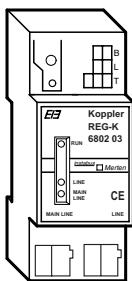


Coupler REG-K

Colour **Article No.**
light grey 680203

Table of Contents

1. Function	1
2. Installation	2
3. Technical Data	3
4. Settings in the EIB Tool Software (ETS)	4
5. Application overview	4

1. Function

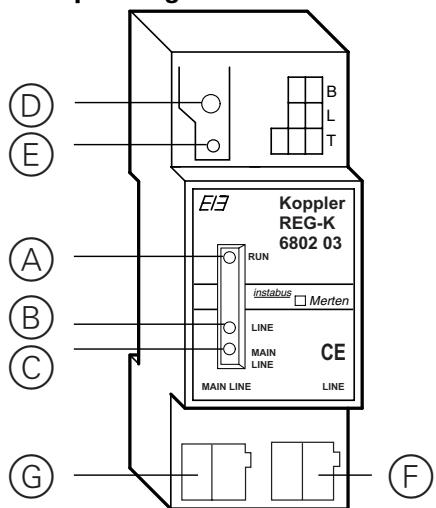
The coupler REG-K links together two separate EIB bus lines for data transfer but isolates them electrically from each other. Each bus line can thus be operated locally without dependence on the other lines.

The coupler REG-K can be used as a line coupler, backbone coupler or repeater, both in existing EIB networks and new KNX EIB networks. When used as a line/backbone coupler, it contains filter tables which either help to block specific bus telegrams from one of the two lines or to route them to the other line. It thus contributes to a reduction in the bus load. The filter table is generated automatically by the ETS (EIB Tool Software) during the parameterisation and commissioning of the installation.

Line couplers, backbone couplers and repeaters are not distinguishable from each other in terms of hardware and therefore also have the same order number. The function of the coupler is defined automatically when assigning the physical address with the help of ETS. The following terms apply:

Coupler function	Primary line	Secondary line
Backbone coupler	Backbone line	Main line 1-15
Line coupler	Main line 1-15	Line 1-15
Repeater	Line 1-15	Segment 1-3

Location and function of the display and operating elements



- A Green LED: Device is ready for operation
- B Yellow LED: Telegram receipt on the subordinate bus line (secondary line)
- C Yellow LED: Telegram receipt on the higher-order bus line (primary line)
- D Red LED: For displaying normal mode (LED off) or addressing mode (LED on); it is extinguished automatically once the physical address has been transferred
- E Learning button for toggling between normal mode and addressing mode for transferring the physical address
- F Bus terminal for primary line (e.g. main line)
- G Bus terminal for secondary line (e.g. line)

2. Installation

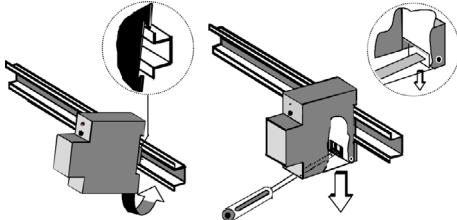


Caution:

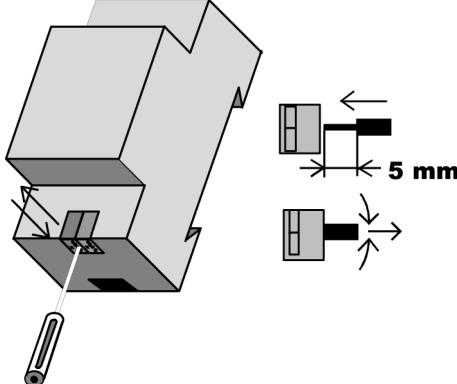
A distance of at least 4 mm should be maintained between individual cores of the 230 V cable and the bus cable.

The device can be used for permanent indoor installations in dry rooms, for insertion in low voltage distribution boards on DIN rails EN 50022-35 x 7.5.

Installing and dismantling the device:



Connecting and disconnecting the bus cable:



3. Technical Data

Rated voltage

Primary line: DC 24 V (DC 21...30 V), used to supply the device

Secondary line: DC 24 V (DC 21...30 V)

Power consumption

from the primary line: approx. 6 mA

from the secondary line: approx. 8 mA

Connections

Main line and line: Bus terminal, screwless 0.6 ... 0.8 mm Ø single-core;
Strip approx. 5 mm of insulation from the conductor and insert in the bus terminal (red = +, grey = -).

Mechanical data

Dimensions: DIN rail mounted device in N-system dimensions, width 2 modules (1 module = 18 mm)
approx. 84 g

Weight:

Electrical safety

Type of protection (in accordance with EN 60529): IP 20

Protection class (in accordance with IEC 1140): III

Device complies with EN 50090-2-2 and IEC 664-1:1992

Environmental conditions

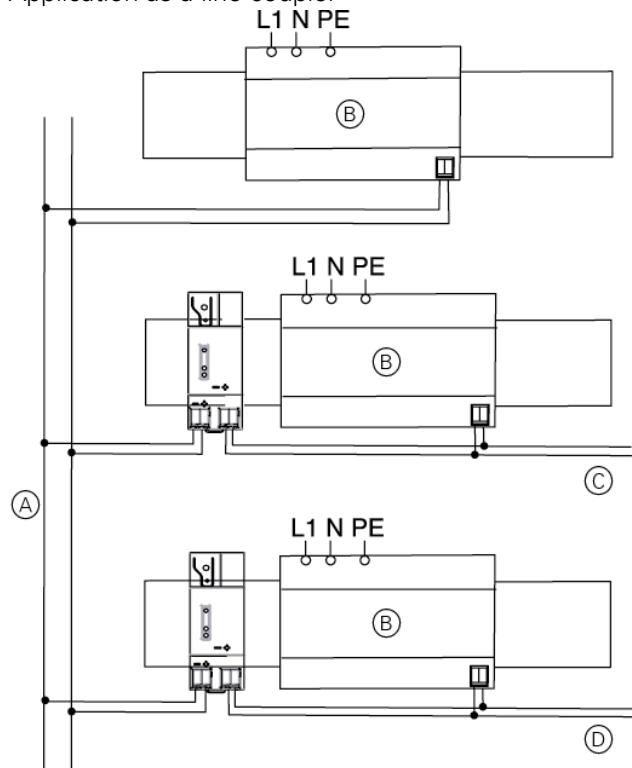
Ambient operating temperature: - 5 °C to + 45 °C

Storage temperature: -25 °C to +70 °C

Relative humidity (not condensing): 5 % to 93 %

Connection example:

Application as a line coupler



A Main line

B Power supply

C Line 1

D Line 2

4. Settings in the EIB Tool Software (ETS)

Selection in the product database

Manufacturer: Merten
Product family: 1.1 System devices
Product type: 1.1.03 Coupler
Program name: Coupler 7113/1.0
Line amplifier 7114/1.0
Media type: Twisted Pair
Product name: Coupler REG-K
Order number: 680203

5. Application overview

The following applications can be selected:

Application	Vers.	Function
Coupler 7113/1.0	1.0	Filtering of group telegrams from main line -> line
		Filtering of group telegrams from line -> main line
		Route main group 14 and 15
		Telegram confirmation on line/main line
		Repetitions if transmission errors on the line/main line
Line amplifier 7114/1.0	1	Repetitions if transmission errors on the line/segment during physical addressing
		Repetitions if transmission errors on the line/segment during group addressing