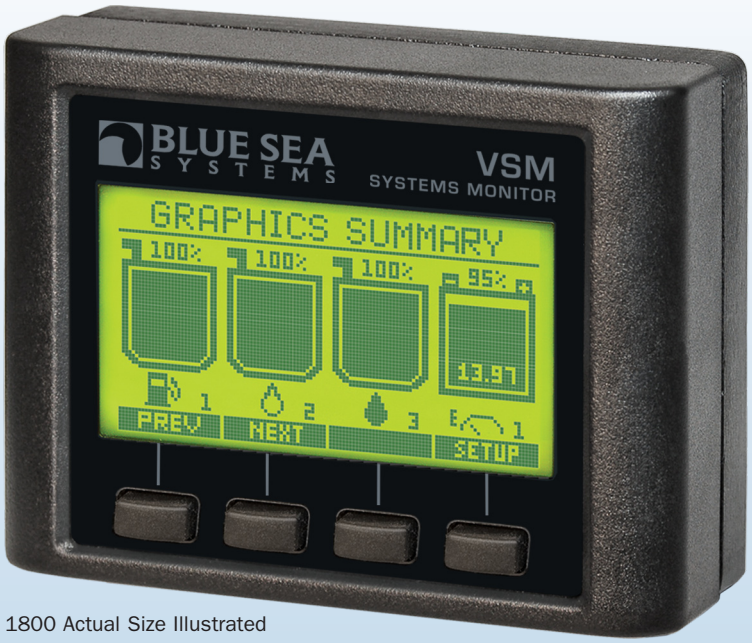
Vessel Systems Monitor

VSM 422

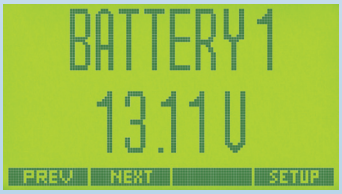
Four meters in one—less space and lower cost than 4 individual meters

- **Monitors DC systems**
  voltage, amperage, battery state of charge—amp hours remaining, time remaining, % charge, battery temperature (alarms for all values)
- **Monitors AC systems**
  voltage, amperage, watts, frequency (alarms for all values)
- **Monitors tank levels**
  fuel, water, waste (alarms for high level waste, low level fuel, and water)
- **Monitors bilge**
  bilge pump—active, cycle count, volume, duration (alarms for cycles, volume, duration)
- **Three intuitive display modes**
- **Flexible case design**
  offers three mounting options
- **Fully programmable legends and adjustable alarm functions** can be customized to fit every boat

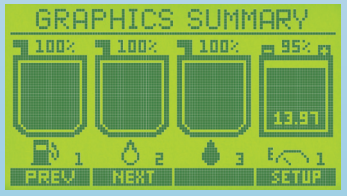


1800 Actual Size Illustrated

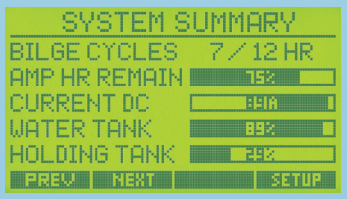
Three Intuitive Display Modes



Large Font Display Mode
can be easily read from a distance



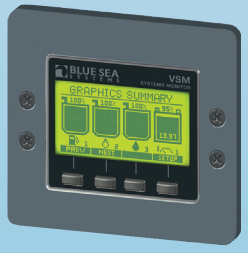
Icon Display Mode
for simple multi-language visual status



Multi-line Text Display Mode
monitor 5 systems at a single glance

Three Mounting Options

Front Panel Mount



Rear Panel Mount

360 Panel Mount

DC Specifications

Nominal System Voltage	12 or 24 Volts
Operating Voltage	8.5–33.0 Volts
Minimum Current Draw	10 mA
Voltage Accuracy	+/- 0.5%
Current Range	0–500 Amperes
Current Accuracy	+/- 1.0%

AC Specifications

Nominal System Voltage	120 Volts@60 Hz, 240 Volts@60 Hz 230 Volts@50 Hz
Operating Voltage	0–300 Volts
Voltage Accuracy	+/- 0.5%
Current Range	0–150 Amperes
Current Accuracy	+/- 1.5%
Frequency	40–90 Hz
Power	0–45kW

Regulatory

CE Marked for ignition protection and electro-magnetic interference

IP Meets UL 1500 and SAE J1171 ignition protection requirements

66 IP66—withstands water from heavy seas

PN	Description
1800	Vessel Systems Monitor 422

BLUE SEA SYSTEMS

Side by Side Comparison

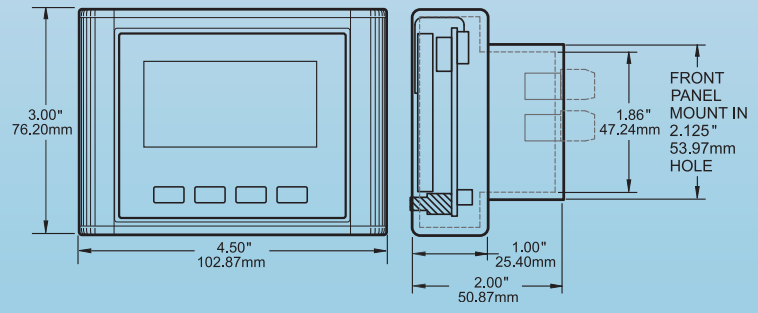
	ALL FUNCTIONS	DC FUNCTIONS				AC FUNCTIONS		TANKAGE FUNCTIONS		BILGE FUNCTIONS	
Manufacturer	**BSS**	**Xantrex**	**Xantrex**	**BEP**	**Cruz Pro**	**BSS**	**BEP**	**BEP**	**Hart Systems**	**Celectron**	**BEP**
Model	**VSM 422**	**Link 10**	**Link Pro**	**600-DCM**	**VAH110**	**8247**	**600-ACM**	**600-TLM**	**Tank Tender**	**BW8**	**600-SOM**
DC SYSTEM FUNCTIONS											
Voltage 1/Voltage 1 alarm	Yes	Yes	Yes	Yes	Yes						
Voltage 2/Voltage 2 alarm	Yes		Yes	Yes							
Voltage 3 (alternates as Tank 3 or Bilge)	Yes			Yes							
Voltage 3 alarm	Yes			Yes							
Amperage DC1	Yes	Yes	Yes	Yes	Yes						
Amperage DC1 alarm	Yes										
Ampere-hours remaining	Yes			Yes	Yes						
Ampere-hours remaining alarm				Yes	Yes						
Ampere-hours consumed		Yes	Yes								
% charge remaining	Yes	Yes	Yes	Yes	Yes						
% charge remaining alarm	Yes	Yes	Yes								
Time Remaining	Yes	Yes	Yes								
Battery Temperature	Yes	optional	optional								
Battery Temperature alarm	Yes										
Battery capacity calculation	Yes										
AC SYSTEM FUNCTIONS											
Amperage	Yes					Yes	Yes				
Amperes alarm high	Yes					Yes	Yes				
Frequency/Frequency alarm	Yes					Yes	Yes				
Power (Watts)	Yes					Yes					
Volts AC Line 1	Yes					Yes	Yes[1]				
Volts AC Line 1 alarm high/low	Yes					Yes	Yes				
TANKAGE FUNCTIONS											
Tankage 1	Yes							Yes	Yes		
Tankage 1 alarm high/low	Yes							Yes			
Tankage 2	Yes							Yes	Yes		
Tankage 2 alarm high/low	Yes							Yes			
Tankage 3 (alternates as DC Voltage 3 or Bilge)	Yes							Yes	Yes		
Tankage 3 alarm high/low	Yes							Yes			
BILGE MONITORING FUNCTIONS											
Bilge active (alternates as DC Voltage 3 or Tank 3)	Yes									Yes	Yes[2]
Bilge cycles/Bilge cycle alarm	Yes									Yes	
Bilge run time/Bilge run time alarm	Yes									Yes	
Bilge volume pumped/Bilge volume pumped alarm	Yes										
Average and maximum run times	Yes										
Typical Approximate Street Price*	**$599.50**	**$244.00**	**$322.00**	**$316.00**	**$399.00**	**$267.00**	**$380.00**	**$255.00**	**$595.00**	**$158.00**	**$285.00**
Lowest Street Price	**$599.50**	**$244.00**				**$267.00**		**$255.00**		**$158.00**	
Highest Street Price	**$599.50**	**$399.00**				**$380.00**		**$595.00**		**$285.00**	

***Prices based on data available on 09/2008**

1 Monitors up to 3 AC Lines
2 Monitors 3 bilge pumps

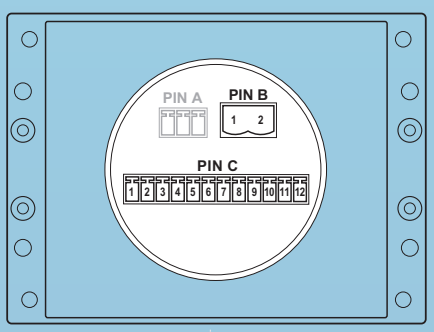
Side by Side Comparison Price Summary

	BSS 1800	LOW PRICE	HIGH PRICE
DC FUNCTIONS	✓	$244.00	$399.00
AC FUNCTIONS	✓	$267.00	$380.00
TANKAGE FUNCTIONS	✓	$255.00	$595.00
BILGE FUNCTIONS	✓	$158.00	$285.00
TOTAL EST. STREET PRICE	$599.50.00	$924.00	$1,659.00



Pin Connections and Functions

PIN	FUNCTION
Header A	**Communication***
1	Communication
2	Communication
3	Communication
Header B	**AC**
1	AC Line
2	AC Neutral
Header C	**Sensors and Power**
1	DC Voltage Battery 1 (Unit Power)
2	DC Voltage Battery 2
3	DC Voltage Battery 3 of Tank Level or Bilge Function
4	DC Negative
5	Battery Temperature (Positive)
6	Battery Temperature (Negative)
7	Tank Level 1
8	Tank Level 2
9	DC Shunt (Positive)
10	DC Shunt (Negative)
11	AC Current Coil (Positive)
12	AC Current Coil (Negative)



* Communication port is for use with future modules and should be treated as a non-connect

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Specifications subject to change.
See www.bluesea.com for additional information and specifications.

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