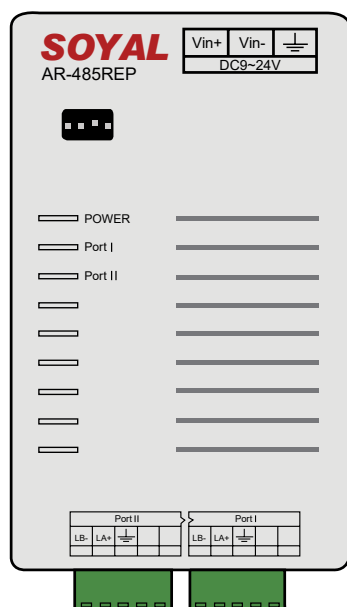


# Dual Isolated Half-Duplex RS-485 Repeater

## AR-485REP-V3



The two sides of the communication and the power supply adopt triple-layer isolation design , which can provide RS485 clean transmission completely isolated from the system power supply

### 1. Product Features

- 9-24VDC wide input, Triple-Zone DC/DC power isolation, built-in anti-surge, static electricity, and lightning protection.
- The signal isolation strength of automatic direction detection can reach 3.0KV.
- Fully transparent data transmission; Support communication protocols such as MODBUS RTU and encrypted transmission.
- Industrial-grade RS-485 signal repeater and amplifier distance extender.

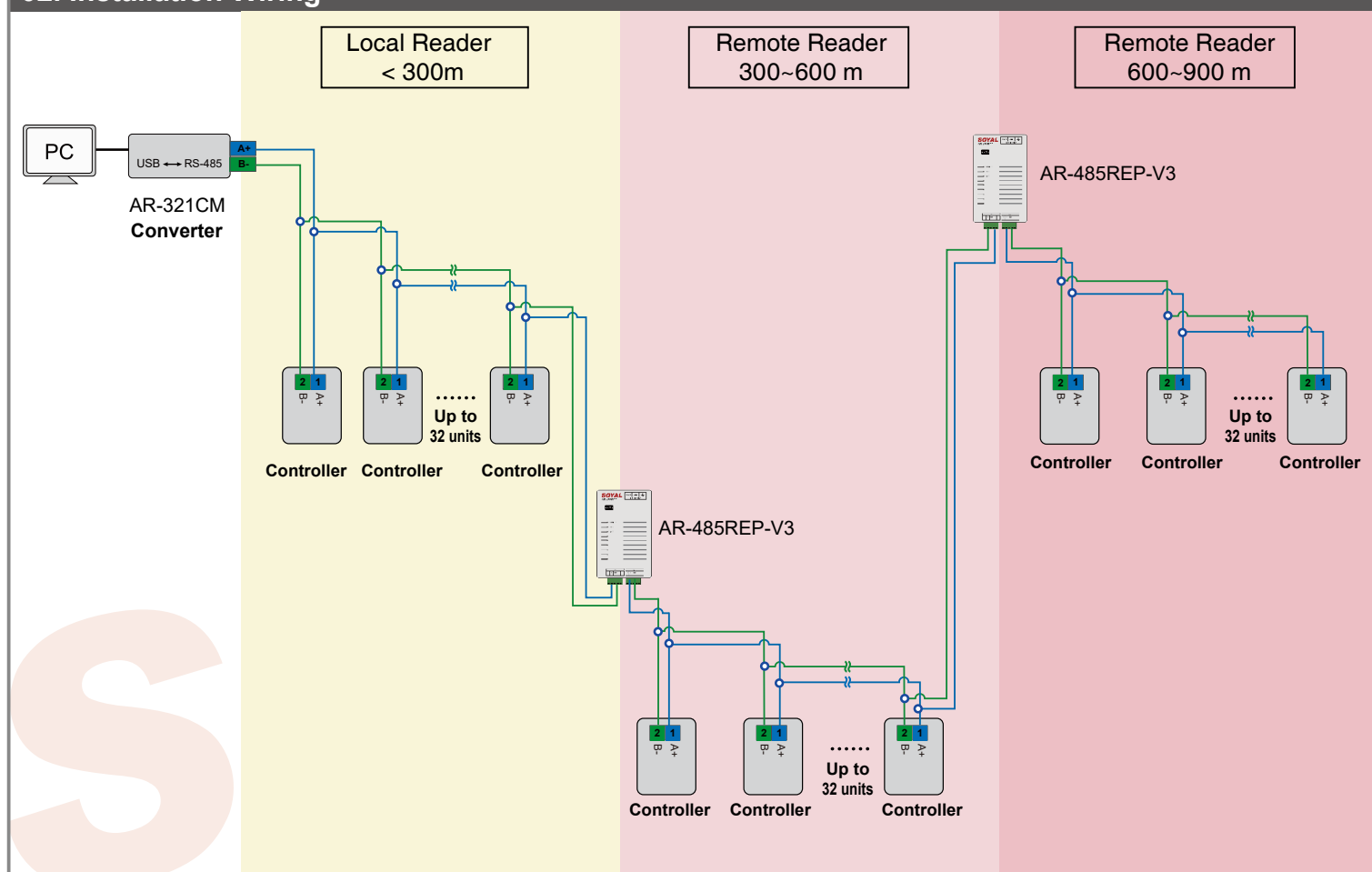
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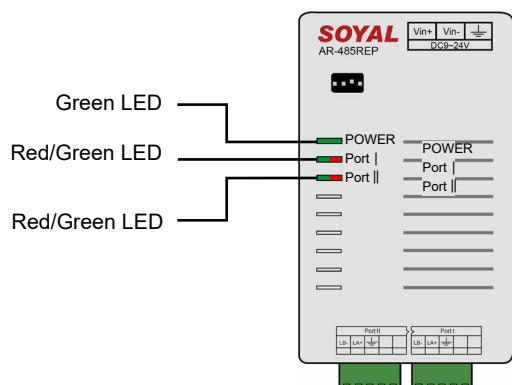
## 01. RS485 wiring precautions

1. 485 communication lines must use shielded twisted-pair; all 485 equipment on the lines must be connected to same GND ground.
2. The theoretical length of 485 communication line should not exceed 1000 meters. According to actual experience and on-site environment, it is recommended that the 485repeater should be added when the length exceed each 500 meters.
3. The theoretical maximum of devices connect with the RS485 should not exceed 64 in each area; If it exceeds, a RS485 repeater should be added.
4. The 485 bus must be a hand-in-hand bus structure, and resolutely avoid the way of star and bifurcation connection.
5. The 485 wiring should be as far away from interference sources as possible such as high-voltage power supply / electric mains / high-radio frequency signal cables, and not to be bundled together; if it is necessary to run with these cables in parallel, please add EMT conduit tube.

## 02. Installation Wiring



## 03. Indicator

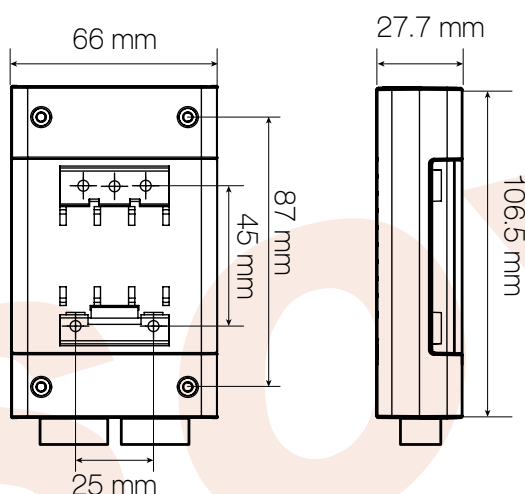


1. Green LED (Power) will keep lighting up when powering on.
2. Red/Green LED (Port I / Port II) flashing means data is receiving from RS-485 is communicating.
3. Red/Green LED (Port I / Port II) flashing means data is receiving from RS-485 is communicating.

## 04. Specification

Model Name	AR-485REP-V3
Operating Voltage	9-24VDC
Rated power	0.4W(9V/46mA : 12V/34mA : 24V15mA)
Communication Rate	300-11500 bps
Operation Temperature	-20°C to +70°C
Surge Protection	3KV
Responsibility	1-64 nodes
Communication distance	0-1000 meters(theoretical value)
Housing Material	ABS
Dimension(mm)	106.5(H) x 66(W) x 27.7(D)
Weight(g)	50±5

## 05. Installation



① Product

