

# NMEA Buffer 2S12

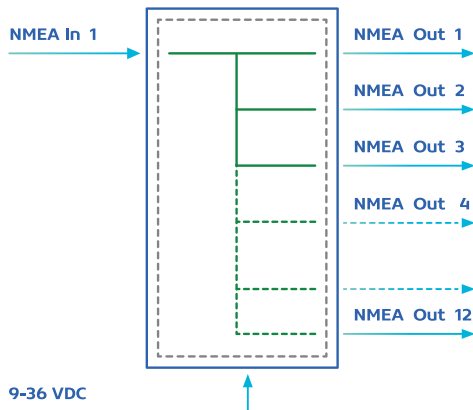
## Installation and User Manual

The NMEA Buffer is a specialized device that distributes NMEA or RS422 signals from a one transmitter to up to 12 listeners. It ensures galvanic isolation between the transmitted signal, power supply and listeners. Unit can operate with signal speed up to 230400 bps and power supply range from 9 to 36 VDC. The device has three functional modes: Dual Input Independent Transmission, Single Input Transmission, and Selectable Dual Input mode, which are further explained in this manual.

### OPERATING MODES

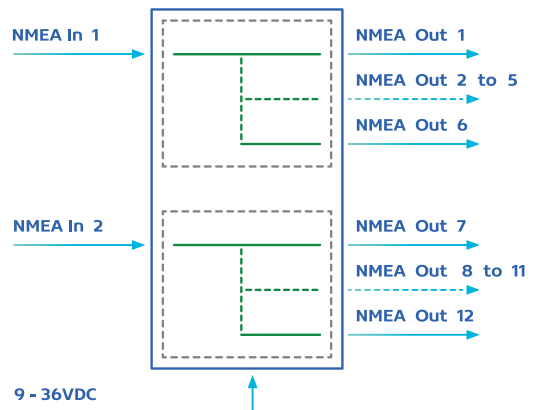
#### Single Input Transmission Mode

Jumper JP3 CLOSED = Input 1 is transmitted to all outputs.



#### Dual Input Transmission Mode

Jumper JP3 OPEN = Input 1 is transmitted to outputs 1-6  
Input 2 is transmitted to outputs 7-12



#### Selector Switch (optional)

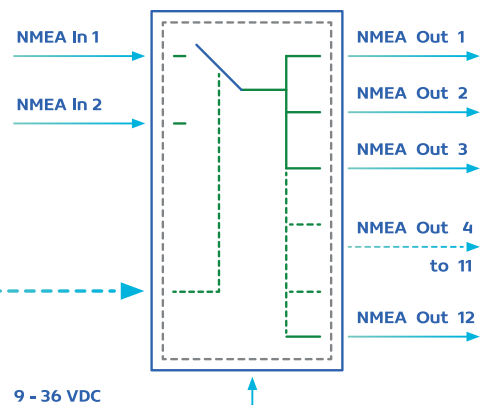
It enables manual switching the input which is to be transmitted to all outputs. A connection to the switch is done by means of LAN cable, straight through cable is recommended.

Connecting Selector Switch to X1 RJ45 socket bypass other operating modes configured with JP3 jumper.



#### Selectable Dual Input

Selected Input is transmitted to all outputs.

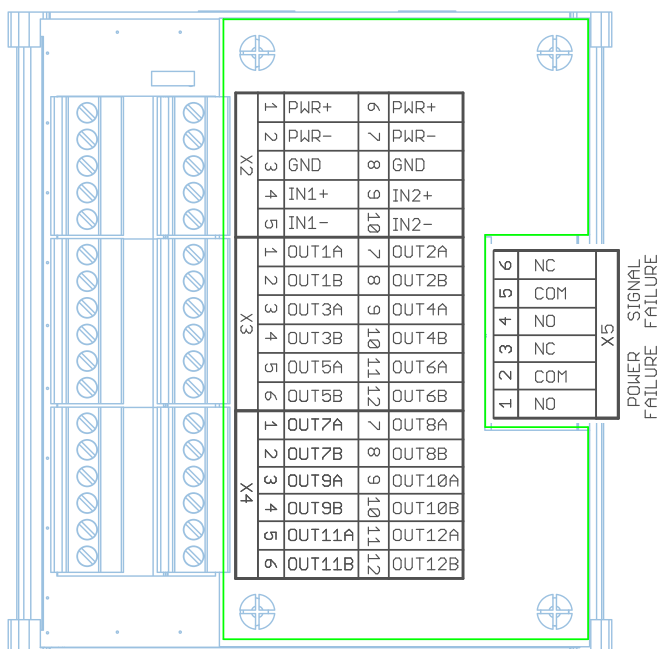
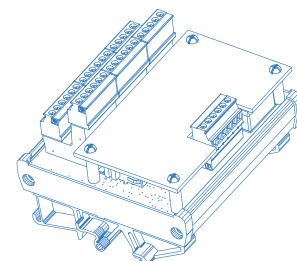
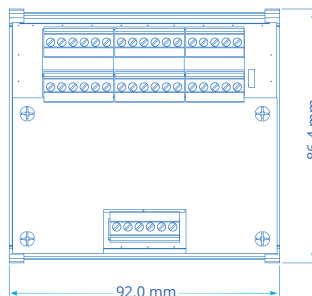
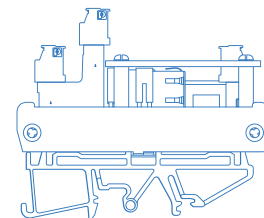
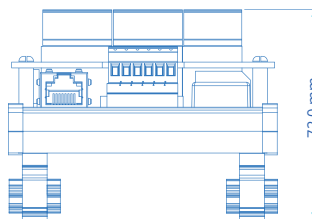


## Technical Data:

- Power Supply: 24 VDC (9 to 36VDC)
- Power consumption: typical 3,1 W, max. 7,5 W at 24 VDC
- Galvanic isolation of power supply: 1,5 kVDC
- Galvanic isolation of signal input/output: up to 5kVRMS
- Short circuit output protection
- Reversed power supply polarity protection
- Over voltage power input protection (up to  $\pm 37$  V)
- Number of inputs: 2, manually selectable
- Number of outputs: 12, manually configurable
- Input/output signal speed: Up to 230400 bps
- Connection: cables diameter up to 1,5 mm<sup>2</sup>
- Dimensions: L 92,0 mm x W 86,4 mm x H 72,0 mm
- Mounting: DIN Rail

## Approvals:

- RINA Type Approval Certificate
- IEC60954 - General Requirements for Marine Navigation Equipment



## Terminals:

- X1 - Optional selector switch
- X2 - Power and Input Signals
- X3 - Outputs 1-6
- X4 - Outputs 7-12
- X5 - Power Failure, Signal Failure - Relays outputs

## Jumpers:

- J1 - To be closed when weak Input 1 signal
- J2 - To be closed when weak Input 2 signal
- J3 - Operation mode selection:  
closed: Single Input Mode  
open: Dual Input Mode

## LED:

- CR1 - POWER present - normally lit
- CR2 - Input 1 signal present - normally blinking
- CR3 - Input 2 signal present - normally blinking



### Safety warnings

Before installing the device, ensure that the power supply is switched off. Failure to do so may result in damage to the interface or other connected equipment.

Connecting the device to an incompatible power supply can cause overheating, leading to damage or fire hazards.

Familiarize yourself with all safety precautions, limitations, and operational guidelines to ensure proper and safe usage.

Terminals X2.1 (PWR+) and X2.6 (PWR+) are shorted.  
Terminals X2.2 (PWR -) and X2.7 (PWR -) are shorted.  
Terminals X2.3 (GND ) and X2.8 (GND ) are shorted.

Signal Failure is activated in case of:

- lack of Input 1 signal in Single Input Mode
- lack of Input 1 OR Input 2 signals in Dual Input Mode
- lack of selected signal in Selectable Dual Input Mode

Alarm is generated approximately 20 seconds after input signal loss.



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