

PRO-NBF-1

NMEA 0183 Buffer



Feature

Advantage

Benefit

<ul style="list-style-type: none"> • One OPTO-isolated input • Six ISO-Drive™ outputs • Compatible with RS422, RS232 and RS485 connections 	<ul style="list-style-type: none"> ✓ Meets isolation requirements of protecting talker devices ✓ Isolates and buffers up to six listeners distributing identical data to each Listener, protecting against ground loops ✓ Wide input voltage range and powerful output current drive 	<ul style="list-style-type: none"> ✓ Peace of mind and highest reliability ✓ ISO-Drive separates the Listener from the Talker to protect both the NBF-3 and each connected device ✓ Easy installations due to wide compatibility
<ul style="list-style-type: none"> • Up to 115200 baud • Outputs automatically track the input baud rate • Protocol independent • Wide operating voltage 	<ul style="list-style-type: none"> ✓ Covers all commonly used baud rates ✓ Automatic autobaud, no configuration required ✓ Passes all data, no configuration required ✓ Allows operation on 12V or 24V systems 	<ul style="list-style-type: none"> ✓ Wide compatibility meaning simplified installation ✓ Quick, easy installation ✓ Simple installation saves time and money and provides peace of mind ✓ Compatible with all common power systems
<ul style="list-style-type: none"> • Input Protection • Stainless Steel Housing • Isolation from battery ground 	<ul style="list-style-type: none"> ✓ Protects against reverse polarity and transients ✓ Sturdy construction providing optimal corrosion resistance and RF shielding ✓ Each output has 1500V of isolation from the DC power supply ground 	<ul style="list-style-type: none"> ✓ Protects against faults ✓ Increased durability and high performance ✓ Critical to keeping connected devices protected from ground loop damage
<ul style="list-style-type: none"> • Power LED • Input indicator LED • Pluggable 2-Part screw terminal connectors • Type Approved • Panel or Optional DIN rail mount 	<ul style="list-style-type: none"> ✓ Clear feedback of power status for ease of debugging ✓ Confirms correct connection and presence of data ✓ Quick installation of cables and easy debugging by simple unplug operation ✓ Certified to unified requirements of IACS E10 / IEC 60945 ✓ Can mount to bulkhead or DIN rail using optional mounting brackets 	<ul style="list-style-type: none"> ✓ See power is connected correctly ✓ Clear feedback of input status for ease of debugging ✓ Fast and simple installation, saving the overall cost ✓ Can be installed on vessels governed by Class Society Rules ✓ Flexible installation options to save time and money

PRO-NBF-1

GEEK MODE ON

Type Approved NMEA Buffer



Safely connect one Talker to six Listeners with full isolation.

The Type approved NMEA Buffer PRO-NBF-1 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 Listener devices.

Part Number: A-PRO-NBF-1



Power Supply	
Input Supply Voltage	9 to 35V DC
Input Supply Current	150mA max @ 12V DC (all outputs @ full drive into 100Ω loads)
Input Protection	Continuous reverse polarity and ESD protection
Power Indicator	LED, Blue - Indicates unit is functioning correctly
Input Supply Connector	Pluggable 2 way screw terminal, 5.08mm 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
Speed / baud rate	4800 to 115200 bps
Talker Output Voltage drive	$\geq 2.2V$ (differential) into 100Ω
Talker Output Current drive	20mA max.
Talker Output Protection	Short circuit and ESD
Talker Data Indicator	LED, Orange (Flashes at data rate)
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 to indicate valid input)
Connectors	Pluggable 2/3-way screw terminals, 5.08mm pitch

Isolation	
NMEA 0183 Listener	OPTO-Isolated, Hi-Pot tested to 1000V
NMEA 0183 Talker	Uses IsoDrive™, Hi-Pot tested to 1000V

Mechanical	
Housing Material	316 Stainless Steel
Dimensions	139mm (L) x 128mm (W) x 27mm (H)
Weight	335g
Mounting	Bulkhead mount or DIN rail mount (DIN kit 1)

Approvals and Certifications	
EMC	EN 60945:2002 (Fourth Edition - 2002), DNVGL-CG-0339:2019
Compass safe distance	600mm
Type Approval Certificate	RINA
Operating Temperature	-25 to +70°C
Storage Temperature	-40 to +85°C
Maximum Relative Humidity (RH)	95% @ 55°C
Environmental Protection	IP40
Guarantee	5 Years

All specifications are taken with reference to an ambient temperature of 25°C unless otherwise specified. All specifications correct at time of print.