



Product Overview

Maretron[®]
Vessel Monitoring & Control

WORLD-CLASS STANDARDS IN VESSEL MONITORING AND CONTROL SYSTEMS

System Agnostic

Everything Maretron does is NMEA 2000[®] certified

Safety

Alarms for fire, smoke, combustible gasses, carbon monoxide and high bilge water.

Security

Includes cameras, motion detectors, and magnetic door and port hole sensors.

Ease of Use

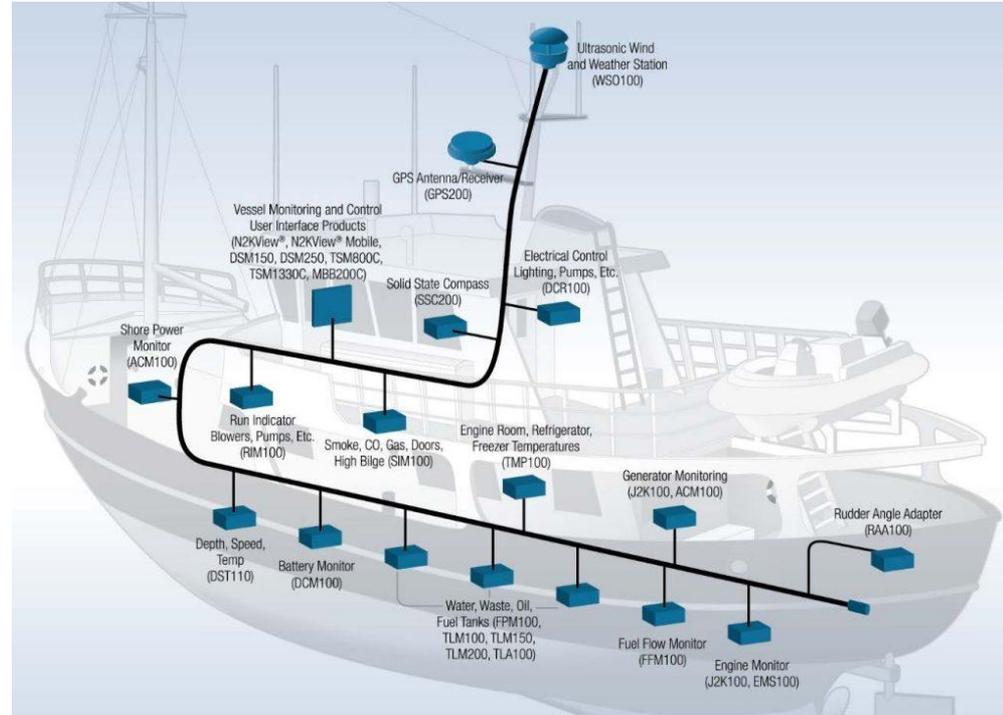
Provides one simple, common user interface for all systems.

Remote monitoring and notification

Includes monitoring remotely plus video, email and *text notifications (N.A. region only)

Future support

Easily expandable systems grow with your needs.



WHAT CAN YOU MONITOR WITH MARETRON

- Alternating Current (AC)
- Air Conditioning/Heating
- Anchoring
- Bilge Pumps
- BNWAS System
- Direct Current (DC)
- Depth
- Electrical Distribution
- Engine
- Engine Warning
- Environment
- Fuel Management
- Generator
- GPS
- Heading
- Humidity
- Icemakers
- Indicators (Safety and Security)
- Navigation
- Pressure/Vacuum
- Rudder
- Speed/Distance
- Tanks
- Temperature
- Time/Date
- Transmissions
- Transmission Warning
- Vessel (Pitch, Roll, Trim)
- Watermakers
- Wind

The real question is...
What do you want to know
about your vessel?

TABLE OF CONTENTS

- Target Customers
- Planning, Design & Troubleshooting
- N2K Cables & Connectors
- General Monitoring
- User Interface Products
- MConnect
- MPower – Digital Switching
- OctoPlex Systems



<p>1</p> <p>GPS / Weather GPS Antenna Receiver (GPS200) Wind & Weather Station (WSC200)</p>	<p>2</p> <p>Direct Current Relays Lighting, Pumps, etc. (DCR100)</p>	<p>3</p> <p>Switch Indicator Module Smoke, CO, Gas, Doors, High Bilge (SIM100)</p>	<p>6</p> <p>NMEA 2000® Gateway & Bridges NMEA2000® to USB (USB100) NMEA2000® to Internet Protocol (IP100) NMEA2000® to Network Bus Extender (NBE100)</p>	<p>7</p> <p>Electrical Monitoring Shore Power/Generator (ACM100) Battery/DC Source (DCM100) Run Indicator (RIM100)</p>	<p>8</p> <p>Solid State Compass (SSC300)</p>
<p>4</p> <p>Vessel Monitoring & Control/User Interface Software N2kView®, Color Displays (DSM410, DSM570, TSM810DC), Black Box Monitor (MBS300C), Alarm Module (ALM100), Web Server (MConnect)</p>	<p>9</p> <p>10</p> <p>11</p> <p>Tank Monitoring – Fuel, Water, Waste, Oil, Gasoline Fluid Pressure Monitor (FPM100) Tank Level Monitors (TLM100, TLM150), Tank Level Adaptor (TLA100)</p>	<p>12</p> <p>Depth / Speed / Temperature Triducer (DST110)</p>	<p>13</p> <p>General Systems Monitoring/Recording 4-20mA Current Loop Monitor (CLM100) Temperature Monitor (TMP100) NMEA2000® Vessel Data Recorder (VDR100)</p>	<p>14</p> <p>Engine Monitoring J1939 to NMEA2000® Gateway (J2K100) Fuel Flow Monitor (FFM100)</p>	<p>15</p> <p>Rudder Angle Adapter (RAA100)</p>
<p>5</p> <p>MPower® Digital Switching Platform DC Load Controller Modules (CLMD12, CLMD16) Bypass Module (CMB12) Contura® Rocker Digital Switches (VMM6) Customizable Keypad Digital Switches (CKM12)</p>					

TARGET CUSTOMERS

Small – Center Console

Medium – Sail & Power

Large – Super Yacht & Commercial



MPower – Digital Switching – System Agnostic



Maretron – Vessel monitoring equipment – System Agnostic



Octoplex – Digital Switching & Monitoring – Integrated System

Tank, Battery, bilge monitoring as well full digital control

Navigation, climate, hydraulic, pumps, motors, AC and DC circuits

Larger Networks, Redundancy, Lloyds Certification

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N2KBUILDER® V3

- **FREE** PC software tool for designing and verifying the integrity of NMEA 2000® networks
- Primarily used to layout, document, and validate the design of complex NMEA 2000® networks
- Eliminates guesswork and transcription errors
- Will directly produce a Bill of Materials (BOM) for Maretron products
- Can print schematics and reports for boat builders, owners and any other involved parties

[N2KBuilder Download](#)

Design Rule Checks

- ✓ Terminators / Branches OK
- ✓ Backbone OK
- ✓ No Loops OK
- ✓ Power OK
- ✓ Number Nodes OK
- ✓ Cable Lengths OK
- ✓ Trunk Length OK
- ✓ Branch Length OK
- ✓ Cumulative Branch Length OK
- ✓ Currents OK
- ✓ Voltages OK
- ✓ Common Mode Voltages OK
- ✓ All Devices Connected
- ✓ Instancing OK

Show On Drawing

- Zoom In
- Zoom Out
- Zoom Extents

Display Details

- Cable Lengths
- Currents
- Voltages

Plug Gender

Show Handles

Backbone(s)

Legend:

- Tank Monitoring
- Engine Monitoring
- Electrical Monitoring & Control
- General Monitoring/Recording
- Navigation Instruments

Legacy Adaptors/Adapter Cables

- Mini Cable Components
- Mid/Micro Cable Components
- User Interface Products
- Legacy User Interface Products
- Miscellaneous
- NMEA2000 Gateways & Bridges

Engine Room: ACN100, House Battery Bank, DCH100, Engine Room Alt Ser..., SIM100, Steam Run Indicator, RIM100.

Salon: Temperature Monitor (TMP100), Salon Display (DSH250), Mid-Ship Switch Indp... (SIM100).

Lower Helm: Annunciator, Port Helm Display (DSH250), Sbd Helm Display (DSH250), IC Interface, USB100.

Mid Ship: Brown Water Tank (TLM100), Fresh Water Tank (TLM100), Mid-ship Run Indicator (RIM100), Compass (590), Black Water Tank (TLM100).

Fore Peak: Bow Run Indicator (RIM100), Bow Switch Indicator (SIM100).

Radar Arch: GPS Antenna/Receiver (GPS100), Weather Station (WSO100).

Other components: 72K100, 72K100, RAA100, RAA100, Starboard Rudder, Port Fuel Tank (TLM100), Starboard Fuel Tank (TLM100), Main Fuel Tank (TLM100), Engine Room Fore S..., 31030, 31030, 2000, 2000.

Title Block:

Title: Sport Fisher 60ft

Drawn:	Revision:	Date:	08/01/2004
Checked:	Revision:	Date:	08/01/2004
Approved:	Revision:	Date:	08/01/2004
Revised:	Rev:	Date:	08/01/2004

Maretron
Power Vision Right To View

N2KBuilder® - NMEA 2000 Network Builder
Software Version: 3.0.0.000000
Made in U.S.A. Maretron Inc. 5100 Highway 101, San Diego, CA 92108
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N2KANALYZER® V3

- N2KAnalyzer is required for configuring all Maretron, MPower & Octoplex devices
- Pair a PC with a Maretron gateway (USB100, IPG100, WSV100)
- Displays all active devices on the NMEA 2000® network
 - Also 3rd Party devices
- Information about each device is also displayed in the respective columns
- For most Maretron devices, to view all configurable properties of a device on the network, select the component until it is highlighted blue, right click, then select 'Configure Device'.
- For most Maretron devices, provides a source for updating equipment to their latest software version.

[N2KAnalyzer Home Page](#)

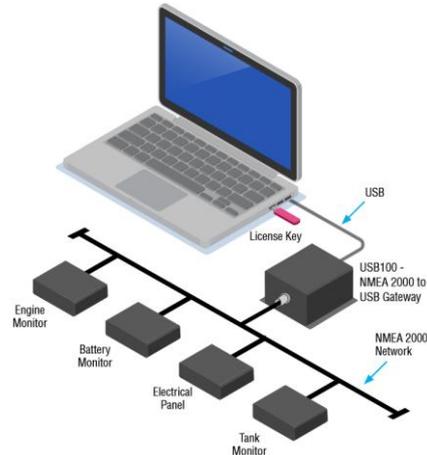


Expand	Node Address	Manufacturer	Mfg Model ID	Mfg Serial Number	Source	Device Instance	Data Instance	Label	Current Software	Available Software	Installation Description #1	Installation Description #2	Mfg Product Code	Bandwidth
	C0	Maretron	ACM100	1381751		0	0	ACM100 #1	1.1.1.2	1.1.1.2	EXTERNAL POWER...	MARETRON	26493	0.5%
	E7	Maretron	ALM100	1461783		3	3	LAB	1.0.6	1.0.6		MARETRON	8165	0.1%
	65	Carling Technologies	CKM12	1606247		53	53		2.01.00	-			26400	0.2%
	64	Carling Technologies	CKM12	1606221		54	54		2.01.00	-			26400	0.2%
	58	Maretron	CLM100	1850296		10		CLM100	1.2.2.4	1.2.2.4		MARETRON	2606	0.3%
	94	Carling Technologies	CLMD12	1671883		46		CLMD12-1	01.15.18	01.17.02			5693	0.8%
	Channel		Label											
	0	Raymarine												
	1	Furuno												
	2	TSM800C-02												
	3	Garmin												
	4	Simrad												
	5	SPARE												
	6	CLMD12 Breaker 07												
	7	CLMD12 Breaker 08												
	92	Carling Technologies	CLMD12	1671904		49		CLMD12-4	01.14.10	01.17.02	Center console lo...		5693	1.0%
	93	Carling Technologies	CLMD12	1671907		50		CLMD12-5	01.14.10	01.17.02			5693	0.2%
	90	Carling Technologies	CLMD12	1671885		47		CLMD12-2	01.14.10	01.17.02			5693	0.3%
	91	Carling Technologies	CLMD12	1671900		48		CLMD12-3	01.14.10	01.17.02	Center console lo...		5693	1.0%
	95	Carling Technologies	CLMD12	1671339		45		Power Tree	01.14.10	01.17.02	Desk Location	DO NOT CHANGE	5693	0.1%
	04	Carling Technologies	CLMD16	1540220		42			1.0.1.4	-			12337	0.6%
	03	Carling Technologies	CLMD16	1540134		40			1.0.2.4	-			12337	1.3%
	B1	Maretron	DCM100	1403197		10	10	Balmar Alternator	1.0.5.2	1.1.1.3			9375	0.2%
	48	Maretron	DCR100	1701224		0	6	DCR Export	1.1.2.3	1.1.2.3	Install 1	MARETRON	22565	0.2%
	B8	Maretron	DSM150	1801329		6	6		2.7.5.3	2.7.5.3		MARETRON	20298	0.1%
	53	Maretron	DSM200	1100672		1	1		1.15.0	1.15.0		MARETRON	1181	0.0%
	5C	Maretron	DSM250	1303209		2	2		1.7.5.3	1.7.5.3		MARETRON	16434	0.1%
	67	Maretron	DSM410	1880940		0	0		1.8.4.6	1.10.2.1			6155	0.1%
	11	Maretron	DSM410	1881230		0	0		1.8.4.6	1.10.2.1			6155	0.1%
	68	Maretron	DSM570	1940034		5	5		1.8.4.6	1.10.2.1			12438	0.1%
	47	Maretron	DST110	100982		1	1		3.005.3.050	-			1534	0.3%
	96	Maretron	EMS100	1220911		2	2	Port Wing Engine	1.4.3.1	1.4.3.1			9845	0.9%
	97	Maretron	EMS100	1220912		3	3	Stbd Wing Engine	1.4.3.1	1.4.3.1			9845	1.0%
	98	Maretron	FFM100	1660118		0		Fuel Monitor	1.4.1.1	1.4.1.1			3637	0.8%
	6A	Maretron	FFM100	1662319		1		Stbd Engine	1.4.1.1	1.4.1.1			3637	0.8%
	66	Maretron	FFM100	1641375		199		SB Fuel	1.1.2.1	1.1.2.1	SB fuel		21703	0.1%
	Hardware Channel		Function	Source	Instance	Label								
	0	Tank	Fuel		1	oil pressure1								
	1	Tank	Fuel		2	Stbd AFT Tank								
	2	Tank	Fuel		6	SB fwd								
	3	Disable	-		-	-								
	4	Pressure/Vacuum	Water Pressure		0	Water Supply								
	5	Pressure/Vacuum	Water Pressure		1	Water Return Pressure								
	2E	Maretron	GPS100	1140412		1	1	GPS 2	2.3.0.1	2.3.0.1			1776	2.1%
	20	Maretron	GPS200	1582217		0	0		4.0.2.12	4.0.2.12			3373	3.1%
	29	Maretron	IPG100	1621114		1	1	MPower Gateway	4.1.8.2	4.2.0.1	10.71.1.151		9339	0.8%
	2B	Maretron	IPG100	1621171		0	0	Maretron Gateway	4.1.8.2	4.2.0.1	10.71.1.104		9339	1.6%
	A3	Maretron	JK100	1247872		0	0		2.3.1.4	2.4.2.1			4319	0.1%
	A4	Maretron	JK100	1246222		1	1	HVAC	2.3.1.4	2.4.2.1	Domestic HVAC	MARETRON	4319	0.1%
	A6	Maretron	JK100	1247876		10	10	ICE MAKER	2.3.1.4	2.4.2.1	ICE MAKER	MARETRON	4319	0.3%
	99	Maretron	MBB200C	1820047		7	7	Helm	4.0.6.8	-			1151	0.1%
	31	Maretron	MBB300C	1870662		6	6	MBB300-JTL	4.1.6.9	-			27244	1.4%
	A5	Maretron	NBE100	1681270		5	5		2.3.1.2	2.3.1.2	Maretron - MPow...	MARETRON	3979	0.1%
	28	Carling Technologies	NP5II	606508		16		Network Power S...	1.9.3	-	NET PS JTL		20470	0.2%
	C9	Maretron	RAA100	1280068		0	0	Rudder	1.4.9	1.4.9		MARETRON	4018	0.5%

GATEWAYS AND BRIDGES

USB100 - USB Gateway

- Bridges a Windows Computer to the NMEA 2000® Network
- Provides PC based Diagnostic Tools by analyzing transmitted NMEA 2000® PGNs (N2KAnalyzer® V3)
*Essentially a technicians Tool Kit
- Provides PC based Vessel Monitoring Software using NMEA 2000® PGNS, when coupled with N2KView® Key
- Enables PC based Navigation Software using NMEA 0183 Sentences (Nobeltec, Rose Pointe, MaxSea, etc.)



GATEWAYS AND BRIDGES

IPG100 - Internet Protocol Gateway

- NMEA 2000® Data Packetized and Transmitted via Ethernet
- N2KAnalyzer® V3 Running on PC, configuration & analysis software
- N2KView® V3 Running on PC or N2KView® Mobile Running on Tablets and Smartphones access the IPG100 using conventional Internet Protocol Technology (WiFi/Routers)
- USB Port for N2KView® Hardware License Key
- Required component to gain access to Maretron RTCS service



Available accessories for the IPG100:



PX0852



PX0837/5M00

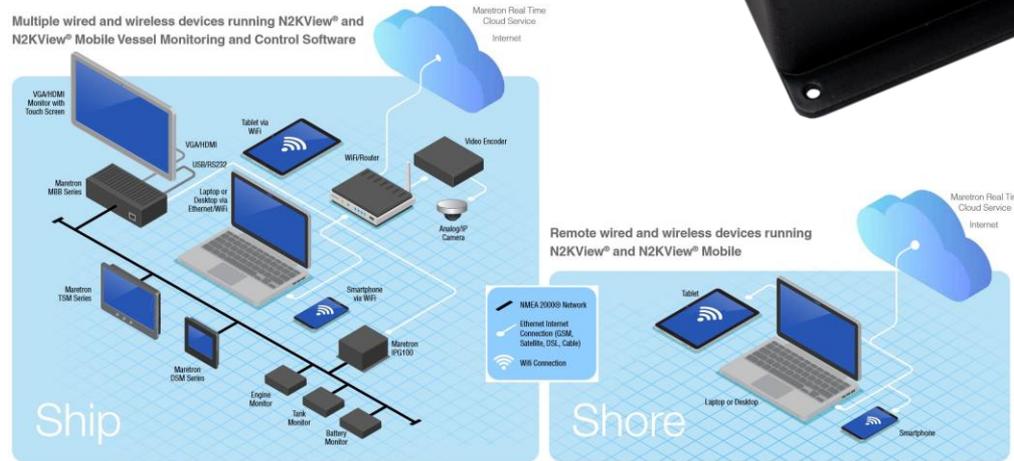


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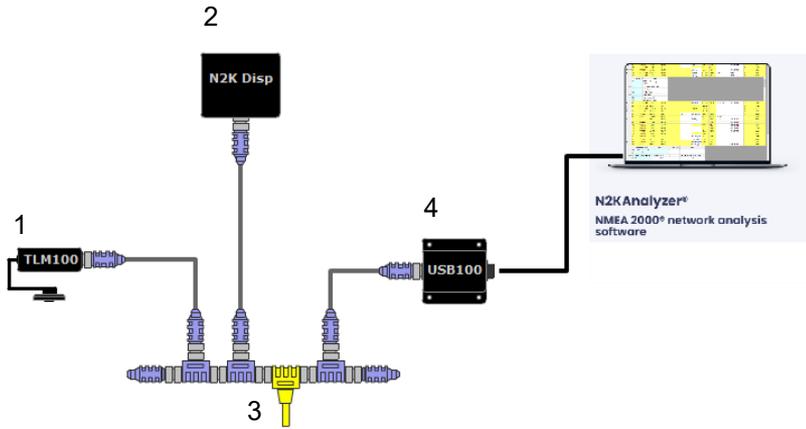


BASIC SYSTEM

Basic Network Requirements

1. NMEA 2000® Device – Sensor (e.g., Tank Sensor)
2. NMEA 2000® Display – Display that supports the PGN of the sensor to be displayed. (Maretron, Raymarine, Garmin, etc.)
3. NMEA 2000® Network – Power Tee (12Vdc), Tee Connectors (One per device), Drop cables (Max 6M), 2 x Terminators (at each end of Backbone).
4. Maretron Gateway – USB100, IPG100, WSV100

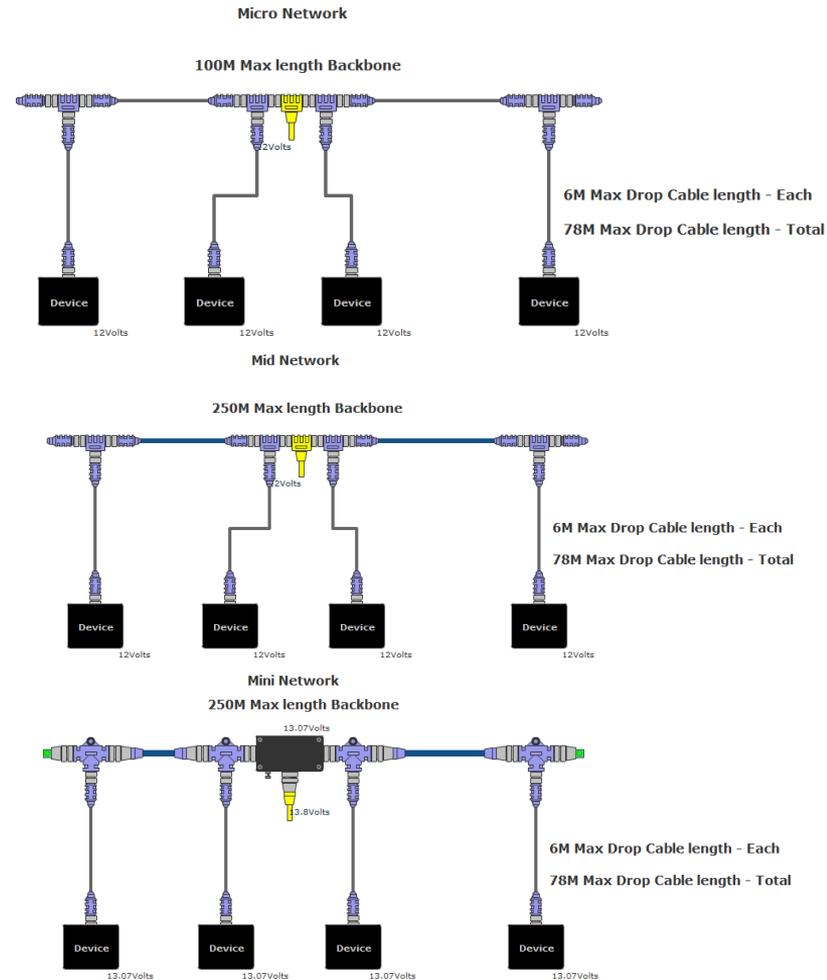
*Required for configuration and Calibration of Maretron products



NMEA 2000® NETWORKS

Maretron offers 3 types of network components

1. *Micro* – Standard NMEA 2000® cables and connectors used on small to medium size vessels and systems, normally used as drop cables. 4A Max per leg, Max backbone length 100M (Only available in Gray)
2. *Mid* – Uses the same device net connectors as the Micro but is larger diameter cable, normally used for Backbones on small & medium size systems and vessels. 4A Max per Leg, Max backbone length 250M (Available in Blue and Gray)
3. *Mini* – Used on large systems and larger vessels, the Mini uses larger connectors and much larger diameter cable. 8A Max per leg, Max backbone length 250M (Available in Blue and Gray)



NMEA 2000® CABLES AND CONNECTORS

Micro/Mid Cables and Connectors



Micro Bulk Cable



Field Attachable
Connectors (Straight)



Field Attachable
Connectors (90°)



Micro Double
Ended Cordsets



Micro Tee



NMEA Power



Termination
Resistors



Bulkhead
Feed-Thru



Multiport Box



Mid Bulk Cable



Mid Double Ended
Cordsets (Gray)



Mid Double Ended
Cordsets (Blue)



Nylon to Metal
Connector Cable



90° Male to Female
Connector



Mid Cordset
Female to Open Pigtail

NMEA 2000® CABLES AND CONNECTORS

Mini Cables and Connectors



Mini Bulk Cable



Mini Field Attachable Connectors (Male/Female)



Mini Double Ended Cordsets (Gray)



Mini Double Ended Cordsets (Blue)



Mini & Mini/Micro Tees



Mini 90° Male to Female Connector



Mini Powertap & Power Cord



Mini Terminating Resistors (Male/Female)



Mini Bulkhead Feed-Thru



Mini Male to Micro Female Reducer



Mini Gender Changers

[NMEA 2000® Cables and Connectors](#)

NBE100 OVERVIEW

Network Bus Extender

For larger or busier systems, we would recommend the use of a Network Bus Extender (NBE100).

Advantages of using an NBE100

- Separate the network into 2 electrically isolated networks when more devices are required
- Filter PGNs out from either network
- Provides a much more reliable/ stable network when you isolate critical information from noncritical information



NBE100 Basic System (Operating as Network Isolator)

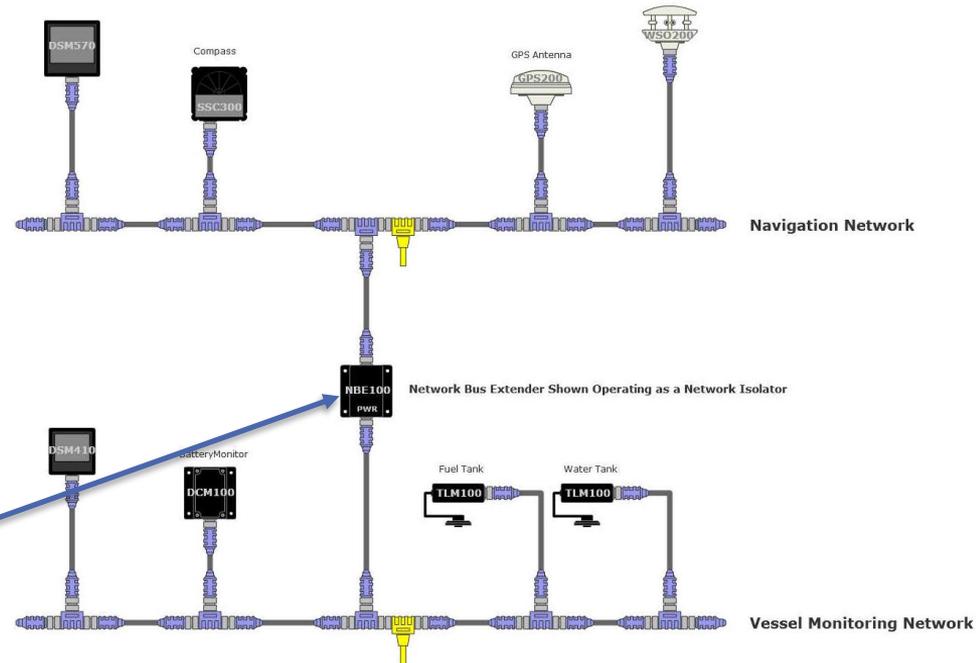


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TANK MONITORING

Overview



FPM100
Fluid Pressure Monitor



TLM100
Tank Level Monitor (40")



TLM150
Tank Level Monitor (Gasoline) (24")



TLA100
Tank Level Adapter

TANK MONITORING

Which Product and Sensor do I need?

Maretron offers three different types of tank monitoring technologies for monitoring fluids aboard a vessel. The below questions will help you determine which product you need:

- **Do you have existing resistive senders in the tank?**

If Yes, then the TLA100 would be your desired product

- **Do you want to monitor a petrol tank?**

If Yes, then the TLM150 would be your desired product

- **Do you want to monitor a tank with any other kind of fluid?**

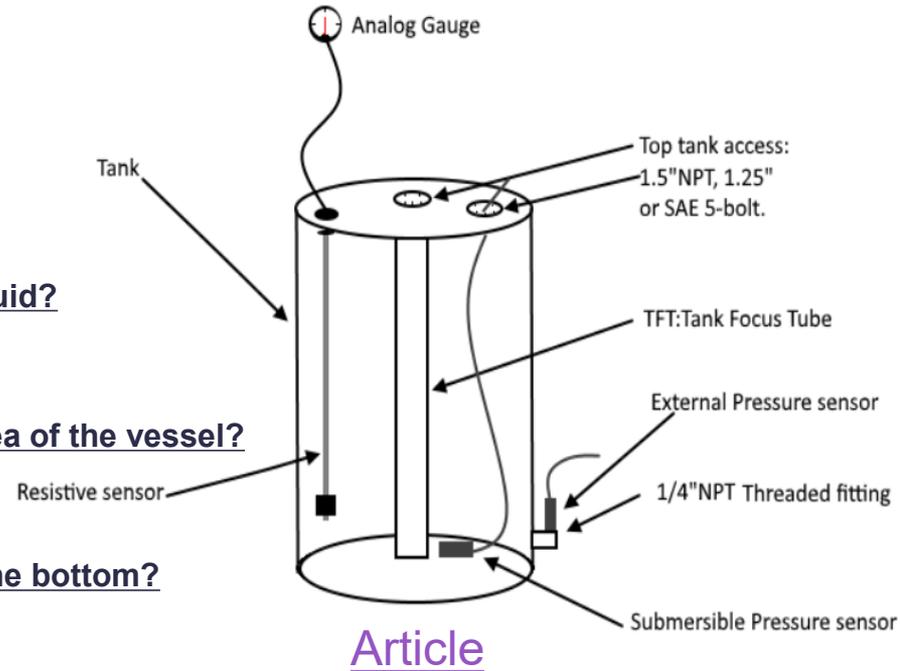
If Yes, then the TLM100 may be your desired product

- **Do you have multiple tanks located within the same area of the vessel?**

If Yes, then the FPM100 could be your desired product

- **Do you have limited access to your tank at the top or the bottom?**

If Yes, then the FPM100 could be your desired product



TLA100 OVERVIEW

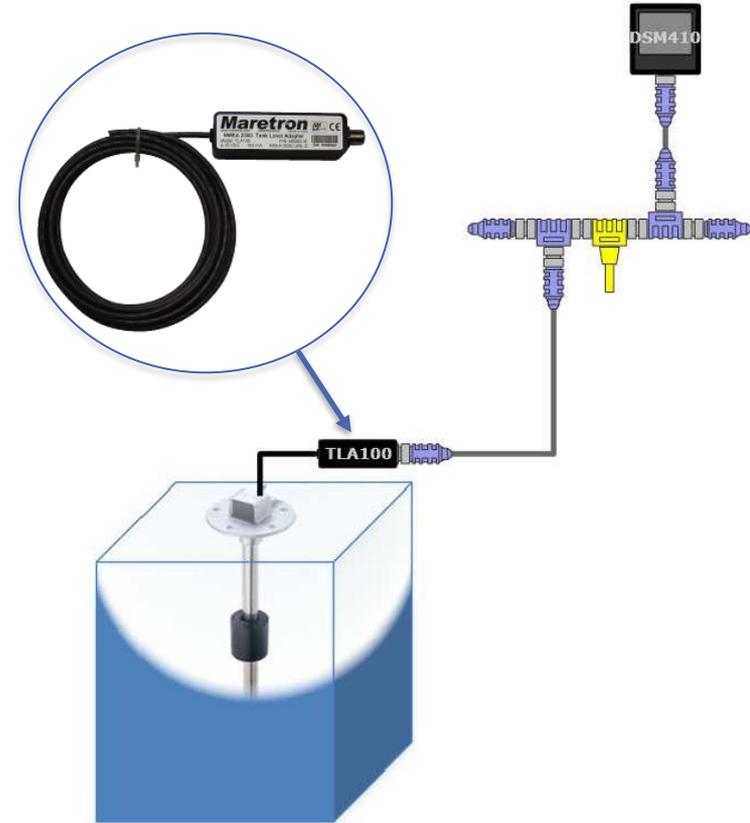
Tank Level Adapter

The TLA100 is used to adapt commercially available resistive tank senders to NMEA 2000® data.

TLA100 Features.

- Allows any display with NMEA 2000® PGN 127505 to display fluid levels
- The TLA100 is compatible with:
 - ✓ American standard (240-33 ohm)
 - ✓ European standard (10-180 ohm)
 - ✓ 0 - 300 ohms
- Accommodates Irregular shaped tanks with 16-point calibration.
- 16 Programmable tank types including
 - Fuel, Fresh Water, Wastewater, Live well
- Programable Tank Capacity
- Works with or without Analog Gauges.

[TLA100 Datasheet](#)



TLM150 OVERVIEW

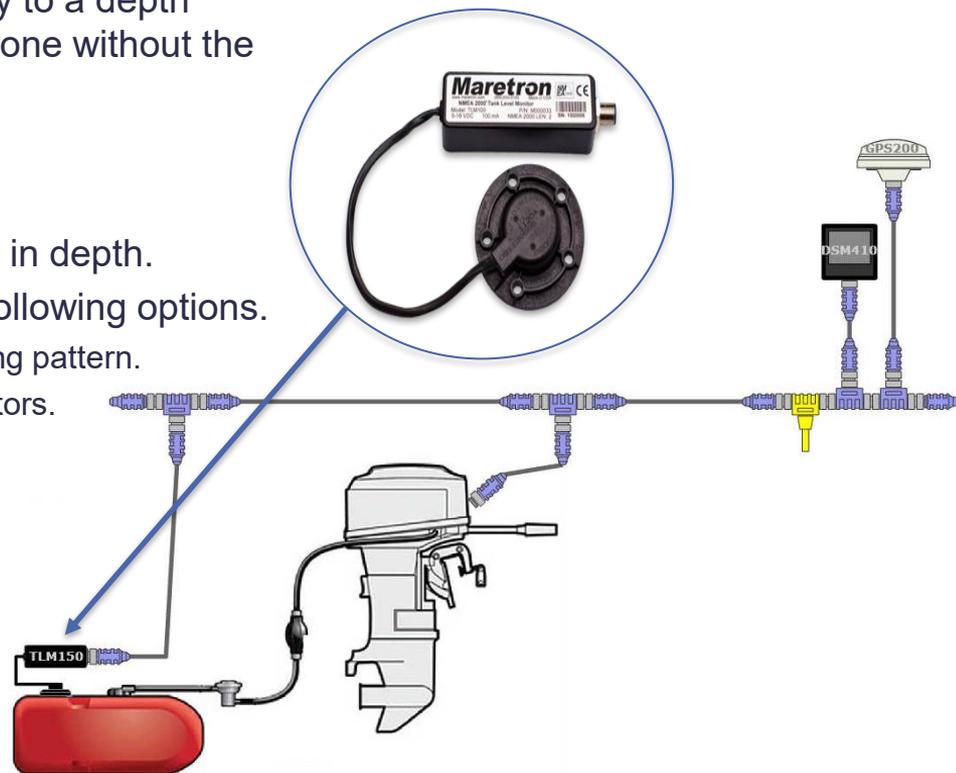
Tank Level Monitor (24" depth)

The TLM150 uses ultrasonic technology similarly to a depth sensor, this means that measurements can be done without the use of probes, avoiding corrosion issues.

The TLM150 features include.

- Works on tank of all shapes up to **24"** (61cm) in depth.
- Mounts directly to the top of tanks using the following options.
 - Industry standard SAE J1810 5-hole mounting pattern.
 - Threaded tank opening, using optional adaptors.
- Works with the following fluid types
 - Petrol / Gasoline only.

Supported PGNs	PGN Details
127505	Fluid Level



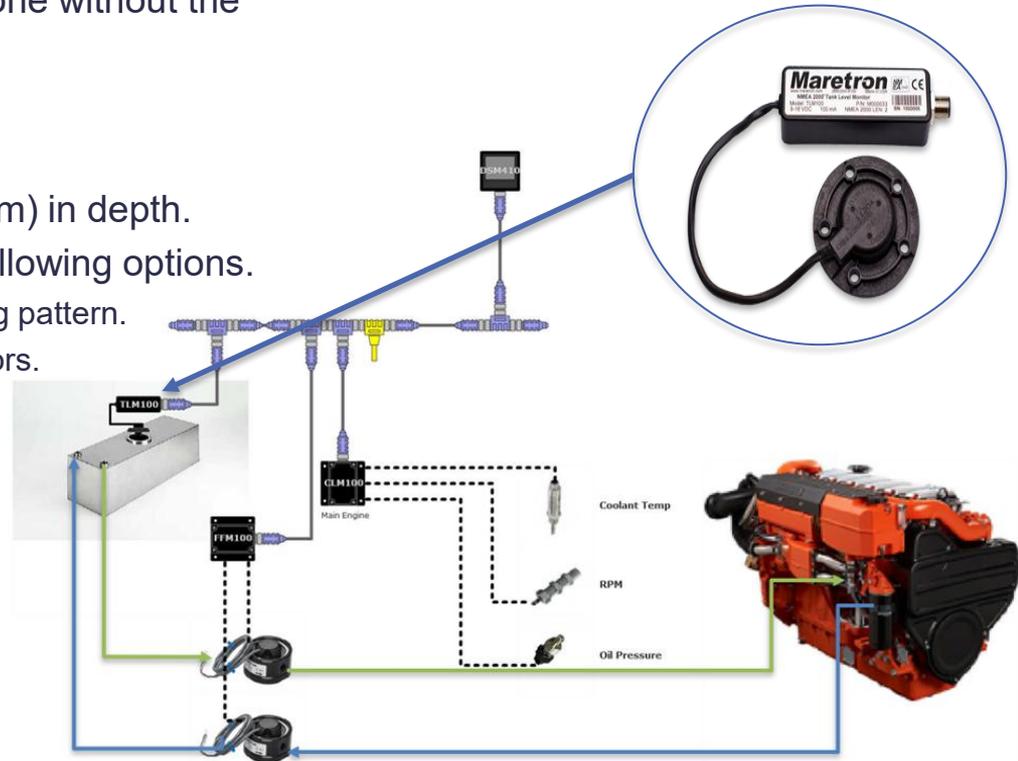
TLM100 OVERVIEW

Tank Level Monitor (40" depth)

The TLM100 uses ultrasonic technology similarly to a depth sensor, this means that measurements can be done without the use of probes, avoiding corrosion issues.

The features of the TLM100 include:

- Works on tank of all shapes up to **40"** (101.6cm) in depth.
- Mounts directly to the top of tanks using the following options.
 - Industry standard SAE J1810 5-hole mounting pattern.
 - Threaded tank opening, using optional adaptors.
- Works with the following fluid types
 - Diesel
 - Fresh Water
 - Live well
 - Grey Water
 - Black Water
 - Oil
 - Liquid Natural Gas



[TLM100 Datasheet](#)

TLM ACCESSORIES

Tubes & Adapters

A focus tube used with a Maretron TLM sensor helps with the following:

- Reduces the fluid being measured from sloshing
- Reduces sound wave scatter

A focus tube can also be used with Submersible sensors to stop the sensor from moving around in the tank

Description	Part Number	Link To Product
1.25" BSP Displacement Hull Tank Adapter	TA-5H-1.25BSP	Link
1.5" NPT Displacement Hull Tank Adapter	TA-5H-1.5NPT	Link
SAE 5-Bolt Pattern Non displacement Hull Focus Tube	TFT-5H	Link
SAE 5-Bolt Pattern Focus Tube with Dead Band Eliminator	TFTDBE-5H	Link
1.25" BSP Non displacement Hull Focus Tube	TFT-1.25BSP	Link
1.5" TFT Non displacement Hull Focus Tube	TFT-1.5NPT	Link



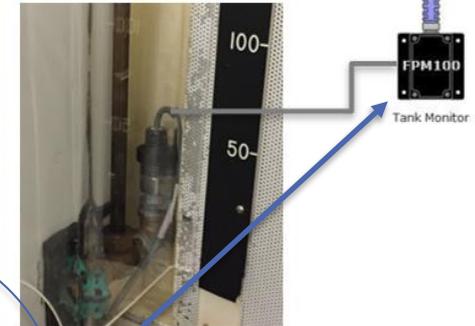
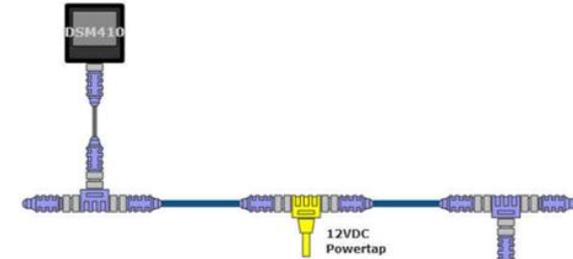
FPM100 OVERVIEW

Fluid Pressure Monitor

The FPM100 Monitors Pressure via any one of its 6 channels, Just add the relevant pressure transducer (Sold Separately) and convert the information to NMEA 2000®.

The FPM100 offers the following features:

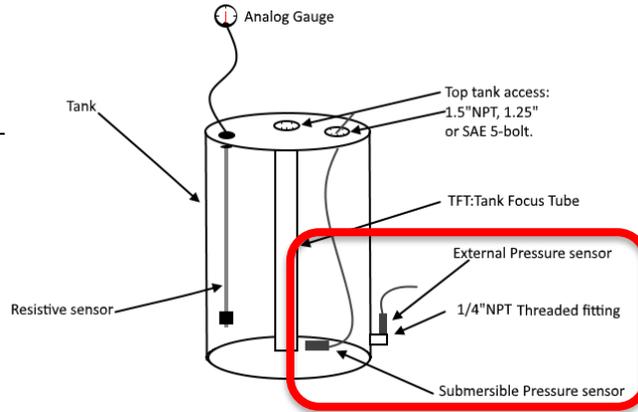
- Connect up to 6 pressure transducers
- Each channel is independently programmed to match the transducer.
- Channels can be set to: Pressure/Vacuum or Tank Level
- Supports **16** different Fluid types:
Fuel, Fresh Water, Live Well, Black Water, Oil, LPG, LPN, etc.
- Supports Irregular tank shapes with 16-Point calibration.
- Supports **21** different Pressure Source Types:
Water, Atmospheric, Compressed Air, Hydraulic, Steam, and user defined.



[FPM100 Datasheet](#)

FPM100 ACCESSORIES

Note that diesel fuel is lighter than water, and so the maximum tank depth can be increased by about 10% when these sensors are used to measure diesel fuel tanks



Description	Part Number	Link To Product
Submersible Pressure Transducer 0 to XX* PSI	PTS-0-XXPSI-02	Link
Pressure Transducer 0 to XX* PSI	PT-0-XXPSI-01	Link
Pressure Snubber	PT-SNUB-01	Link
Pressure Transducer Vacuum 0 to 1 Bar	PT-V-0-1BAR-01	Link

XX to be replaced with the PSI reading you require for your transducer

Pressure Transducer Specifications

Part Number	Operating Range	Depth Range			Cable Length
		Water (1,000 kg/m ³)	Diesel (820 kg/m ³)	Gasoline/Petrol (750 kg/m ³)	
PTS-0-1.5PSI-02	0 to 1.5 PSI (0.103 bar)	41.5" (1.05 m)	50.7" (1.29 m)	55.4" (1.41 m)	14 ft (4.27 m)
PTS-0-3PSI-02	0 to 3 PSI (0.207 bar)	83.1" (2.11 m)	101.3" (2.57 m)	110.8" (2.81 m)	17 ft (5.18 m)
PTS-0-5PSI-02	0 to 5 PSI (0.345 bar)	138.4" (3.51 m)	168.9" (4.29 m)	184.7" (4.69 m)	25 ft (7.63 m)

ENGINE MONITORING

Which Product and sensors do I need?

Maretron offers multiple solutions for engine monitoring depending on your requirements.

The below questions will help to determine which products best suit your requirements:

- **Does your engine have J1939 data output?**
 - If Yes, then the J2K100 would be your desired product
- **Does your engine have analog style senders?**
 - If Yes, then the CLM100 would be your desired product
- **Do you want to monitor engine fuel flow?**
 - If Yes, then the FFM100 would be your desired product
- **Do you want to monitor exhaust gas?**
 - If Yes, then the TMP100 would be your desired product
- **Do you want to monitor water in fuel?**
 - If Yes, then the RIM100 would be your desired product

ENGINE MONITORING

Overview



CLM100
Current Loop
Monitor



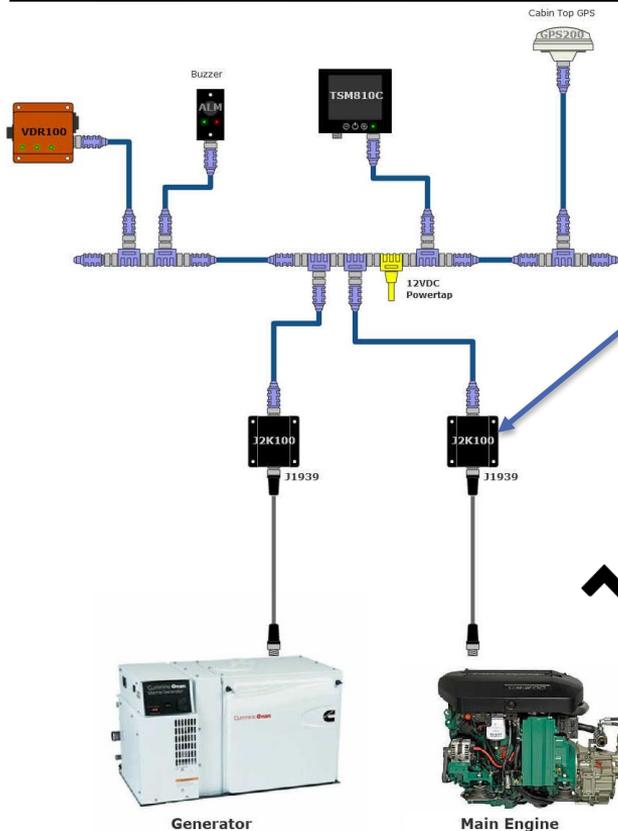
FFM100
Fuel Flow
Monitor



J2K100
J1939 to NMEA 2000®
Gateway

ENGINE MONITORING

J2K100 - J1939 Gateway to NMEA 2000®



When your Engine has J1939 Data, combine it with the J2K100 gateway to get all the engine data on to the N2K backbone. The J2K100 also supports Generators, Water Makers, Air Conditioners and more!

Supported Data Items:

- Tach
- Hours
- Coolant Pressure
- Coolant Temp
- Engine Oil Pressure
- Engine Oil Temp
- Boost Pressure
- Fuel Rate
- Alternator Voltage
- Engine Load
- Engine Torque
- Rated Engine Speed
- VIN
- Software ID
- Transmission Gear
- Transmission Oil Pressure
- Transmission Oil Temp
- AC Generator Voltage
- AC Generator Current
- AC Generator Frequency
- Dometic Air Conditioners
- Dometic Water Makers



J2K100 OVERVIEW

J1939 Gateway to NMEA 2000®

The J2K100 attaches directly into J1939 networks of compatible engines, transmissions, and gensets and converts the J1939 engine data and alarms to NMEA 2000® data that can then be displayed on any compatible MFD

The J2K100 is compatible with J1939 products from (but not limited to):

- [Caterpillar](#)
- [Cummins](#)
- Detroit Diesel
- [John Deere](#)
- Kohler
- Onan
- Perkins
- [Steyr](#)
- [Volvo Penta](#)
- Yanmar



Please contact the engine manufacturer to confirm if an engine has J1939 capabilities if you're unsure

J2K100 ACCESSORIES

Adapters For Engines/Generators

Description	Part Number	Link To Product
Adapter Micro female to Deutsche 4 Pin 2 M Cordset	MCF-2M-D4	Link
Adapter Micro female to Deutsche 12 Pin 2 M Cordset	MCF-2M-D12	Link
Adapter Micro female to Deutsche 12 Pin 2 T Cable	MCF-2M-D12CAT	Link



ENGINE MONITORING

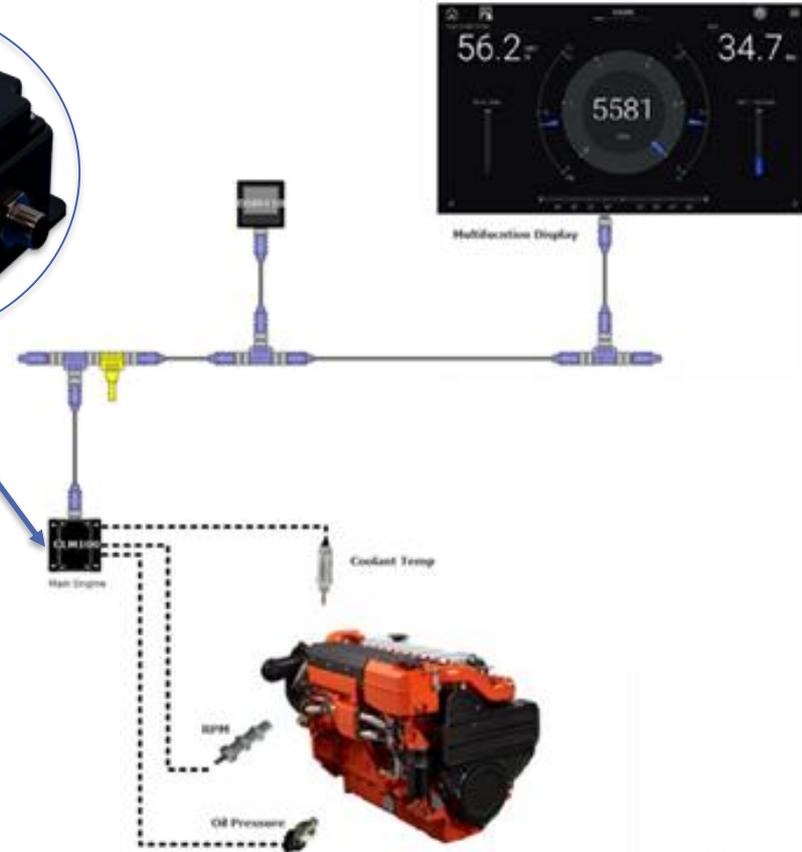
CLM100 - Current Loop Monitor

Analogue engine, no problem!

Combine the CLM100 with oil, temp and RPM sensors to create the most accurate aftermarket engine monitoring system.

Add more sensors (6 per CLM100) for Boost, transmission, fuel pressure, etc,.

****A Maretron display is required for alarms.****



Part Number	Item to Monitor	Qty
CLM100-01	Current Loop Module 6 Channels	1
PT-0-100PSI-01	Engine Oil Pressure	1
Third Party sensor	Engine Coolant Temp	1
Third Party Sensor	Engine RPM	1
DSM410	Engine display / Alarms	1
Cable-Starter-Kit 1	NMEA 2000 cable kit	1

CLM100 OVERVIEW

Engine Parameters

The CLM100 utilizes standard off the shelf transducers to conduct measurements. These transducers can then be used in a variety of different applications due to the vast array of PGNs supported by the module (Engine related PGNs shown below)

Parameter	PGN
Tachometer	127488
Boost Pressure	127488
Tilt Trim	127488
Engine Oil Pressure	127489
Engine Oil Temp	127489
Engine Coolant Temp	127489
Engine Voltage	127489
Engine Fuel Rate	127489
Engine Coolant Pressure	127489
Engine Fuel Pressure	127489
Percentage Load	127489
Percentage Torque	127489
Transmission Oil Pressure	127493
Transmission Oil Temp	127493
Trim Tap Position	130576



[CLM100 Datasheet](#)

CLM100 OVERVIEW

Additional PGN Output

The CLM100 utilizes Industry standard 4-20mA transducers to conduct measurements. These transducers can then be used in a variety of different applications due to the vast array of PGNs supported by the module (See Table)

The advantage of using the CLM100 is that you can monitor several different circuits with one box rather than requiring a different box for each type of circuit to monitor.

An example where this could be done is the bow of a sailboat.

- Fore stay load
- Hydraulic pressure at the fore stay
- Bow thruster battery volts
- Bow thruster current
- Bow thruster motor temp



Parameter	PGN
DC Voltage	127751 DC Voltage/Current
DC Current	127751 DC Voltage/Current
Flow Rate	65286 Fluid Flow Rate (Maretron Proprietary)
Distance	130840 Generic Sensor (Maretron Proprietary)
Linear Velocity	130840 Generic Sensor (Maretron Proprietary)
Linear Acceleration	130840 Generic Sensor (Maretron Proprietary)
Angle	130840 Generic Sensor (Maretron Proprietary)
Angular Velocity	130840 Generic Sensor (Maretron Proprietary)
Angular Acceleration	130840 Generic Sensor (Maretron Proprietary)
Temperature	130316 Temperature, Extended Range
Humidity	130313 Humidity
Resistance	130840 Generic Sensor (Maretron Proprietary)
Strain Gauge	130840 Generic Sensor (Maretron Proprietary)
Force (Load Cell)	130840 Generic Sensor (Maretron Proprietary)
Pressure	130314 Actual Pressure
Decibels	130840 Generic Sensor (Maretron Proprietary)
Rotational Rate	130840 Generic Sensor (Maretron Proprietary)

CLM100 ACCESSORIES

Links to compatible sensors

Description	Part Number	Link To Product
CLM100	CLM100-01	Link
Pressure Transducers (1.5-5000 PSI)	PT-0-XX*PSI-01	Link
Pressure Snubber	PT-SNUB-01	Link
Pressure Transducer Vacuum 0 to 1 Bar	PT-V-0-1BAR-01	Link
Indoor Humidity/Temperature Sensor	IRHT-01	Link
Temperature Sensors	Third Party	Link
4-20mA Vibration Sensors	Third Party	Link
Voltage/Current/Frequency Transducers	Third Party	Link
Mechanical Strain/Force/Other Sensors	Third Party	Link
Decibel Sensor	Third Party	Link
Shaft Speed Sensors	Third Party	Link
Signal Conditioners	Third Party	Link



*XX to be replaced with the PSI reading you require for your transducer

FFM100 – ENGINE MONITORING

Fuel Flow Monitor

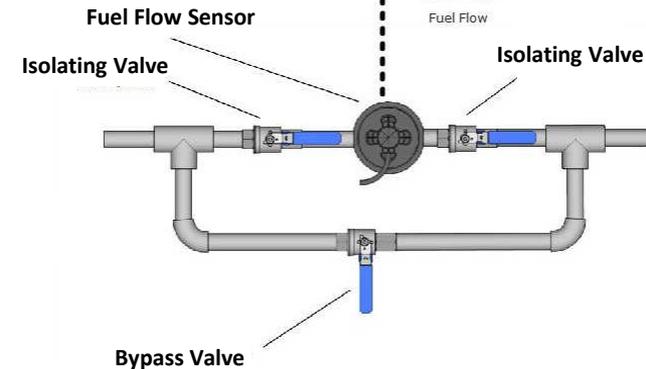
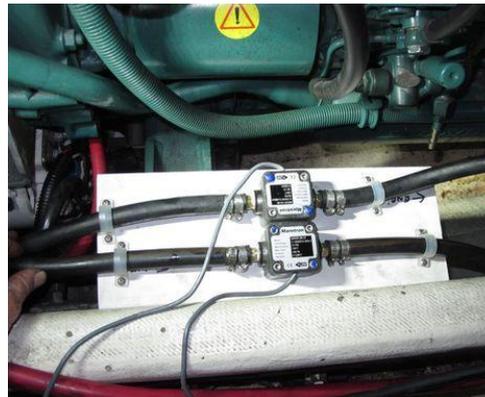
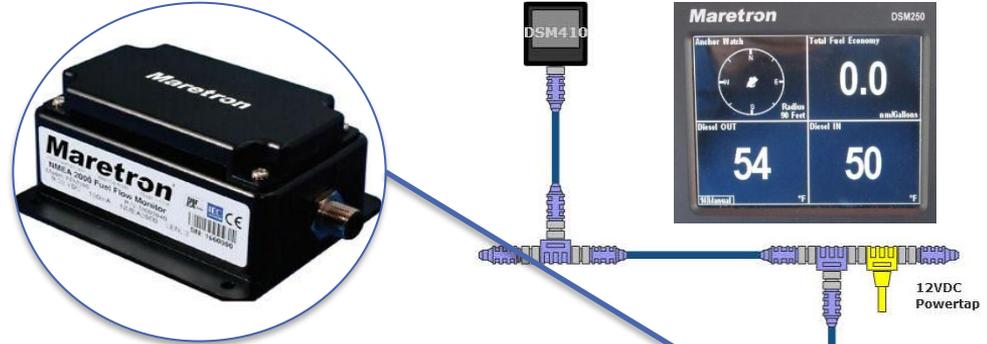
Fuel Flow Monitoring – by adding the correct size flow sensor to the FFM100 you will be able to measure in real time the amount of fuel being consumed, Trip Fuel Used and Fluid Temp.

- Petrol engines only require one sensor (Supply to the Engine)
 - 1 FFM100 can monitor 2 petrol engines.
- Diesel engine require 2 sensors (Supply and Return)
 - 1 FFM100 can monitor 1 diesel engine.

Notes: We do recommend adding the isolating & bypass valve for safety and to make it easier to service the flow sensors.

Requirement to properly size the sensors:
Max Fuel Pump capacity

- [Sensor Select Guide](#)
- [Sensor Installation Guide](#)
- [FFM100 Datasheet](#)



FFM100 ACCESSORIES

Fluid Flow Sensor	Flow Rate Range	Diesel Engine Power Range <i>*Approximate*</i>
M1AR	0.53 to 26.4 GPH 2 to 100 LPH	20 to 200 HP 14.9 to 149 kW
M2AR	6.6 to 132 GPH 25 to 500 LPH	200 to 1000 HP 149 to 746 kW
M4AR	47.6 to 396 GPH 180 to 1500 LPH	1000 to 3000 HP 746 to 2237 kW
M8AR	127 to 1110 GPH 480 to 4200 LPH	3000 to 8400 HP 2237 kW to 6266 kW
M16AR	158.5 to 1585 GPH 600 to 6000 LPH	8400 to 12000 HP 6266 kW to 8952 kW

PGNs	PGN Details
127489	Engine Parameters, Dynamic
127497	Trip Parameters, Engine
130312	Temperature
130316	Temperature, Extended Range
065286	Fluid Flow Rate (Maretron Proprietary)
065287	Trip Volume (Maretron Proprietary)



FFM100 ACCESSORIES

FFM100 Sensors – Online Resources

Maretron[®]
Vessel Monitoring & Control

M1AR - M16AR Fluid Flow Sensor Installation Instructions



Rev. 2.4 (1/2025)
PN: M003063

Maretron
120 Intracoastal Pointe Dr.
Jupiter, FL 33477
USA

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www.maretron.com

Maretron[®]

FFM100 - Sensor Select Guide

The following process exists as an aid for selecting the appropriate size fluid flow sensor(s) for your motored application. We highly encourage consulting with the Engine's manufacturer for their recommendations before implementing any 3rd party solutions.

Maretron/Carling Technologies/Littelfuse will not be held responsible for any improper sensor selection or installation. Please consult with a local manufacturer and/or certified marine mechanic.

* If you are wanting to monitor a fluid other than a Fuel profile (Diesel, Gasoline/Petrol), please consult with our tech support team for guidance on the appropriate sensor line via email at Support@Maretron.com.

Terminology Reference Table

gph / GPH	Gallons per Hour
lph / LPH	Liters per Hour
HP	Horsepower
NPT	National Pipe Thread
Flow Rate	The quantity of fluid that is passing through a cross-section of a pipe in a specific period of time.
Burn Rate	Also known as Maximum Consumption, the quantity of fluid that is consumed for a period of time during a combustion process.

Sensor Table

Sensor Size	Flow Rate (gph)	Flow Rate (lph)	Port Inlet Size
M1AR	0.53 – 26.4	2 – 100	3/8" NPT
M2AR	6.60 – 132	25 – 500	1/2" NPT
M4AR	47.6 – 396	180 – 1500	3/4" NPT
M8AR	127 – 1,110	480 – 4,200	1" NPT
M16AR	158.5 – 1,585	600 – 6,000	1 1/2" NPT

* Please take note of the inlet size of the sensor as an adapter may be required to interface into your fuel line setup. DO NOT choose a larger size sensor to mitigate fuel line adapters as this will hinder the accuracy of the readout or may not read at all. The flow sensors are rated according to the volume of fluid able to pass through the sensor and should not hinder the performance of the engine per principles of fluid dynamics.

For further technical reference about the Fuel Sensors behavior, please visit the FFM100 User Manual.

- <https://www.maretron.com/products/ffm100-fuel-flow-monitor-2/mfqd-tab-7075>

Step 1: Datasheet

Please locate the datasheet of your engine or generator. If you are unable to locate locally or online, please reach out to your local engine or generator manufacturer/dealer to obtain this information as it is crucial to identifying the appropriate sensors.

REV: 01/24

1 | Page

ELECTRICAL MONITORING

Overview



ACM100
Alternating Current Monitor



DCM100
Direct Current Monitor



DCR100
Direct Current Relay



RIM100
Run Indicator Module

ELECTRICAL MONITORING

ACM100 - Alternating Current Monitor



Maretron's ACM100 is a device which monitors AC power sources and outputs information about these sources onto the NMEA 2000® network.

Features include:

- Monitoring of Shore Power, Generators, Inverters and Bus Loads.
- AC Volts >600V, AC Amps >400A, Frequency, Single phase or 3-Phase systems.
- ACM100 output information is then displayed with networked NMEA 2000® equipment such as the Maretron TSM or DSM-Series dedicated displays
- When used in conjunction with the cloud Service, all NMEA 2000® include shore power services can be monitored remotely. And can alert the owner when the shore power has failed.

Description	Part Number	Link
100 Amp AC transducer with cable (Included in the box)	M000630	Link
400 Amp AC transducer with cable	M000612	Link

Supported PGNs	PGN Details
65001-65004	Bus – AC Electrical Status
65005-65017	Utility – AC Electrical Status
65018-65030	Generator – AC Electrical Status
127503	AC Input Status - DEPRECATED

ELECTRICAL MONITORING

DCM100 - Direct Current/Battery Monitor

The DCM100 is an advanced electronic monitoring device used to measure the voltage and current of any Direct Current (DC) power source or load.

Examples of DC power sources that can be monitored with the DCM100 include:

- Batteries
- Alternators
- Solar Panels
- Wind Generators



Description	Part Number	Link To Product
Battery Harness With Fuse	FC01	Link
200 Amp Current Transducer With Cable	LEMHTA200-S	Link
400 Amp Current Transducer With Cable	LEMHTA400-S	Link
600 Amp Current Transducer With Cable	LEMHTA600-S	Link
Ring / Under Bolt Temperature Probe	TR3K	Link

Supported PGNs	
127506	DC Detailed Status
127508	Battery Status
127513	Battery Configuration Status

ELECTRICAL MONITORING

DCR100 - Direct Current Relay Module

- 6 x DC switching channels, each capable of switching up to Max 10 Amps. (overcurrent shutdown at ~ 12 amps)
- Each channel can be controlled via a Maretron display, or any device using PGN 127501
- The DCR100 easily handles resistive DC loads like lights, or inductive DC loads like pumps and motors.
- An added benefit of the DCR100 is that it reports the current through each of the six channels. (via PGN 65284 DC Breaker Current – Maretron Proprietary) This allows you to determine if loads are drawing too little electrical current such as burnt-out bulbs, or if the loads are starting to draw too much electrical current
- Switch Status Counters and Timers are also available via Maretron Proprietary PGNs 130836 & 130837



Supported PGNs	PGN Details
65284	DC Breaker Current (Maretron Propriety PGN)
127501	Binary Switch Bank Status
130836	Switch Status Counter (Maretron Propriety PGN)
130837	Switch Status Timer (Maretron Propriety PGN)

ELECTRICAL MONITORING

RIM100 - Run Indicator Module

Monitors presence of voltage (On or Off)

The Run Indicator Module (RIM100) monitors both AC and DC electrical circuits and reports via PGN 127501 if the electrical circuit is energized and running over the NMEA 2000® network. The RIM100 works for monitoring manually and automatically switched loads such as:

- Bilge Pumps
- Winches
- Running Lights
- Transfer Pumps
- Exhaust/Intake Fans
- Detecting the presence of water in fuel

Monitoring both types of load control is especially useful because you know exactly when equipment is or isn't running.

All data can also be displayed anywhere on the vessel using a compatible NMEA 2000® display and well as working in conjunction with software such as N2KView.



Water in Fuel Detector
WIF-RK30880-E



Supported PGNs	PGN Details
127501	Binary Switch Bank Status
130836	Switch Status Counter (Maretron Proprietary PGN)
130837	Switch Status Timer (Maretron Proprietary PGN)

GENERAL MONITORING

Overview



SIM100
Switch Indicator Module



TMP100
Temperature Monitor



RAA100
Rudder Angle Adapter

SIM100 OVERVIEW

Switch Indicator Module

Monitors Open / Closed volt free circuits with End of Line support

- **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)
- **Vessel monitoring equipment**
(e.g., valve closed/open, high-water bilge)

Supported PGNs	
127501	Binary Switch Bank Status
130836	Switch Status Counter (Maretron Propriety PGN)
130837	Switch Status Timer (Maretron Propriety PGN)



SIM100 ACCESSORIES

Switches and Detectors

Description	Part Number	Links
Bilge High Water Detector	BHW100	Link
High Temperature Smoke/Heat Detector Kit	SH-003	Link
Smoke/Heat Detector	SH-004	Link
Carbon Monoxide (CO) Detector	CO-CO1224T	Link
Motion Detector	IS216	Link
Vacuum Switch	VS-07.0HG	Link
Magnetic Switch Rectangular (Indoor)	MS-1035	Link
Magnetic Switch Rectangular (Outdoor)	MS-1085-N	Link
Magnetic Switch Cylinder (Indoor/Outdoor)	MS-1055-N	Link
Magnetic Switch Recessed (Indoor/Outdoor)	MS-1075	Link
Flow Sensor	Third Party	Link



TMP100 ACCESSORIES

Temperature Monitor

Description	Part Number	Link To Product
Ambient Air Temperature Probe	TP-AAP-1	Link
Immersion Temperature Probe	TP-IP-1	Link
Exhaust Gas Temperature Probe	TP-EGT-1	Link
Ring Temperature Probe	TR3K	Link



RAA100 OVERVIEW

Rudder Angle Adapter

The RAA100 is used to adapt commercially available resistive rudder angle senders to the NMEA 2000® network.

This allows you to observe rudder angle anywhere on the vessel where there is an NMEA 2000® compatible display such as Maretron's N2KView® vessel monitoring system, or Maretron's DSM Series Displays.

The RAA100 is compatible with:

- American standard (240-33 ohm)
- European standard (10-180 ohm)
- 0 - 300 ohms

You can also use the RAA100 with existing analog gauges, so you don't have to give up your existing analog gauges to enjoy the advantages of digitally networked information!!



PGNs	PGN Details
127245	Rudder

[RAA100 Datasheet](#)

NAVIGATION INSTRUMENTS

Overview



GPS200
GPS Antenna / Receiver



WSO200
Ultrasonic Wind & Weather Station



SSC300
Solid State Compass

GPS200 OVERVIEW

GPS Antenna/Receiver

The GPS200 antenna/receiver is a plug-and-play device that is fully compliant and certified to the NMEA 2000® standard. An additional benefit of the GPS200 is that it broadcasts precision magnetic variation information using the current position and world magnetic model (WMM-2020).

- 99-Channel GPS/GLONASS antenna and receiver
- 10 Hz Position update rate
- Position Accuracy (autonomous) <3m
- Position Accuracy (WAAS) <2.5m
- Time to first fix from hot start – 1 seconds
- Time to first fix from cold start – 33 seconds



PGNs	PGN Details
126992	System Time
128259	Speed
129025	Position, Rapid Update
129026	COG & SOG, Rapid Update
129029	GNSS Position Data
129539	GNSS DOPs
129540	GNSS Satellites in View
127258	Magnetic Variation

WSO200 OVERVIEW

Ultrasonic Wind & Weather Station

The WSO200 accurately measures wind speed and direction under tilt of up to 30° , making it ideal for sail as well as power conditions.

- Apparent wind speed – 0-99 knots (+/-10% accuracy)
- Apparent wind direction – (+/- 5% accuracy)
- Atmospheric pressure
- Air temperature
- Relative humidity
- IP67

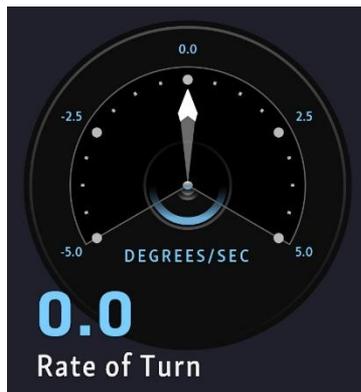


PGNs	PGN Details
130306	Wind Data
130310	Environmental Parameters
130311	Environmental Parameters
130312	Temperature
130313	Humidity
130314	Actual Pressure

SSC300 OVERVIEW

Solid State Compass

- Three axis magnetometer, three axis rate gyro, and three axis accelerometer
- Outputs NMEA 0183 and NMEA 2000® data simultaneously
- Better than 0.7° heading accuracy in static conditions
- Better than 1.5° heading accuracy in dynamic conditions
- Better than 1° /second rate of turn in
- Better than 1° pitch/roll accuracy
- IP67 waterproof enclosure



Available accessories for the SSC300:



MARE-004

PGNs	PGN Details
127250	Vessel Heading
127257	Attitude
127251	Rate of Turn

TABLE OF CONTENTS

- ✓ Target Customers
- ✓ Planning, Design & Troubleshooting
- ✓ N2K Cables & Connectors
- ✓ General Monitoring
- User Interface Products
 - MConnect
 - MPower – Digital Switching
 - OctoPlex Systems



USER INTERFACE HARDWARE

DSM - Overview

The DSM is available in 2 different part numbers DSM410 and DSM570

- DSM410 - 4.1" High Bright Color Display
- DSM570 – 5.7" High Bright Color Display
- Sunlight Viewable
- Interprets and Displays Most NMEA 2000® Data
- 16 User Configurable Favorites Screens
- Computed Fuel Management Displays
- Flush Mount
- Configures Maretron Products
- Audio and Visual Alarms
- Dust Cover included

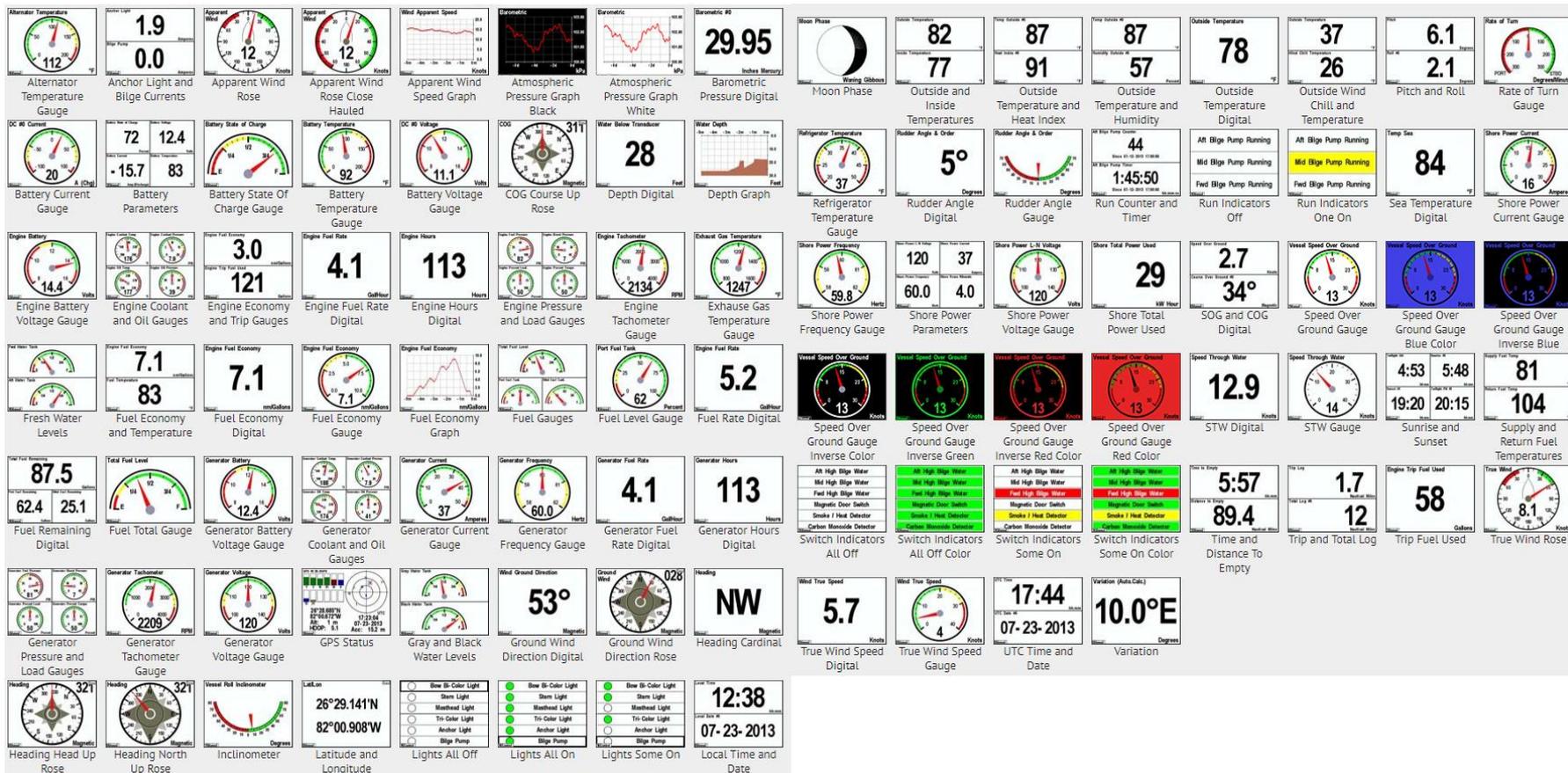


[DSM410 Datasheet](#)

[DSM570 Datasheet](#)

USER INTERFACE HARDWARE

DSM Screenshots



USER INTERFACE SOFTWARE

N2KView® V3

Maretron's N2KView® V3 is a comprehensive vessel monitoring and control software that goes beyond simple monitoring.

N2KView V3 is completely user-configurable, and you are free to create different screens for your exact needs while easily switching from screen to screen for monitoring all your systems.

Vessel Monitoring & Control Software for PCs

- ✓ Connects to NMEA 2000® Network via a Maretron Gateway, either USB100 (Windows®) or IPG100 (Windows & MAC)
- ✓ Comprehensive software includes services of Monitoring, Control, Alerts, Video, Power Management, and Fuel Management
- ✓ Engines, Generators, Electrical, Tanks, Rudders, Navigation instruments, and so much more.

N2KView V3 software built in!

- ✓ TSM810C & MBB300C



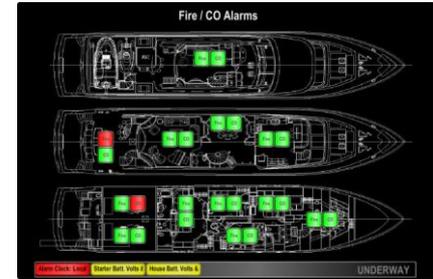
[N2KView Datasheet](#)



USER INTERFACE SOFTWARE

N2KView® V3

- ✓ Optimized for Touchscreen Interface (Full Support for Keyboard and Pointing Devices)
- ✓ Favorite Screens are Completely User Defined and Tailored for Installed NMEA 2000® Sensors
- ✓ As Many Favorite Screens as Desired, User Defined Tab Names
- ✓ User Defined Background Images (Vessel Profiles, Deck Views, Systems Diagrams, etc.)
- ✓ Integrated Video with Pan, Tilt, and Zoom Controls
- ✓ Comprehensive Alerts System Showing Alarms and Warnings at Bottom of Screen
- ✓ Emailing & Texting* On User Selectable Alerts
*NA Customers Only with the SMS200
- ✓ User Defined Graphs for Monitoring Trends



USER INTERFACE SOFTWARE

N2KView® V3 – Training Videos

Overview Alerts Applications Videos Documentation Application diagram BNWAS Video Cameras

Screenshots Downloads



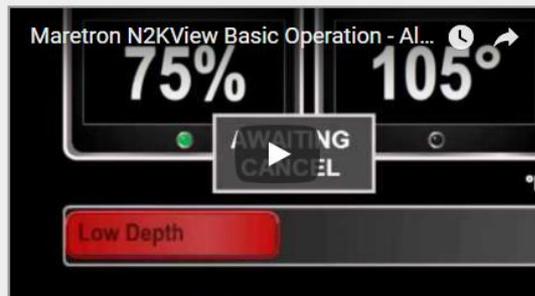
N2KView Basic Operation
Part 1 - Overview



N2KView Basic Operation
Part 2 - Component Types I



N2KView Basic Operation
Part 3 - Component Types II



N2KView Basic Operation
Part 4 - Alerts

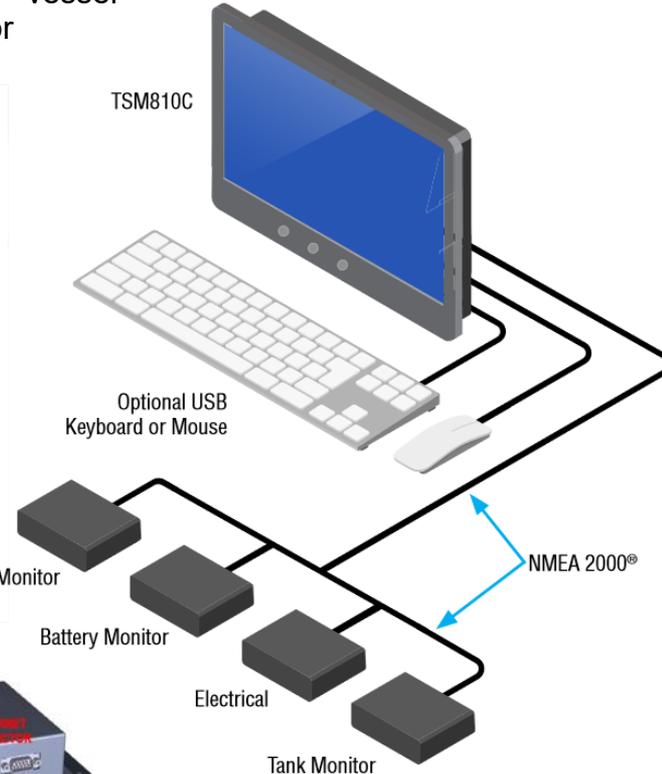
TSM810C OVERVIEW

8" Vessel Monitoring & Control Touchscreen

The TSM810C is an 8" dedicated touchscreen that includes Maretron's N2KView® vessel monitoring and control software, providing an extremely simple touch interface for monitoring and controlling critical systems from anywhere on the vessel

Features:

- ✓ 800 x 480 LED backlit LCD Panel
- ✓ Widescreen aspect ratio 5:3
- ✓ 9-32VDC Power, Supply 2 Watts
- ✓ Solid State Disk Drive
- ✓ Dedicated Hardware Boots and Runs N2KView® V3
- ✓ Fanless (Salt Air Not Pulled through the Unit)
- ✓ IP66 Front Panel Protection
- ✓ Flush or VESA mounting capability
- ✓ Dual NMEA 2000® ports for Single or Redundant Network Connections
- ✓ Two USB Ports for Keyboard, Mouse, Trackball, or other connections
- ✓ Ethernet Connector for IP Camera Input or Email Notifications



[TSM810C Datasheet](#)

MBB300C OVERVIEW

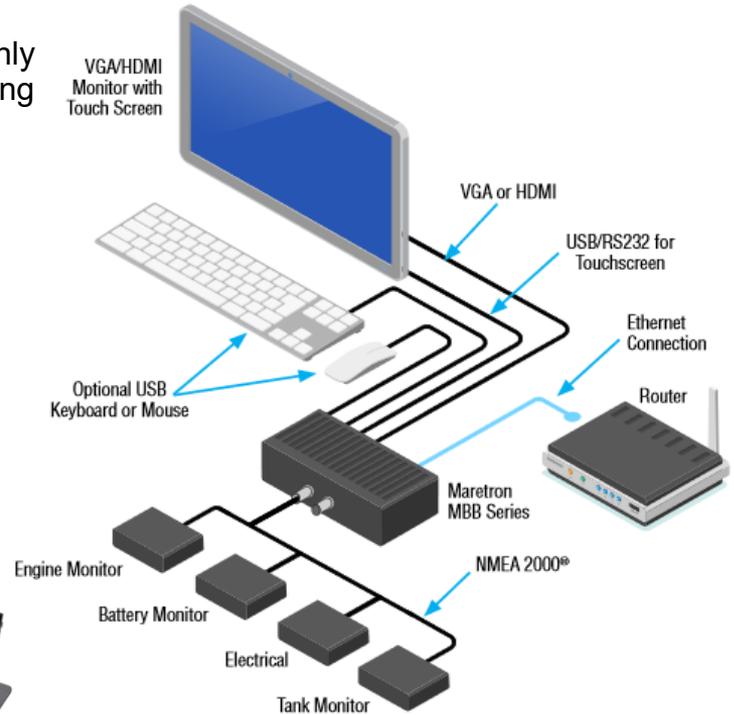
Vessel Monitoring & Control Black Box

Maretron's third generation Black Box (MBB300C) is a dedicated processing unit that includes Maretron's N2KView®.

Unlike a PC that allows any software to be loaded, the MBB300C runs only N2KView® software making it extremely stable and dedicated to monitoring and controlling your vessel

Other Features:

- Solid State Disk Drive
- Fanless Cooling System
- Dual NMEA 2000 ports for Single or Redundant Network Connections
- Four USB Ports for Touchscreen, Keyboard, Mouse, Trackball, or other connections
- VGA or HDMI Video Connection (2560 x 1600 Maximum Resolution)
- Ethernet Connector for IP Camera Input or Email Notifications



USER INTERFACE SOFTWARE

Camera Integration

IP Cameras & Encoders



LAN



LAN / Internet



MConnect



Supported IP Cameras

- AXIS
- Omnisense
- Hatteland Seahawk

REAL TIME CLOUD SERVICE OVERVIEW

Real Time Cloud Service

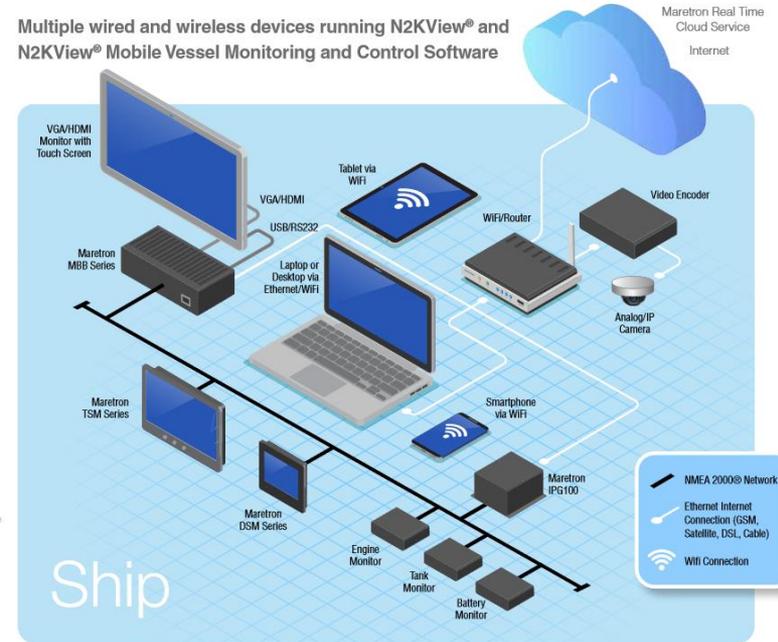
Maretron's N2KView® V3 wherever **you** are!

- ✓ Remotely and seamlessly connect to your vessel using N2KView® V3 and N2KView® Mobile
- ✓ Uses vessel's internet connection to monitor and control NMEA 2000® network data from Anywhere in the World
- ✓ Utilizes vessel's existing internet connection (WiFi, Cellular, Satellite, etc.)
- ✓ Computer access requires purchase of N2KView® Hardware Key
- ✓ Annual Subscription

Remote wired and wireless devices running N2KView® and N2KView® Mobile



Multiple wired and wireless devices running N2KView® and N2KView® Mobile Vessel Monitoring and Control Software

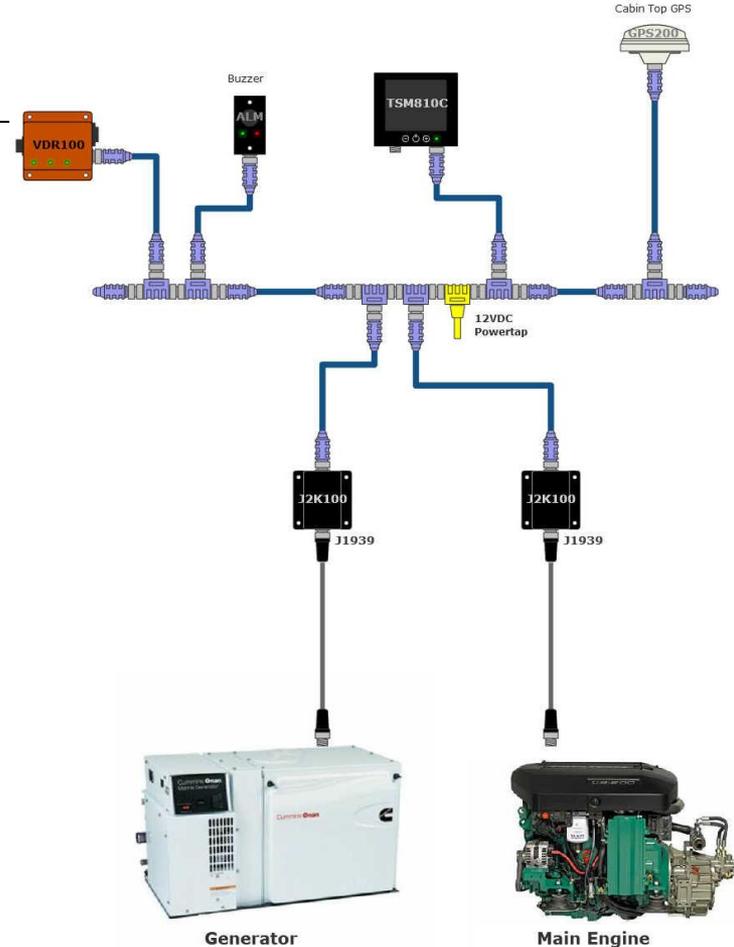


*IPG100 required for RTCS



*Key required for PC users

VDR100 – N2K RECORDING



There are several advantages by including a VDR100 into your system whether large or small.

- System Diagnostics
 - Diagnose infrequent engine faults
 - Diagnose N2K faults
- Vessel Performance
 - Monitor the vessel speed by fuel consumption
 - Monitor the engine load by vessel speed
- Accident Reporting
 - Monitor the speed and heading
 - Monitor the lat/lon as well as the water depth

* **Requires NMEA 2000® GPS – System Time (PGN 126992)**

VDR100 OVERVIEW

Vessel Data Recorder

- Data recorded on solid state memory via removable USB flash drive
- Circular buffer preserves latest recorded data while oldest data overwritten when memory is full
- Recorded data available for performance analysis, vessel tracking, preventive maintenance, and more
- Free data extraction software (N2KExtractor®) builds comma-delimited files for data analysis
- Optional waterproof USB flash drive cover

Recording Period	Media Storage Capacity*
1 second	7862 bytes
1 minute	471,750 bytes
1 hour	29 MBytes
1 day	680 MBytes
1 week	5 GBytes
1 month (30 days)	21 GBytes
1 year (365.25 days)	248 GBytes

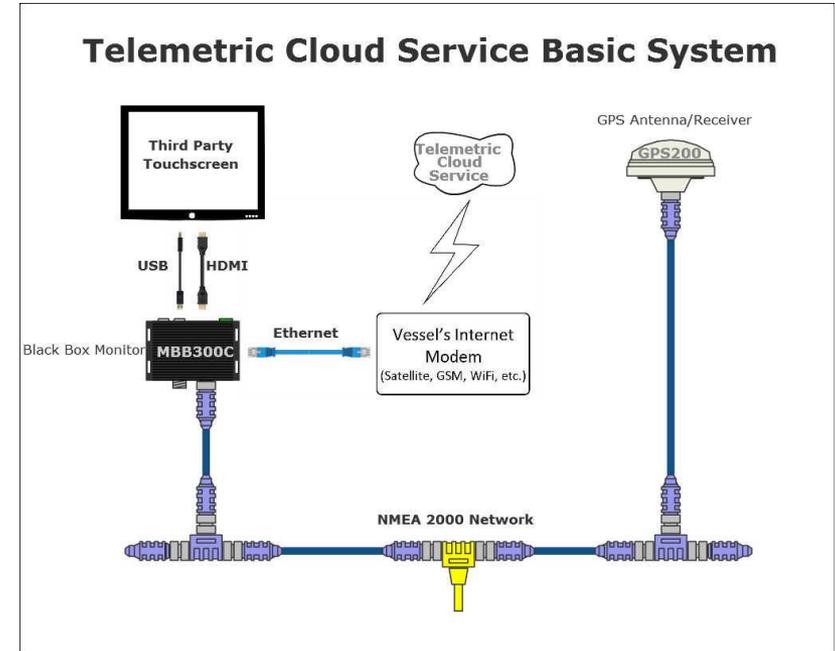


Description	Part Number	Links
USB Waterproof Cover	PX0852	Link
Waterproof Ethernet cable 16.4'	PX0837/5M00	Link
16GB USB Flash drive	M003029	Link

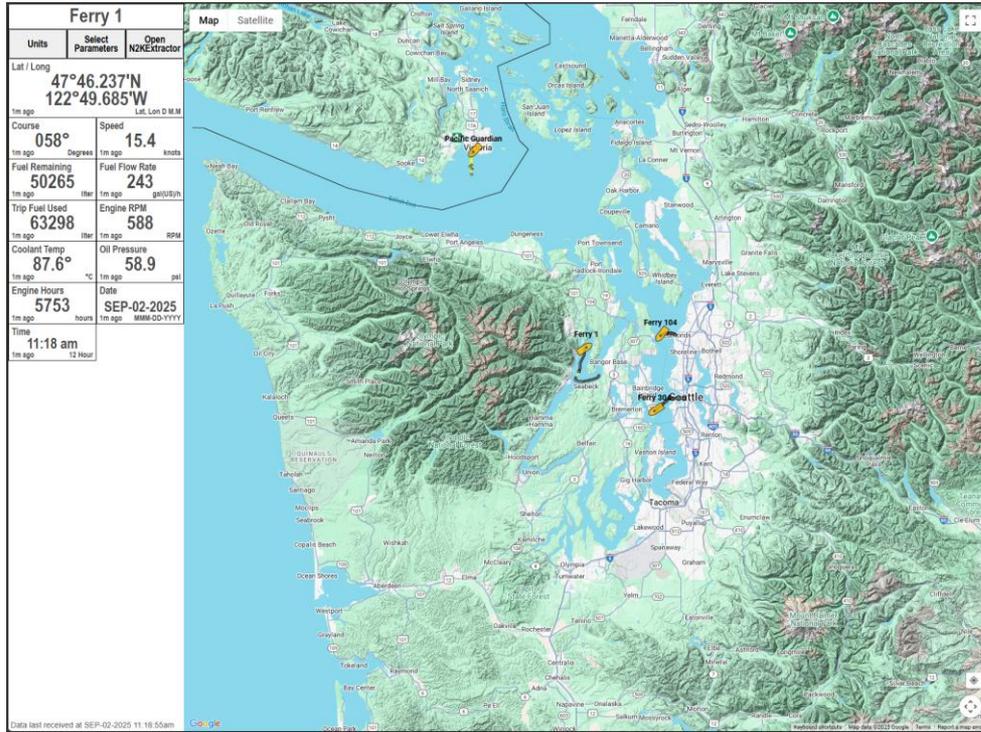
TELEMETRIC CLOUD SERVICE

User defined NMEA 2000® PGN data upload and frequency

- Vessel Tracking using mobile app N2Ktracker®.
 - ✓ Geo-fence with Text and Email Capability if Boat Leaves Selected Area
 - ✓ User Selectable Dashboard
- Vessel Management and Operations using PC software N2KExtractor®
 - ✓ Optimizing Performance
 - ✓ Scheduling Maintenance
- Available on:
 - ✓ MBB300C
 - ✓ TSM810C
 - ✓ WSV100



TELEMETRIC CLOUD SERVICE



Commercial Application



Vessel's existing internet connection



Recreational Application



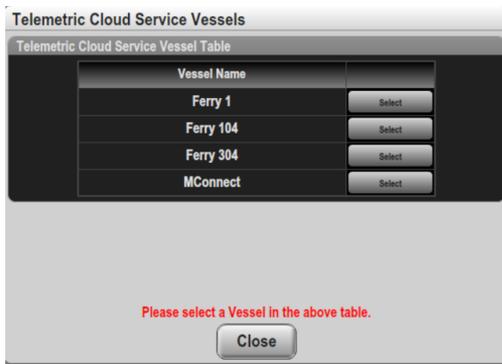
Vessel's existing internet connection



N2KEXTRACTOR® V3

- Easily select time period for extracting data with context driven timelines
- Automatically identify available parameters for data extraction within selected time period
- Quickly Graph up to four parameters for quick analysis
- Extract as many parameters as desired to comma delimited file and analysis within Microsoft Excel®
- Drag position on map and see corresponding point within time scales and graphs

[N2KExtractor Home Page](#)



File Setup Help

Presentation last saved: Just now

Zoom All

Oct-06-2024 08:00:24pm Apr-10-2025 08:51:30pm Oct-13-2025 05:42:36pm

Oct-06-2024 08:00:24pm Zoomed Context Oct-13-2025 05:42:36pm

Period to UTC + 4 hours

Parameter List Complete

Export Params

Find Params

Graph Params

Parameters Map

Available Parameters Filter

Use	Title	Label	Parameter	Unique Insta...	Source / Cha...	Units
<input type="checkbox"/>	Lat / Long		GPS: Lat / Lon	Any		Lat, Lon D M.M
<input type="checkbox"/>	Course		GPS: Course Over Ground	0		Degrees
<input type="checkbox"/>	Speed		GPS: Speed Over Ground	0		knots
<input type="checkbox"/>	Fuel Remaining		Tank: Remaining	0	Fuel	gal(US)
<input type="checkbox"/>	Fuel Flow Rate		Fluid Flow: Flow rate	0	Fuel	gal(US)/h
<input type="checkbox"/>	Trip Fuel Used		Engine: Trip Fuel Used	0		gal(US)
<input type="checkbox"/>	Engine RPM		Engine: Tachometer	0		RPM
<input type="checkbox"/>	Coolant Temp		Engine: Engine Coolant Temperature	0		°F
<input type="checkbox"/>	Oil Pressure		Engine: Engine Oil Pressure	0		psi
<input type="checkbox"/>	Engine Hours		Engine: Engine Hours	0		hours
<input type="checkbox"/>	Date		Time/Date: Date	0		MMM-DD- YYYY
<input type="checkbox"/>	Time		Time/Date: Time	0		12 Hour

Select All Unselect All Clear Add Edit Delete Move Up Move Down Load Save

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- ✓ Target Customers
- ✓ Planning, Design & Troubleshooting
- ✓ N2K Cables & Connectors
- ✓ General Monitoring
- ✓ User Interface Products
- **MConnect**
 - MPower – Digital Switching
 - OctoPlex Systems



MCONNECT

HTML Webserver

MConnect is a cutting-edge, NMEA 2000®, certified web server and screen editor.

MConnect connects to hundreds of NMEA 2000 data points on your boat and displays vessel information with visually engaging graphics on your multi-function display so you can monitor your vessel at a glance.



USER INTERFACE HARDWARE

WSV100 - Overview

Vessel Monitoring and Control Web Server

- ✓ 9-30VDC Power Supply, 1.5A MAX
- ✓ 1 x Gigabit Ethernet (HTML Web Server)
 - Garmin OneHelm, Raymarine LightHouse, Simrad, B&G, Furuno, Hatteland, Q-Experience and most devices with a browser.
 - Dual Isolated NMEA 2000® network connections
 - Navigation
 - Vessel Monitoring
- ✓ 1 x USB Port (Ethernet adapter, updates, cellular)
- ✓ 1 x RS232 Port (Future Use)
- ✓ Telemetric
- ✓ VPN



CONFIGURATION
(NEW-DEFAULT)

SCREEN
(POWER) 888 X 498

COMPONENTS
(1 OF 66)

Component	Parameter	Title	Comment
...	Digital Custom 2x1	Date / Time	Date :
...	Digital Custom 2x1	Date / Time	Time :
...	Digital 1x1	Latitude / Longitude	:
...	Digital 2x1	Vessel Mode	Vessel Mode :
...	Digital 2x1	Depth of Water	Depth :
...	Digital 2x1	Heading	Heading :
...	Digital 2x1	Variation	Variation :
...	Digital 2x1	Temperature (Outside)	Temp :
...	Screen Status 2x1	Screen Status	Home
...	Screen Status 2x1	Screen Status	Engine
...	Screen Status 2x1	Screen Status	Tanks :
...	Screen Status 2x1	Screen Status	Weathr
...	Screen Status 2x1	Screen Status	Power
...	Action Button 1x1	Invisible	Open Setting
...	Image	Image	:
...	Image	Image	:
...	Image	Image	:

SWITCH GROUPS

VESSEL DATA

ACTIONS/CONDITIONS

Undo | Redo | Save | Cancel Changes

CONFIGURATION: new-default | SCREEN: Power

16:25:25
09/02/2025

26°07.344'N
80°08.244'W

- HOME
- ENGINES
- TANKS
- WEATHER
- POWER

AWAY
Vessel Mode

FEET
8.9
Depth

°
273
Heading

°
-6.9
Variation

°C
20.2
Temperature

Maretron

Vessel Monitoring & Control

Service Battery	Inverter	AC Main
<p>VOLTS 13.6 12.1 ... 14.2</p> <p>AMPS 5.7</p> <p>80.0 % SOC</p>	<p>VOLTS 119 118 ... 122</p> <p>AMPS 17.4 Inverter Current</p> <p>60.1 Inverter Voltage Inverter Frequency</p>	<p>VOLTS 119 Generator Voltage</p> <p>AMPS 19.0 Generator Current</p> <p>60.0 Generator Hz</p>
<p>VOLTS 125 Shore Power</p> <p>AMPS 21.8 Shore Power Cur...</p> <p>59.6 Shore Power Hz</p>		
<p>Electronics</p> <p>Navigation Lights</p> <p>Refrigerator</p> <p>Steaming Light</p> <p>Water Pressure</p> <p>Anchor Light</p> <p>Saloon Lights</p> <p>Deck Lights</p> <p>Cabin Lights</p> <p>Cockpit Lights</p> <p>Red Lights</p> <p>Bilge Pump</p>	<p>Outlets Port</p> <p>Outlets Stbd</p> <p>Outlets Galley</p> <p>Microwave</p> <p>Refrigerator</p> <p>Washing Machine</p> <p>Spare</p> <p>Spare</p>	<p>Battery Charger</p> <p>Top Right AC Main</p> <p>Air Conditioning Pump</p> <p>Freezer</p> <p>Air Cond. Aft Cabin</p> <p>Air Cond. Saloon</p> <p>Air Cond. Fwd Cabin</p> <p>Watermaker</p> <p>Spare</p> <p>Spare</p>

➔

EDIT COMPONENT ID: 23

Add

Delete

Parameter: Generator - Avera

Component: Digital 2x1

Parameter Fields

Comment:

Use Label from Device:

Instance: 101

Units: Volts

Component Fields

Left: 638

Top: 97

Width: 90

Title: Generator Voltage

Format: Decimal (1 place)

Ranges:

Backplate Color: #0e0e0e

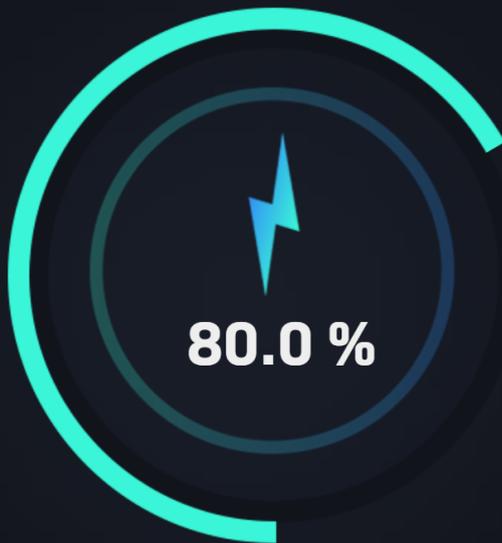
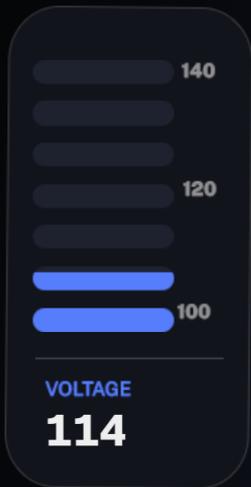
Backplate Opacity: 0

Include in screen status when ANCHORED:

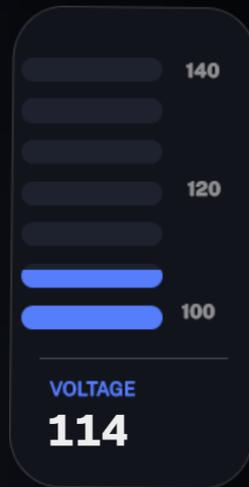
16:12

N F R

 69°



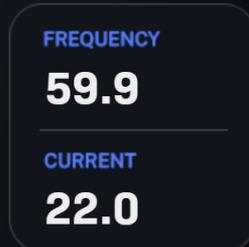
House Battery



Generator One



Generator Two



Invertor



Shore Power



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- OctoPlex Systems

MPower[®]
Digital Switching Platform



MPOWER

Family Overview



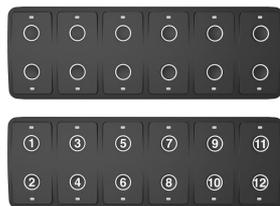
CLMD12
12-Channel DC Load Controller Module



CBMD12
12-Channel Manual Bypass Module



CLMD16
16-Channel DC Load Controller Module



CKM Series
12-Button Keypad



VMM Series
6 Rocker Contura Series
Digital Switch Module



RKF-001
12-Button Keypad

TARGET CUSTOMERS – DIGITAL SWITCHING

Small – Center Console



Medium – Sail & Power



Large – Super Yacht & Commercial



MPower – Digital Switching – System Agnostic

Octoplex – Digital Switching & Monitoring – System Agnostic

Empirbus - Garmin

Raymarine – Yachtsense

Tank, Battery, bilge monitoring as well full digital control

Navigation, climate, hydraulic, pumps, motors, AC and DC circuits

Larger Networks, Redundancy, Lloyds Certification

CLMD12 OVERVIEW

Digital Switching Module

- 12 Outputs
 - Two (2) loads at 12A max each
 - Six (6) loads at 10A max each
 - Four (4) loads at 5A max each
 - Max Current Capacity of **75A**
 - 7 Hardwired Inputs (Active High, Active Low or Both)
 - Can be used to switch breaker states or as inputs for other data such as bilge alarms, hatch positions indication or Battery Voltage transmission onto the NMEA 2000 network
 - Voltage Input 6.5 to 32 VDC
 - Provides fast switching with:
 - Low loss solid state On/Off functions
 - Accurate current measurement (0.5A)
 - Pulse Width Modulation (PWM)
 - Real-time fault monitoring for all 12 loads, including:
 - Short circuit/Over current
- IP67 rated
 - Small form factor
 - Ignition Protected
 - Voltage back feed blocking via dual FETs topology
 - Loads can be paralleled for larger applications
 - A cost-effective solution for vessels of all sizes \$\$\$



CBMD12 OVERVIEW

Manual Bypass Module

When used in conjunction with the CLMD12, the bypass module provides manual control of the loads in case of system failures.

- 75 Amps maximum current capacity
- Two (2) outputs capable of carrying up to 12A
Six (6) outputs capable of carrying up to 10A
Four (4) outputs capable of carrying up to 5A
- 12V and 24V DC power systems
- Carling Technologies Corvette® Rocker Switches
- Overcurrent protection via ATC standard fuses



CLMD16 OVERVIEW

Digital Switching Module

- 16 Outputs + 1 x 300mA Output
 - Four (4) loads at **25A** max each
 - Twelve (12) loads at **12A** max each
 - Max Current Capacity of **125A**
- 11 Hardwired Inputs (Active High, Active Low or Both)
 - Eight voltage sensing inputs (Can be used for general electromechanical switch integration or for logic applications such as position sensing)
 - Two resistive inputs (Can be used for tank monitoring)
 - One 4-20mA input (Can be used for tank monitoring or industrial control type sensors)
- Voltage Input 6.5 to 32 VDC
- Provides fast switching with:
 - Low loss solid state On/Off functions
 - Accurate current measurement (0.5A)
 - Real Time Fault Monitoring
 - Pulse Width Modulation (PWM)
- Real-time fault monitoring for all 16 loads, including:
 - Short circuit, Over current, thermal, load shed
- Voltage back feed blocking via dual FETs topology
- Supports reversing currents such as engine hatches, pass rails, trim tabs, etc.
- Loads can be paralleled for larger applications
 - Maximum current rating when multiple breakers are paralleled is typically 180% of the single channel rating. (Example: 45A maximum for two 25A breakers in parallel).
- Local override capacitive touch switches for manual control
- Built-in NMEA 2000® redundancy
- Ignition Protection



CLMD COMPARISON

Product Comparison



FEATURE	CLMD12	CLMD16
Output Channels	12 (2@12A, 6@10A, 4@5A)	16 (4@25A, 12@12A)
Input Channels	7	11 (8 Mechanical, 3 Tanks)
Total Max Current	75A	125A
Manual Override	CBMD12	LOCAL
NMEA2000 Connectors	1	2 - Isolated
I/O Connector Type	DEUTSCH	DEUTSCH
Parallel Channels	YES, ALIKE CHANNELS	YES, SELECT CHANNELS
H-Bridge Circuits	N/A	YES, SELECT CHANNELS
Load Shedding	N/A	YES
IP Rating	IP67	IP67
Ignition Protection	YES	YES
Certification and Compliance	NMEA2000®, CE	NMEA2000®, CE
Dimensions W,H,D	144.8mm x 127mm x 40.6mm	279.4mm x 190.0mm x 47.5mm

VMM6 OVERVIEW

6 Rocker Multiplexed Switch Module

- The VMM-Series is a sealed, multiplexed switch module featuring the Carling V-Series Contura® rocker switch style (IP68 Sealing Protection)
- Operating voltage same as an NMEA 2000® network
 - Min: 9.5VDC
 - Max: 15.4VDC
- Max Current Operation: 300mA (LEN: 6)
- Programmed via Maretron gateway (USB100 or IPG100) paired with PC running N2KAnalyzer® V3
- Electrical Endurance Minimum 250,000 Operations
- Illumination uses Single-Color Blue LED
- Connector: Deutsch DT-Series 6 pin connector to NMEA 2000® (Maretron Part #: A3702, provided)



ROCKERS

Variety of V-Series



Back View

SNAP-IN MOUNTING
For fast, easy assembly.

6 PIN CONNECTOR
Mates to the Deutsch DT-Series Connector.

4 PIN CONNECTOR
Reserved for future use.

INTERFACE ADAPTER CABLE
Deutsch to CAN
(Part #: A3702)



Cable Length
7.87 in (0.2 meter)

ROCKERS FOR DISTRIBUTORS

Standard Options

- Prices vary depending on rocker type

A3801-1 Contura II (ALL Position Momentary ON)

A3801-2 Contura II (Position #6 is 3 Position (NAV/ANC))

A3801-3 Contura V (All Positions Momentary ON)

A3801-4 Contura V (Position #6 is 3 Position (NAV/ANC))

A3801-5 No Actuators (ALL 6 Positions Momentary ON)

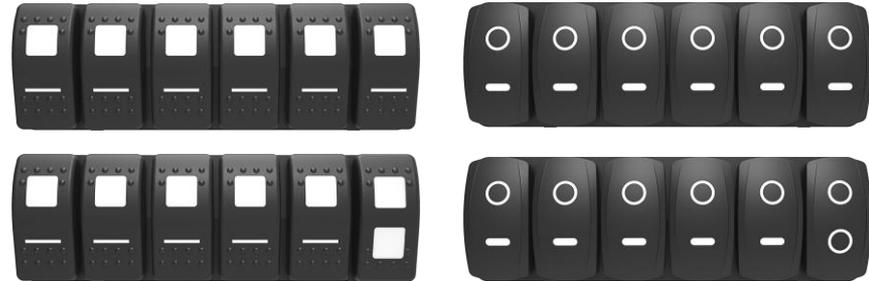
A3801-6 No Actuators (Position #6 is 3 Position (NAV/ANC))

VMM-00000007 No Actuators (Accessories NOT included ALL Positions Momentary ON)

VMM-00000008 No Actuators (Accessories NOT included ALL Positions are 3 Position)

Special Icon (Not Standard)

- Prices vary based off configuration
- New laser etched symbol setup charge will apply
- Minimum order quantity (MOQ): 100 pieces



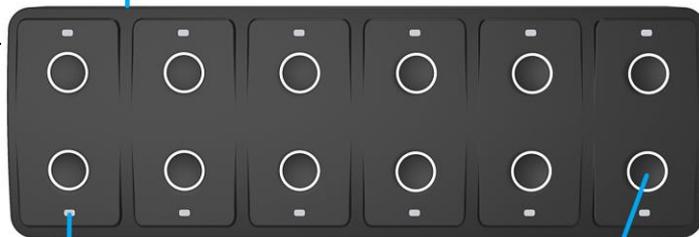
CKM12 OVERVIEW

12 Button Keypad

- The CKM-Series is a keypad featuring laser etched legends. Function LEDs provide diagnostics when fault conditions are detected
- IP6K9K Front Panel, IP68 Back Panel Sealing Protection
- Operating voltage same as an NMEA 2000® network
 - Min: 9.5VDC
 - Max: 15.4VDC
- Sleep mode draws less than 1.5mA throughout the supply voltage range and wakes on keypress or CAN message
- Programmed via Maretron gateway (USB100 or IPG100) paired with PC running N2KAnalyzer® V3
- Electrical Endurance: Each button functions for at least **1,000,000 actuations**
- Connector: Deutsch DT-Series 6 pin connector to NMEA 2000® (Maretron Part #: A3703, provided)

LOW PROFILE DESIGN
0.57 inch (14.48 mm) thickness

SEALING PROTECTION
Fully sealed IP69 front panel



LED FUNCTION LIGHTS

CUSTOMIZEABLE ICONS
Choose from our standard library of icons or use custom icons



SEALING PROTECTION
Fully sealed IP68 back panel when connected

CONNECTOR
Mates to the Deutsch DT-Series Connector

10-32 MOUNTING STUDS (2x)
Max tightening torque 30 inch pounds

INTERFACE ADAPTER CABLE
Deutsch to CAN
(Part #: A3703)

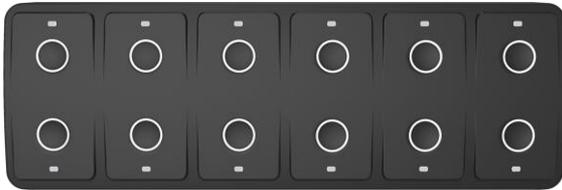


KEYPADS FOR DISTRIBUTORS

Standard Options

A3802-1 Ring on each Button

A3802-2 Number in center of Ring on each Button
(Horizontal installation)



Special Icon (Not Standard)

- Prices vary based off configuration
- New laser etched symbol setup charge will apply
- Minimum order quantity (MOQ): 100 pieces

RKF-001 OVERVIEW

Remote Key Fob

The RKF-001 *Remote Key Fob* offers a reliable and secure solution for a wide range of general-purpose analog input applications. Designed with robust RF communication and user-friendly operation.

- 4 Button - FM Remote Control System for reliable operation.
- Keeloq™ - High Security protocol for enhanced protection.
- Range: Up to 60 meters
- Waterproof transmitter with an IP68 rating for durability.
- Receiver operates on: 12 or 24V DC Supply.
- Relay Changeover Outputs with a capacity of 5A @ 230V AC.
- Convenient installation through screw terminals.
- Choose between Momentary or Latching Outputs for customized control
- Easy integration into the NMEA 2000® network via:
 - Maretron RIM100, SIM100
 - MPower CLMD12, CLMD16
 - OctoPlex SIU

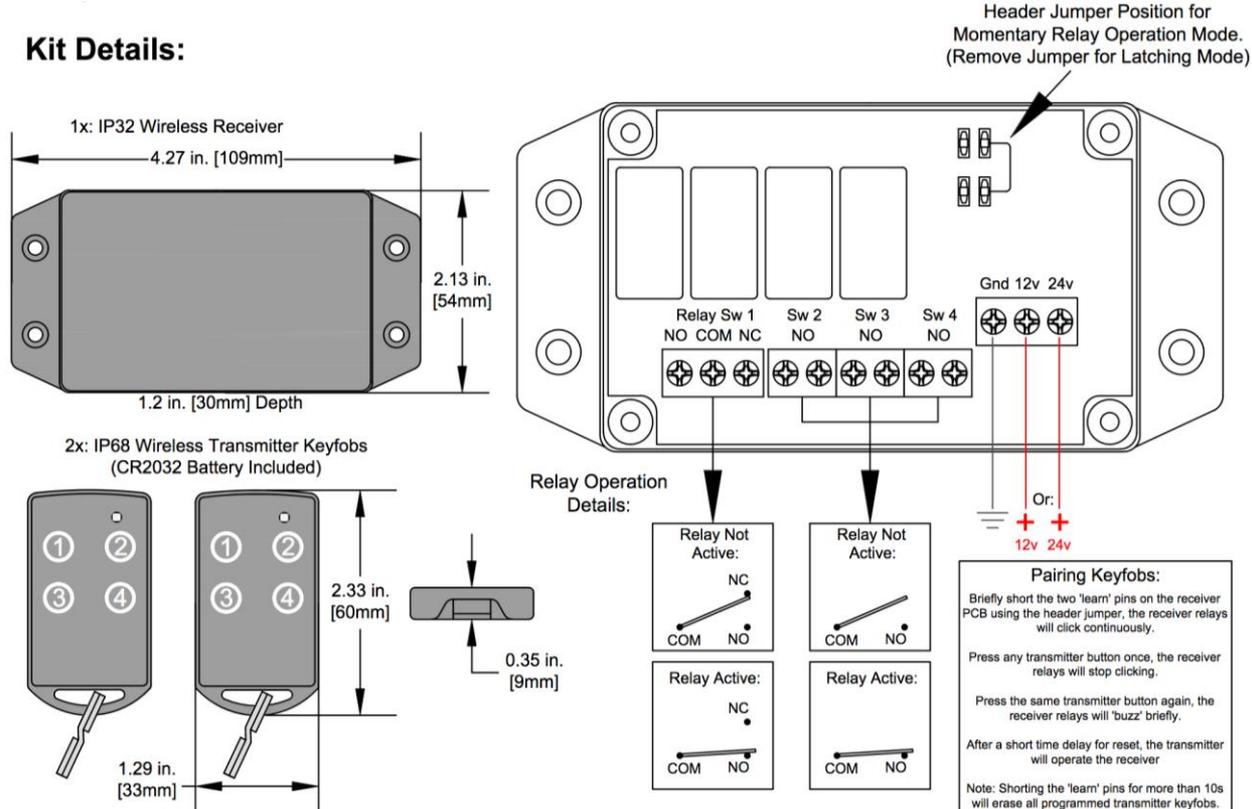


[RKF-001 Datasheet](#)
[Installation Instructions](#)

RKF-001 OVERVIEW

Kit Details

Kit Details:



RKF-001 OVERVIEW

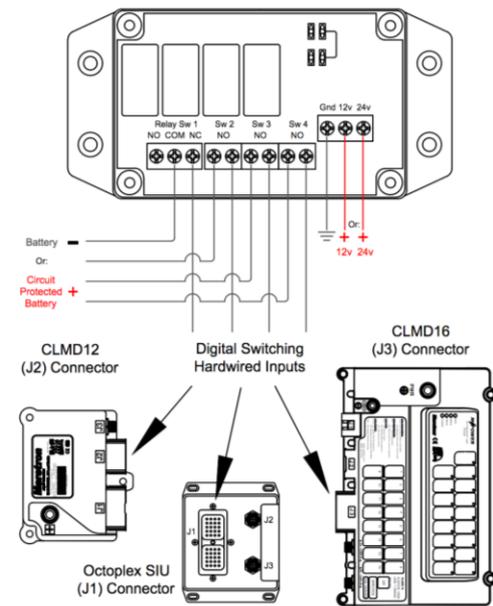
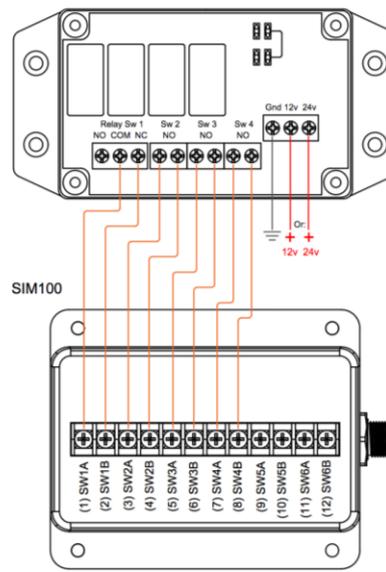
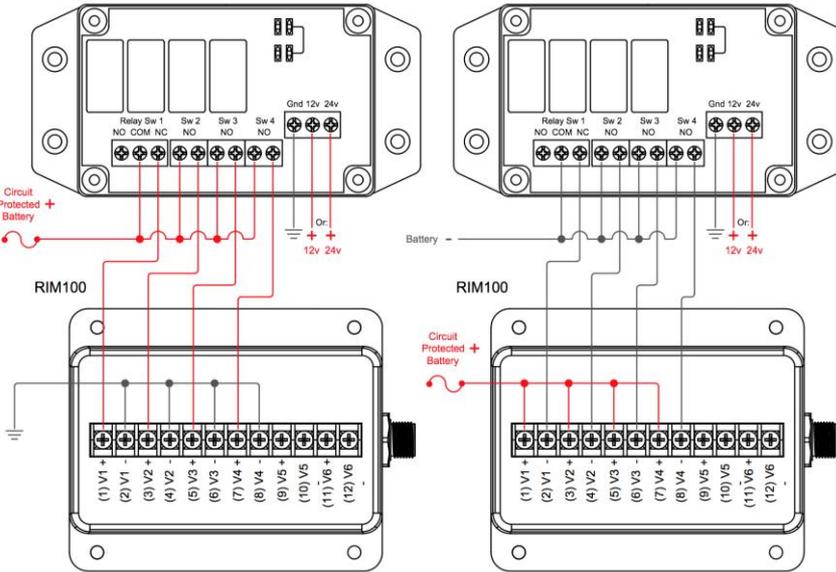
Wiring Schemes

Wireless Receiver

Wireless Receiver

Wireless Receiver

Wireless Receiver



Note: When wiring RKF100 to RIM100, the channels can receive DC (+) on all channels, DC (-) on all channels, or any combination of both DC (+) and DC (-) signals.

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OctoPlex[®]

Power Distribution System



Intelligence for Greater Performance

The OctoPlex® system puts the user in complete control of all AC and DC loads within the vessel. Utilizing an NMEA 2000® CAN bus network, system reliability and safety are achieved through a redundant architecture that eliminates single point failures.



1 Battery Monitor



2 AC Power Distribution Unit
8, 13 and 19 Position



3 AC Power Monitor



4 System Interface
Unit Monitor (SIU)



5 Network Power Supply



6 DC Power Distribution Unit
8 and 16 Position



7 Multi-Function Display



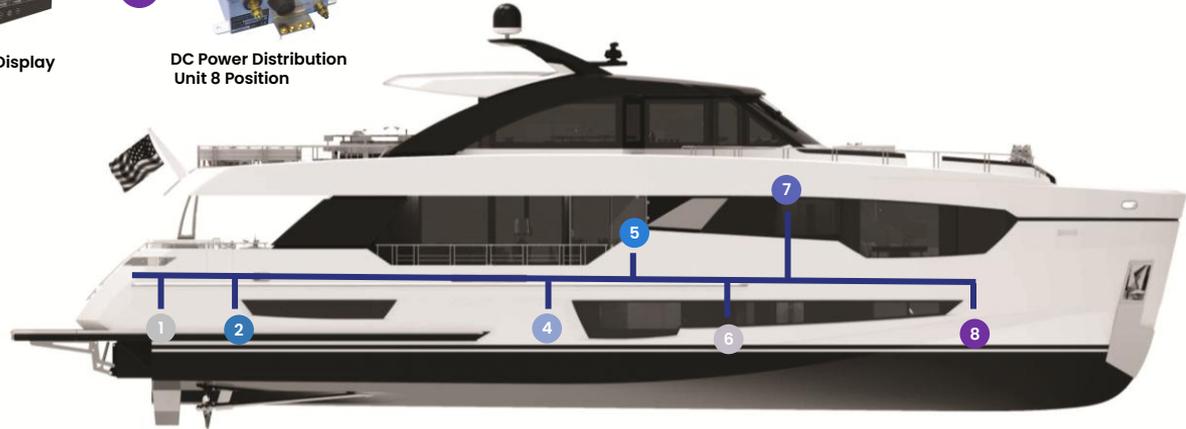
8 DC Power Distribution Unit
8 Position



Remote Vessel Monitoring via
Maretron N2KView® Software



Web Server



Maximum Safety & Reliability

System Features & Benefits

- Redundant architecture eliminates single point failures
- Extensive monitoring capabilities:
 - User defined alarms
 - Bilge areas & tank levels
 - Battery & AC source status
 - Engine & generator status
- Field replaceable circuit breakers
- Fully configurable (via Multi Function Display)
- Reduces weight & mass by less wires
- Increases space by eliminating traditional breaker panels
- Adds value & reduces overall cost



AC Power Distribution Box

The AC Power Distribution units provide the boat builder with up to 8, 13 or 19 remotely controlled hydraulic-magnetic circuit breakers in one package that can be mounted virtually anywhere in the vessel.



Product Highlights:

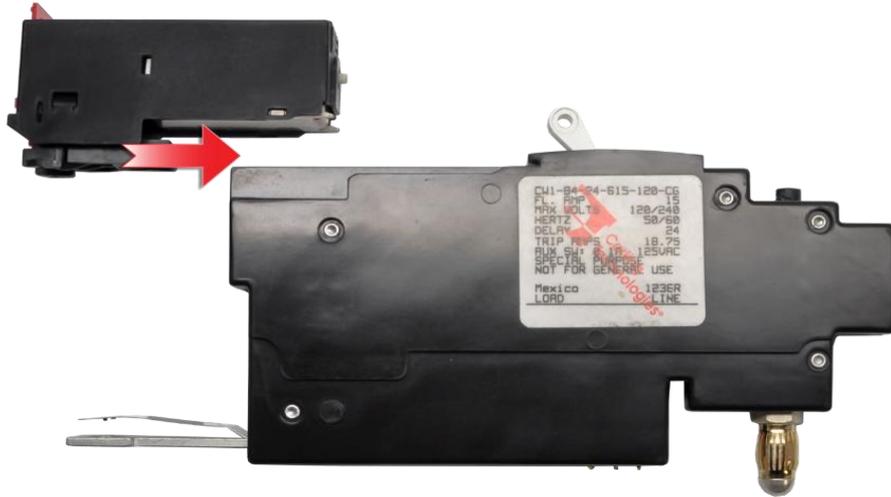
(8 Position Unit)

- 50 Amps Maximum Capacity
- Remote Actuation of Breakers
- Dual CAN BUS Communication

(13/19 Position Unit)

- 100 Amps Maximum Capacity
- Remote Actuation of Breakers
- Dual CAN BUS Connection/Communication
- Three Phase Power Capability;
120/208VAC or 230/415VAC

AC Circuit Breaker & Remote Actuator



Hydraulic-magnetic circuit breakers provide highly precise, reliable and cost-effective solutions to most design challenges. Hydraulic-magnetic circuit breakers are considered temperature stable and are not appreciably affected by changes in ambient temperature. Their overcurrent sensing mechanism reacts only to changes of current in the circuit being protection

The C-Series is configurable as an up to 100 amps

Agency Approvals: UL 489, UL 489A, UL 1077, UL 1500, UL 508, CSA Accepted, CSA Certified, TUV and VDE certified to IEC/EN 60934, TUV certified to IEC/EN 60947-2, CCC

Amperage: Maximum 100 amps

Voltage: Up to 480VAC; Up to 240VAC for UL 489

Maximum Interrupting Capacity: 10,000 amps

AC Box Configuration

Specifications

Configuration of an OctoPlex® AC Unit and its associated functions can be performed running a licensed version of N2K Analyzer on a computer with a CAN interface. Consult the N2K Analyzer User's Guide for complete details on adjusting configurable parameters. AC box configuration settings are initially loaded and controlled with the N2K Analyzer utility and contained in xml Files. The parameters below can be modified by using the Multi-Function Display.

SPECIFICATIONS

PARAMETER	SETTING	DESCRIPTION
Default State	ON, OFF, Last State	Circuit breaker state on network power up
Default Lock State	Locked or Unlocked on Network Power up	Lock state on network power up
State	ON or OFF	Last known state on network power up
Configuration Allowed	YES or NO	Allow user to modify Circuit Breaker via Multi-Function Display
Alarm on Trip	YES or NO	Audible alarm when breaker trips

DC Power Distribution Box

The eight and sixteen DC Power Distribution units are multiprocessor-based design rated for up to 100 Amps max. The Electronic Circuit Breakers (ECBs) can be configured to provide protection for DC loads up to 30 Amps.



Product Highlights (8 Position Unit)

- Eight ECB's rated at up to 30 Amps
- Dual CAN BUS Communication

(16 Position Unit)

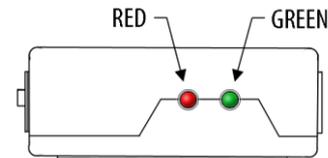
- Eight ECB's rated at up to 30 Amps
- Eight ECB's rated at up to 15 Amps
- Dual CAN BUS Communication

Electronic Circuit Breaker

(ECB)



- ◆ 12 & 24 VDC operation
- ◆ Current & voltage monitoring
- ◆ Configurable trip current to 30A
- ◆ Configurable trip delay up to 750 ms
- ◆ Configurable in-rush delay up to 1500 ms
- ◆ Status indicating LEDs



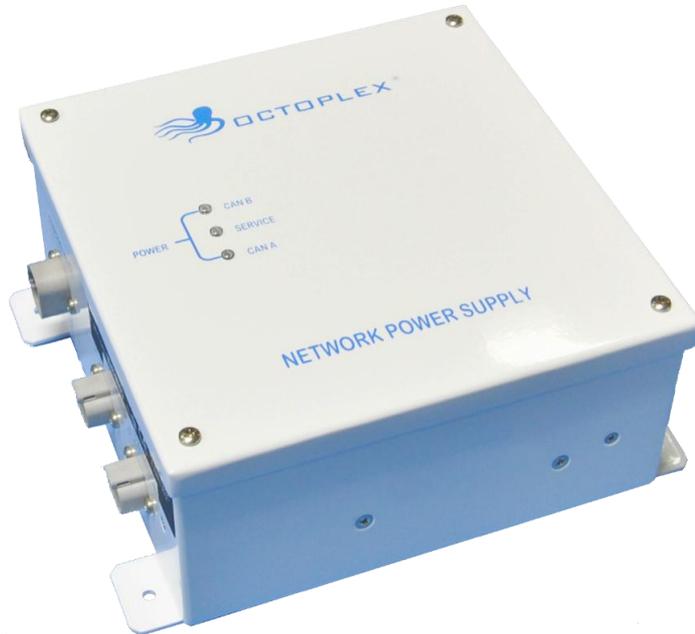
DC Box/ECB Configuration

Configuration of an OctoPlex® DC Unit and its associated ECBs can be performed via N2K Analyzer configuration software. A licensed copy of N2K Analyzer provides access to all configurable aspects of a DC Unit and its ECB's

PARAMETER	SETTING	DESCRIPTION
Default State	ON or OFF	ECB state on device power up
Default Lock State	ON or OFF	Lock state on device power up
Current Setting	0 - 15/30A	ECB selected load rating
Default Dim %	0 - 100%	% of DIM on power up
Trip Delay	0 - 750ms	Trip delay
Inrush Delay	0 - 1500ms	Inrush delay
Factory Current Rating	0 - 15/30A	Max allowed ECB setting
Dimming Allowed	YES or NO	Enable / Disable
Configuration Allowed	YES or NO	Configuration via Multi-Function Display

Network Power Supply

The Network Power Supply (NPS) provides regulated +15 VDC to the OctoPlex dual CAN network system. The power supply utilizes one AC and two DC power inputs for redundancy.



Product Highlights:

- 120 VAC Input Power (Carling P/N A3205-1)
- 230VAC Input Power (Carling P/N A3205-2)
- +24V DC Input Power
- Dual CAN Bus Connection/Communications
- 7.5 amp Thermal breakers for each 15 volt output
- Network Health LED Status Indicators

Battery Monitor

The Battery Monitor is capable of measuring one (1) Current, two (2) DC Voltages, and up to four (4) individual battery temperatures. The Battery Monitor Cable Harness (P/N A2225-[], see Table 1 and 2) enables the monitor to connect to the batteries.



Product Highlights:

- Capable of Monitoring the following:
 - Current Measurement
 - Two (2) DC Voltage Measurements
 - Four (4) Temperature Measurements
- Configurable Alerts/Alarms
- Single CAN BUS Communication

AC Power Monitor

The AC Monitor measures the voltage, current and frequency of up to four (4) Single phase single Line AC inputs, two (2) Single Phase Dual Line AC inputs, or one (1) Three phase Three Line AC input. The AC Monitor utilizes dual CAN connections for redundancy.



Product Highlights:

Capable of Monitoring the following:

- Four (4) Single Phase Single Line AC Input
- Two (2) Single Phase Dual Line AC Inputs
- One (1) Three Phase Three Line AC Input
- Dual CAN BUS Communication

System Monitor

System Interface Unit - SIU

The SIU allows the user to interface with up to 34 DC signals to the OctoPlex system for status information and monitoring purposes.

Product Highlights:

34 digital Signal Interface

- Discrete I/O Functions
 - Control AC Breakers
 - Control DC Breakers
 - DC Light Dimming Control
 - Time Interval On/Off
- Active high and active low states
- Can activate alarms





Image courtesy of Ocean Alexander



Component	Part Number	Qty Ordered	Addition al Qty	Qty TOTAL	List Price	Net Price	Sub-Total	Notes
OctoPlex Devices								
Gen2 - AC Power Distribution Box - 13 x 1-Pole Position 120Vac with Main Breaker - (Breakers sold separately)	A3000-13-1M	2		2	\$2,395.00	\$2,096.50	\$4,193.00	
Gen2 - AC Power Distribution Box - 13 x 1-Pole Position 120V 208Vac with Main Breaker 3-Phase TVSS - (Breakers sold separately)	A3000-13-3M	1		1	\$2,395.00	\$2,096.50	\$2,096.50	
Gen2 - AC Power Distribution Box - 19 x 1-Pole Position 120Vac with Main Breaker - (Breakers sold separately)	A3000-19-1M	1		1	\$3,295.00	\$2,906.50	\$2,906.50	
Gen2 - AC Power Distribution Box - 19 x 1-Pole Position 120V 208Vac with Main Breaker 3-Phase TVSS - (Breakers sold separately)	A3000-19-3M	6		6	\$3,295.00	\$2,906.50	\$13,239.00	
Gen 2 - AC Breaker Solenoid	8CH-4000-27	172		172	\$3.50	\$24.50	\$4,214.00	
Gen2 - DC Power Distribution Box, 8 Position, CE - (Breakers sold separately)	A3350	1		1	\$2,160.00	\$1,526.00	\$1,526.00	
Gen2 - DC Power Distribution Box, 16 Position, CE - (Breakers sold separately)	A3355	2		2	\$2,628.00	\$1,927.50	\$3,855.00	
DC Electronic Circuit Breaker (ECB) used in Gen1 & Gen2	A1660	40		40	\$15.00	\$80.50	\$3,220.00	
28 Channel Load Control Module - 17 Output Channels, 11 Input Channels - Does not include cables and connectors	CLMD16	5		5	\$1495.00	\$1046.50	\$5,232.50	
Gen1 - SIU (System Interface Unit) - 14 inputs to NMEA2000	A3478	2		2	\$1145.00	\$801.50	\$1,603.00	
Gen1 & Gen2, Vessel Monitoring Black Box (Maretron MBS300C)	A3418	2		2	\$1,795.00	\$1,256.50	\$2,513.00	
Gen2 - Network Power Supply 120Vac	A3205-1	1		1	\$2,345.00	\$2,061.50	\$2,061.50	
Gen2 - Battery Monitor (Cables are not included)	A3380	3		3	\$650.00	\$95.00	\$1,785.00	
Gen1 & Gen2, Battery Monitor Cable set, 16ft	A2225-16	1		1	\$245.00	\$81.50	\$114.50	
Gen1 & Gen2 - DC PD/VER ISOLATOR, 2 CIRCUITS - Prevents backfeed	A1835	4		4	\$395.00	\$276.50	\$1,106.00	
Battery Shunt 1000 Amp, 50 Millivolt	RSC-1000-50	3		3	\$168.00	\$117.60	\$352.80	
Deutsch Mating Connector(s)								
Deutsch Connector - Wedge lock for use with DT06-2S-E008	V12S		5	5	\$2.00	\$140	\$7.00	
J1 back shell, 12 pin	W28-043-1205		5	5	\$5.00	\$35.00	\$17.50	
Deutsch Connector - CLMD16 J3 Mating connector	DP226-245A		5	5	\$90.00	\$35.00	\$176.00	
J3 connector seal plus, 24 pin	0413-204-2005		120	120	\$3.00	\$2.10	\$252.00	
NMEA Cables & Connectors								
								See Tab for NMEA Cables & Connectors Details
								\$108.50
Maretron Devices								
								See Tab for Maretron Devices Details
								\$9,780.40
AC Breaker Summary								
Single-Pole AC Circuit Breakers		150		150				
CV1 Summary		86		86				
Gen 2 AC Circuit Breaker - 1 Pole 120VAC, 5 Amps Medium Trip Delay	CV1E4-24-450-10-KG	1		1	\$47.00	\$32.90	\$32.90	
Gen 2 AC Circuit Breaker - 1 Pole 120VAC, 10 Amps Medium Trip Delay	CV1E4-24-610-10-KG	6		6	\$47.00	\$32.90	\$197.40	
Gen 2 AC Circuit Breaker - 1 Pole 120VAC, 15 Amps Medium Trip Delay	CV1E4-24-615-10-KG	52	3	55	\$47.00	\$32.90	\$1,809.50	
Gen 2 AC Circuit Breaker - 1 Pole 120VAC, 15 Amps Long Trip Delay	CV1E4-26-615-10-KG	52	2	54	\$2.00	\$32.90	\$85.80	
Gen 2 AC Circuit Breaker - 1 Pole 120VAC, 20 Amps Medium Trip Delay	CV1E4-24-620-10-KG	6		6	\$47.00	\$32.90	\$197.40	
Gen 2 AC Circuit Breaker - 1 Pole 120VAC, 20 Amps Long Trip Delay	CV1E4-26-620-10-KG	2		2	\$47.00	\$32.90	\$65.80	
Gen 2 AC Circuit Breaker - 1 Pole 120VAC, 25 Amps Medium Trip Delay	CV1E4-24-625-10-KG	1		1	\$47.00	\$32.90	\$32.90	
Gen 2 AC Circuit Breaker - 1 Pole 120VAC, 40 Amps Medium Trip Delay	CV1E4-24-640-10-KG	2	8	10	\$47.00	\$32.90	\$329.00	
Gen 2 AC Circuit Breaker - 1 Pole 120VAC, 50 Amps Medium Trip Delay	CV1E4-24-650-10-KG	1		1	\$47.00	\$32.90	\$32.90	
Gen 2 AC Circuit Breaker - 1 Pole 120VAC, 100 Amps Medium Trip Delay	CV1E4-24-910-10-KG	2		2	\$47.00	\$32.90	\$65.80	
Double-Pole AC Circuit Breakers								
CV2 Summary		51		51				
Gen 2 AC Circuit Breaker - 2 Pole 120/240VAC, 10 Amps Medium Trip Delay	CV2E4-24-610-10-CG	2		2	\$95.00	\$66.50	\$133.00	
Gen 2 AC Circuit Breaker - 2 Pole 120/240VAC, 15 Amps Medium Trip Delay	CV2E4-24-615-10-CG	3		3	\$95.00	\$66.50	\$199.50	
Gen 2 AC Circuit Breaker - 2 Pole 120/240VAC, 20 Amps Medium Trip Delay	CV2E4-24-620-10-CG	5		5	\$95.00	\$66.50	\$332.50	
Gen 2 AC Circuit Breaker - 2 Pole 120/240VAC, 20 Amps Long Trip Delay	CV2E4-26-620-10-CG	3	2	5	\$95.00	\$66.50	\$133.00	
Gen 2 AC Circuit Breaker - 2 Pole 120/240VAC, 25 Amps Medium Trip Delay	CV2E4-24-625-10-CG	3		3	\$95.00	\$66.50	\$189.50	
Gen 2 AC Circuit Breaker - 2 Pole 120/240VAC, 30 Amps Medium Trip Delay	CV2E4-24-630-10-CG	11		11	\$95.00	\$66.50	\$731.50	
Gen 2 AC Circuit Breaker - 2 Pole 120/240VAC, 40 Amps Medium Trip Delay	CV2E4-24-640-10-CG	6	2	8	\$95.00	\$66.50	\$532.00	
Gen 2 AC Circuit Breaker - 2 Pole 120/240VAC, 50 Amps Medium Trip Delay	CV2E4-24-650-10-CG	1	8	9	\$95.00	\$66.50	\$532.00	
Gen 2 AC Circuit Breaker - 2 Pole 120/240VAC, 60 Amps Medium Trip Delay	CV2E4-24-660-10-CG	2		2	\$95.00	\$66.50	\$133.00	
Gen 2 AC Circuit Breaker - 2 Pole 120/240VAC, 70 Amps Medium Trip Delay	CV2E4-24-670-10-CG	2	3	5	\$95.00	\$66.50	\$189.50	
Gen 2 AC Circuit Breaker - 2 Pole 120/240VAC, 80 Amps Medium Trip Delay	CV2E4-24-680-10-CG	4	4	8	\$95.00	\$66.50	\$532.00	
Three-Pole AC Circuit Breakers								
CV3 Summary		13		13				
Gen 2 AC Circuit Breaker - 3 Pole 120/208VAC, 15 Amps Medium Trip Delay	CV3E4-24-615-10-07C	2		2	\$145.00	\$101.50	\$203.00	
Gen 2 AC Circuit Breaker - 3 Pole 120/208VAC, 20 Amps Medium Trip Delay	CV3E4-24-620-10-07C	1		1	\$145.00	\$101.50	\$101.50	
Gen 2 AC Circuit Breaker - 3 Pole 120/208VAC, 30 Amps Medium Trip Delay	CV3E4-24-630-10-07C	1		1	\$145.00	\$101.50	\$101.50	
Gen 2 AC Circuit Breaker - 3 Pole 120/208VAC, 50 Amps Medium Trip Delay	CV3E4-24-650-10-07C	1		1	\$145.00	\$101.50	\$101.50	
Gen 2 AC Circuit Breaker - 3 Pole 120/208VAC, 80 Amps Medium Trip Delay	CV3E4-24-680-10-07C	1		1	\$145.00	\$101.50	\$101.50	
Gen 2 AC Circuit Breaker - 3 Pole 120/208VAC, 100 Amps Medium Trip Delay	CV3E4-24-910-10-07C	7		7	\$145.00	\$101.50	\$710.50	

\$69,749.10 TOTAL PRICE

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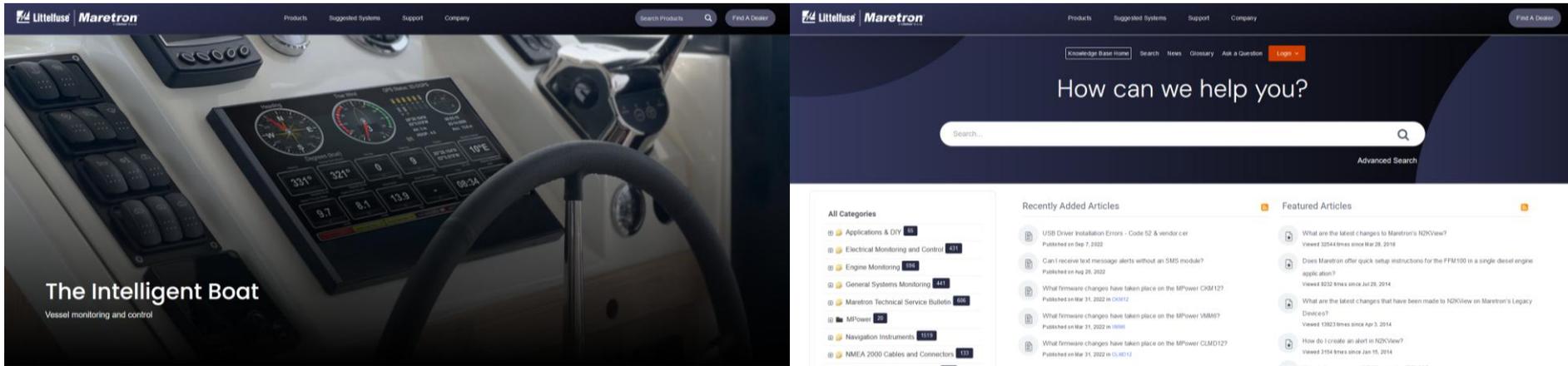
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CONFIGURATION

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www.Maretron.com

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Overview

Applications

Documentation

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— Videos



N2KAnalyzer Introduction - Part I

9C	Maretron	SSC200	1120707	0	Primary Heading	5.0.3	5.0.4.1	Midship	Installed 2013
A0	Maretron	IK2100	1241404	0	ICE Maker	1.0.13.2	1.2.1.1		Installed 2013
8A	Garmin	GPS17x-NME...	3431140010	3		2.40			
30	Maretron	GPS100	1140232	2		1.6.13.0	2.3.0.1	Backup 1	Installed 2013
7C	Maretron	TLM100	1500082	0	Fresh Water	1.1.6	1.1.8.3		Installed 2013
74	Maretron	TLM150	1529901	0	Fuel	1.1.6	1.1.8.3	Tender Gasoline T...	Installed 2013
85	Maretron	WSO100	1201734	0	Wind Sensor	2.0.13	2.0.13		Installed 2013
72	Maretron	DST110	*	0		1.003.1.0...	-	Port Sounder	Installed 2013
71	Maretron	ALM100	1469902	5	Engine Room	1.0.6	1.0.6	Engine Room	Installed 2013
2D	Maretron	GPS200	15266	0	Primary	3.5	3.7.1.1	Primary GPS Ante...	Installed 2013
CF	Maretron	DCM100	1400046	1	N2Kpower	1.0.4	1.0.5.2	System Power	Installed 2013
71	Maretron	TLM200	1540111	2	Fuel	1.1.6	1.1.8.3		Installed 2013
23	Armar	HT200	11902103	2		4.000.4.0...	-	Sea water temp	Installed 2013
26	Maretron	VDR100	1760014	0	Primary Data Rec...	2.0.0.4	3.0.3.1	Connected Fuel Bu...	Installed 2013
08	Lowrance Etc...	EP-DOS	316	5		1.0.0.50...	-		
1A	Maretron	ALM100	1460041	0	Dark Alarm	1.0.6	1.0.6	Located Abnove Pa...	Installed 2013



N2KAnalyzer Introduction - Part II

M250	1.0		1300176	1	Deck Display	1.4.17.5	1.6.3.4		Installed 2013
C20	1.0		1389904	0	Primary Heading	5.0.3	5.0.4.1	Midship	Installed 2013
CM100	1.0		1389904	0	A/C Bus	1.0.8.2	1.0.9.2	Main A/C Bus A	Installed 2013
C100	1.0		1241404	0	ICE Maker	1.0.13.2	1.2.1.1		Installed 2013
S17x-NME...	1.00		3431140010	3		2.40			
S100	1.1		1140232	2		1.6.13.0	2.3.0.1	Backup 1	Installed 2013
M100	1.0		1500082	0	Fresh Water	1.1.6	1.1.8.3		Installed 2013
M150	1.0		1529901	0	Fuel	1.1.6	1.1.8.3	Tender Gasoline T...	Installed 2013
SO100	2.0		1201734	0	Wind Sensor	2.0.13	2.0.13		Installed 2013
IT110	D235-S1-TS-A-02/06	*		0		1.003.1.0...	-	Port Sounder	Installed 2013
M100	1.0		1469902	5	Engine Room	1.0.6	1.0.6	Engine Room	Installed 2013
S200	2.0		15266	0	Primary	3.5	3.7.1.1	Primary GPS Ante...	Installed 2013
CM100	1.0		1400046	1	N2Kpower	1.0.4	1.0.5.2	System Power	Installed 2013
M200	1.0		1540111	2	Fuel	1.1.6	1.1.8.3		Installed 2013

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Technical Support

Maretron Technical Support (Maretron, MPower and OctoPlex Brands)

Monday – Friday 830am - 5pm (EST)

End-User Support: (603) 324-7900

Inquiries & RMAs



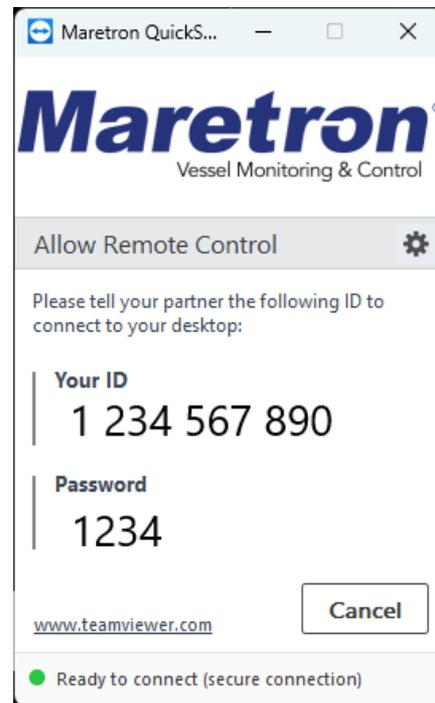
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