The ABB i-bus® KNX Line Coupler LK/S 4.2 is a modular installation device with a module width of 2 space units. It is used as a line or area coupler or as a repeater. As a line coupler, the LK/S connects a line with a main line, as an area coupler it connects a main line with an area line. It provides electrical isolation in this way. If required, the LK/S filters telegrams and only routes the telegrams intended for other lines. It is possible to route or block all telegrams for diagnostic purposes.

Technical data

<table>
<thead>
<tr>
<th>Supply</th>
<th>Rated voltage</th>
<th>21…31 V DC, via the bus</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Power consumption</td>
<td>Maximum 0.25 W</td>
</tr>
<tr>
<td></td>
<td>Current consumption</td>
<td>Maximum 12 mA</td>
</tr>
<tr>
<td>Connections</td>
<td>KNX, subline (2 = Line)</td>
<td>Via left bus connection terminal</td>
</tr>
<tr>
<td></td>
<td>KNX, subline (1 = Main line)</td>
<td>Via right bus connection terminal</td>
</tr>
<tr>
<td>Operating and display elements</td>
<td>Button/LED (red)</td>
<td>For assignment of the physical address</td>
</tr>
<tr>
<td></td>
<td>LED (green)</td>
<td>For indicating operation</td>
</tr>
<tr>
<td></td>
<td>LED Main Line (yellow)</td>
<td>For indicating telegram traffic on the main line</td>
</tr>
<tr>
<td></td>
<td>LED Line (yellow)</td>
<td>For indicating telegram traffic on the sub line</td>
</tr>
<tr>
<td>Enclosure</td>
<td>IP 20</td>
<td>To EN 60 529</td>
</tr>
<tr>
<td>Safety class</td>
<td>III, in the installed state</td>
<td>To EN 61 140</td>
</tr>
<tr>
<td>Insulation category</td>
<td>Overvoltage category</td>
<td>III to EN 60 664-1</td>
</tr>
<tr>
<td></td>
<td>Pollution degree</td>
<td>II to EN 60 664-1</td>
</tr>
<tr>
<td>KNX safety extra low voltage</td>
<td>SELV 31 V DC</td>
<td></td>
</tr>
<tr>
<td>EMC requirements</td>
<td>Compliant to EN 61000-6-2, EN 61000-6-3 and EN 50090-2-2</td>
<td></td>
</tr>
<tr>
<td>Temperature range</td>
<td>Operation</td>
<td>– 5 °C...+ 45 °C</td>
</tr>
<tr>
<td></td>
<td>Storage</td>
<td>– 25 °C...+ 55 °C</td>
</tr>
<tr>
<td></td>
<td>Transport</td>
<td>– 25 °C...+ 70 °C</td>
</tr>
<tr>
<td>Ambient conditions</td>
<td>Maximum air humidity</td>
<td>To EN 50 491 95 %, no condensation allowed</td>
</tr>
<tr>
<td>Design</td>
<td>Modular installation device (MDRC)</td>
<td>Modular installation device, Pro M</td>
</tr>
<tr>
<td></td>
<td>Dimensions</td>
<td>90 x 36 x 64.5 mm (H x W x D)</td>
</tr>
<tr>
<td></td>
<td>Mounting width</td>
<td>2 modules at 18 mm</td>
</tr>
<tr>
<td></td>
<td>Mounting depth</td>
<td>64.5 mm</td>
</tr>
<tr>
<td>Installation</td>
<td>On 35 mm mounting rail</td>
<td>To EN 60 715</td>
</tr>
<tr>
<td>Mounting position</td>
<td>As required</td>
<td></td>
</tr>
<tr>
<td>Weight without packaging</td>
<td>0.075 kg</td>
<td></td>
</tr>
<tr>
<td>Housing/colour</td>
<td>Plastic housing, grey</td>
<td></td>
</tr>
<tr>
<td>Approval</td>
<td>EN 60 669-1, EN 50 428</td>
<td></td>
</tr>
<tr>
<td>KNX certification</td>
<td>EN 50 090-2-2, EN 50 491</td>
<td></td>
</tr>
<tr>
<td>CE mark</td>
<td>In accordance with the EMC guideline and low voltage guideline, RoHS</td>
<td></td>
</tr>
</tbody>
</table>
For a detailed description of the application program see “Line Coupler LK/S 4.2” product manual. It is available free-of-charge at www.abb.com/knx. The ETS and the current version of the device application program are required for programming.

The current application program can be found with the respective software information for download on the Internet at www.abb.com/knx. After import it is available in the ETS under ABB/System devices/Couplers.

The device does not support the locking function of a KNX device in the ETS. If you inhibit access to all devices of the project with a BCU code, it has no effect on this device. Data can still be read and programmed.

Different application programs are available with the LK/S 4.2 for ETS 3 and ETS 4. Some of the functions for the ETS 4 are not available in the applications for the ETS 3.

In ETS 3, there is a separate application for coupling and for repeating (Couple/1.x or Repeat/1.x), in ETS 4, there is a common application (Couple Repeat/2.x).

All applications are upwards compatible, i.e.:

- The old applications of LK/S 4.1 can be loaded in the LK/S 4.2 (ETS 3). This is particularly useful if in an existing project an LK/S 4.1 has to be replaced by an LK/S 4.2.
- The applications Couple/1.x or Repeat/1.x can be loaded in the LK/S 4.2 via the ETS 3 or the ETS 4.
- The new application Couple Repeat/2.x with extended functional range is only available for the ETS 4.

* ... = current version number of the application program. Please observe the software information on our homepage for this purpose.
ABB i-bus® KNX
Line Coupler, MDRC
LK/S 4.2, 2CDG 110 171 R0011

Circuit diagram

1. Label carrier
2. Button Programming (red)
3. LED Programming (red)
4. Bus connection terminal ABB i-bus® KNX of the primary/main line
5. Bus connection terminal ABB i-bus® KNX of the secondary line
6. LED (yellow)
7. LED (yellow)
8. LED (green)

Note
The main and secondary lines must each be supplied with power from separate power sources (electrically isolated).
ABB i-bus® KNX
Line Coupler, MDRC
LK/S 4.2, 2CDG 110 171 R0011

Dimension drawing