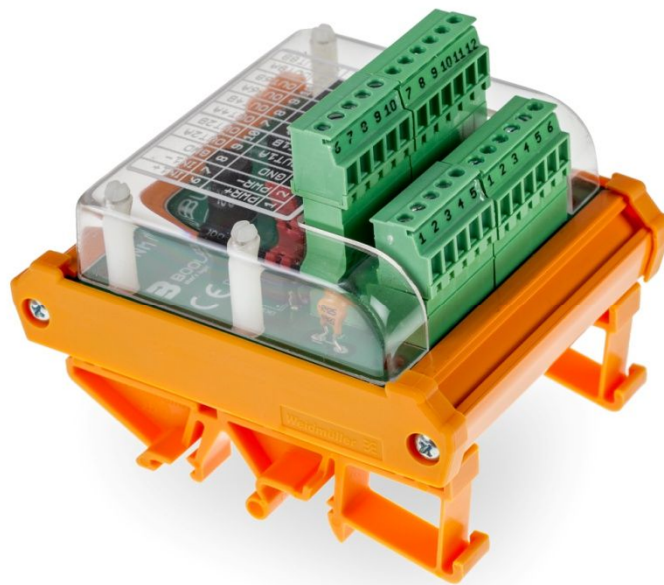


NMEA Buffer 1T8

Installation and user manual



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Safety information



Do not work inside the equipment unless totally familiar with electrical circuits.

Hazardous voltage which can cause electrical shock, burn or serious injury exists inside the equipment.



Turn off the power at the mains switchboard before beginning the installation.

Post a sign near the switch to indicate it should not be turned on while the equipment is being installed.

Fire, electrical shock or serious injury can result if the power is left on or is applied while the equipment is being installed.



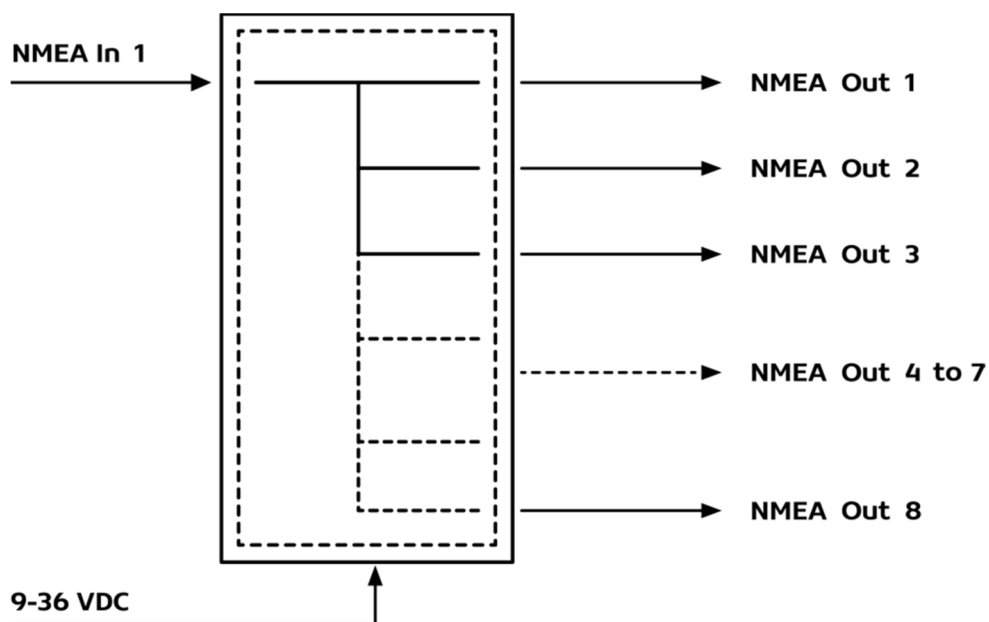
Confirm that the power supply voltage is compatible with the voltage rating of the equipment.

Connection to the wrong power supply can cause fire or equipment damage. The voltage rating appears on the last page of this manual.

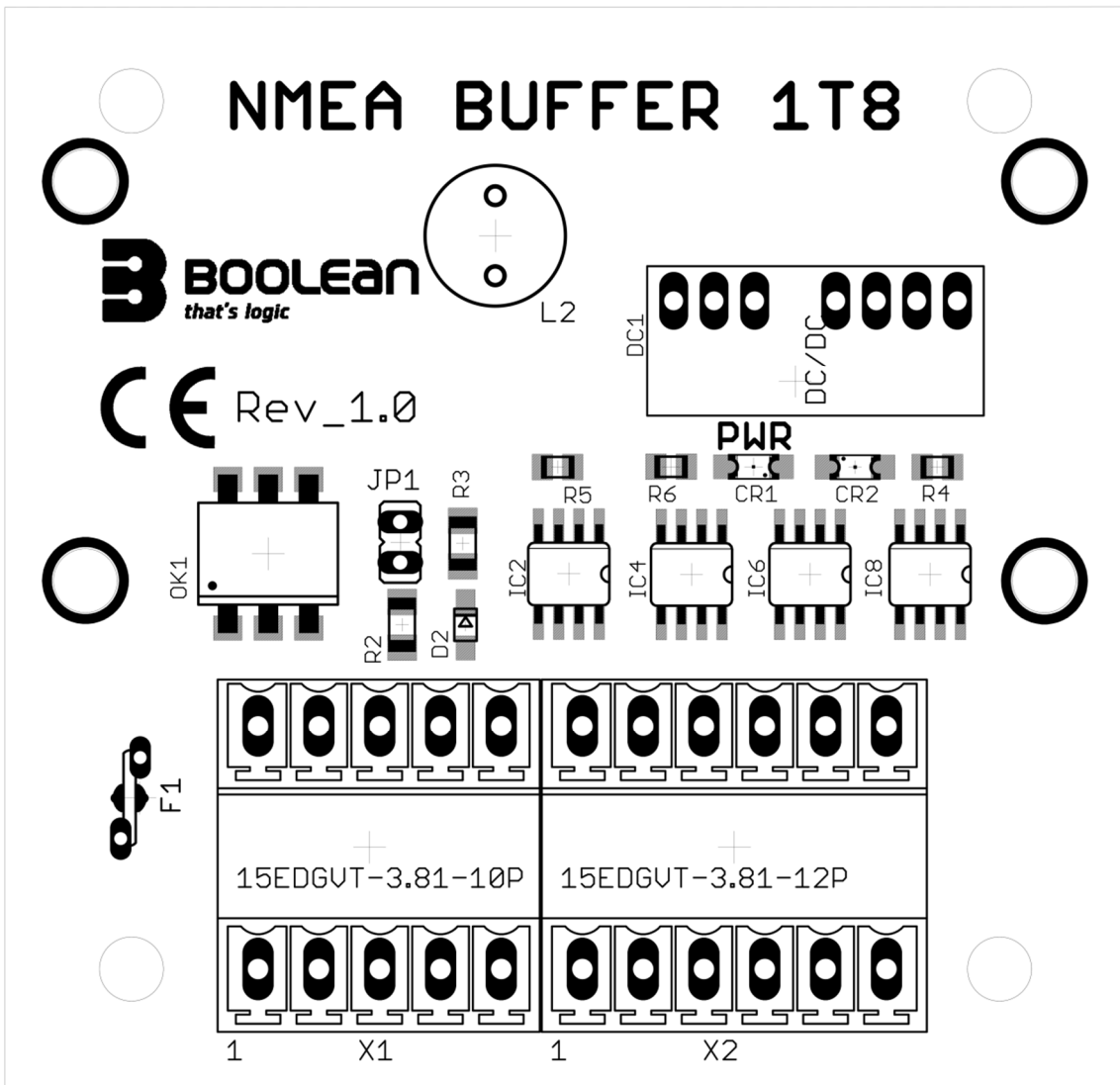
Description

NMEA Buffer has been designed to distribute NMEA or other RS422 signals from one transmitter to up to 8 listeners. Transmitted signal is galvanically isolated from power supply and all listeners. Unit can operate with signal speed up to 230400 bps and power supply range from 9 to 36 VDC. The unit simply distributes input signal (in example GPS receiver) to all connected listeners.

Single Input Transmission mode:



Terminal, jumper and LED description



Component layout.

Power and signal connection for hardware rev_1.0. Refer to following tables:

X1: Power and input signal connection:

Bottom row of terminal		Upper row of terminal	
1	PWR + power positive	6	NMEA1 + input 1
2	PWR - power negative	7	NMEA1 – input 1
3	Grounding	8	Grounding
4	NMEA out 1 A	9	NMEA out 2 A
5	NMEA out 1 B	10	NMEA out 2 B

X2: Outputs:

Bottom row of terminal X2		Upper row of terminal X2	
1	NMEA out 3 A	7	NMEA out 4 A
2	NMEA out 3 B	8	NMEA out 4 B
3	NMEA out 5 A	9	NMEA out 6 A
4	NMEA out 5 B	10	NMEA out 6 B
5	NMEA out 7 A	11	NMEA out 8 A
6	NMEA out 7 B	12	NMEA out 8 B

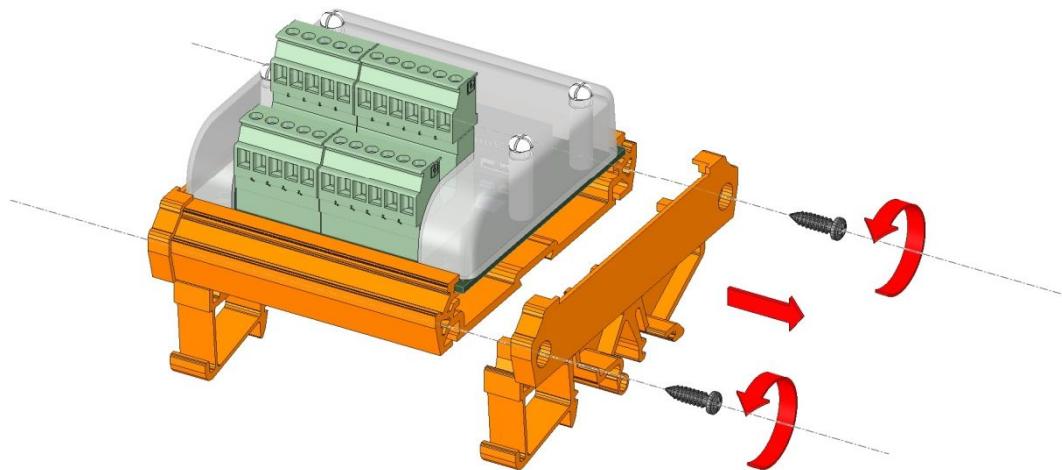
Jumper JP1: Close jumper in case of weak input signal. Normally leave opened.

LED Description:

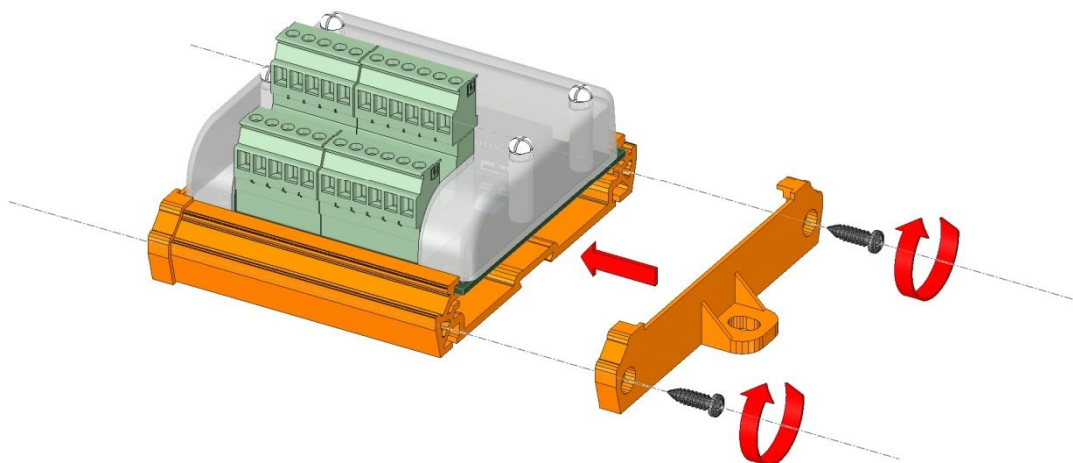
LED number		Description
1	CR 1	POWER present – normally lit.
2	CR 2	NMEA Input signal present – normally blinking.

Wall mounting option

Unscrew two bolts on each side and remove end plates and clip-in feet.

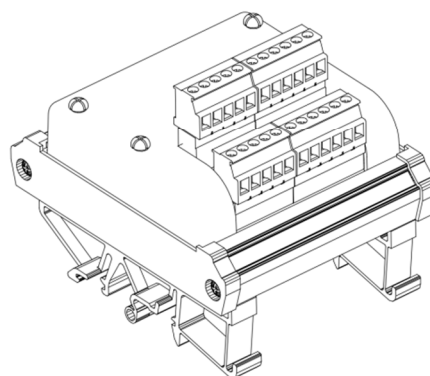
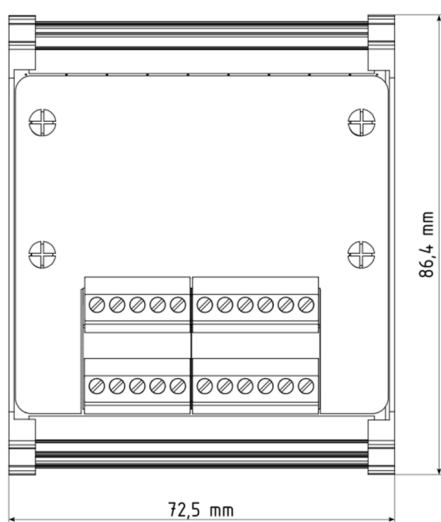
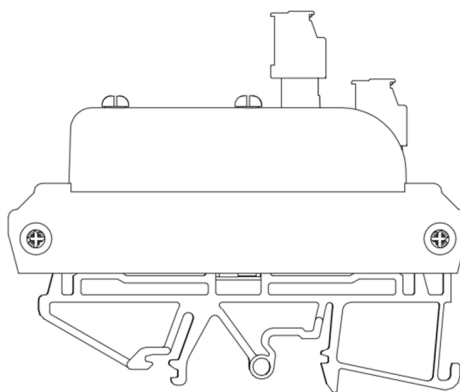
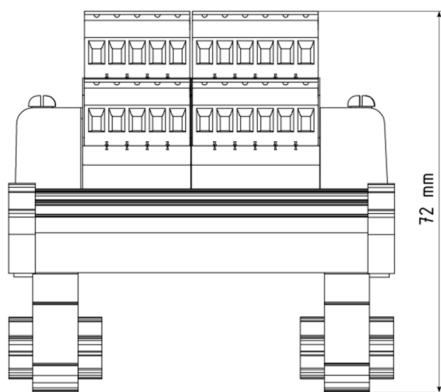


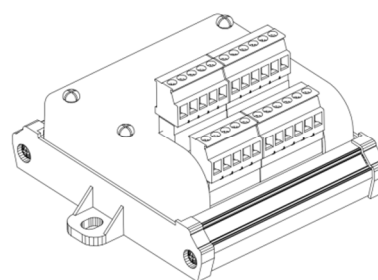
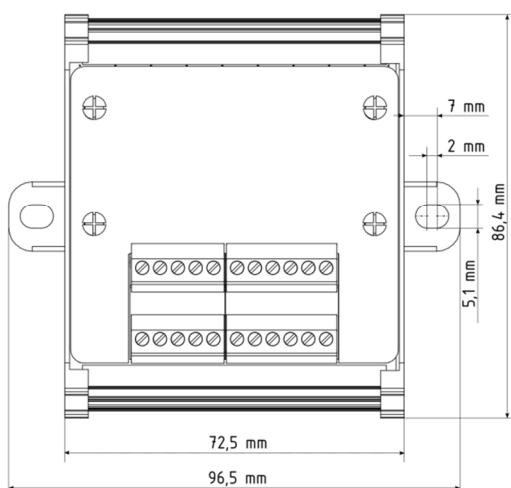
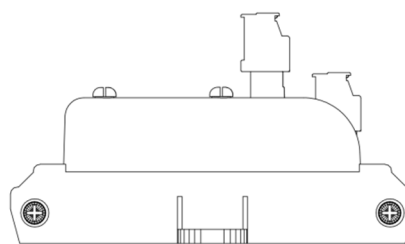
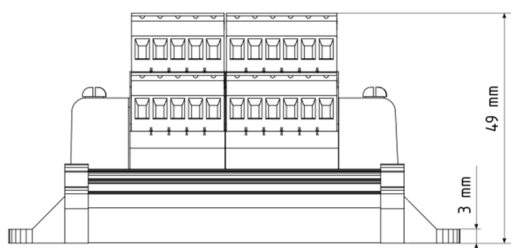
Place end plates for wall mounting (included) and screw the bolts back.



Technical data

- Power Supply: 24VDC (9 to 36VDC)
- Power consumption: maximum 1,7 W at 24VDC
- Galvanic isolation: Power supply 1,5kVDC, signal input/output up to 5kV_{RMS}
- Short circuit output protection
- Over voltage power input protection (up to ±37V)
- Number of inputs: 1
- Number of outputs: 8
- Input/output signal speed: Up to 230400 bps
- Connection: cables diameter up to 1,5mm²
- Dimensions: DIN Rail mounting: L 72,5mm x W 86,4mm x H 72mm
Wall mounting: L 96,5mm x W 86,4mm x H 49mm
- Mounting: DIN Rail / Wall





Warranty and after sales support

For warranty terms and conditions please refer to our website: <http://www.boolean.pl/>

Or contact via e-mail: info@boolean.pl



Boolean Sp. z o.o.

e-mail: info@boolean.pl

Company address:

Street: Sw. Stanisława Kostki 13A

Post code: 71-143

City & Country: Szczecin, POLAND

Declaration of Conformity

Boolean Sp. z o.o.
Street: Sw. Stanisława Kostki 13A
Post code: 71-143
City & Country: Szczecin, POLAND

Declares under our sole of responsibility, that following product:

NMEA Buffer 1T8

Conforms with the EMC provisions of the following directive:

IEC60945 – General Requirements for Marine Navigation Equipment

The following harmonized standards were applied:

Emission:

- **Conducted disturbances emission test EN 60945:2002 (test basis: EN 55022:2010)**
- **Radiated disturbances emission test EN 60945:2002 (test basis: EN 55022:2010)**

Immunity:

- **Electrostatic discharge immunity test EN61000-4-2:2009**
- **Radiated, electromagnetic field immunity test EN61000-4-3:2006 + A1:2008 + A2:2010**
- **Electrical fast transient / burst immunity test EN61000-4-4:2012**
- **Immunity test to conducted disturbances EN61000-4-6:2014**
- **Immunity test to voltage dips, short interruptions and voltage variations EN 61000-4-11:2004**

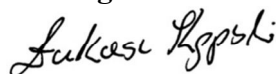
Name and number of accredited certification body / laboratory and certificate number / number of the report from the Research of type:

Institute of Logistics and Warehousing, Laboratory of Electronic Devices EMC TEST REPORT no RP 66-72 / 2017 LA

Place:

Szczecin, PL

Signature:



Lukasz Kępski
CEO / Project Manager

Date:

10 MAR 2017

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