MiniPlex-2S

NMEA multiplexer

The MiniPlex-Lite is our trouble-free entry level NMEA multiplexer. Based on the proven technology of our existing range of multiplexers, we have taken the fundamental elements of a multiplexer and created a basic zero-configuration, easy to install unit.

No configuration is needed, no baud rates to select. Just plug in the MiniPlex-Lite into a free USB port of your computer, a PC or a Mac, enter the driver CD and after a few clicks the unit is up and running. It needs no further configuration. Just connect the cables of your instruments to the clamp-connectors with the factory-supplied tool and your computer-based navigation system is complete.

The MiniPlex-Lite is not a stand-alone unit however, it is dedicated to be used with a computer.

The MiniPlex-Lite will operate with any navigation software package through the virtual COM port created by the driver. It provides three galvanically isolated NMEA inputs to connect your GPS and other devices like a speed log, wind meter or an AIS receiver.

A unique feature of the MiniPlex-Lite is the auto-sensing NMEA input on channel 3. This input will automatically detect the high speed data from a connected AIS receiver, which runs at 38400 bps as opposed to standard NMEA equipment which runs at 4800 bps (Bits Per Second).

The combination of the MiniPlex-Lite and it's virtual COM port driver is a dedicated NMEA solution, as opposed to a generic Serial <-> USB converter. It offers galvanic isolation to be fully compliant with the NMEA specification and it does not exhibit the well known problems of generic converters like the infamous 'crazy mouse' problem or sudden drop-outs in the NMEA data stream.

Any attempt of Windows to detect Plug & Play devices on our virtual COM port is blocked, resulting in a real trouble-free Plug & Play solution. Just plug in the USB cable, load the driver disk, a few clicks and you're up and running!

The MiniPlex-Lite is completely transparent to NMEA data. Incoming data is simply stored and forwarded as complete NMEA sentences to the computer.

Any data sent by the computer, like steering information for an autopilot, is output on the dedicated NMEA output.
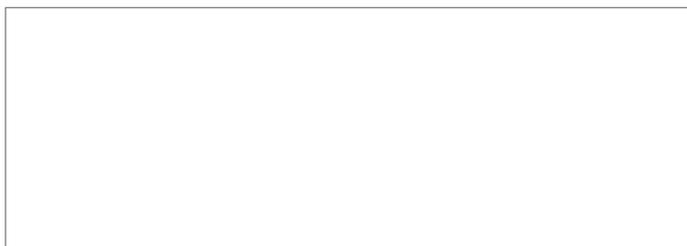
The multiplexer does not send any NMEA data from it's own inputs to it's output! The navigation software is responsible for forwarding selected NMEA data from the inputs to the outputs.

The communication speed to the computer is much higher than the standard NMEA speed, thus there is no possibility of overflow and missing NMEA sentences from the instruments to the computer.

To prevent any overflow to occur when steering data or waypoints are sent from the high speed computer interface to the NMEA output, a flow control is implemented to momentarily stop the computer from sending data when the internal buffer is full. To enable this feature, Hardware Flow Control must be enabled in the communication parameters section of your navigation software.

SPECIFICATIONS

Supply voltage:	Powered from the USB bus
Current consumption:	30mA (80mA max. with fully loaded talker port)
Inputs:	3 x NMEA-183/RS-422, galvanically isolated NMEA inputs. Input 3 is auto-sensing between 4800 bps and 38400 bps, in order to adapt to the high speed data of AIS receivers
Output:	1 x NMEA-183/RS-422 for a repeater display and/or an autopilot.
Computer interface:	Bidirectional USB port, driver creates a virtual COM port with optional flow control
Buffers:	Input 1,2 and USB port: 128 characters
	Input 3: 256 characters
Speed NMEA in:	4800 bps (4800/9600/19200/38400 on input 3)
Speed NMEA out:	4800 bps
Speed on USB channel:	57600 bps
Dimensions:	97 x 79 x 28 mm

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