

GDL NST-2204C NMEA-Step Converter

Installation and Operating Guide | English Edition

1. PRODUCT OVERVIEW

The NST-2204C is designed for seamless integration in marine systems. It converts an incoming 4800-baud, 10 Hz --HDT NMEA signal into independent traditional STEP signals for gyro, autopilot, radar, repeater and other navigation equipment using analogue step data. Its 24-70V DC step output range and robust architecture make it suitable for retrofit projects in demanding marine environments.

2. KEY FEATURES

- One digital NMEA 0183 RS-232 / RS-422 input, 4800 baud, --HDT at 10 Hz.
- Independent STEP output lines with terminals for Step Out 1, 2, 3 and 4.
- 24-70V DC STEP output range.
- DIP-switch selection for negative or positive STEP polarity.
- Isolated 9-36V DC supply with protection up to 37V DC.
- Integrated TEST switch for step connection checks.
- Reverse-polarity input protection and 0.6 W consumption at 24V DC.

3. TECHNICAL SPECIFICATIONS

PARAMETER	TECHNICAL DETAIL / VALUE
Model	NST-2204C NMEA-Step Data Converter
Manufacturer	GDL Technology
Input signal	1 x digital NMEA 0183, RS-232 / RS-422
Baud rate	4800 bps
NMEA sentence / frequency	--HDT, Heading True, at 10 Hz
STEP outputs	Independent STEP output lines; Step Out 1, 2, 3 and 4 terminals
STEP voltage range	24-70V DC
Polarity	DIP switch: Minus = negative STEP; Plus = positive STEP
Supply voltage	9-36V DC; isolated 24V system; protected up to 37V DC
Power consumption	0.6 W at 24V DC
Protection	Reverse polarity and high-voltage protection
Test controls	TEST DIP switch and Minus / Plus polarity switches
Mounting	Wall mount
Terminals	S1, S2, S3, Lamp, Com; R+, R- reference input; +Vin, -Vin; GND; NMEA in + / -

4. CONNECTION AND POLARITY DETAILS

- Power and NMEA input: +Vin, -Vin, 9-36V DC, GND, NMEA in+ and NMEA in-.
- STEP voltage reference: connect the external 24-90V DC reference to R+ and R-.
- STEP outputs: S1, S2, S3, Lamp and Com terminals.
- Polarity: Minus drives negative steps; Plus drives positive steps.
- Use the TEST switch to verify step line connections and operation.

SAFETY WARNING

Never install or remove the unit while a power source is connected. Failure to isolate the supply may cause personal injury or serious equipment damage.