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XP32 NMEA 0183 Expander

The XP32 expander was designed to be a NMEA 0183 problem solver in certain installations and will increase the reliability of any installation utilizing multiple listeners. It provides a single opto-isolated input and three independent RS-422 differential outputs plus one RS-232 (PC serial port) output. Although it is intended for 4800 baud operation per NMEA 0183, it will also operate at 9600 baud.

Many marine electronic instruments, although being compliant with the NMEA 0183 standard, do not provide sufficient drive capability for multiple listeners. The XP32 has four outputs, each of which can drive multiple listeners if needed. The XP32 Expander solves installation problems by providing an opto-isolated NMEA 0183 input and four independent outputs. Three outputs are NMEA 0183(RS-422) and the fourth output is RS-232 typically used to connect to a PC.

The XP32 provides an additional benefit of isolation between outputs so that one or more can become shorted without affecting the others. Short circuit protection is also designed into this unit, but shorted outputs may cause premature unit failure (overheating) if left connected indefinitely.

The XP32 can operate on any DC voltage from 9-28 Vdc. When operating in 24 Vdc vessels, take care to ensure the unit is not getting too warm during operation. A unit, which is quite warm to the touch, may have too many listeners connected to it or one of the output terminals may be shorted to ground. Disconnecting the outputs one-by-one until the unit gradually cools down will isolate the problem.

XP32 Specifications

9-28 Vdc (100 ma max)
5000 V min.
1K ohm min.
4.0V typ into 300 ohm
+/-8 V 10 ma typ.
9600 baud max.
2.0 x 2.5 x 0.875 in.
2 oz.
2 year replacement



TYPICAL INSTALLATION