

IPG100 *Internet Protocol Gateway*

The Internet Protocol Gateway (IPG100) lets you connect Maretron black boxes (MBB100's), Maretron touch screens (DSM800's), PC's, Mac's, tablets, or smartphones to an NMEA 2000® network so you can monitor and control your vessel using Maretron's N2KView® software. The conventional way of viewing NMEA 2000® information is with a display on the vessel that is directly connected to an NMEA 2000® network, but with the IPG100, you are not limited to direct connected displays. With the IPG100, you can use any device running N2KView® software to monitor and control your vessel from onboard or ashore.



Products

PART NUMBER	DESCRIPTION
IPG100-01	Internet Protocol Gateway
PX0852	USB Waterproof Cover
PX0837/5M00	Waterproof Ethernet Cable 16.4'

The following accessories are available for the IPG100:



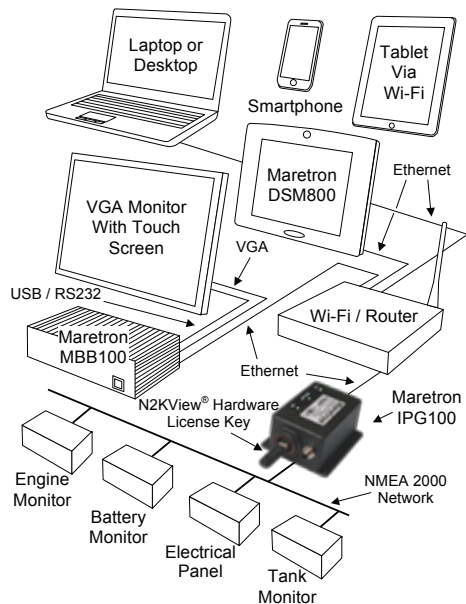
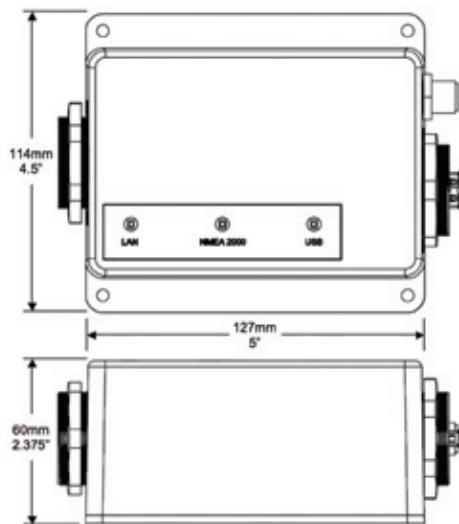
PX0852



PX0837/5M00



The IPG100 has an NMEA 2000® and an Ethernet data port for exchanging information between the onboard NMEA 2000® network and Internet Protocol (IP) enabled devices using conventional technology such as routers, switches, and wireless modems. In addition, the IPG100 includes a USB port used for connecting Maretron's hardware license key. The hardware license key is used to enable remote devices running N2KView® software. For example, if you purchase three N2KView® license keys, you can run N2KView® at the helm, another on a handheld device connected via Wi-Fi, and another at home on your PC or Mac with an Internet connection back to the vessel. The licenses are floating, so if you were to shut down N2KView® running at home, you could fire up the third N2KView® license on the vessel.



Specifications

Parameter	Value	Comment
NMEA 2000® Connector	DeviceNet Micro-C	Industry Standard Waterproof
NMEA 2000® Isolation	Opto-Isolated	No Electrical Connection Across Bridge
USB Standard	USB 1.1	
USB Connector	USB Type A	Industry Standard Waterproof, for Connection of N2KView Hardware License Key Only
USB Supported Signals	D+, D-, +5V, GND	Bi-directional Gateway
USB Auxiliary Power	+5 Volts < 200 mA	
USB Baud Rate	Up to 12 Mb/s	Full Speed USB Data Rate
Ethernet Interface	100 Mb/s	
Ethernet Connector	RJ-45	Industry Standard Waterproof

Certifications

Parameter	Comment
NMEA 2000® Standard	Level A
Maritime Navigation and Radiocommunication Equipment & Systems	IEC 61162-3
Maritime Navigation and Radiocommunication Equipment & Systems	IEC 60945
FCC and CE Mark	Electromagnetic Compatibility

NMEA 2000® Parameter Group Numbers (PGNs)

Description	PGN #	PGN Name	Default Rate
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
	060416	ISO Transport Protocol, Connection Management	N/A
	060160	ISO Transport Protocol, Data Transfer	N/A
	060928	ISO Address Claim	N/A
	065240	ISO Address Command	N/A
	126208	NMEA Request/Command/Acknowledge	N/A

Electrical

Parameter	Value	Comment
Operating Voltage	9 to 32 Volts	DC Voltage
Power Consumption	<150mA	Average Current Drain
Load Equivalence Number (LEN)	3	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	5.000" x 4.500" x 2.375" 127mm x 114mm x 60 mm	Including Flanges for Mounting
Weight	12 oz. (340 g)	

Environmental

Parameter	Value
IEC 60945 Classification	Exposed
Degree of Protection	IP67
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 @ ±1mm, 13.2-100Hz @ 7m/s2 per IEC 60945-8.7
Rain and Spray	12.5mm Nozzle @ 100liters/min from 3m for 30min per IEC 60945-8.8
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 Immunity	Conducted, Radiated, Supply, and ESD per IEC 60945-10
Safety Precautions	Dangerous Voltage, Electromagnetic Radio Frequency per IEC 60945-12