

DEX500: Ethernet transmission modem through existing coupler lines

NETWORK UPGRADE FOR FAST DATA TRANSFER VIA ETHERNET THROUGH THE ELECTRICAL COUPLER

COST-EFFECTIVE WAY TO USE EXISTING LOW FREQUENCY, UIC TRAIN OR SPARE LINES TO TRANSFER NETWORK DATA ACROSS THE COUPLERS

WORKING WITH ALL KIND OF CONTACTS: SPRING-LOADED/FIXED AND PIN/SLEEVE

NO COUPLER MODIFICATION NEEDED

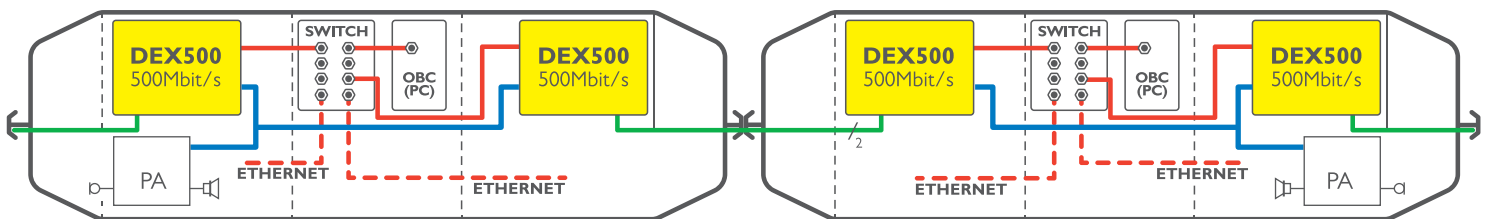
PROTOCOL ALLOWS MAX DATA TRANSMISSION RATE OF 500 MBIT/S

FLEXIBLE CONFIGURATIONS FOR MULTIPLE APPLICATIONS



The Dellner Ethernet ConneXion DEX modems are a cost-effective way to use existing low frequency UIC train or spare lines to transmit network data across the couplers. This can allow use of video technology, infotainment, control terminals, passenger counting, LCD / TFT displays, wireless modules, etc. It works with older-technology contacts and even oxidized or dirty coupling contacts will not disrupt transmission. No coupler modification required. The DEX500 module is designed for mounting inside the rail vehicles. By converting the network data into a high frequency signal and overlaying it on top of existing signals across the coupler the DEX modems can extend the network onto the coupled cars and throughout the consist.

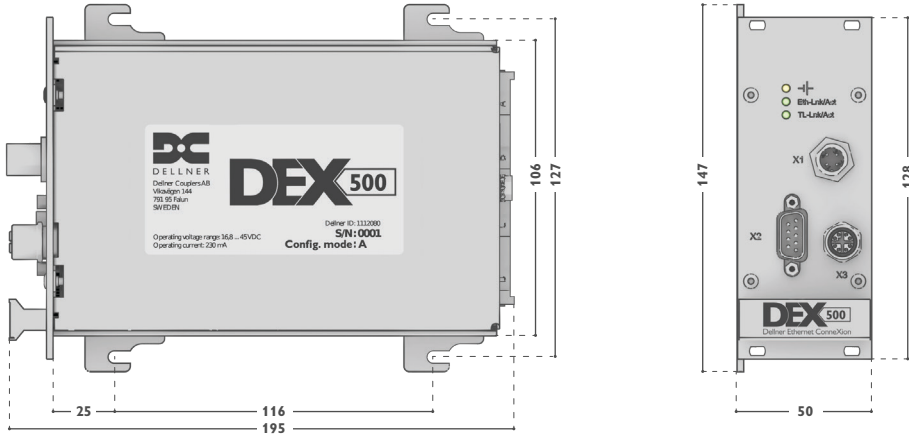
APPLICATION EXAMPLE



Application Example

Depending on the composition of a train consist, the length of the transmission line between two modems (green) could be in the range between 15 meters (45 feet) and max. 300 meters (900 feet). Length and electrical property change the parameters of the line and thus the transmission behavior.

DIMENSIONS



Weight: approx. 500 g
IP Class: IP20

POWER SUPPLY

| | | |
|--------------------------------|---|-------------------------|
| Operating voltage range | 16,8 ... 45 VDC (option 110VDC 48...160V) | |
| Power consumption | 230 mA (100 mA Standby) | |
| Indicators (3 LED's) | Power, TL- (Act / Link), Ethernet- (Act / Link) | |
| Connectors | X1: Front side M12 plug A-coded. (for Power) X2: Front side M12 Ethernet connector X-coded X3: Front connector Sub-min-D 9 pol. for 3-wire connection X4: Rear connector F48 male DIN 41612 (option) | |
| Temperature | Operation: -25°C +75°C Storage: -40°C +85°C | |
| Transmission rate | Transmission Line | Max. Data transfer rate |
| | 15 m | 500 Mbit/s UDP |
| | 50 m | 300 Mbit/s UDP |
| | 100 m | 250 Mbit/s UDP |
| Frequency range | 1,8 – 86 MHz | |

STANDARDS

| | |
|-------------------------|---|
| Shock/Vibration | EN 61373 |
| Temperature | EN 50155 – T3 |
| Fire & Smoke | EN 45545-1-2 |
| EMV | EN 50121-3-2 |
| Network | Ethernet Specification IEEE 802.3, IEEE 802.3x, IEEE 802.3u |

ORDER INFORMATION

| Dellner Part No | Description |
|------------------------|---|
| 1112080 | DEX500 Dellner Ethernet ConneXion / Ethernet transmission modem |
| 1118670-[meter] | Power cable – X1 |
| 1118671-[meter] | Electrical coupler cable D-sub9 – X2 |
| 1118672-[meter] | Ethernet cable M12X-RJ45 – X3 |