Model AM43
NMEA 0183 Hi-Speed
Multiplexer

The AM43 multiplexer combines up to four NMEA 0183 instruments into a common output. It supports AIS inputs with baud rates to 38,400 as well as encapsulation sentences. Multiple outputs are provided, a USB interface and two NMEA 0183 outputs (4800 and 38,400 baud). The multiplexer reads and stores the incoming data from each instrument. When a complete sentence is received, it is automatically sent to the outputs while it continues reading the inputs. Therefore, complete sentences are sent as soon as they are received without any loss or corruption of input data. A "Talker" (TLK) port is also included to allow a computer to request specific messages from instruments or to send data such as waypoints, routes, or steering commands.

Installation of the multiplexer is simple. The module may be mounted to any convenient surface with all connections made via a terminal strip. A USB connector is provided for PC connection, if desired. The unit is fully automatic in that once power is applied, it immediately begins acquiring data without user interaction. Software drivers for USB "Virtual COM Port" connection are included on a CD. Baud rates and other functions are user programmable.

A multicolor LED shows operating status of the multiplexer. Green indicates an input is receiving valid data. Red indicates the PC is sending data. Yellow indicates an error has occurred. Error messages are sent to the USB output to aid in fault detection.

SPECIFICATIONS

Supply Voltage	8-30 Vdc
Input drive voltage (min/max)	2-14 V. (active state)
Input impedance	1K ohm (min.) opto-isol.
OUT, TLK levels	4V
OUT, TLK baud rate	4800 (fixed)
OUTh+ / OUTh- level	4V differential (RS-422)
Inh / OUTh baud rate	4800 – 38400 (selectable)
IN1 baud rate	4800 or 9600 (selectable)
IN2, IN3 baud rate	4800 (fixed)
Size, weight	3.88" x 2.4" x 0.9", 6 oz.
Warranty	2 year replacement
Operating Temp (degC)	0 – 50
Humidity range	0 – 100 % (non-condensing)
Case packaging	ABS Plastic