



Cerberus® DMS8000

LON Repeater

NK8020

- The LON-Repeater is used to connect segments of LON Twisted Pair Free Topology (TP/FT-10) networks. This allows the extension of networks in distance and number of nodes.
- The LON-Repeater is cabinet mounted on a TS 35 mm standard rail.
- The unit consists of two parts;
 - A terminal part including the screw terminals, and an active part holding the electronics.
 - The terminal part can be pre-mounted in the cabinet.
 - A green LED on the front of the device indicates that the power is on.

Technical data

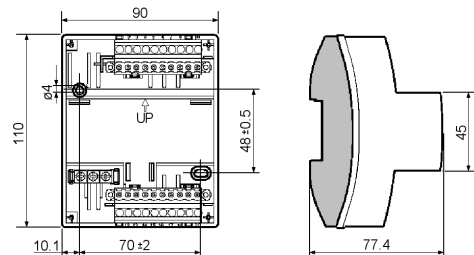
Electrical

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|--|--|
| Supply Voltage | 8 ... 28 VAC |
| Regardless of manufacturer specifications! | 8 ... 40 VDC |
| Current Consumption | Standby Max. 30 mA Transmit Max. 60 mA |
| Ambient Temperature | Operating 0 ... 75 °C Storage -20 ... 75 °C |

Mechanical

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|------------------|----------------------|
| Humidity | RH no-condensing 90% |
| Enclosure | ABS/PC |
| Enclosure rating | IP20 |

Dimensions



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|--------|--------|
| Weight | 0.5 kg |
|--------|--------|

Communication

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|----------|--------------------------|
| LONWorks | TP/FT-10, screw terminal |
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Transmission Specification

Absolute maximum ratings

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|----------------------------------|------------------------------|
| Max. number of nodes per segment | 64 |
| Max. number of nodes per network | 128 |
| Max. number of repeaters | 4 (CerCom/LON specification) |

A repeater counts as one node on each segment to which it is connected.

Cable types

Doubly-Terminated Bus Topology Specification

| | Max. segment length |
|-------------------|--|
| Belden 85102 | 2700m |
| Belden 8471 | 2700m |
| Level IV, 22AWG | 1400m |
| JY (St) Y 2x2x0.8 | 900m |
| TIA Category 5 | 900m |
| Termination | 2 × 105 Ω , 1%, 1/8W, one at each end of the bus |

Free topology specification

| | Max. node to node distance | Max. segment length |
|-------------------|---|---------------------|
| Belden 85102 | 500m | 500m |
| Belden 8471 | 400m | 500m |
| Level IV, 22AWG | 400m | 500m |
| JY (St) Y 2x2x0.8 | 320m | 500m |
| TIA Category 5 | 250m | 450m |
| Termination | 1 × 52.3 Ω , 1%, 1/8W, in the center of the segment | |

Please refer to http://www.echelon.com/Support/documentation/Manuals/FTT_10Av6G.pdf, Chapter 4, for details on LON network topology.

Agency Compliances

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|----------|------------|
| Emission | EN 50081-1 |
| Immunity | EN 50082-1 |
| Safety | EN 61010-1 |

Compatibility

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| All devices with CerCom/LON compliant network connection | Guarto with LON adapter K3I070 CT6C, DCU601 NK8031, NK8034 NK8221, NK8223 |
| Fire | E3I 040 K3I 050 B3Q 580 B3Q 590, B3Q 595 K3I 110 (EP7F) |

Details for ordering

| Type | Part no | Designation | Weight |
|--------|---------|--------------|--------|
| NK8020 | 542843 | LON Repeater | 0.5 kg |

