

KGW3101/3102/3204

1, 2, 4- Serial port DIN-rail Modbus gateway



» Overview

The KGW3101, KGW3102, and KGW3204 gateways convert between Modbus TCP and Modbus RTU/ASCII protocols. Each Ethernet port can be accessed by up to 16 TCP master/client devices, or 16 TCP slave/server devices. Each serial port can manage up to 128 serial master/slave nodes.

The KGW3101, KGW3102, and KGW3204 Modbus gateways support both Transparent mode and Agent mode. In Transparent mode, the gateway will bypass and translate Modbus commands between Modbus TCP/RTU/ASCII. In Agent mode, the gateway will actively poll the Modbus slave devices and store data in the gateway's memory. The Modbus master can retrieve Modbus slave devices' data via the gateway's memory.

KGW3101/3102/3204 can be widely applied in all kinds of applications in factory automation and industrial segments.

» Key Features

Convert between Modbus TCP and Modbus RTU/ASCII

1 or 2 Ethernet port and 1, 2, or 4 RS-232/422/485 ports

Supports both Transparent & Agent mode transmission

16 TCP devices per Ethernet port, Client or Server

128 devices per serial port, Master or Slave

Build-in 2KV serial Isolation protection

Metal housing with wide temperature rating (-40 to +75°C)

Certificates : UL61010, Class I Div 2, CE, FCC, RoHS

Product Specifications

> Technical Specification

- Ethernet Interface

Protocols: Modbus TCP

Number of ports:

KGW3101/KGW3102: 1

KGW3204: 2

Speed: 10/100 Mbps, Auto MDI/MDIX

Connector: RJ45

Magnetic Isolation Protection: 1.5 kV (built-in)

- Serial Interface

Protocols: Modbus RTU/ASCII

Number of ports:

KGW3101: 1

KGW3102: 2

KGW3204: 4

Serial Standards: RS-232/422/485, software selectable

Connector: DB9 male

ESD Protection: 15 kV for all signals

Isolation Protection: 2 kV (build-in)

DIP-Switch: Enable/Disable 120Ω matching resistor for RS485

- Serial Communication Parameters

Data Bits: 7 or 8

Stop Bits: 1 or 2

Parity: None, Even, Odd, Space, Mark

Flow Control: XON/XOFF, RTS/CTS, None

Baudrate: 300bps to 460.8kbps

-Security

Security Protocols : HTTPS, SSH2

-LED

System: PWR1, PWR2, Run

Serial port: S1-T/R、 S2-T/R、 S3-T/R、 S4-T/R

LAN: SPEED, ACT/LINK (RJ 45)

-Button

Reset: Supports "reset to factory default settings"

-Physical Characteristics

Housing: Aluminum

Weight:

KGW3101: 165g

KGW3102: 170g

KGW3204: 320g

Dimension:

KGW3101/KGW3102: 30×115×68 mm (W×H×D)

KGW3204: 54×134×106 mm (W×H×D)

Protection level: IP40

Installation: DIN-rail mounting

-Environmental Limits

Operating temperature: -40 to 75°C

Storage temperature: -40 to 85°C

Operating humidity: 5 to 95% RH

-Power Requirements

Input voltage : 12 to 48 VDC, recommended 24 VDC

Power plug: 4-pin terminal block

Power Consumption:

□KGW3101/3102: 1.8W

□KGW3204): 3.2W

Overload protection: Support

Reverse protection: Support

Redundancy protection: Support

-Standards and Certifications

Approvals: UL61010, Class I Div 2, CE, FCC, RoHS

Hazardous Location: UL61010, Class I Div 2

EMI:

EN 55032

FCC Part 15 Subpart B Class A

EMS:

EN 55024

IEC61000-4-2(ESD): $\pm 6\text{kV}$ (contact), $\pm 8\text{kV}$ (air)

IEC 61000-4-3(RS): 10V/m (80MHz–2GHz,)

IEC61000-4-4(EFT): Power Port: $\pm 2\text{kV}$;Data Port: $\pm 1\text{kV}$

IEC61000-4-5(Surge): PowerPort: $\pm 1\text{kV}/\text{DM}$, $\pm 2\text{kV}/\text{CM}$; Data Port: $\pm 1\text{kV}$

IEC 61000-4-6(CS): 10V(150KHz-80MHz)

Machinery:

IEC60068-2-6(Vibration)

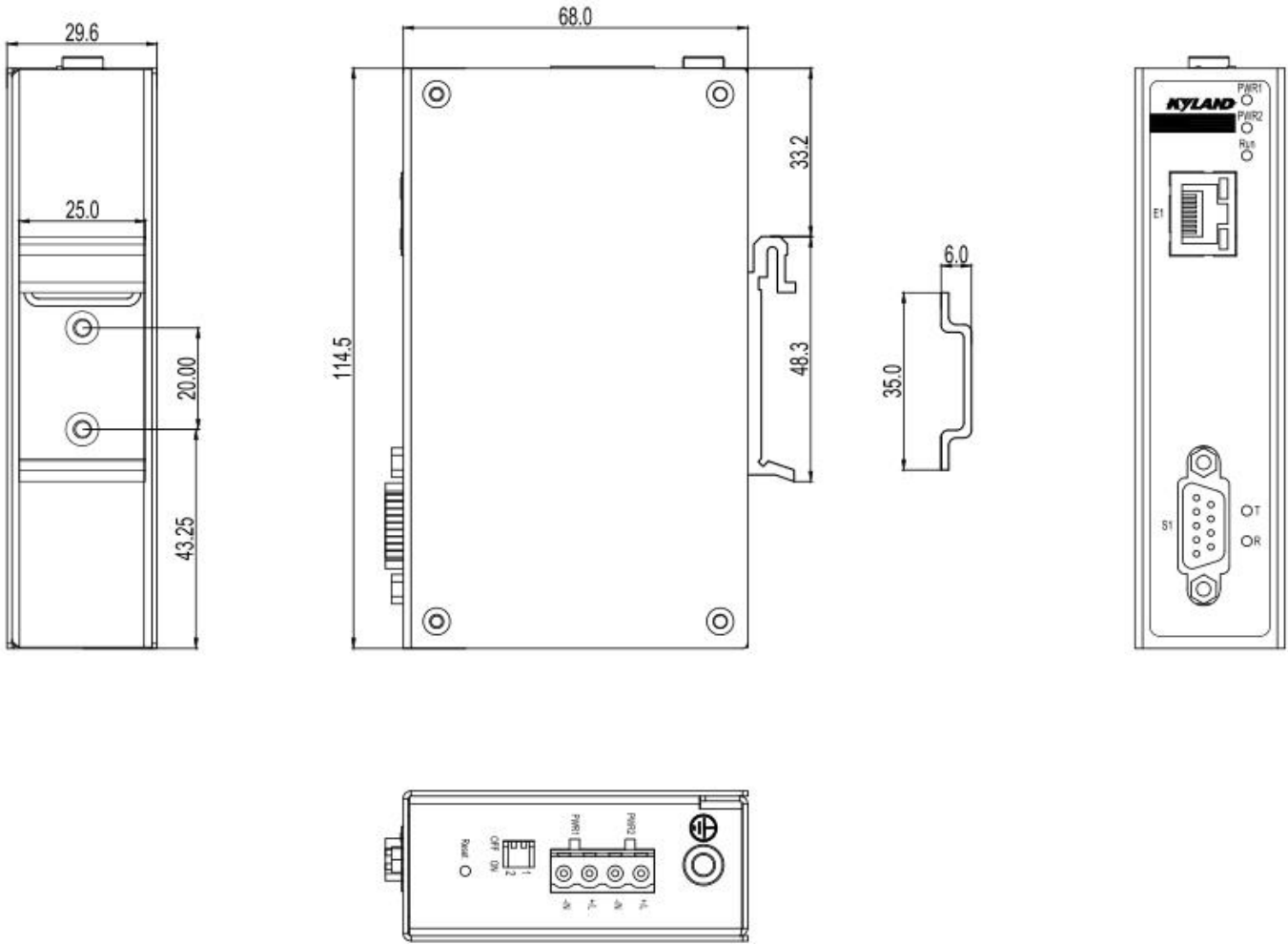
IEC60068-2-27(Shock)

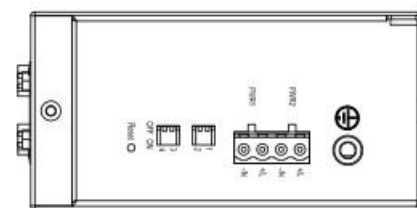
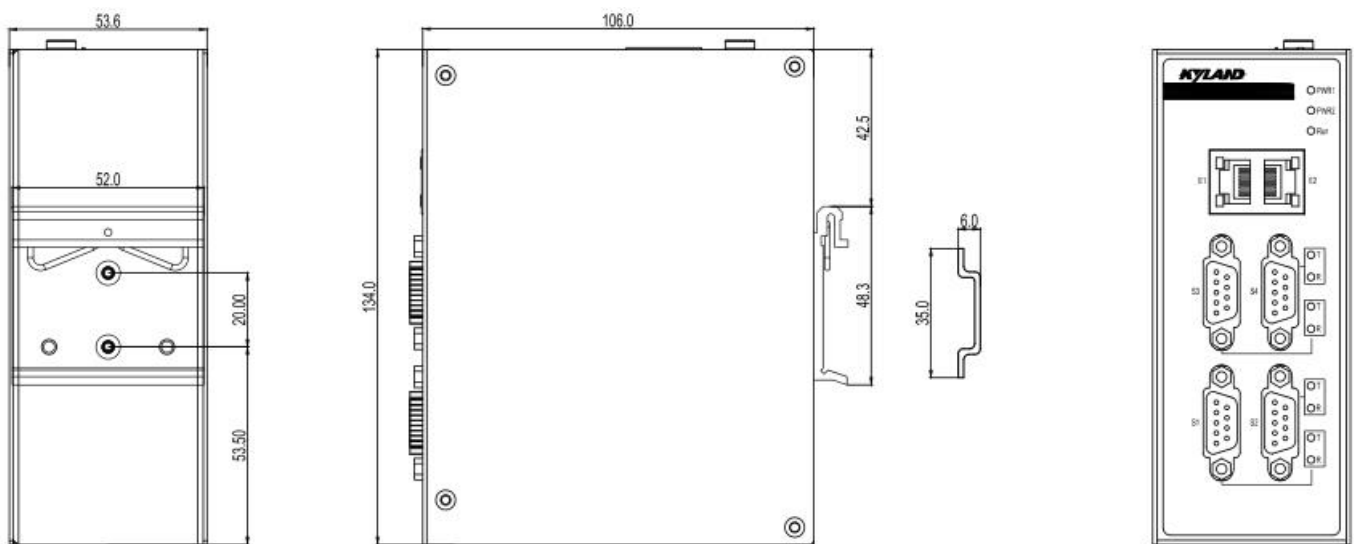
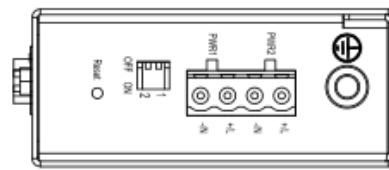
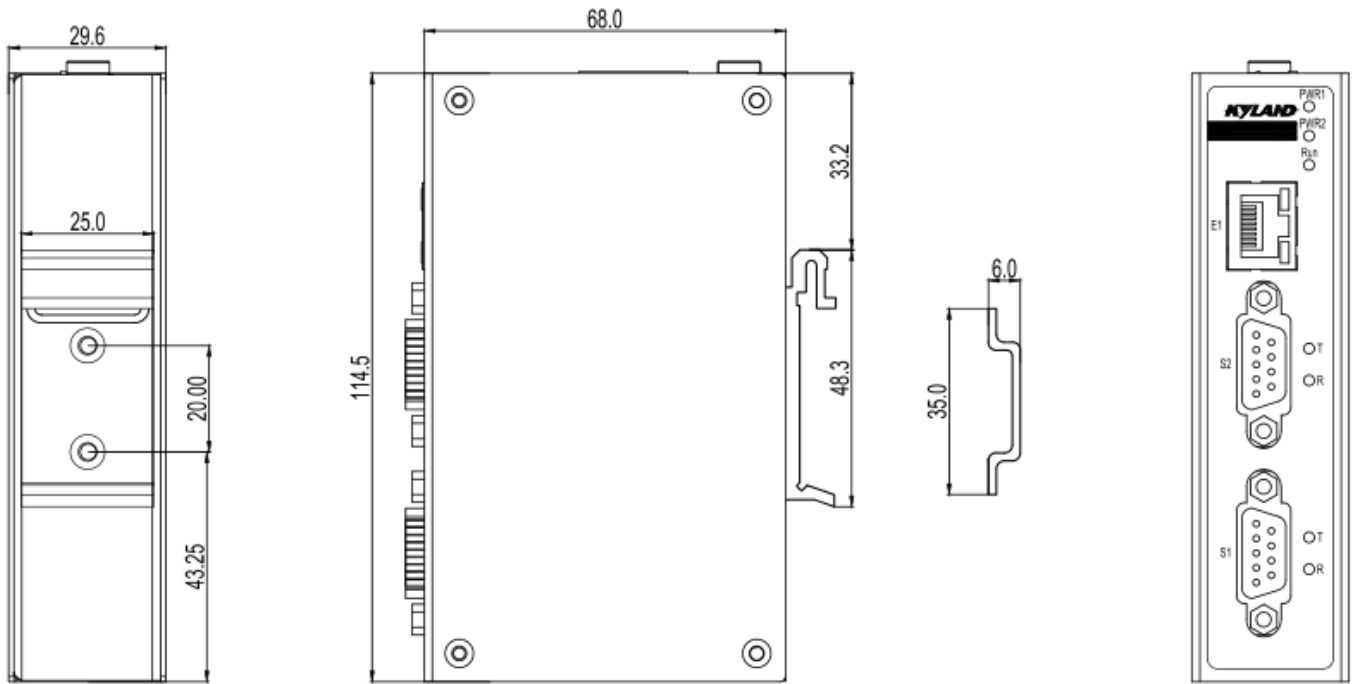
IEC60068-2-32(Free Fall)

-Warranty

Warranty Period: 5 years

 **Mechanical Drawing**





» Ordering Information

Available Models

KGW3101-1T1D-L17-L17: 1-port standard Modbus gateway

KGW3102-1T2D-L17-L17: 2-port standard Modbus gateway

KGW3204-2T4D-L17-L17: 4-port standard Modbus gateway

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