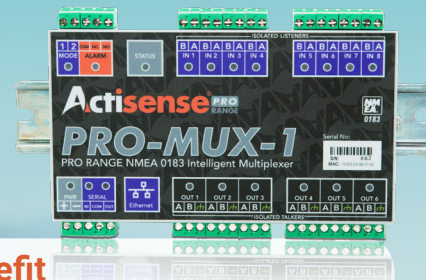


PRO-MUX-1

Professional NMEA 0183 Multiplexer



Feature

Advantage

Benefit

- 8 Opto-isolated NMEA 0183 inputs

- ✓ 8 Listener inputs offer comprehensive autoswitching and combining outputs

- ✓ Flexible configuration options to autoswitch and combine NMEA data

- 6 NMEA 0183 ISO-Drive™ outputs

- ✓ Distributes the individual data required by each Listener on-board a large vessel. Each ISO-Drive output protects against ground loops

- ✓ ISO-Drive separates the Listener from the Talker to protect both the PRO-MUX and each connected devices. Peace of mind and highest reliability

- Bi-directional isolated serial port (optional NMEA 0183 input/output)

- ✓ High (115200) baud rate supported. Standard RS232 serial port compatible

- ✓ Fast bi-directional data connection to a monitor and control software application

- Ethernet Port

- ✓ Ethernet data link for easy configuration of the PRO-MUX

- ✓ PRO-MUX can be configured using any web browser on any Operating System

- Automatic baud rate detection on NMEA 0183 inputs

- ✓ Changes a Listener input's baud rate to match a connected NMEA Talker's output

- ✓ Allows the PRO-MUX to work out-of-the-box without baud rate configuration

- Default operating modes

- ✓ Default operation combines the data from all inputs and routes it to all Talker outputs

- ✓ Allows the PRO-MUX to work out-of-the-box

- Filtering and Routing

- ✓ Can apply basic input-based and advanced sentence-based routing rules to input data

- ✓ Allows each Talker output stream to only contain the required data and nothing else that could overwhelm the connected Listener

- 2 virtual Autoswitch modules

- ✓ Any two Listener inputs can be chosen as the inputs to a virtual Autoswitch

- ✓ Allows automatic data priority selection between two devices of the same type of data (e.g GPS)

- Alarm output options

- ✓ Relay output and NMEA sentence output can be configured to trigger under various alarm conditions

- ✓ Relay output is compatible with onboard alarm system and NMEA Alarm sentence can be displayed and actioned on an MFD

- Advanced statistics on web browser

- ✓ Web diagnostics show the current data statistics for each input and output

- ✓ Allows a user to quickly understand if an output is behaving as it should

- Input and output diagnostic LEDs

- ✓ Quick indication of input / output data presence to help diagnose issues

- ✓ Individual diagnostic LED provides confidence that each input / output is passing data

- Alarm, Mode and Status LEDs

- ✓ Highly visible Alarm, Mode and bi-colour Status indicators show current device state

- ✓ Three LEDs to help the user understand the current PRO-MUX operating state

- Designed for 12 / 24 Volt supply

- ✓ Can be powered from any standard DC power supply found on vessels

- ✓ Allows use on large vessel 24V DC power supplies systems

- Isolation from battery ground

- ✓ Each output has 1500 volts of isolation from the DC power supply ground

- ✓ Critical to keeping connected devices protected from ground loop damage

- 2-part pluggable connector system

- ✓ Quick installation of cables and reconnection between inputs / outputs

- ✓ Fast installations and supports both screw and screwless terminal types. Ideal for quick diagnostic swapping

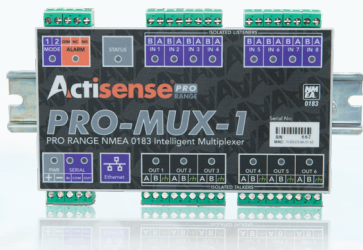
- DIN rail or Panel mountable

- ✓ DIN rail mountable and supplied with a small section of DIN rail for a quick installation

- ✓ Fast installation / reinstallation on both large and small vessels

PRO-MUX-1

Professional NMEA 0183 Multiplexer



The professional NMEA 0183 Multiplexer is a highly flexible platform that cures many interconnectivity headaches.

Reliable and robust, it provides industry leading isolation on all inputs and outputs as standard, so that connected devices safely avoid hazardous ground loops, the primary cause of product failure in NMEA 0183 networks.

Mode Inputs	
Input voltage range	0 to 35V DC
Protection	Transient overvoltage and ESD protection
Alarm Output	
Contacts	Normally open and normally closed
Electrical isolation	1000V between power supply and contacts
Alarm indicator	LED, red indicates a valid alarm condition
Mechanical	
Housing material	Polycarbonate / ABS blend
Flame retardancy	UL94 - V0
Dimensions (mm)	BAS-R: 165 x 33 x 123, BAS-S: 165 x 33 x 108
Weight	270g including all screw plugs & shield screw
Mounting	DIN rail mount (35mm top hat rail EN 50 022)
Compass safe distance	250mm
Wiring terminals	Pluggable 2/3 way screw or screwless connectors, 5mm pitch, 12 to 30 AWG
Approvals and Certifications	
EMC	IEC 60945 (sections 9 , 10 & 11)
CE	2014/30/EU
Environmental protection	IP43
Operating temperature	-15°C to +55°C
Storage temperature	-40°C to +85°C
Relative Humidity (RH)	0 - 80% RH
Guarantee	3 years, extending to 5 years when product registered

Part Numbers: PRO-MUX-1-BAS-R
PRO-MUX-1-BAS-S

Power Supply	
Input supply voltage	9 to 35 V DC
Input supply current	250mA max @ 12V DC (all outputs @ full drive into 100 ohm loads)
Input protection	Continuous reverse polarity, transient overvoltage and ESD protection
Power indicator	LED, Blue - indicates unit is functioning correctly
NMEA 0183 Port - Listener & Talker	
Number of Listener / input ports	8 isolated NMEA 0183 Listeners
Number of Talker / output ports	6 isolated NMEA 0183 Talkers
Compatibility	Fully NMEA 0183, RS422 & RS232 compatible. RS485 Listener compatible
Electrical isolation	2500 V input to ground, 1000 V output to ground using ISO-Drive™
Speed / baud rate	In1 to In4: up to 38400 bps In5 to In8: 4800 bps Out1: up to 115200 bps Out2 to Out6: up to 38400 bps
Talker output voltage drive	>= 2.1V (differential) into 100 ohm
Talker output current drive	20 mA maximum per output
Talker output protection	Short circuit and ESD
Listener input voltage tolerance	-15 V to +15 V continuous, -35 V to +35 V short term (< 1 second)
Listener input protection	Current limited, overdrive protection to 40 VDC and ESD protection
Listener data indicator	LED, Green (Flashes to indicate valid input)
Talker data indicator	LED, Orange (Flashes at data rate)
Status indicator	LED, Green / Yellow / Red to indicate status (see user manual)
Serial Port	
Number of input ports	1 isolated input
Number of output ports	1 isolated output
Compatibility	RS422 & RS232 compatible. RS485 Listener compatible
Electrical isolation	2500 V input to ground 1500 V output to ground using ISO-Drive™
Speed / baud rate	115200 bps
Output voltage drive	>= 2.1V (differential) into 100 ohm
Output current drive	20 mA max.
Output protection	Short circuit and ESD
Input voltage tolerance	-15 V to +15 V continuous, -35 V to +35 V short term (< 1 second)
Input protection	Current limited, overdrive protection to 40 VDC and ESD protection
Ethernet Port	
Host interface	10/100BaseT, automatic polarity detection
Supported protocols	TCP/IP for configuration and firmware updating TCP/IP and UDP for NMEA 0183 comms
Connector	RJ45
Electrical isolation	2kV