RS-485/RS-422 Isolator/Repeater/Converter   MW1040-I-R

Industrial RS-485/RS-422 Isolator/Repeater/Converter, 3000V Opto-isolation

➢ Features

- Support bidirectional data conversion between 1-port RS-232 and 1-prot RS-485/422;
- Support RS-485/422 repeater function, communication distance up to 3Km(9600bps);
- Plug and play (hot-pluggable);
- Built-in 1500W surge protection, 15kV static protection and circuit protection;
- Support 3000V optical isolation;
- Supports high-speed serial data rates: 300 to 115200bps;
- Support DC12-36V wide voltage input;
- Data direction auto-turnaround, no software drivers or flow control is required;
- Support DIN-Rail or wall mount installation;
- Working temperature range:-40~85°C;
- Warranty:5years

➢ Introduction

The MW1040-I-R is an industrial-grade RS-485/RS-422 repeater and converter, which can convert the RS-485/RS-422 signal in high rate with 3000V optical isolation, It provides 1-port RS-232 and 2-port RS-485/422. RS-485/422 supports serial port self-adaption technology that can identify RS-485/422 serial port automatically without the need of setting the switch. Serial ports are equipped with 1500W surge protection, 15kV electrostatic protection and 3kV photoelectric isolation protection, effectively avoid damage caused by lightning strikes, surges and other factors.

MW1040-I-R supports serial data rates up to 115,200bps, auto-sensing and self-adjusting, no DIP switch or jumpers are required, which widely used in electric power system, industrial automation control, IC card charging system and measuring instrument, distributed data acquisition and other occasions.

➢ Application Industries

- Industrial Automation
- Intelligent transportation supervisory system (ITS)
- Long-distance broadcast television transmission system
- Electric Power Industry
- Rail transportation industry
- Power system automation
- Water conservancy monitoring
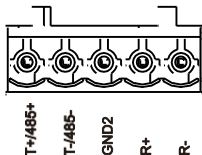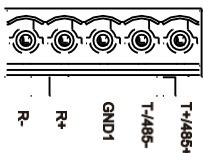- Distributed data acquisition

➢ Specification

Serial Interface	
Standard	Compliant with EIA RS-232C, RS-485/RS-422 standards
Serial port	1-port RS-232+ 2-port RS-485/422
Conversion mode	RS-232 and RS-485/422 data conversion RS-485/422 repeater (two modes cannot operate simultaneously)
RS-232 signal	TXD, RXD, GND
RS-485 signal	D+, D-, GND
RS-422 signal	T+, T-, R+, R-, GND
Baud rate	300bps ~115200bps
Interface type	RS-232 serial port, adopts DB9, Female; RS-485/422 serial port, adopt 5-pin 5.08mm pitch terminal blocks
Transmission distance	RS-232 serial port, 15m; RS-485/422 serial port, 3000m (9600nps)
Direction control	RS-485 adopts automatic data flow control technology which can detect and control data transmission direction automatically
Load capacity	RS-485 supports 32-point polling environment (128-point could be customized)
Power	
Power Supply	12~36VDC, 3-pin 5.08mm pitch terminal blocks
Power Consumption	Static power consumption: ≤150mA Dynamic power consumption: ≤350mA
Lightning protection	600W
Static protection	15KV
Optical Isolation	3000V
Physical Characteristics	
Shell	DIN rail metal shell, IP30 protection
Dimension	69mm×22mm×100mm
Weight	300g
Working Environment	
Working Temp	-40~85°C
Storage Temp	-40~85°C
Relative Humidity	5%~95% (no-condensation)
Warranty	
Warranty	5 Years
Certification	CE, FCC, RoHS

➢ PIN setting

RS-232 DB9 port:

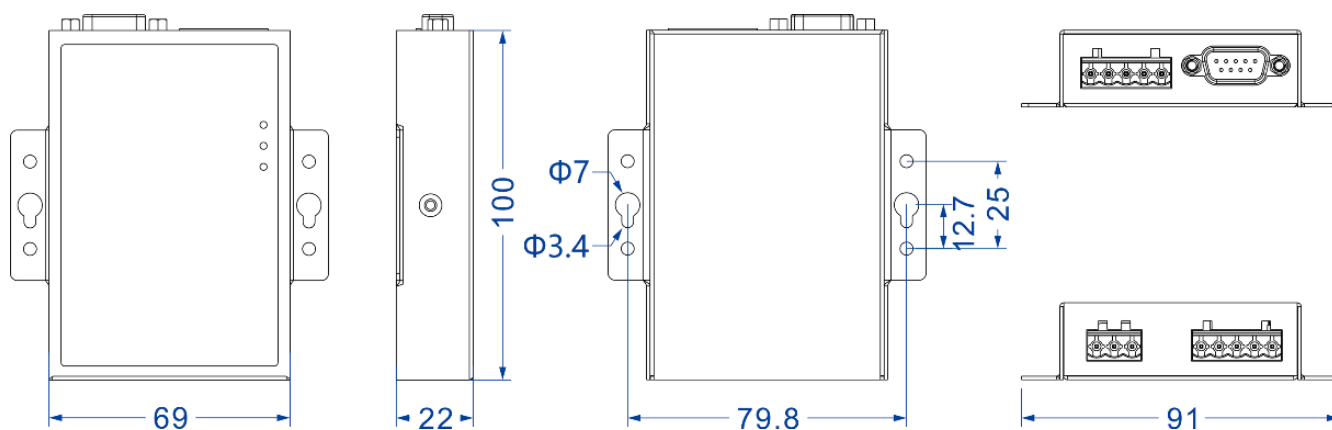| PIN	1	2	3	4	5	6	7	8	9
RS-232	-	TXD	RXD	-	GND	-	-	-	-

RS-485/422 5-pin terminal block

T+/485+	RS-422 sends positive, or RS-485 sends positive
T-/485-	Rs-422 sends negative, or RS-485 sends negative
GND1	Signal ground 1 (proximal end)
GND2	Signal ground 2 (remote end)
R+	RS-422 receive positive
R-	RS-422 receive negative

➢ LED Indications

LED	Indicate	Description
PWR	ON	PWR is connected and running normally
PWR	OFF	PWR is disconnected and running abnormally
RXD	ON	RS-485/422 is receiving data
RXD	OFF	RS-485/422 has no received data
TXD	ON	RS-485/422 is transmitting data
TXD	OFF	RS-485/422 is not transmitting data or transmitting data abnormally

➢ Dimension

➢ Ordering Information

Model NO.	Description
UP-232-P	RS232 Three Wire Signal Isolated Protector, 300～38.4Kbps, 2500V Opto-isolation
UP-485-R	Industrial RS-485/RS-422 Isolator/Repeater/Converter, 2500V Opto-isolation, DC9-30V
MW1040-I-R	Industrial RS-485/RS-422 Isolator/Repeater/Converter, 3000V Opto-isolation, DC9-36V
UP-232-H4	Industrial 1-port RS-232 to 4 ports RS-232 Isolation HUB, 2500V Opto-isolation, DC9-30V
UP-485-H4	Industrial 1-port RS-232/RS-485 to 4 ports RS-485 Isolation HUB, 2500V Opto-isolation, DC9-30V

➢ Packing List

- Industrial RS-485/RS-422 Isolator/Repeater/Converter *1
- User manual * 1
- Certificate of quality * 1
- Warranty card * 1