

# ZMG-340 Multi-Protocol Gateway(Mux) (IEC61162-450 Gateway)

## Introduction

ZMG-340 Multi-Protocol Gateway(Mux) is basically a NMEA-0183 (IEC61162-1/2) serial to/from Ethernet (TCP/IP UDP) Gateway and 4ch Multiplexer.

It is also able to process all types of serial signals such Modbus-ASCII, Modbus-RTU and Binary Data.

In addition, this ZMG-340 Multi-Protocol Gateway(Mux) has IEC61162-450 protocol capability, which is very useful for connection non-networked equipment to IEC61162-450 ship navigation and communication network. It also has the function of converting CAN signal to/from Serial and Ethernet.

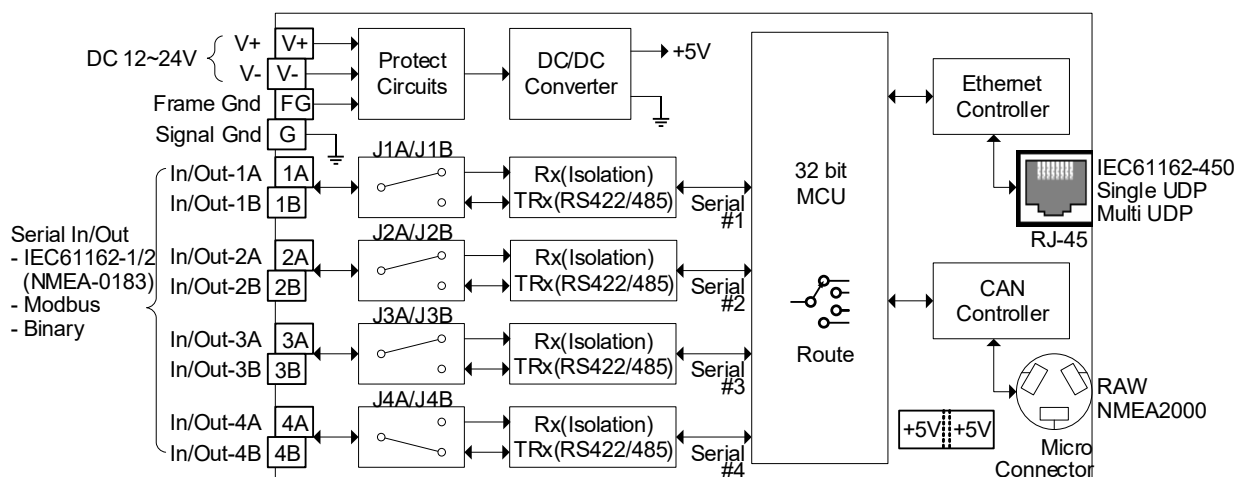
It is designed for high reliable and compliance to international standard, the firmware is easily field upgradeable and will be continuously upgraded through customer requirements monitoring.



## Application

- ZMG-340
  - ✓ NMEA-0183 to/from Ethernet (TCP/IP UDP) Gateway and Multiplexer (4ch Combiner)
  - ✓ Serial (Modbus-ASCII, Modbus-RTU and General Binary Data) to/from Ethernet Gateway
  - ✓ Serial to/from Serial Converter (Conversion of Baud rate, Data length, Parity and Stop bit)
  - ✓ Very high speed Tx and Rx of Serial data (Up to 230,400bps)
- ZMG-340pro (Professional)
  - ✓ Including all functions of ZMG-340.
  - ✓ NMEA-0183 to/from IEC61162-450 (LWE: Light Weight Ethernet) Gateway
  - ✓ CAN to/from Ethernet Gateway.
  - ✓ Serial to/from CAN Gateway

## Block Diagram



## ■ Specifications

Serial Ports	
4 Serial Ports	<ul style="list-style-type: none"> <li>- Each Serial port is selected as Tx or Rx by internal jumper.</li> <li>- Max 4 Rx channels, Galvanic isolation (NMEA-0183, RS-422, RS-232, TTL and Current-Loop signals acceptable)</li> <li>- Max 4 Tx channels, RS-422 Output (NMEA-0183)</li> <li>- Max 2 RS-485 bidirectional channels</li> </ul>
Protocol	- NMEA-0183/HS (IEC61162-1/2), Modbus-ASCII, Modbus-RTU, Binary Data
Protection	- A Protection against Over voltage input (up to 36V)
Baud Rate	- 1,200bps ~ 230,400bps by each port (9 Steps)
CAN (Pro only)	
Protocol	<ul style="list-style-type: none"> <li>- CAN 2.0B (NMEA-2000/IEC61162-3, SAE J1939, other CAN-based Systems)</li> <li>- Raw data (Does not decode PGN's and transport the CAN frames, it can be handled and decoded by receiving device)</li> <li>- Galvanic isolation</li> </ul>
Speed	- 100kbps, 125kbps, 250kbps, 500kbps, 1Mbps
Ethernet	
Protocol	<ul style="list-style-type: none"> <li>- TCP/IP UDP Unicast and Multicast.</li> <li>- IEC61162-450 Light Weight Ethernet Protocol. (Pro only)</li> <li>- TCP/IP TCP and HTTP for System configuration</li> </ul>
Speed	- 10/100Mbps
Display and Monitor	
Monitor	- Success packet and Error packet counter through dedicated UDP port
LED	- Operation status (Power, Input data)
Configuration	
Serial	- Baud rate, Data Length, Parity bit and Stop bit by each channel.
Network	- Source and Destination IP address and UDP Port, Single/Multi UDP Mode
Routing	- Between Serial, CAN and Ethernet (UDP) by each Channel
Input Power	
Voltage	- DC 12/24V (10~32V), Approximately 300mA at 12V
Fuse	- Electric Fuse, No Replacement Required
Physical Specifications	
Dimension	- 90 x 138 x 42mm (Including Terminal blocks)
Weight	- 0.5kg
Terminal	- Removable Screw Terminal Blocks
Option	
NTP Server	- Network Time Protocol Server

## ■ Remark

- 1) If you need any other specifications, please contact us.
- 2) This specification may be changed without notification.