



NBF-3 NMEA Buffer

Safely drive up to six NMEA Listeners, with power distribution for the connected Talker.

The NBF-3 NMEA Buffer isolates and buffers NMEA 0183 data, with the power to drive multiple devices.

Able to distribute up to six identical, amplified streams of data from one source. The NMEA signals are buffered to ensure that each Listener receives the data at the required voltage levels, providing consistent data quality.

Isolation on the input and outputs ensures the protection of the source Talker device and Listening devices.

ISO-Drive™ technology on the outputs and OPTO-isolation on the input enables you to connect the NBF-3 with complete peace of mind.

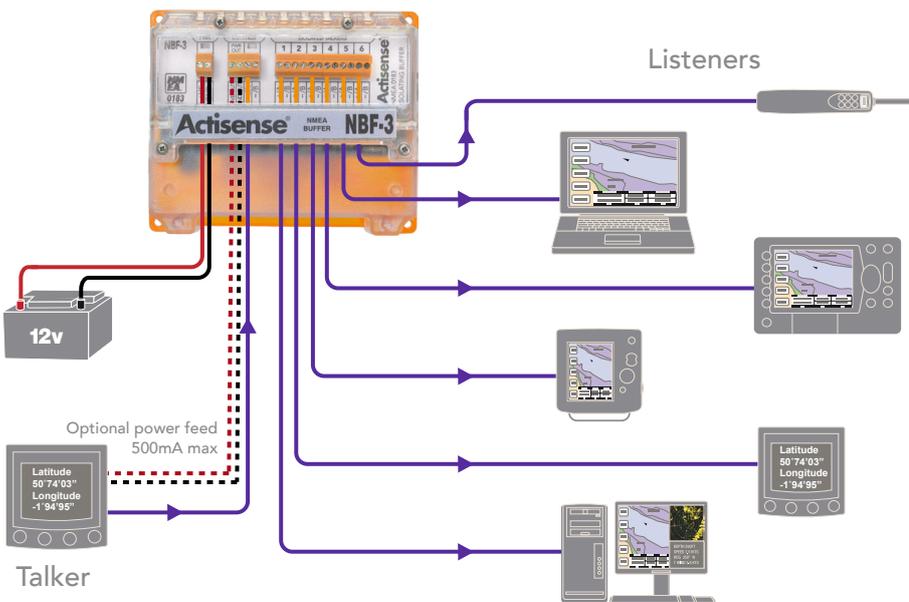
The NBF-3 has the addition of power distribution for the NMEA Talker. By having power and data from the same source, cabling requirements are reduced and installation is made simpler.

Benefits

- AIS compatible
- Protects connected devices
- Simple installation
- Can be used to isolate between two PC systems

Features:

- One OPTO-isolated input
- Six ISO-Drive™ outputs
- Compatible with RS422, RS232 and RS485 connections
- Pluggable screw terminals
- Power and input indicator LEDs
- Power feed for single cable installations to the NMEA Talker
- DIN Rail mountable
- Up to 115200 baud
- 1500V isolation on inputs & outputs

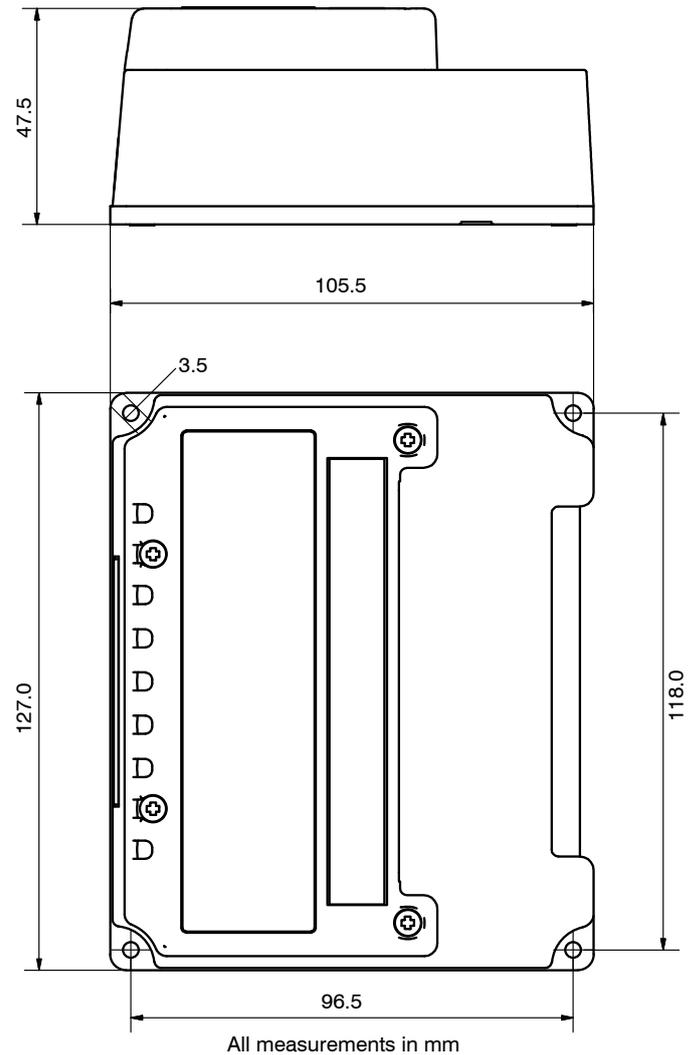


NBF-3: Specifications



Power Supply	
Input Supply Voltage	10 to 35V DC
Input Supply Current (NBF-3 only)	100mA max @ 12V DC (all outputs @ full drive into 100Ω loads)
Input Supply Connector	Pluggable 2 way screw terminal, 3.5mm pitch
Input Protection (NBF-3 only)	Continuous reverse polarity and ESD protection
Power Indicator	LED, blue (lit constantly indicates correct operation when input supply connected)
Listener Power Output Voltage	10 to 35V DC derived directly from the input supply voltage
Listener Power Output Current	500mA max @ ≤ 30°C (see note)* (PTC self-resettable fuse)
Listener Power Output Connector	Pluggable 2 way screw terminal, 3.5mm pitch
NMEA 0183 Port - Listener & Talkers	
Number of Listener / Input Ports	One isolated NMEA 0183 Listener
Number of Talker / Output Ports	Six isolated NMEA 0183 Talkers
Compatibility	Fully NMEA 0183, RS422 & RS232 compatible. RS485 Listener compatible
Galvanic Isolation	2500V input to ground 1500V output to ground using ISO-Drive
Speed / baud rate	4800 to 115200 bps
Talker Output Voltage drive	≥ 2.1V (differential) into 100Ω
Talker Output Current drive	20mA max.
Talker Output Protection	Short circuit and ESD
Listener Input Voltage Tolerance	-15V to +15V continuous, -35V to +35V short term (<1 second)
Listener Input Protection	Current limited, overdrive protection to 40V DC and ESD protection
Listener Data Indicator	LED, green (flashes at data rate)
Connectors	Pluggable 2-way screw terminals, 3.5mm pitch
Approvals and Certifications	
EMC	EN 60945 (sections 9 & 10)
Environmental Protection	IP66
Operating Temperature	-20°C to +70°C
Storage Temperature	-40°C to +85°C
Mechanical	
Housing Material	Polycarbonate
Protective Lid Material	Polycarbonate
Sealing Materials	Expanded silicone foam gasket, closed cell polyurethane splash guard and ePTFE waterproof vent
Dimensions	127mm (L) x 106mm (W) x 48mm (H)
Weight	210g
Mounting	4 x 3.5mm lugs to allow panel mount with self tapping screws (included), optional DIN rail mount available on request.

Product Dimensions.



What is ISO-Drive™?

ISO-Drive™ technology is unique to our products and ensures each 'Talker' output is protected. ISO-Drive™ provides an isolated output, making installation simple and free from ground loops. This substantially reduces the risk of damage and hazards in connected equipment.

The ISO-Drive™ output is compatible with all connection types (RS422, RS485 & RS232), making for easy installation of an NMEA 0183 data bus system.

Outputs are separately isolated from each other and the input (Listener) circuit and can 'float' safely up to 1500 volts D.C from system ground.

*Available on future release.