

# RS 485 REPEATER

MODEL No: DL120 R



Repeater is designed with an innovative “Self Tuner” chip, which auto tunes the baud rate and the data format to the whole network and makes the network very stable. Due to the superior design, every repeater can extend the communication to another 1.2 Km at 9600bps speed. If the speed is lower than 9600bps, the extended distance can be up to 2.1 Km. Or 3.4 Km. Some low-end repeaters can't repeat signals well and cause the whole network to become unstable and does not provide isolation.

## FEATURES: -

- Full compatibility with RS 485 standard.
- Input: two wire RS 485 (D+, D-).
- Output: two wire RS 484 (D+, D-).
- Speed: “Self-Tuner” inside, auto switching baud rate, from 300 to 115200bps.
- Network Modules: 256 modules Max. In one RS 485 network.

## SPECIFICATIONS: -

<b>Model. No.:</b>	DL120R-F-X	DL120R-R-X
<b>Enclosure</b>	<b>Flame Proof single Chamber For Gas Gr.I, IIA, IIB Explosive atmospheres in accordance With IS: 2148-1981 &amp; IS2147/1962, Protection: IP-65, CMRI Cert.No. V/1/1/1007.</b>	<b>Polycarbonate</b>
<b>Input /Output type</b>	RS-485 Protocol	
<b>RS 485 Signals</b>	Data +, Data-	
<b>Isolation Voltage</b>	3000V	
<b>Communication Distance</b>	1.2 Km/9600 bps	
<b>Humidity</b>	5 to 95 %, non- condensing	
<b>Mounting</b>	Wall mounting	
<b>Instrument Earth</b>	Provided	
<b>Environmental Ranges</b>	1. Operating temp. : 5 to 45 °C 2. Storage temp. : 5 to 45 °C 3. Humidity : Less than or equal to 80% RH non-condensing.	
<b>Power Supply</b>	220V AC, 50 Hz, 10 VA.	
<b>Dimensions</b>	Internal Size: 160X160X100 mm	198X110X60 mm
<b>Weight</b>	6.5 Kg (approx.)	1 Kg (Approx.)

**APPLICATIONS: -**

- If there are over 256 modules, then the repeater must be added to extend RS 485 to RS 485 network. Then there can be another 256 modules connected to RS 485 network.
- If the communication network is over 4000 ft. or 1.2 Km., the RS 485 repeater must be added to extend the RS 485 network.
- The RS 485 length can be up to 4000 ft. or 1.2 Km; in noisy environment this long path makes RS 485 network susceptible to network noise by high energy transient in the environment. This may also cause damage to all the modules in the network. In such cases it is strongly recommended to add another isolation repeater to break the long path RS-485 network to shortest path RS-485 network.

**Ordering Information: -**

**I. RS-485 Repeater (DL120R)**

DL120R	X	X
<i>Model No</i>	<i>Enclosure Type</i>	<i>Future Use</i>
	F- FLP	
	R-NFLP	

**Variants:**

<b>DL120R</b>	<b>X</b>	<b>X</b>	<b>Finished Code</b>	<b>Model. No.</b>
DL120R	F	X	F120RX001L	DL120R-F-X
DL120R	R	X	F120RX002L	DL120R-R-X

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