

REP-DN



The REP-DN is a potted, fully connectorized repeater. It is very rugged and can be mounted directly on the machine. It is designed for use on any Controller Area Network (CAN), including DeviceNet™. Network segments attached together with a repeater are considered separate physical networks (trunk and drop lengths for each segment are determined as if the other segments are not there), but one logical network (addresses cannot be duplicated - the scanner and configuration tools work as a single network).

The repeater does not consume an address and is invisible to all the other devices on the network. The repeater does not have an EDS file.

The REP-DN can be used to extend either the Trunk or the Drop lines. It can also be used to isolate power supplies on networks with multiple supplies.

There is no limit to the number of repeaters that can be used on one network. When a message is repeated a 2 millisecond delay is introduced. This is typically insignificant compared to the overall scan time of the network when a few repeaters are used. If more than four repeaters are used in series, the interscan delay may need to be increased.

The repeater Baudrate is set via rotary switch. The baudrate on each side of the repeater must be the same. Different rates would cause the slow side to be overloaded with messages from the fast side.

Recommended Cordsets:

Bus line: RSM RKM 579-*M

Auxiliary power: RSM RKM 47- *M

Input : VBRS-4.5-2RK 4T-*/S818 or RK 4.4T*-RS 4.4T or RK 4.5T or RS 4.5T

Output: VBRS-4.4-2RK 4T-*/ or RK 4.4T*-RS 4.4T

REP-DN

- CAN (DeviceNet Repeater)
- Message repeater

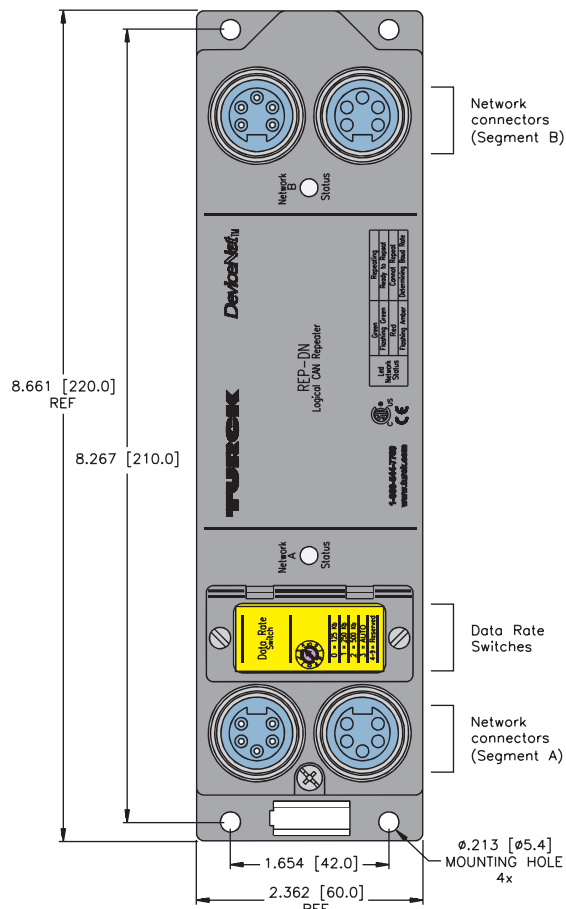
Applications

- Extending maximum trunk lengths
- Extending maximum drop lengths
- Isolating DeviceNet power
- Optically isolates two network segment

Features

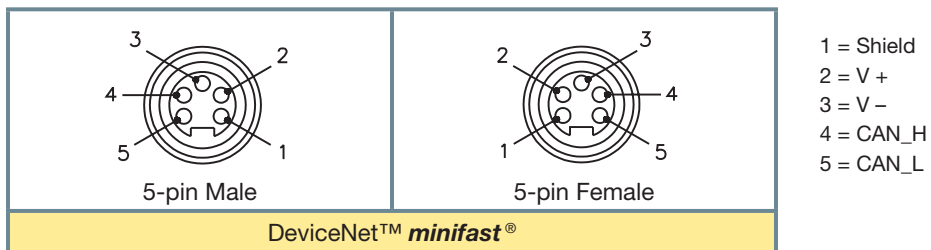
- Extremely rugged
- Fully connectorized

Dimensions



REP-DN

Connectors



Module Specifications

Part Number REP-DN (F0137)

Supply Voltage

Bus Power 11-30 VDC
Node Current Consumption 125 mA Segment A, 30 mA Segment B

Network Status LED

Green = Repeating
Flashing Green = Ready to repeat
Red = Cannot repeat

Adjustments

Baud Rate 125k, 250k, 500k, or autobaud via rotary switch'

Connections

Bus line 5-pin *minifast*® connectors

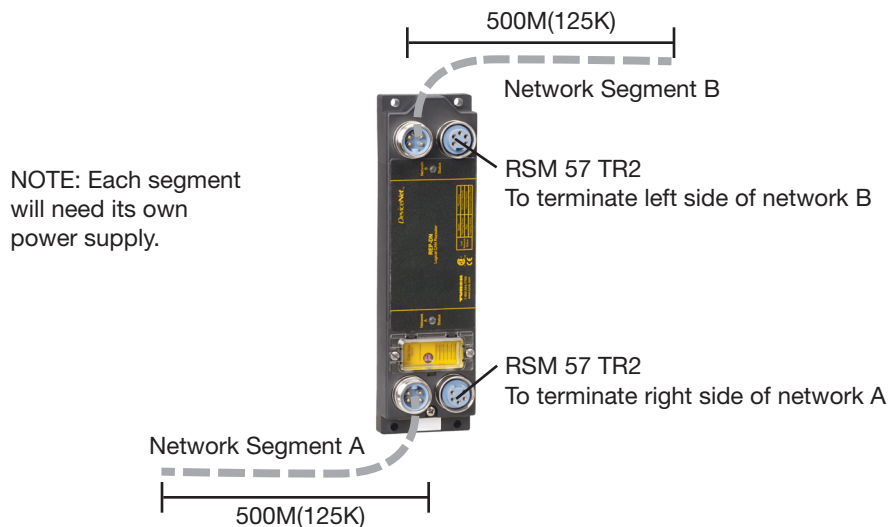
Housing 220 x 60 x 40 (H x W x D)

Material Glass-filled nylon, nickel plated brass connectors
Enclosure NEMA 1, 3, 4, 6, 6P, 12, 13 and IEC IP 67, 68, 69K
Operating Temperature -40° to +70°C (-40° to 158° F)

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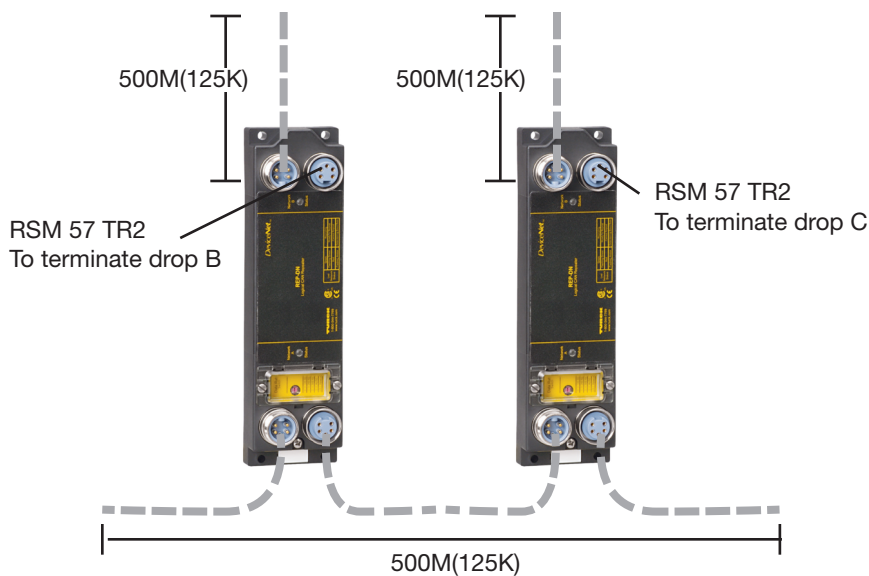
Extended Trunk Line

To extend the Trunk line, the repeaters are connected in series. The overall network delay is the sum of all the individual repeater delays. The total delay is 2ms x number of repeaters.



Extended Drop Line

To extend the Drop line lengths, the repeaters are connected in parallel. The overall network delay is 2ms total because there is really only one repeater between the scanner on the trunk and any other device.



NOTE: Each segment will need its own power supply.

NOTE: Each side independently detects DeviceNet traffic.

Do not Create a Ring

While the repeater can be used to create very large and complex networks, some configurations are not permitted. If a ring is created, (both sides of a repeater are connected to the same network) the repeater will continuously repeat to itself. This will cause the network to overload.