

Model: rdcISM

RS-485 Intelligent Segment Manager

The rdcISM is an intelligent data collector unit that runs on the Modbus standard to poll/query a group of devices.

By incorporating the rdcISM into various segments in a Modbus network, it is now possible to achieve faster response times as the Master device need only poll the rdcISMs instead of every single device on the bus.

The rdcISM is equipped with 2 isolated and identical Master ports where one port can be connected to a Master device while the other can be used as a RS-485 repeater.

This gives the rdcISM the ability to isolate faulty segments. For instance, if a short circuit occurs in the communication line of one segment, only that segment (and any segment that depends on it) will be down.

For a complete redundancy solution, the rdcISM can be used in conjunction with the rdcRM to convert a Modbus Bus network into a Modbus Ring network. Visit us at www.robustdc.com for more information.

Specification

Interface

- Serial: RS-485 (2-wire mode)
- Connectors: RS-485 3-way Screw Terminal
- : Power Supply 3-way Screw Terminal

Power Supply

- 9 to 36 VDC: 2.4 W Nominal (100 mA @ 24 Vdc)
- User Indications: Green LED for main power supply

Isolation

1 KV between all ports

Communication

- Selectable Speeds: 9600, 19200, 38400, 57600, 115200 bps
- User Indications: Yellow LEDs indicating RX for both Master ports and Slave Port
- : Red LED to indicate Communication Fault
- Practical Distance: 2 Km

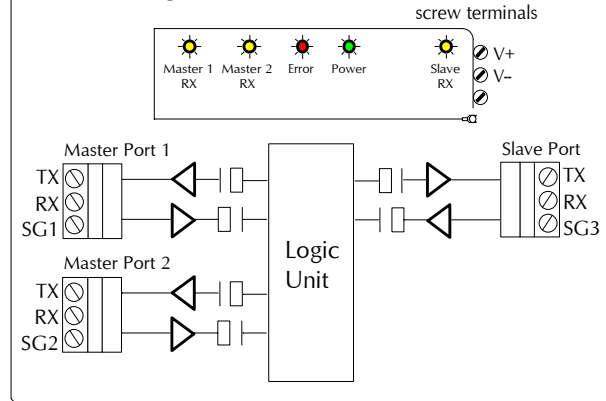
Mechanical / Environment

- Operating Range: -40C to +65C
- Storage Range: -40C to +100C
- Relative Humidity: 10 to 90% RH, non-condensing
- Case Material: nylon polyimide, fungus and termite resistant self-extinguishing
- Weight: approx 140g
- Mounting Rail: DIN EN 50 022 or DIN EN 50 035

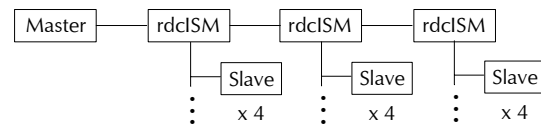
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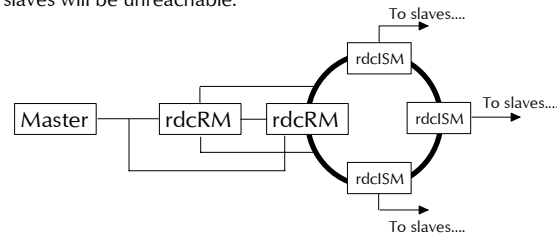
Block Diagram



Application



Instead of polling all 12 slaves, the Master only needs to poll 3 rdcISMs. Furthermore, all segments between the rdcISM are "Fault-Isolated". For example, if a line fault (short or open circuit) occurs between the furthest 2 rdcISMs, only the last 4 slaves will be unreachable.



A Ring Solution by incorporating the rdcISM with two rdcRMs. The redundant rdcRMs provide redundancy and allows a standard Modbus Bus network to be connected as a Ring.

Order Information

rdcISM-dv-4p-c

There are no customizable options for the rdcISM.

Dimensions in mm (and inches)

