

Mackay Marine NOLAND NMEA 0183 DUAL EXPANDER - MODEL DX28



The DX28 Expander is a 2-channel signal splitter/amplifier for NMEA 0183 data signal distribution. It can be configured as one 1-in x 8-out expander, two 1-in x 4-out expanders, or an autoswitching expander. The two inputs are completely independent and can operate at the same or different baud rates up to 38,400. The selectable auto-switching feature enables automatic switchover to the AUXILIARY input when signal is lost from the PRIMARY input. A bicolor (green/red) status LED on each input shows data activity and a third LED (yellow) provides "overcurrent" fault indication.

Specifications

Input impedance	2K ohms
Input sensitivity	2V differential
Input baud rate	38,400 max.
Output level (RS-422)	3.5v < 500 ohms
Supply voltage	10 – 30 Vdc
No-load current	<20 ma.
Full-load current	100 ma.
Overcurrent indication	> 100 ma.
Size (inches)	2.5 x 3.5 x 1.0
Weight (ounces)	3.0
Operation Temp (degC)	0 – 50
Humidity Range	0-100% (non-condensing)
Case Packaging	ABS Plastic

NMEA 0183 EXPANDER - MODEL SX14



The SX14 Expander is an advanced version of its predecessor (XP15) with very low power consumption, hi-speed operation to 38,400 baud, and outputs that withstand indefinite short circuits. It provides a single opto-isolated input and four independent differential (RS-422) outputs which are also compatible with RS-232 listeners.

Many marine instruments, although compliant with the NMEA 0183 specification, do not provide sufficient drive capability for multiple listeners. To overcome this, the SX14 has four outputs, each of which can drive multiple listeners, both RS-422 and/or RS-232, as needed. All outputs are isolated from each other, so that shorting one will not affect the others. A green data LED and a yellow fault LED indicate the unit is operating and connected properly.

The SX14 can operate on any DC voltage from 8-30 Vdc. A green LED on the unit flashes when input data is detected, while a yellow (overcurrent) LED flashes if a supply current overload occurs. Current overload usually occurs because an output terminal is misconnected.

Specifications

Supply Voltage	8-30 Vdc
Supply Current (operating)	75 ma. typ. (all outputs loaded)
Standby Current (no data)	<4 ma. typ.
Input Impedance (IN+ to IN-)	>500 ohm
Output Level	4V typ. into 500 ohms
Data Rate	38,400 baud max.
Overload Indicator	>80ma
Operating Temp (degC)	0 – 50
Humidity range	0 – 100% (non-condensing)
Size, Weight	3.5 x 2.0 x 0.9 in., 2 oz.