# HDL-M/LCR.1, Line Coupler/Repeater

## Parameters

### Electrical Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus Voltage</td>
<td>21~30V DC</td>
</tr>
<tr>
<td>Bus Interface</td>
<td>KNX/EIB</td>
</tr>
<tr>
<td>Bus Current</td>
<td>&lt;30mA</td>
</tr>
<tr>
<td>KNX Cable</td>
<td>0.75 – 0.85mm Diameter Single Core</td>
</tr>
<tr>
<td>KNX Terminals</td>
<td>0.75 – 0.85mm Diameter Single Core</td>
</tr>
</tbody>
</table>

### Environmental Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working temperature</td>
<td>-5°C ~ 45°C</td>
</tr>
<tr>
<td>Working relative Humidity</td>
<td>10% ~ 98%</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-20°C ~ +60°C</td>
</tr>
<tr>
<td>Storage relative humidity</td>
<td>5% ~ 93%</td>
</tr>
</tbody>
</table>

### Approved

- CE, RoHS
- KNX

### Product Information

<table>
<thead>
<tr>
<th>Category</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation</td>
<td>Standard 35mm Din rail</td>
</tr>
<tr>
<td>Dimensions</td>
<td>90mm×36mm×70mm</td>
</tr>
<tr>
<td>IP class</td>
<td>IP 20</td>
</tr>
</tbody>
</table>

## Important Notes

- **Special Programming** – This device is designed for professional KNX installation. It can only be programmed by ETS software.
- **Cable Connections** – Do not get wrong connection for Black and Red wires.
- **Voltage** - The input of voltage must be between 21-30VDC.

## Installation Steps

- Make sure the Bus cable type is correct and has no circuit short.
- Connect bus cables. Make sure the color of wire same as definition.

## Overview

The HDL-KNX Line Couple is a module device which can be used as coupler or repeater (to amplify the signal). If the device is used as a line coupler, it can be linked with other line or backbone line. A separate power supply including a chock is required for each new line segment and each line will be electrically isolated. The Line Coupler can filter telegrams and permit pass or block them to other adjacent lines.

## Functions

- **HDL-M/LCR.1**, line coupler/Repeater is coupling a KNX-TP-mainline with a KNX-TP-sub line.
- It provides galvanic isolation between the two connected lines.
- The coupler can be used as a line coupler to connect a line to a main line or as a backbone coupler to connect a main line to a backbone line.
- The main task of M/LCR.1 is filtering the traffic according the installation place in the hierarchy or according to the built in filter tables for group oriented communication.
### Layout and Wiring

#### Safety precautions

- When connecting the M/LCR.1 ensure that it can be isolated.
- The M/LCR.1 housing must not be opened.
- For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.
- Do not make wrong connection on KNX/EIB interface, it will damage the Bus interface of this interface module.
- Do not get AC220V voltage into KNX/EIB wire, it will damage all of devices in system.
- Avoid the rain or water into module, it will damage this device.

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**Note:**

1. LED Bus Main
2. LED Bus Sub
3. LED Traffic Main
4. LED Traffic Sub
5. LED GrpA (Group Address)
6. LED PhyA (Physical Address)
7. Function button
8. Programming LED
9. Programming button
10. KNX-Bus connection: Main line
11. KNX-Bus connection: Sub line