



The coupler can be used as a line/backbone coupler or as a line repeater. Used as a line coupler, it links a line to a main line. Used as an backbone coupler, it links a main line to the backbone line. In this respect it provides electrical isolation.

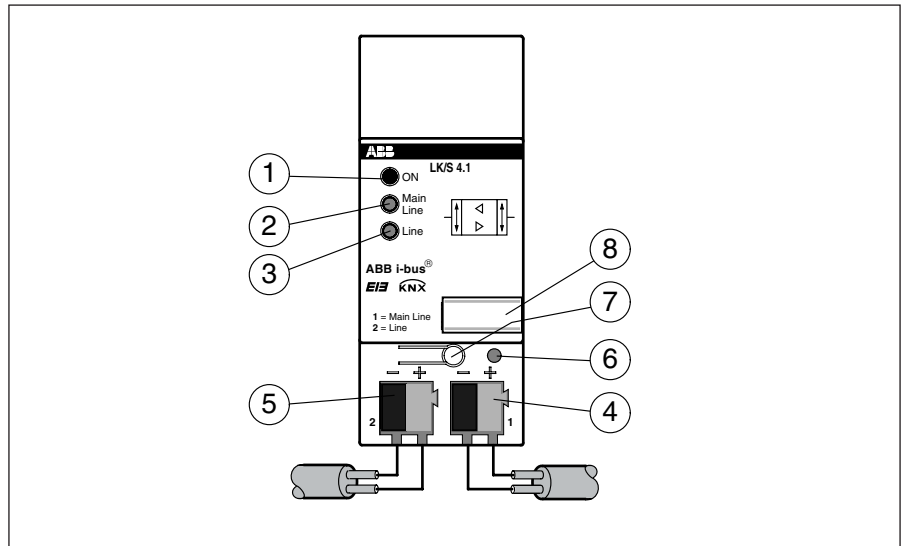
At the same time telegrams can be filtered. In this way only the telegrams can be passed on, which are intended for the other respective line. For diagnostic purposes all telegrams can also be passed on or blocked.

Technical data

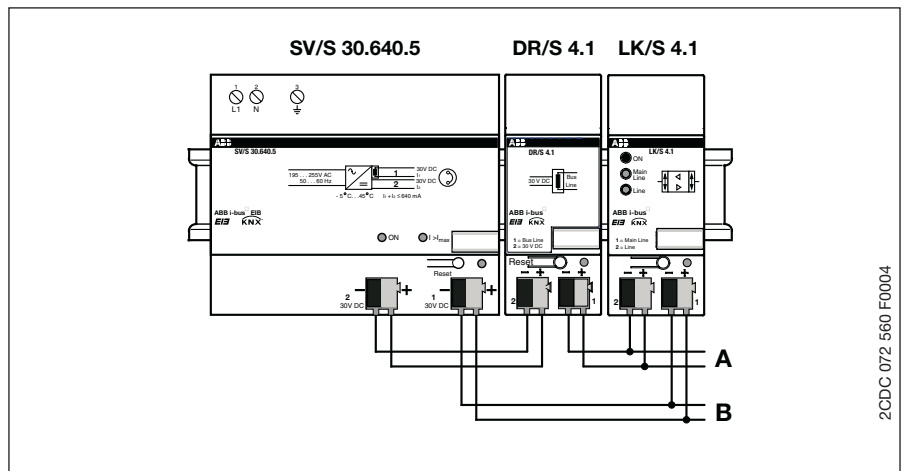
Supply voltage	– EIB	24 V DC, via the bus line
Operating and display elements	– green LED (1) – red LED (6) and push button (7) – yellow LED (2) – yellow LED (3)	ON, device is ready for operation For programming the physical address Telegram traffic on the primary line (main line) Telegram traffic on the secondary line (line)
Connections	– EIB, secondary line – EIB, primary line	Left bus connection terminal Right bus connection terminal
Type of protection	– IP 20, EN 60 529	
Ambient temperature range	– Operation – Storage/transport	– 5 °C ... 45 °C – 25 °C ... 70 °C
Design	– Modular installation device proM, MDRC	
Housing, color	– Plastic housing, grey	
Mounting	– On 35 mm mounting rail, DIN EN 60715	
Dimensions	– 90 x 36 x 64 mm (H x W x D)	
Mounting depth/width	– 2 modules at 18 mm	
Weight	– 0.075 kg	
Certification	– EIB-certified	
Electrical safety	– Degree of pollution (in acc. with IEC 60664-1): 2 – Type of protection (in acc. with EN 60529): IP 20 – Protection class (in acc. with IEC 61140): III – Overvoltage category (in acc. with EN 60664-1): III – Bus: safety extra low voltage SELV DC 24 V – Device complies with EN 50090-2-2 and IEC 60664-1	
EMC requirements	– Complies with EN 61000-6-2, EN 61000-6-3 and EN 50090-2-2	

Application programs	Number of communication objects	Max. no. of group addresses	Max. no. of assignments
Couple/1	0	0	0
Repeat/1	0	0	0

Wiring diagram



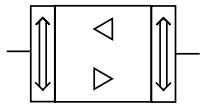
- 1 Operational LED (On)
- 2 LED for telegram traffic on primary/main line
- 3 LED for telegram traffic on secondary line (line)
- 4 Bus connection terminal for EIB connection of primary/main line
- 5 Bus connection terminal for EIB connection of secondary line (line)
- 6 Programming LED
- 7 Programming button
- 8 Label holder



- A: Line (secondary line)
- B: Main line (primary line)

2CDC 072 560 F0004

Couple/1



Selection in ETS2

- ABB
 - └ System components
 - └ Coupler

Line/backbone coupler

The coupler links two lines for data transfer, but isolates them electrically.

If the coupler receives telegrams (for example during commissioning) which use a physical address as destination address, it compares the physical addresses of the sender and receiver with its own physical address and then decides whether it must route the telegrams or not. If the coupler has not yet received its own physical address, it can cause faults when commissioning other devices.

The coupler reacts to telegrams with group addresses in accordance with its parameter settings.

During normal operation (default setting), the coupler only routes those telegrams whose group addresses have been entered in its filter table.

Particularly during commissioning and for diagnostic purposes, it may be a good idea to set the first two parameters to „Group telegrams main line -> line“ and „Group telegrams line -> main line“ to „route“.

If the EIB installation then functions without any errors after the commissioning of the sensors and actuators, the ETS program can calculate the correct filter table. The two parameters can now be reset to the default values again. The application must then be reprogrammed. The correct filter table is then transferred into the coupler.

There is no space for main groups 14 and 15 in the filter table. They should therefore normally not be configured. If they are used however, the parameters „Main group 14/15“ must be set to „route“.

If the coupler routes a telegram and does not receive an acknowledgement, or if a bus device finds a transmission error, the coupler repeats the telegram three times. With the parameters „Repetitions if errors...“, this behaviour can be set separately for both lines. These parameters should be left in the default setting.

Normally, the coupler only acknowledges the telegrams which it routes. The parameters „Telegram confirmation ...“ enable the coupler to acknowledge each telegram separately for both lines. These parameters should also be left in the default setting.

Programming / download

For programming the line coupler at least the primary line must be connected. If the secondary line is connected as well, then the LK/S can also be programmed from the secondary line.

Parameters

The default setting of the values is shown in **bold type**.

- Group telegrams main line -> line	route block filter
- Group telegrams line -> main line	route block filter
- Main group 14/15	route block
- Repeat telegrams if errors on main line	yes no
- Repeat telegrams if errors on line	yes no
- Telegram confirmation on main line	always only if routed
- Telegram confirmation on line	always only if routed

Explanation of the parameters

**Group telegrams main line -> line
Group telegrams line -> main line**

route

All group telegrams are routed.

Block

No group telegrams are routed.

filter

Only group telegrams are routed which are entered in the filter table. The ETS 3 produces the filter table automatically. When using ETS2, the filter table must be calculated by clicking on the button „Filter“.

Main group 14/15

route

Group telegrams with the main group 14 + 15 (e.g. 14/1) are routed.

Block

Group telegrams with the main group 14 + 15 (e.g. 14/1) are not routed.

Repeat telegrams if errors on main line

Yes

If a transmission error (e.g. due to missing receiver) is found when sending a telegram on the primary line (main line), the telegram is repeated up to 3 times.

No

The telegram is not repeated.

Repeat telegrams if errors on line

Yes

If a transmission error (e.g. due to missing receiver) is found when sending a telegram on the secondary line (line), the telegram is repeated up to 3 times.

No

The telegram is not repeated.

Telegram confirmation on main line

Always

Each telegram on the primary line (main line) is confirmed (ACK).

only if routed

Only telegrams which are to be routed are confirmed on the primary line (main line) (ACK).

Telegram confirmation on line

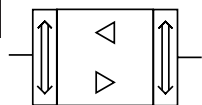
Always

Each telegram on the secondary line (line) is confirmed (ACK).

only if routed

Only telegrams which are to be routed are confirmed on the secondary line (line) (ACK).

Repeat/1



Selection in ETS2

- ABB
 - └ System components
 - └ Coupler

Line repeater

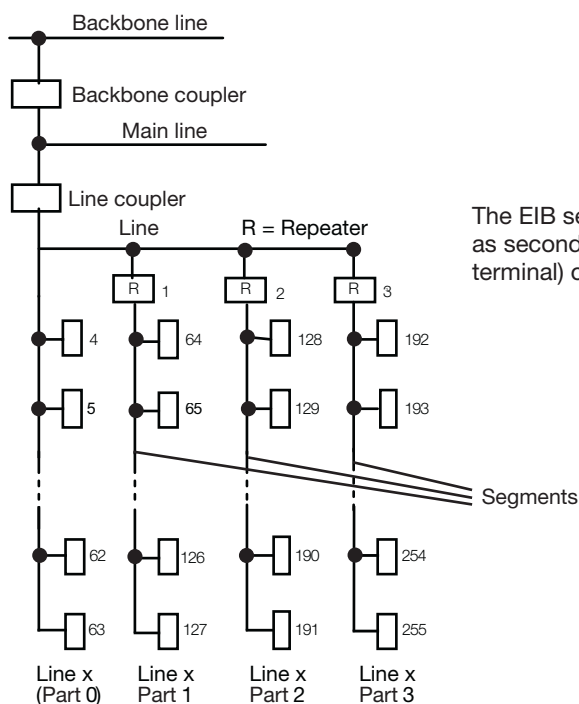
A coupler can also be used as a line repeater (repeater). In its function as a repeater, it links two line segments for data transfer, but isolates them electrically.

Up to three line repeaters can be used behind a line coupler. As a result, up to four line segments can form a complete line. Each line segment must be supplied by a dedicated EIB/KNX power supply.

The line repeaters do not have any filter tables. This means that a telegram is sent to all line segments irrespective of whether it is processed in the corresponding line segment. It is therefore not important whether the telegram has been triggered within the lines or whether it has been sent from the main line to the lines via the line coupler.

If an error occurs during the transmission of a telegram with the physical address of a receiver, the line repeater can repeat the telegram. This behaviour can be set separately for both line segments with the parameters „Repeat if errors on line / on segment“.

If the line repeater routes a group telegram and does not receive an acknowledgement, or if a bus device finds a transmission error, the line repeater repeats the telegram three times. With the parameters „Repeat if errors on line / on segment in group telegrams“, this behaviour can be set separately for line and segment.



The EIB segments are each connected as secondary lines (left bus connection terminal) of the line repeater.

Connection of repeaters in a line

Parameters

The default setting of the values is shown in **bold type**.

- Repeat if errors on line in physical addressed telegrams	yes no
- Repeat if errors on line in group telegrams	yes no
- Repeat if errors on segment in physical addressed telegrams	yes no
- Repeat if errors on segment in group telegrams	yes no

Explanation of the parameters**Repeat if errors on line in physical addressed telegrams****Yes**

If a transmission error (e.g. due to missing receiver) is found when sending a physically addressed telegram (e.g. when programming a device) on the primary line (here: line), the telegram is repeated up to 3 times.

No

The telegram is not repeated.

Repeat if errors on segment in physical addressed telegrams**Yes**

If a transmission error (e.g. due to missing receiver) is found when sending a physically addressed telegram (e.g. when programming a device) on the secondary line (here: line segment), the telegram is repeated up to 3 times.

No

The telegram is not repeated.

Repeat if errors on line in group telegrams**Yes**

If a transmission error (e.g. due to missing receiver) is found when sending a group telegram on the primary line (here: line), the telegram is repeated up to 3 times.

No

The telegram is not repeated.

Repeat if errors on segment in group telegrams**Yes**

If a transmission error (e.g. due to missing receiver) is found when sending a group telegram on the secondary line (here: line segment), the telegram is repeated up to 3 times.

No

The telegram is not repeated.