

## Mini Gender Changers



Maretron cables have a male connector on one end and a female connector on the other end. Normally, the male connector points back towards the network power supply, but on some occasions, this gets reversed and a gender changer can be used to get back to the desired connector type.

- Waterproof seals for reliable connections
- Easily swap connector gender to get back to desired connector type

## Mini Bulkhead Feed-Thru



The Bulkhead Feed-Thru allows ease of installation through panels or bulkheads and establishes future connection points in a network installation. The bulkhead feed-thru also maintains the integrity of watertight bulkheads by providing a waterproof seal and connection.

- Features rugged keyways for positive alignment of connections
- Waterproof rated to IP67

## N2KMeter

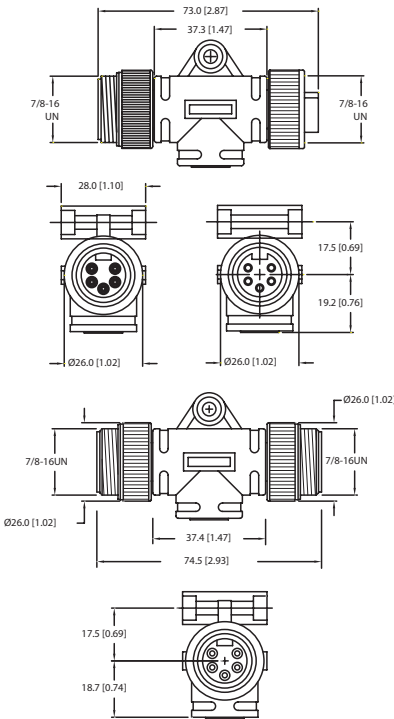


The N2KMeter enables trained and untrained personnel to diagnose and trouble-shoot network installations quickly and easily. Completely passive on the network, the meter analyzes both data and power lines on the network. In seconds, both network-wide and device-specific traffic as well as power monitoring information is captured and displayed on a simple user interface.

- Diagnostic tool for NMEA 2000® networks
- Evaluates physical layer device functions on a network
- Data at boat can be locked in and then evaluated later on bench

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# Mini Gender Changers



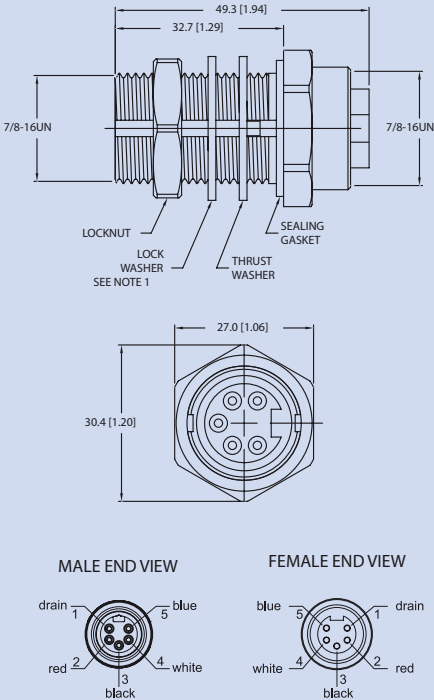
## Specifications

<b>MECHANICAL</b>	
Molded Body Mat/Color:	Thermoplastic PUR/Blue-Gray
Contact Carrier Mat/Color:	Thermoplastic PUR/Blue-Gray
Contact Mat/Plating:	Brass/Gold
Coupling Nut Mat/Plating:	Brass/Nickel
<b>ELECTRICAL</b>	
Rated Current:	9.0 Amps
Rated Voltage:	600 V
<b>ENVIRONMENTAL</b>	
Protection Class:	IEC IP67, NEMA 1,3,4,6P – <b>NM-NM</b> IEC IP67, NEMA 1,3,4,13 – <b>NF-NF</b>
Temperature Range:	-40°C to 70°C (-40°F to 158°F) – <b>NM-NM</b> -40°C to 55°C (-40°F to 131°F) – <b>NF-NF</b>
<b>APPROVALS</b>	
NMEA:	NMEA 2000® Approved
IEC:	IEC 61162-3

## Products

PART NUMBER	DESCRIPTION
NM-NM	Mini Gender Changer (Male/Male)
NF-NF	Mini Gender Changer (Female/Female)

# Mini Bulkhead Feed-Thru



## Specifications

<b>MECHANICAL</b>	
Contact Carrier Mat/Color:	Thermoplastic PUR/Blue-Gray
Housing Mat/Plating:	Brass/Nickel
Contact Mat/Plating:	Brass/Gold
Gasket Material:	Nitrile (Buna N)
Accommodates Wall (thick):	.040" (1.0 mm) to .875" (22.2 mm)
<b>ELECTRICAL</b>	
Voltage Rating:	600 V
Max Amperage:	9.0 Amps
Number of Conductors:	5x22 AWG (0.65mm)
<b>ENVIRONMENTAL</b>	
Protection Class:	IEC IP67
Temperature Range:	-40°C to 105°C (-40°F to 221°F)
<b>APPROVALS</b>	
NMEA:	NMEA 2000® Approved
IEC:	IEC 61162-3

## Products

PART NUMBER	DESCRIPTION
BHF-NM-NF	Mini Bulkhead Feed-Thru

# N2KMeter

## Electrician Mode (Simple)

1. Plug in and set N2KMeter rotary switch to "autosearch"

2. Identify network health
- Happy face = healthy
  - Neutral face = nominal
  - Sad face = faulty

3. Scroll through faults. Refer to user manual to link these faults to most likely network problems or freeze and lock settings for review back at the shop by an NMEA 2000® expert.



## Expert Mode (Advanced)

1. Scroll through NMEA 2000® parameters for each active NMEA 2000® node (mac id)

- Communication errors (rate, cumulative #)
- Bandwidth (% of full usage)
- Power supply and shield voltages
- Data bit quality (dominant, recessive, +, -, differential voltage, cmv)

2. Check values (both numeric and icons)

- Happy face = within spec
- Neutral face = very close to limit
- Sad face = out of limit

3. Refer to user manual to link these faults to most likely network problems

## Specifications

<b>MECHANICAL</b>	
Power Supply:	Network 7 - 30v DC < 90MA Batteries 2 X AA Alkaline Batteries 6 Hours Of Operation Approx. 1 Year Data Retention
Connectors:	Micro Connector
Band Rates:	125k, 250k and 500k (Auto-detect)
Analogue Accuracy:	Bus Power±100mv, Bus Signal±20mv
Analogue Range:	Bus Power 0 to 25v with over/under Range Indication Bus signal -5 To 10v with over/under range Indication
Analogue Sample Rate:	Bus Power 1 Khz Bus Signal Ideal Sample Pt±250ns
Signal Error Threshold:	NMEA 2000® Spec for Network Power
Bus Load Measurement:	Detects Bus Idle In Real Time
Bus Message Rate Measurement:	Detects 100% of Individual Can Frames in Real Time
Error Rate Measurement:	Detects 100% of Individual Error Frames in Real Time
<b>APPROVALS</b>	
NMEA:	NMEA 2000® Approved

## Products

PART NUMBER	DESCRIPTION
N2KMETER-01	Diagnostic Meter w/1m Micro Cordset