ZMG-390 NMEA(Serial) Gateway (Mux)
(IEC61162-450 Gateway)

▣ Introduction

ZMG-390 NMEA(Serial) Gateway (Mux) is basically a NMEA-0183(IEC61162-1/2) serial to/from Ethernet (TCP/IP UDP) Gateway and 9ch Multiplexer.

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

In addition, this ZMG-390 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.

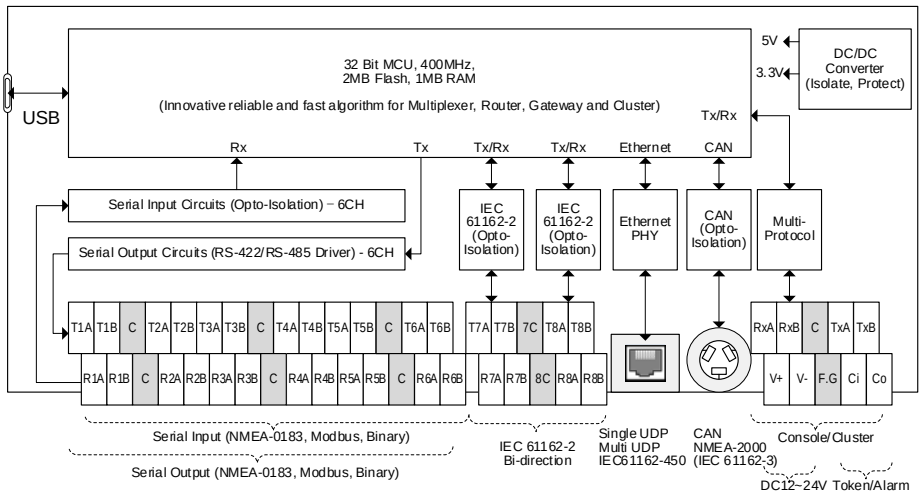
When many serial channels are required, the cluster mode is supported up to 32 channels can be expanded by connection up to 4 units ZMG-390.

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.

▣ Functions

- ZMG-390
  - ✓ NMEA-0183 to/from Ethernet (TCP/IP UDP) Gateway and Multiplexer (9ch 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 performance, Simultaneous transmission / reception of all channels at 230,400bps
  - ✓ Cluster mode: combine and switch up to 32ch serial
- ZMG-390pro (Professional)
  - ✓ Including all functions of ZMG-390
  - ✓ NMEA-0183 to/from IEC61162-450 (LWE: Light Weight Ethernet) Gateway
  - ✓ CAN(NMEA-2000(IEC61162-3)) to/from Ethernet Gateway
  - ✓ CAN to/from Serial Gateway

▣ Block Diagram



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▣ Specifications

Serial Ports	
9 Serial Tx/Rx Ports	- 8 Rx Galvanic Isolating ports (NMEA-0183, RS-422, RS-232, TTL, C/L) - 2 NMEA-0183HS(IEC61162-2) ports
Protocol	- NMEA-0183, Modbus-ASCII, Modbus-RTU, Binary Data
Protection	- A Protection against Over voltage input (up to 36V)
Baud Rate	- All channels supported at 230,400bps simultaneous (1,200bps ~ 230,400bps by each port (9 Steps)
CAN (Pro only)	
Protocol	- CAN 2.0B (NMEA-2000, SAE J1939, other CAN-based Systems) - Raw data (Does not decode PGN's and transport the CAN frames, it can be handled and decoded by receiving device) - Galvanic isolation
Speed	- 100kbps, 125kbps, 250kbps, 500kbps, 1Mbps
Ethernet	
Protocol	- TCP/IP UDP Unicast and Multicast. - IEC61162-450 Light Weight Ethernet Protocol. (Pro only) - TCP/IP TCP and HTTP for System configuration
Speed	- 10/100Mbps
Display and Monitor	
Monitor	- Success packet and Error packet counter through dedicated UDP port
LED	- Operation status (Power, Input/output data)
Configuration	
Serial Port	- Baud rate, Data Length, Parity bit and Stop bit by each port
Network	- Source and Destination IP address and UDP Port, Single/Multi UDP Mode
Routing	- Between Serial, CAN and Ethernet (UDP) by each port
Input Power	
Voltage	- DC 12/24V (10~32V), Approximately 500mA at 12V
Fuse	- Electric Fuse, No Replacement Required
Physical Specifications	
Dimension Weight	- 210 x 130 x 50mm (Including Terminal blocks) - 1.0kg
Terminal	- Removable Screw Terminal Blocks
Options	

▣ Remark

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

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