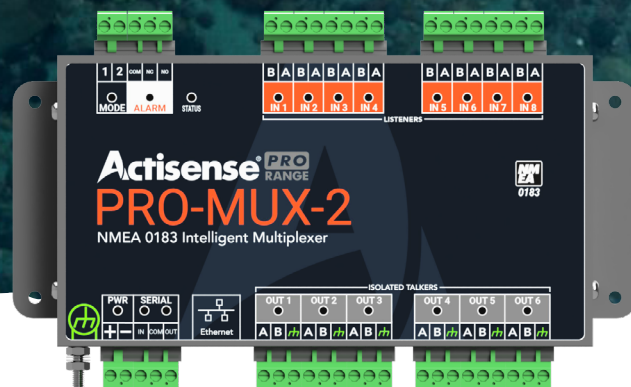


## PRO-MUX-2

### PROFESSIONAL NMEA 0183 INTELLIGENT MULTIPLEXER



The Actisense PRO-MUX-2 is type approved (pending), professional & intelligent NMEA 0183 multiplexer, with a robust design to cure many interconnectivity headaches.

Introducing the Actisense® PRO-MUX-2, the intelligent, type approved (pending) PRO range multiplexer.

The PRO-MUX-2 is reliable, robust and provides industry leading isolation on all inputs and outputs as standard, so that connected devices safely avoid hazardous ground loops, the number one cause of product failure in NMEA 0183 networks.

The eight NMEA 0183 inputs can be routed to any of the six NMEA 0183 outputs, providing a highly customisable network. A bi-directional serial port and an ethernet port allow for simple configuration and diagnostics using Actisense software.

The configuration tool is accessible via any popular web browser (using the ethernet port) so there are no PC operating system

compatibility issues to contend with. Using the web based configuration tool will allow the user to finely tune the exact data available on each output. The default setup is for all input data to be fed to all outputs.

2-part pluggable connectors on the PRO-MUX-2 means that new devices can be easily connected without needing to remove the unit from its mounted location.

The PRO-MUX-2 has the option to either mount directly to the bulkhead (with screws provided), or be DIN rail mountable with the addition of professional DIN rail brackets (sold separately).

Helpful LEDs indicate power, data-in, data-out and the alarm status to aid diagnostics.

### Features:

Type-approved (pending).

8x Configurable Opto-isolated inputs.

6x Configurable ISO-Drive™ isolated outputs.

1x Bi-directional, configurable, isolated serial port.

Automatic baud rate matching on inputs.

Advanced data filtering / routing.

Free firmware updates making the device future-proof.

1x Alarm output relay (N/O and N/C contacts).

Mode input pins to set operating mode without the need for a PC.

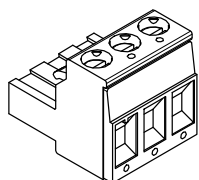
Diagnostic LEDs on all inputs and outputs.

Alarm status LED / Mode LED / Bi-colour status LED.

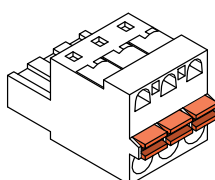
Panel mountable.

Stainless steel housing for added durability.

### Connector types:



Screw Terminals



A-CONPACK-PMUX2 - Screwless Terminals available as an accessory.



Easy USB connection with a USB-serial adapter kit(sold seperately).

Features may change without notice.

# PRO-MUX-2 Specifications

GEEK MODE ON



## Power Supply

|                        |                                                                       |
|------------------------|-----------------------------------------------------------------------|
| Input Supply Voltage   | 10 to 35 V DC                                                         |
| Input Supply Current   | 220mA 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                   |
| Input Supply Connector | Pluggable 2-way screw terminal, 5.08mm pitch (12 to 30 AWG)           |

## 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 |
| Speed / baud rate                | 4800 to 38400 bps                                                    |
| Talker Output Voltage Drive      | >= 2.2V (differential) into 100 ohm                                  |
| Talker Output Current Drive      | 20 mA maximum per output                                             |
| Talker Output Protection         | Short circuit and ESD                                                |
| Talker Data Indicator            | LED, Orange (Flashes at data rate)                                   |
| 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)                         |
| Connectors                       | Pluggable 2/3-way screw terminals, 5.08mm pitch (12 to 30 AWG)       |

## Serial Port

|                         |                                                                    |
|-------------------------|--------------------------------------------------------------------|
| Compatibility           | RS422 & RS232 compatible. RS485 Listener compatible                |
| Speed / baud rate       | 4800 to 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 |
| Data Indicators         | LED's: Green = Receive, Orange = Transmit                          |
| Connectors              | Pluggable 3-way screw terminals, 5.08mm pitch (12 to 30 AWG)       |

## Ethernet Port

|                     |                                                                                      |
|---------------------|--------------------------------------------------------------------------------------|
| Host Interface      | 10/100BaseT, automatic polarity detection                                            |
| Supported Protocols | TCP/IP for configuration and firmware updating<br>TCP/IP and UDP for NMEA 0183 comms |
| Indicators          | Green = Link/Activity, Yellow = 100 Mbps                                             |
| Connector           | RJ45                                                                                 |

## Isolation

|                    |                                        |
|--------------------|----------------------------------------|
| NMEA 0183 Listener | OPTO-Isolated, Hi-Pot tested to 1000V  |
| NMEA 0183 Talker   | Uses IsoDrive™, Hi-Pot tested to 1000V |
| Serial Port        | Uses IsoDrive™, Hi-Pot tested to 1000V |
| Alarm Relay        | Hi-Pot tested to 1000V                 |
| Ethernet Port      | 2kV for 60s                            |

## Mode Inputs

|                     |                                                              |
|---------------------|--------------------------------------------------------------|
| Input Voltage Range | 0 to 35V DC                                                  |
| Protection          | Transient overvoltage and ESD protection                     |
| Connectors          | Pluggable 2-way screw terminals, 5.08mm pitch (12 to 30 AWG) |

## Alarm Output

|                 |                                                              |
|-----------------|--------------------------------------------------------------|
| Contacts        | Common, Normally Open and Normally Closed                    |
| Alarm Indicator | LED, Red indicates a valid alarm condition                   |
| Contact Ratings | 35VAC / 50VDC                                                |
| Connectors      | Pluggable 3-way screw terminals, 5.08mm pitch (12 to 30 AWG) |

## Mechanical

|                  |                                              |
|------------------|----------------------------------------------|
| Housing Material | 316 Stainless Steel                          |
| Dimensions       | 210mm (W) x 128mm (H) x 27mm (D)             |
| Weight           | 540g                                         |
| Mounting         | Bulkhead mount or DIN rail mount (DIN kit 1) |

## Approvals and Certifications

|                           |                                                          |
|---------------------------|----------------------------------------------------------|
| EMC                       | IEC 60945:2002-08, DNVGL-CG-0339:2019 & IACS UR E10 Rev7 |
| Compass Safe Distance     | 175mm                                                    |
| Type Approval Certificate | TBD                                                      |
| Operating Temperature     | -25 to +70°C                                             |
| Storage Temperature       | -40 to +85°C                                             |
| Relative Humidity (RH)    | 95% @ 55°C                                               |
| Environmental Protection  | IP40                                                     |
| Guarantee                 | 5 Years                                                  |

## Product Dimensions

