



## Industrial RS-485/RS-422 Isolator/Repeater/Converter, 2500V Opto-isolation

### ➤ Features

- Smart design, RS-485/422 wiring conversion without jumpers;
- Extend communication distance up to 1.2Km (9.6Kbps);
- Industrial grade rugged ABS housing;
- Plug and play (hot-pluggable);
- Built-in 600W surge protection, 15kV static protection and circuit protection;
- Support 2500V optical isolation;
- Supports high-speed serial data rates: 300 to 115200bps;
- Supports up to 128 nodes of RS-485/RS-422 devices;
- External DC5V or DC9-30V;
- 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 UP-485-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 2500V optical isolation, and extend the RS-485/422 distance up to 1.2km, effectively avoid damage caused by lightning strikes, surges and other factors.

UP-485-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 intelligent power management, power system automation, water conservancy monitoring, industrial automation, 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

Technical parameters	
Standard	Compliant with EIA RS-485/RS-422 standards
Connector	Industrial terminal block
Baud Rate	300bps~115.2Kbps
LED Indicator	
Power indicator	POW(Red): Always light up when the power is connected properly
Serial port Indicator	≡(Green): Flashes when data is being sent or received ≡(Yellow): Flashes when data is being sent or received
Power	
Power Supply	External supply DC5V, external supply DC 9~30V
Interface	Industrial terminal block
Lightning protection	600W
Static protection	15KV
Optical Isolation	2500V
Physical Characteristics	
Shell	DIN rail shell
Dimension	126mm×34mm×72mm
Weight	80g
Transmission distance	
Serial port line	RS-485/RS-422, 1.2km@9600bps
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

## ➤ Application

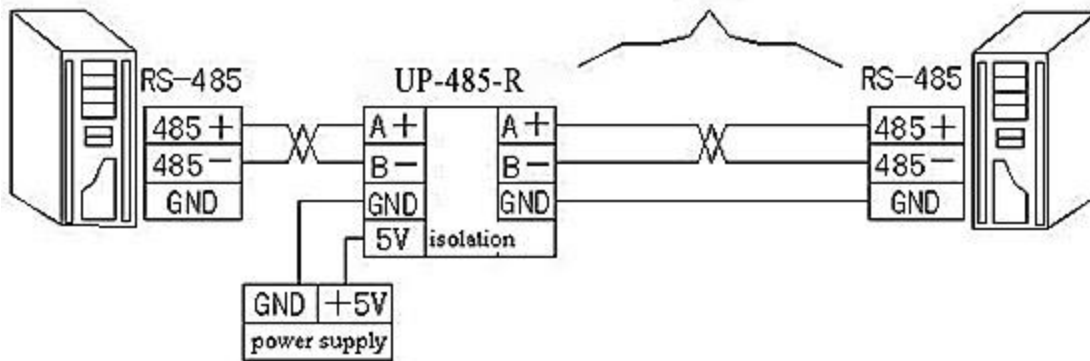


Chart 1 : Extending half duplex RS485 communication

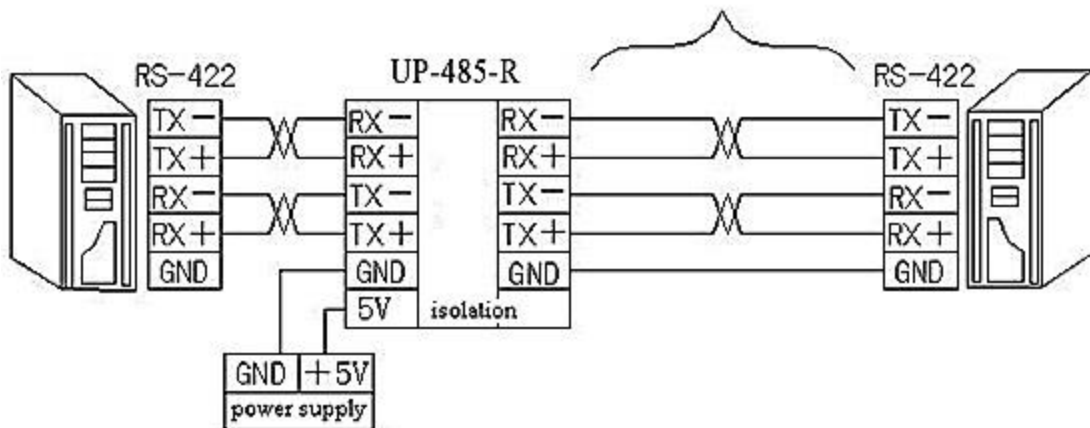


Chart 2 : Extending full duplex RS422 communication

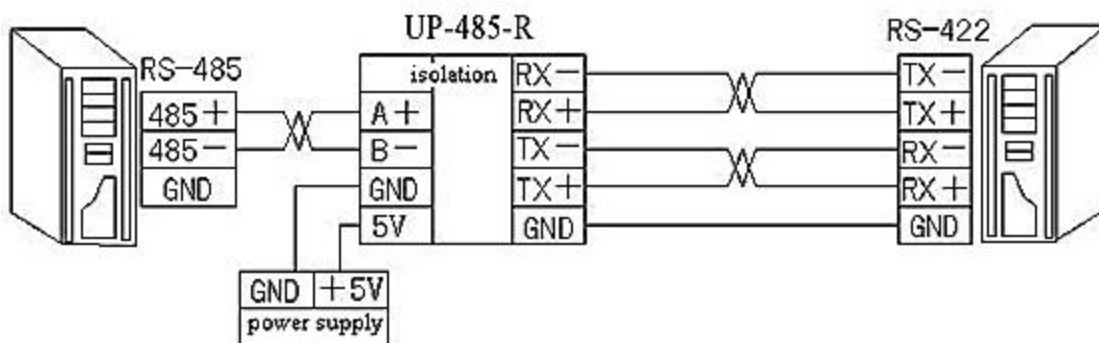





Chart 3 : Converter between half duplex RS485 and full duplex RS422 application

## ➤ PIN setting

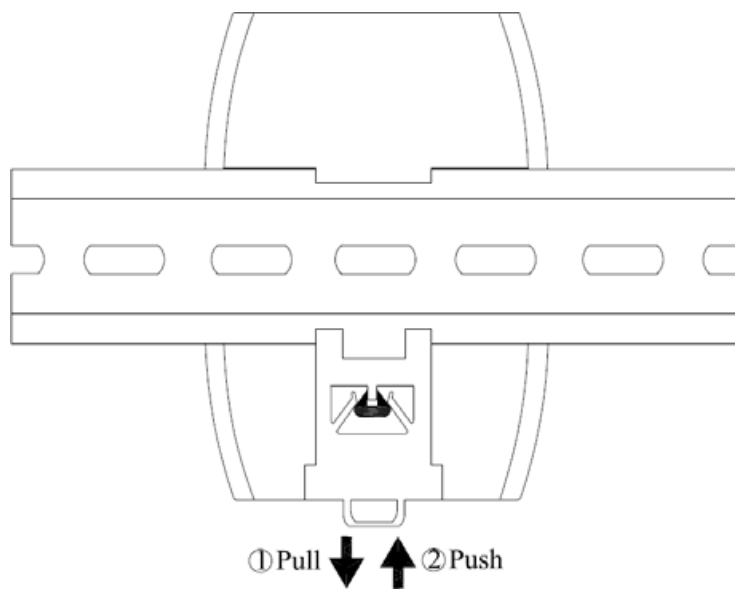
RS-485/RS-422 port:

PIN	1	2	3	4	5	8	9	10
RS-485	A+	B-	GND1			DC5V	DC9-30V	GND2
RS-422	T+	T-		R+	R-			

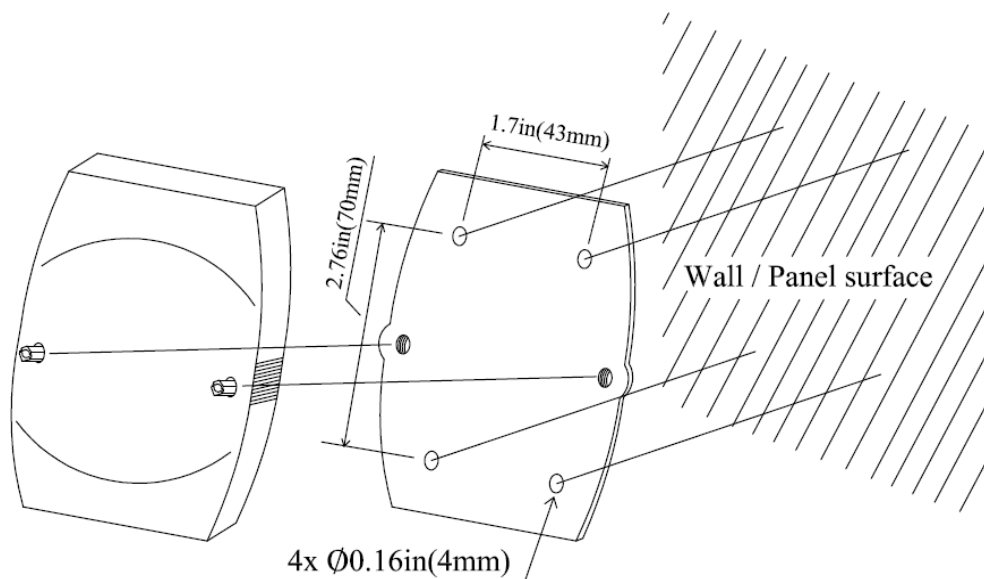
## ➤ LED Indications

- PWR**  **PWR Indicator** Steady: Power on. Off: Power off.
-  **DOWN Indicator**  
Flashing: Receiving data from upper RS-485/RS-422 port.
-  **UP Indicator**  
Flashing: Receiving data from lower RS-485/RS-422 port.

## ➤ Installation



**DIN-RAIL MOUNTING**



**WALL/PANEL MOUNTING**

## ➤ 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