

GDL EG-2201C Data Converter Series

Installation, Models and Technical Operating Guide | English Edition

1. PRODUCT OVERVIEW

The EG-2201C Series is a high-performance converter developed to adapt different NMEA 0183 protocols, communication speeds and proprietary hardware formats such as Tokimec, Yokogawa and Course Bus between marine bridge and navigation systems. Its isolated RS-422 / RS-232 input stage, galvanically isolated RS-422 output, status LEDs, wide supply tolerance and stable processor architecture provide accurate, continuous data transfer for autopilot, gyro, radar, ECDIS and repeater integration.

2. MODEL VARIANTS AND FORMAT CONVERSIONS

- EG-2201C-1 - Converts standard NMEA data to the proprietary Tokimec serial format.
- EG-2201C-2 - Converts XXHDT at 4800 baud to Yokogawa format at 2400 baud.
- EG-2201C-3 - Converts --HDT at 4800 baud / 10 Hz to Course Bus.
- EG-2201C-4 - Converts generic --HDT to HEHDT at 4800 baud.
- EG-2201C-5 - Converts magnetic heading --HDG to HEHDT at 4800 baud.
- EG-2201C-6 - Converts XXHDT at 4800 baud to HEHDT at 38400 baud.
- EG-2201C-7 - Converts --HDT at 4800 baud to Yokogawa format at 4800 baud.
- EG-2201C-8 - Converts --HDT at 4800 baud to HCHDM at 4800 baud.
- EG-2201C-9 - Converts --HDT to HEHDT plus ROT at 38400 baud.
- EG-2201C-10 - Converts --HDT to high-speed Tokimec format at 38400 baud.

3. TECHNICAL SPECIFICATIONS

PARAMETER	TECHNICAL DETAIL / VALUE
Model family	EG-2201C Data Converter Series - 10 model variants
Manufacturer	GDL Technology
Input signal	1 x opto-isolated RS-422 / RS-232 digital input
Input baud rate	4800 bps - standard NMEA 0183
Input refresh rate	According to output requirement; 10 Hz for Course Bus where applicable
Output	Isolated RS-422, A-0-B connection
Output formats / speeds	Tokimec; Yokogawa 2400/4800; Course Bus; HEHDT 4800/38400; HCHDM; HEHDT+ROT
Status LEDs	Green: power; Yellow: data input; Blue: data output
Supply voltage	9-36V DC; isolated 24V DC system; overvoltage protected
Power consumption	Less than 1 W
Isolation	Isolated input/output stages and galvanic isolation
Mounting	Wall mount / DIN-rail compatible panel
Terminals	Power: +Vin, -Vin Input: RX+, RX- Output: isolated RS-422 A, 0, B

4. LED STATUS AND DIAGNOSTICS

- GREEN PWR LED - Confirms that the 9-36V DC supply is present.
- YELLOW RX LED - Flashes or illuminates while valid serial data is received at RX+/RX-.
- BLUE TX LED - Flashes or illuminates while converted data is transmitted through the isolated A-0-B output.
- If the blue LED does not flash, check the yellow input LED and all terminal connections.

5. INSTALLATION AND TERMINALS

- Power: connect an external 9-36V DC supply to +Vin and -Vin.
- Serial input: connect the incoming RS-422/RS-232 signal to opto-isolated RX+ and RX-.
- Isolated output: connect A (+), 0 (signal reference / GND) and B (-) to the receiving device.