



# MP2x8i NMEA Buffer Installation and user manual



The MP2x8i NMEA Buffer isolates and buffers NMEA 0183 data or other RS422 signals. It is able to distribute the NMEA signal from two Talkers up to eight Listeners. As the (power) input and output ports are isolated the device ensures the protection of the Talkers and Listeners. The MP2x8i features two operating modes; auto-switching mode and dual mode. In auto-switching mode you are able to connect two independent Talkers and distribute the signal to eight Listeners. In dual mode the buffer can be used as two independent buffers with one input and four outputs.

# **Features**

- RINA type approved & IEC60945 certified
- Number of input ports: 2 (RS232 or RS422)
- Number of output ports: 8 (RS422)
- Input/output speed (baud rate): 4800 to 230400 bps
- Individually OPTO isolated input and output
- Isolated 24 VDC (9-36 VDC) power supply (over voltage protection up to 37VDC)
- Power consumption: 0,6W at 24VDC
- Galvanic isolation: Power supply 1,5kVDC, signal input/output up to 5kVRMS
- Reverse polarity input protection
- Pluggable PCB terminal block for easy access and installation
- Connector: Cable diameter up to 1,5 mm (2,5 mm without ferrule)
- Dimensions: Length 155,5 mm x Width 68,0 mm x Height 32,0 mm
- Mounting: Wall mount (using four screws)
- Weight: 200 gr.

### Accessories





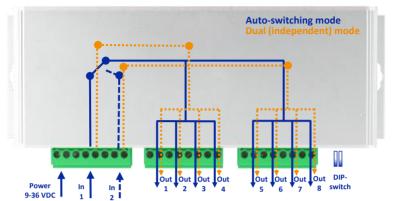






# **Operation modes**

- Auto-switching mode: If input signal #1 is lost for 30 seconds, it will automatically switch to input #2.
- 2. Dual (independent) mode: Two independent buffers with 1-in and 4-out signals.



# **Terminal description**

## DIP-switch:

- SW1 On: Auto-switching mode
- ◆ SW1 Off: Dual (independent) mode
- SW2: Not available

### LED indicators:

- Power LED: Will blink continuously when power input is connected correct
- Auto-switching mode: Input 1 LED and input 2 LED will blink simultaneously at data rate
- Dual mode: Input 1 LED and input 2 LED will blink separately at data rate



Caution: Do not install or disassemble your equipment when the power supply is connected to the device. Failure to do so could result in personal injury or damage to the equipment.

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Input		
PWR - 9-36 VDC  Ground  NMEA 1 in +  NMEA 1 in -  Ground  NMEA 2 in +  NMEA 2 in -  Out put  Out 1 A  Out 1 B  Out 2 A  Out 2 B  Out 3 A  Out 3 B  Out 4 A  Out 4 B  Out 4 B  Out 5 A  Out 5 B  Out 5 B  Out 6 A  Out 6 B  Out 7 A  Out 7 B  Out 8 A  -> Listener 7  Out 9 B  -> Listener 6  Out 7 A  Out 7 B  Out 8 A  -> Listener 7	Input	
Ground  NMEA 1 in + -> Talker 1  NMEA 2 in + -> Talker 2  Output  Out 1 A -> Listener 1  Out 2 B -> Listener 2  Out 3 A -> Listener 3  Out 4 B -> Listener 4  Out 5 B -> Listener 5  Out 5 B -> Listener 6  Out 7 A -> Listener 7  Out 7 B -> Listener 7  Out 8 A -> Listener 7	PWR + 9-36 VDC	
NMEA 1 in +	PWR - 9-36 VDC	
NMEA 1 in -   -> Talker 1	Ground	
NMEA 1 in -   Ground   NMEA 2 in +   -> Talker 2	NMEA 1 in +	-> Talker 1
NMEA 2 in +         -> Talker 2           NMEA 2 in -         -> Listener 1           Out 1 A         -> Listener 1           Out 2 A         -> Listener 2           Out 2 B         -> Listener 3           Out 3 A         -> Listener 3           Out 4 A         -> Listener 4           Out 4 B         -> Listener 5           Out 5 A         -> Listener 5           Out 6 A         -> Listener 6           Out 7 A         -> Listener 7           Out 8 A         -> Listener 8	NMEA 1 in -	
NMEA 2 in -   -> Talker 2	Ground	
NMEA 2 in -           Output         Out 1 A         -> Listener 1           Out 1 B         -> Listener 2           Out 2 B         -> Listener 2           Out 3 A         -> Listener 3           Out 4 A         -> Listener 4           Out 4 B         -> Listener 4           Out 5 A         -> Listener 5           Out 5 B         -> Listener 6           Out 6 B         -> Listener 7           Out 7 B         -> Listener 8	NMEA 2 in +	-> Talker 2
Out 1 A       -> Listener 1         Out 2 B       -> Listener 2         Out 3 A       -> Listener 3         Out 4 A       -> Listener 4         Out 5 A       -> Listener 5         Out 5 B       -> Listener 6         Out 6 A       -> Listener 7         Out 7 B       -> Listener 8	NMEA 2 in -	
Out 1 B	Output	
Out 1 B Out 2 A Out 2 B Out 3 A Out 3 B Out 4 A Out 4 B Out 5 A Out 5 B Out 6 A Out 6 B Out 7 A Out 7 B Out 8 A  -> Listener 2  -> Listener 3  -> Listener 4  -> Listener 4  -> Listener 5  -> Listener 5  -> Listener 6  -> Listener 7	Out 1 A	-> Listener 1
Out 2 B	Out 1 B	
Out 2 B Out 3 A Out 3 B Out 4 A Out 4 B Out 5 A Out 5 B Out 6 A Out 6 B Out 7 A Out 7 B Out 8 A  -> Listener 3  -> Listener 4  -> Listener 5  -> Listener 5	Out 2 A	-> Listener 2
Out 3 B	Out 2 B	
Out 3 B Out 4 A Out 4 B Output Out 5 A Out 5 B Out 6 A Out 6 B Out 7 A Out 7 B Out 8 A  -> Listener 5	Out 3 A	-> Listener 3
Out 4 B Output Out 5 A Out 5 B Out 6 A Out 6 B Out 7 A Out 7 B Out 8 A -> Listener 4 -> Listener 4	Out 3 B	
Out 4 B  Out 5 A  Out 5 B  Out 6 A  Out 6 B  Out 7 A  Out 7 B  Out 8 A  -> Listener 7	Out 4 A	-> Listener 4
Out 5 A -> Listener 5 Out 6 A -> Listener 6 Out 6 B -> Listener 6 Out 7 A -> Listener 7 Out 7 B -> Listener 8	Out 4 B	
Out 5 B -> Listener 5 Out 6 A -> Listener 6 Out 7 A -> Listener 7 Out 7 B -> Listener 7	Output	
Out 5 B Out 6 A Out 6 B Out 7 A Out 7 B Out 8 A -> Listener 7	Out 5 A	-> Listener 5
Out 6 B Out 7 A Out 7 B Out 8 A -> Listener 7	Out 5 B	
Out 6 B Out 7 A Out 7 B Out 8 A -> Listener 7	Out 6 A	-> Listener 6
Out 7 B Out 8 A -> Listener 7	Out 6 B	
Out 7 B Out 8 A -> Listener 8	Out 7 A	-> Listener 7
-> Listener 8	Out 7 B	
Out 8 B	Out 8 A	-> Listener 8
	Out 8 B	