

# SIM100 *Switch Indicator Module*

Maretron's Switch Indicator Module monitors switch closure devices including, but not limited to, safety equipment (e.g., heat, smoke, carbon monoxide, explosive vapor detectors), security systems (e.g., motion, vibration, glass break, door and port hole magnetic switches), and vessel monitoring equipment (e.g., valve closed/open, high water bilge). The SIM100 continually monitors these switch closure devices and broadcasts information over the NMEA 2000® network about the switch state so the crew can be alerted to potential conditions or problems that warrant further investigation. Advanced features of the SIM100 include the ability to detect whether or not power has been disconnected from the monitored device or if the signal wires have been disconnected due to either corrosion, tampering, or for any other reason (if the monitored device is so equipped). With the SIM100, you can rest assured that critical sensors are receiving power, signal wires are connected, and all the safety, security and vessel functions are under constant supervision.

- Monitors and reports the running statuses of six independently connected devices
- Can detect and report problems like opens and shorts in switch circuits

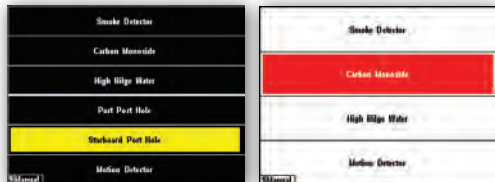
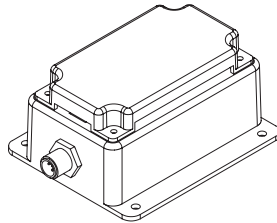
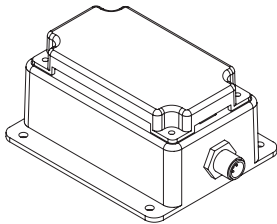
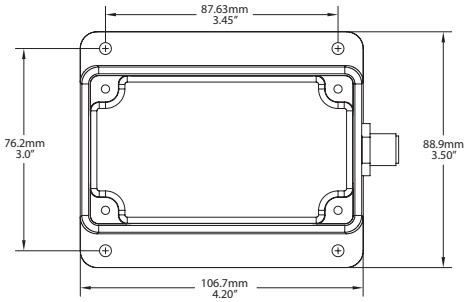
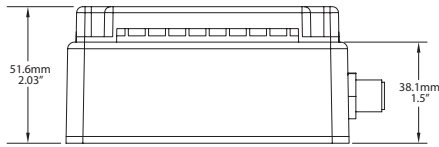


The following accessories are available for the SIM100:



## Products

PART NUMBER	DESCRIPTION
SIM100-01	Switch Indicator Module
SH-002	Smoke/Heat Detector
BHW100	Bilge High Water Detector
CO-C01224T	Carbon Monoxide (CO) Detector (Surface Mount White)
IS216	Motion Detector
VS-07.OHG	Vacuum Switch (7" Hg or 24kPa)
MS-1035	Magnetic Switch Rectangular (Indoor)
MS-1085-N	Magnetic Switch Rectangular (Outdoor)
MS-1055-N	Magnetic Switch Cylinder (Indoor/Outdoor)
MS-1075	Magnetic Switch Recessed (Indoor/Outdoor)
10233	1" FPT Cooling Water Flow Switch
10271	1-1/2" FPT Cooling Water Flow Switch
10231	2" FPT Cooling Water Flow Switch



DSM150 & DSM250 Screen Shots

**Specifications**  
**Certifications**

Parameter	Value	Comment
End of Line Resistor	8 K $\Omega$ $\pm$ 5%	Included with Maretron-supplied sensors

Standard	Comment
NMEA 2000® Standard	Level A
Maritime Navigation and Radio Communication Equipment & Systems	IEC 61162-3
Maritime Navigation and Radio Communication Equipment & Systems	IEC 60945
FCC and CE mark	Electromagnetic Compatibility

**NMEA 2000® Parameter Group Numbers**

Description	PGN #	PGN Name	Default Rate
Periodic Data PGNs	127501	Binary Switch Bank Status	1 Time/15 seconds and on switch change
	130836	Switch Status Counter	1 Time/15 seconds and on switch change
	130837	Switch Status Timer	1 Time/15 seconds and on switch change
Response to Requested PGNs	126464	PGN List (Transmit and Receive)	N/A
	126996	Product Information	N/A
	126998	Configuration Information	N/A
Protocol PGNs	059392	ISO Acknowledge	N/A
	059904	ISO Request	N/A
	060928	ISO Address Claim	N/A
	065240	ISO Address Command	N/A
	126208	NMEA Request/Command/Acknowledge	N/A
Maretron Proprietary PGNs	126720	Configuration	N/A

**Electrical**

Parameter	Value	Comment
Operating Voltage	9 to 32 Volts	DC Voltage
Power Consumption	100 mA	NMEA 2000® Interface
Load Equivalence Number (LEN)	2	NMEA 2000® Spec. (1LEN = 50 mA)
Reverse Battery Protection	Yes	Indefinitely
Load Dump Protection	Yes	Energy Rated per SAE J1113

**Mechanical**

Parameter	Value	Comment
Size	3.50" x 4.20" x 2.03" (88.9mm x 106.7mm x 51.6mm)	Including Flanges for Mounting
Weight	13 oz. (368.5 g)	

**Environmental**

Parameter	Value
IEC 60945 Classification	Exposed
Degree of Protection	IP64
Operating Temperature	-25°C to 55°C
Storage Temperature	-40°C to 70°C
Relative Humidity	93%RH @40° per IEC60945-8.2
Vibration	2-13.2Hz @ $\pm$ 1mm, 13.2-100Hz @ 7m/s <sup>2</sup> per IEC 60945-8.7
Solar Radiation	Ultraviolet B, A, Visible, and Infrared per IEC 60945-8.10
Corrosion (Salt Mist)	4 times 7days @ 40°C, 95%RH after 2 hour Salt Spray Per IEC 60945-8.12
Electromagnetic Emission	Conducted and Radiated Emission per IEC 60945-9
Electromagnetic Immunity	Conducted, Radiated, Supply, and ESD per IEC 60945-10
Safety Precautions	Dangerous Voltage, Electromagnetic Radio Frequency per IEC 60945-12