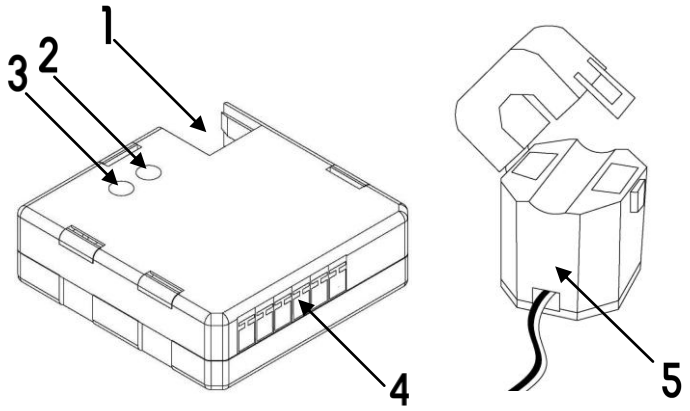
MAIN FEATURES

- Reduced size: 45 x 45 x 14mm (without terminal block).
- Suitable for single-phase or three-phase installations.
- 3 channels.
- Specific accessory: Split current transformer (ZN1AC-CST60).
- Installation with ease, not modifications needed.
- Instant power (KW) and Energy (KWh) measurements.
- Monetary and CO2 emissions conversion.
- Allows KNX system clock synchronization.
- KNX BCU integrated.
- CE directives compliant.



Programming button: push button to set the programming mode. If this button is held while plugging the device into the KNX bus, it goes into secure mode.

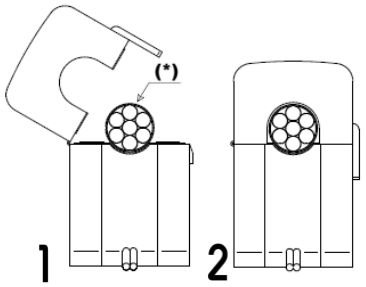
Programming LED: programming mode indicator (red). When the device goes into secure mode, it blinks every 0,5 seconds.

1 - KNX Connector | **2 -** Programming LED | **3 -** Programming button

4 - 6-pin terminal block connector | **5-** Accessory ZN1AC-CST60

GENERAL SYSTEM SPECIFICATIONS		
Type of device		Electric Operation Control Device
KNX Supply	Voltage	29V DC SELV
	Voltage range	21…31V DC
	Power consumption	10mA
	Bus connection	Typical BUS connector TP1, 0.50mm2 section
Ambient temperature		0ºC to +45ºC
Storage temperature		-20ºC to +70ºC
Ambient humidity		30 to 85% RH (no condensation)
Storage humidity (relative)		30 to 85% RH (no condensation)
Complementary characteristics		Class B
Safety class		II
Operation type		Continuous operation
Device action type		Type 1
Electrical solicitations period		Long
Type of protection		IP20
Assembly		Independent control assembly device
Power failure response (bus)		Data saving
Response when restarting (bus)		Data recovering
Operation indication		Programming LED indicates programming mode (lighting) and safe mode (blinking).
PCB CTi index		175 V
Enclosure		PC+ABS FR V0 halogen free

INPUTS SPECIFICATIONS AND CONNECTIONS		
Method of measurement		Induction
Number of channels		Up to 3
Connection type		Terminal block (screw)
Specific accessory	Reference	Split current transformer (ZN1AC-CST60). Not included
	Cable section/type	22 AWG (0.33 mm^2) / halogen free
	Current range	0.3A - 60A (each current transformer)
	Resolution	10W
	Error	5% maximum
	Max. diameter primary wire **(*)**	Ø 9.5 mm
	Length of cable	1.8m (not extensible)



Easy installation

Important: connect the split current transformer to the KES terminal block **before** closing the clamp around the phase wire.

1) Open the clamp of the Split current transformer and place around the phase wire or primary wire**.**

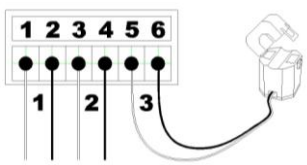
2) Close the clamp of the Split current transformer.

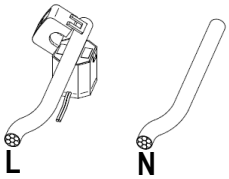
SAFETY INSTRUCTIONS

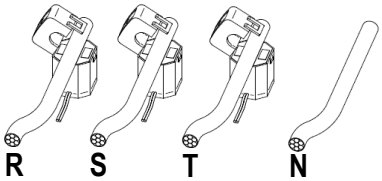
- Do not connect Main Voltage (230 V) or any other external voltages to any point of the BUS or KES. Connecting an external voltage might put the entire KNX system at risk.
- To be installed indoor, by qualified electricians.

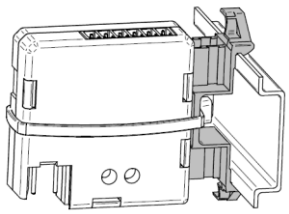
WIRING AND ASSEMBLY DIAGRAMS

KES TERMINAL BLOCK









Up to **3** split current transformers can be wired into the KES terminal block (3 channels).

Inputs 1 & 2: **channel 1**
Inputs 3 & 4: **channel 2**
Inputs 5 & 6: **channel 3**

Single-phase installation:

Use the application program ***KES 3xSingle-Phase*** with 3 independent channels.

Each channel is connected to one split current transformer, placed around one single-phase wire.

Three-phase installation:

Use the application program ***KES 1xThree-Phase***.

Each channel is connected to one split current transformer, placed around one of the each three-phase wires.

DIN rail installation:

Fit KES with the orange support (accessory included) using a plastic clamp.

Snap the orange support into the DIN rail as shown in the figure.