# ANALOGUE TO NMEA INTERFACE
## INT-0057 ZAD-120

DATASHEET

## ANALOGUE TO NMEA INTERFACE

The INT-0057 is a 12 channel, 24bit Analog to NMEA Converter to convert voltages & currents to digital signals which is used in the marine industry.

Example equipment includes Thrusters, Engine Telegraph, Shaft RPM and other standard Analogue data sources.

The NMEA Converter utilises a high precision 24bit A/D converter with digital filtering for excellent noise rejection, high accuracy and high reliability.

The INT-0057 outputs data through NMEA 0183 and TCP/IP-UDP (Ethernet) protocols simultaneously for interfacing with various ship's equipment such as ECDIS, VDR, and RADAR.

### Benefits

- High precision 24bit A/D Converter with Digital filter for excellent noise rejection.
- Various input signals ranges for industry standard (0V~5V, ±5V, 0V~10V, ±10V, 4~20mA).
- High input impedance produces no input signal loss (More than 500k ohm).
- Supports both Single ended and Differential ~~type~~ input signal.
- Very High Common mode noise rejection (Large than DC 100V).
- Outputs ~~a~~ NMEA 0183 standard (XDR) and UDP (TCP/IP) datagram through 100BaseT Ethernet.
- Supports IEC 61162-450 mode (Optional).

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SPECIFICATIONS

| | |
|---|---|
| | **INPUTS** |
| ANALOG INPUT: | 12 NMEA 0183 Input Ports |
| INPUT SIGNAL: | Voltage: -10~10V DC (Absolute Max Input: DC 100V)<br>Current: 4~20mA DC (Absolute Max Input: DC 30mA / 7.5A<br>Selectable by Jumper |
| INPUT IMPEDANCE: | 500kohm / 250ohm |
| | **SIGNAL TYPE** |
| DIFFERENTIAL SIGNAL: | Ch1~Ch8 only, Common Mode Voltage 100V |
| SINGLE ENDED SIGNAL: | All Channels (Ch1~Ch8 Single/Differential Selectable) |
| | **DIGITAL OUTPUT** |
| RESOLUTION VOLTAGE: | 0.1 V or 0.01 V |
| RESOLUTION CURRENT: | 0.1 mA or 0.01 mA |
| NMEA 0183 OUTPUT: | RS422 Port, “XDR” Sentence, 4,800~38,400bps UDP (TCP/IP) |
| OUTPUT: | 100 BaseT Ethernet (NMEA 0183 Sentence) |
| OUTPUT DATA RATE: | 1Hz or 10Hz |
| | **ANALOG TO DIGITAL CONVERSION** |
| PRECISION / ACCURACY: | 24 bit / ±0.5% at Full Scale |
| DIGITAL FILTER: | Average 32 Times |
| | **DISPLAY** |
| LED: | 1 Red LED On: Power On<br>4 Green LEDs: Off / On |
| D/R (DATA OUTPUT RATE): | Output Rate, 1Hz or 10Hz |
| RESOLUTION: | 1st Decimal Place or 2nd Decimal Place |
| LWE: | Normal or LWE (Light Weight Ethernet - IEC 61162-450) |
| MODE: | Normal Operating or System Mode |
| | **INPUT POWER** |
| VOLTAGE: | DC 24V (DC 18~32V) |
| DISSIPATION: | 0.2A at 24V |
| | **OPERATION ENVIRONMENT** |
| TEMPERATURE/HUMIDITY: | -15°C~+55°C / 95% (-59°F~131°F / 95%) |
| | **PHYSICAL SPECIFICATIONS** |
| DIMENSION/WEIGHT: | 180 x 201 x 60mm, 1.0 kg |

Remark
1) In case of other specifications (NMEA Signal or non-standard signal), please contact us.
2) This specification may be changed without notification.

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