# KNX AREA / LINE COUPLER

## Safety instructions

**Electrical devices may only be mounted and connected by electrically skilled persons.**

**Serious injuries, fire or property damage possible. Please read and follow manual fully.**

**These instructions are an integral part of the product, and must remain with the end customer.**

## Device components

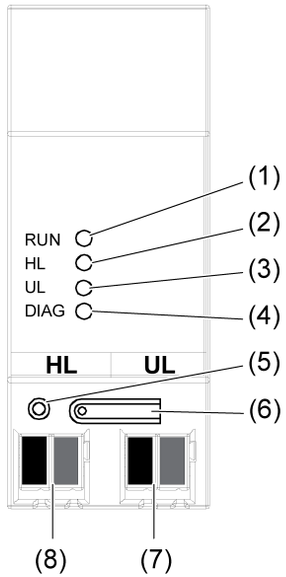



Figure 1

(1) Operation LED, green
(2) LED yellow, data reception on higher-order line (HL)
(3) LED yellow, data reception on subordinate line (UL)
(4) Diagnostic LED, red
(5) Programming LED, red
(6) Programming button
(7) Device connection terminal for subordinate line (UL)
(8) Device connection terminal for higher-order line (HL)

**Function of diagnostic LED ("DIAG"), red**

LED off: Telegrams are filtered or blocked (both directions)
LED on: Telegrams are transmitted unfiltered (at least one direction)

**Function of operation LED ("RUN"), green**

LED off: Device off, no power on higher-order line
LED on: Device on, voltage on both lines
LED flashing: No voltage on subordinate line

## Function

**System information**

This device is a product of the KNX system and complies with the KNX directives. Detailed technical knowledge obtained in KNX training courses is a prerequisite to proper understanding.

The function of this device depends upon the software. Detailed information on loadable software and attainable functionality as well as the software itself can be obtained from the manufacturer´s product database. Planning, installation and commissioning of the device are carried out with the aid of KNX-certified software. The latest versions of product database and the technical descriptions are available on our website.

**Intended use**

- Establishes a data link between two KNX lines and ensures electrical separation between these lines
- To be operated by addressing as a line coupler, backbone coupler, or amplifier
- Installation in small distribution board on a DIN rail according to EN 60715

**Application areas**

**Line coupler LK**: Phys. address X.Y.0
Connection of a line with a main line (HL). Alternatively with or without filter function. The coupler is logically assigned to the subordinate line.

**Backbone coupler BK**: Phys. address: X.0.0
Connection of a main line (HL) with a backbone line (BL). Alternatively with or without filter function. The coupler is logically assigned to the subordinate line.

**Amplifier V**: Phys. address X.Y.Z
Preparation and repetition of telegrams on a line, no filter function. Division of a line into max. 4 independent line segments => max. 3 line amplifiers connected in parallel per line (FIGURE 3). Each line segment requires a separate power supply (SV) including choke (DR).

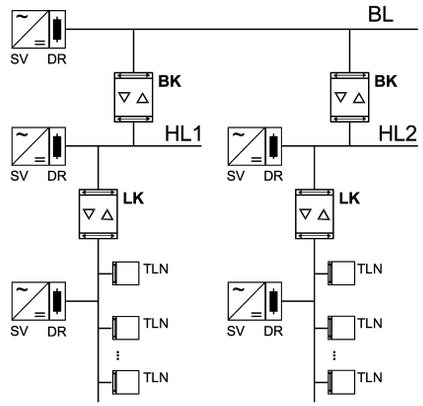



Figure 2: Use as a backbone and line coupler (BK and LK)

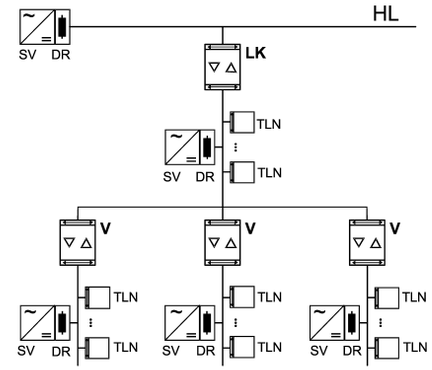



Figure 3: Use as a line coupler (LK) and amplifier (V)

TLN = Bus device

DR = Choke

SV = KNX power supply

Each line requires a separate power supply.

## Information for electrically skilled persons

**Mortal danger of electric shock.**

**Cover up live parts in the installation environment.**

## Fitting and electrical connection

**Mounting and connecting the device**

- o Mount device on DIN rail with the terminals facing downwards.facing downwards.
- i Use only cables which are approved for KNX.
- o Connect the higher-order line to the left device connection terminal (8). Power is supplied to the device via this terminal.
- o Connect the subordinate line to the right device connection terminal (7).

## Commissioning

**Loading the physical address and application software**

- o Switch on the bus voltage.
- o Press the programming button (6).
  The programming LED (5) lights up.
- o Assign physical address.
- o Write the physical address on the device label.
- o Load the application program into the device.

Panasonic

KNX

# KNX AREA / LINE COUPLER
Art. No. WRKT21025NC

Operating instructions

GB

Panasonic


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## Appendix

## Technical data

| | |
|---|---|
| Rated voltage KNX | DC 21 ... 30 V SELV |
| Current consumption | |
| higher-order line | approx. 6 mA |
| Subordinate line | approx. 8 mA |
| Protection class | III |
| Connection mode KNX | Standard device connection terminal |
| Ambient conditions | |
| Ambient temperature | -5 ... +45 °C |
| Storage/transport temperature | -25 ... +70 °C |
| Fitting width | 36 mm / 2 module |
| Weight | 90 g |

## Warranty

The warranty follows about the specialty store in between the legal framework as provided for by law.