ABB i-bus® KNX
Line Coupler, MDRC
LK/S 4.2, 2CDG 110 171 R0011

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

Supply	Rated voltage	21…31 V DC, via the bus
	Power consumption	Maximum 0.25 W
	Current consumption	Maximum 12 mA
Connections	KNX, subline (2 = Line)	Via left bus connection terminal
	KNX, subline (1 = Main line)	Via right bus connection terminal
Operating and display elements	Button/LED ⬤ (red)	For assignment of the physical address
	LED 🟢 ON (green)	For indicating operation
	LED 🟡 Main Line (yellow)	For indicating telegram traffic on the main line
	LED 🟡 Line (yellow)	For indicating telegram traffic on the sub line
Enclosure	IP 20	To EN 60 529
Safety class	III, in the installed state	To EN 61 140
Insulation category	Overvoltage category	III to EN 60 664-1
	Pollution degree	II to EN 60 664-1
KNX safety extra low voltage	SELV 31 V DC	
EMC requirements	Compliant to EN 61000-6-2, EN 61000-6-3 and EN 50090-2-2	
Temperature range	Operation	– 5 °C...+ 45 °C
	Storage	– 25 °C...+ 55 °C
	Transport	– 25 °C...+ 70 °C
Ambient conditions	Maximum air humidity	To EN 50 491 95 %, no condensation allowed
Design	Modular installation device (MDRC)	Modular installation device, Pro *M*
	Dimensions	90 x 36 x 64.5 mm (H x W x D)
	Mounting width	2 modules at 18 mm
	Mounting depth	64.5 mm
Installation	On 35 mm mounting rail	To EN 60 715
Mounting position	As required	
Weight without packaging	0.075 kg	
Housing/colour	Plastic housing, grey	
Approval	EN 60 669-1, EN 50 428	
KNX certification	EN 50 090-2-2, EN 50 491	
CE mark	In accordance with the EMC guideline and low voltage guideline, RoHS	

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Device type	Application program	Maximum number of communication objects	Maximum number of group addresses	Maximum number of associations
LK/S 4.2	Couple Repeat/…*	0	0	0
	Couple/…*	0	0	0
	Repeat/…*	0	0	0

* … = current version number of the application program. **Please observe the software information on our homepage for this purpose.**

Note
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.

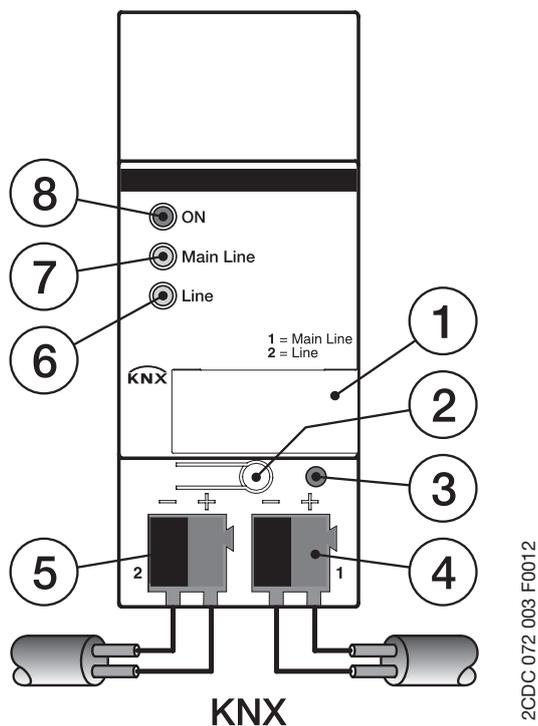| Note |
|---|
| Different application programs are available with the LK/S 4.2 for ETS 3 and ETS 4. Some of the functions for the ETS 4 are not available in the applications for the ETS 3.

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. |

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Circuit diagram

1 = Main Line
2 = Line

2CDC 072 003 F0012

1. Label carrier
2. Button *Programming* ▭○
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 🟡 Line (yellow)
7. LED 🟡 Main Line (yellow)
8. LED 🟢 ON (green)

Note
The main and secondary lines must each be supplied with power from separate power sources (electrically isolated).

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Dimension drawing

58

43.5

6.5

36

90

45

ON

Main Line

Line

1 = Main Line
2 = Line

KNX

2

1

2CDC 072 004 F0012