



WRKT4000E5NC  
WRKT4001E5NC

KNX INPUT MODULE 20 GANG DRY-CONTACT IO100  
KNX INPUT MODULE 20/8 GANG DRY-CONTACT/230V IO101

WRKT4000E5NC  
WRKT4001E5NC



Installation should only be carried out by a technical personnel having certificate of competency

## Panasonic®

Panasonic Electric Works Elektrik San.ve Tic. A.Ş.  
Abdurrahmangazi Mah. Ebubekir Cad. No: 44  
34887 Sancaktepe / Istanbul / Turkey  
T: 0(216) 564 55 55 F: 0(216) 564 55 44

HOTLINE  
444 8456

ewtr.panasonic.com  
info@tr.panasonic.com

611054-KNX-EN

### General Information

The KNX Input Module is used to connect the conventional binary sensors (e.g., switches, push buttons, presence detectors, etc.) to the KNX bus. The device can be programmed to control lights, blinds, shutters, HVAC systems etc. according to an input status. The status of an input signal is displayed on the device using LED. The input signals can be overridden manually using the manual operation buttons of the device. Many complex configurations and creative scenarios can be done thanks to the powerful auxiliary functions.

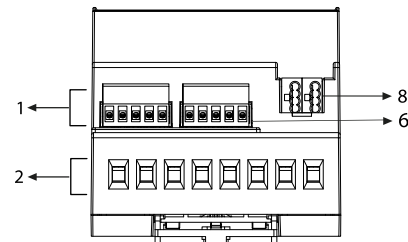
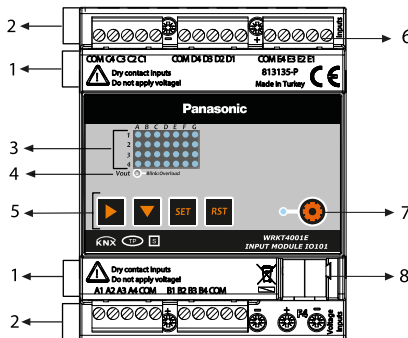
The KNX Input Module has a voltage output port can be used to supply one of the supported devices/sensors (e.g., Panasonic card holder). The device can be mounted on DIN rail and it is supplied with power via the KNX bus voltage.

### Main Features

- LEDs on the front of the device to indicate the signal status of the inputs.
- Manual operation buttons to simulate and override the status of the inputs.
- 20 x Dry-contact inputs.
- 8 x 10-230V AC/DC inputs (Only in IO101).
- 4 x virtual inputs.
- Vout port can be used to supply an external device with 5V up to 75 mA.
- Switching and dimming lighting with one or two inputs.
- Controlling blinds and shutters with one or two inputs.
- Calling and saving scenes.
- Sending up to 3 values of any type (percentage - HVAC mode - temperature - 1, 2 or 4-byte values etc.).

- Distinction between short and long presses - single and double presses of a connected push button.
- Inputs signals can be monitored, delayed, locked, sent to the bus and simulated via an object.
- 32 auxiliary functions. The type of each function can be selected from 14 different types (Sequencer, Counter, Scene actuator, Filter, Converter, Logic gate, Presence detector controller, Staircase controller ...). The inputs of some of these functions can be assigned to be internal inputs or external objects.

### Product Components



- 1- Dry contact inputs
- 2- 10-230V AC/DC inputs (Only in IO101)
- 3- Input signal status LEDs
- 4- Vout status LED
- 5- Manual operation buttons
- 6- Dry contact group connector
- 7- KNX programming button and LED
- 8- KNX bus terminal

### Product Versions

Product Features	WRKT4000E5NC	WRKT4001E5NC
Dry Contact Inputs	20	20
10-230V AC/DC Inputs	-	8
Virtual Inputs	4	4
Auxiliary Functions (v2.0)	32	32

### Technical Information

Power	
Operating voltage	DC 21-32 V (from KNX bus)
Maximum current consumption - Vout disabled	20mA from KNX bus
Maximum current consumption - Vout enabled	40mA from KNX Bus
Environmental conditions	
Ambient temperature	-5 C ... +45 C
Storage temperature	-10 C ... +55 C
Ambient humidity	5...93% (non-condensing)
Housing	
Dimensions (HxWxD)	90mmx71.8mmx67.9mm
Mounting (IEC60715)	35 mm top-hat rail (TH35)
Mounting width	DIN rail 72mm (4 modules)
KNX bus connection	KNX connector (243-211 Wago)
Weight	For IO100: 136,75 gr For IO101: 209,45 gr
10-230V Input connector (only IO 101)	16x Screw Terminals
Dry Contact Input connector	5x 5pin 3.81mm Pluggable Terminals
Electrical safety	
Protection type (IEC60529)	IP 20
Pollution degree (IEC60664)	2
Protection class (IEC61140)	II
Overvoltage category (IEC60664)	III
Standards	
EMC, LVD, KNX	TS EN 50428, TS EN 60669-2-1, EN 50090

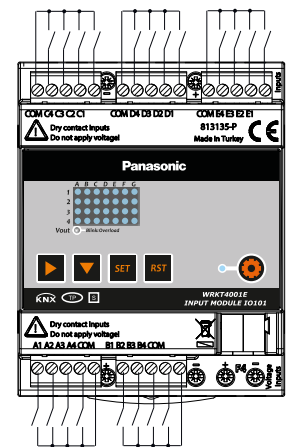
Dry contact inputs	
Scanning voltage	3.3V
Scanning current	10uA
Scanning current at switch on	400uA
Maximum cable length	100 meters
Minimum cable cross section	1mm <sup>2</sup>

Vout	
Output voltage	5V ± 10%
Maximum current	75mA
Maximum cable length	100 meters
Minimum cable cross section	1mm <sup>2</sup>

10-230V AC / DC inputs	
Permissible voltage range	10-230V AC/DC
Maximum input current	1mA
Signal level for 0 signal	0...3 V AC/DC
Signal level for 1 signal	8...230 V AC/DC
Maximum cable length	100 meters
Minimum cable cross section	1mm <sup>2</sup>

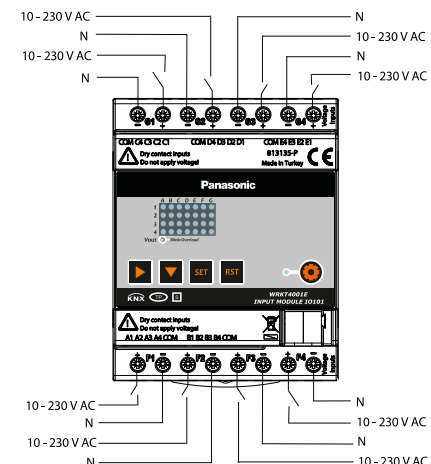
### Connection

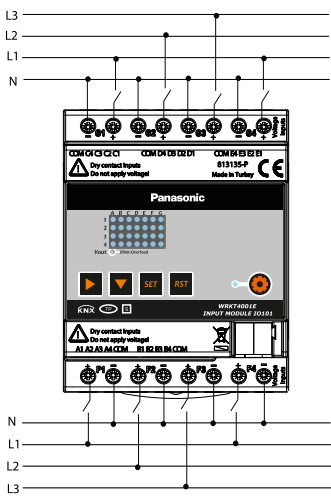
#### • Dry Contacts Connection



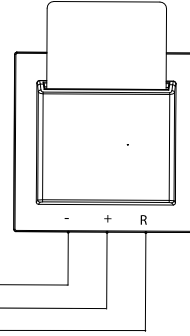
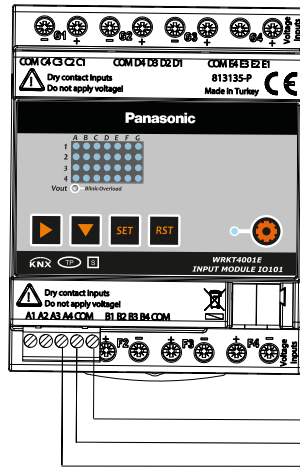
- ⚠ Don't apply an external voltage to dry contact inputs. Applying an external voltage damages the device.
- ⚠ COM terminals are internally interconnected to each other.

#### • 10-230V AC Connection





## Vout Connection



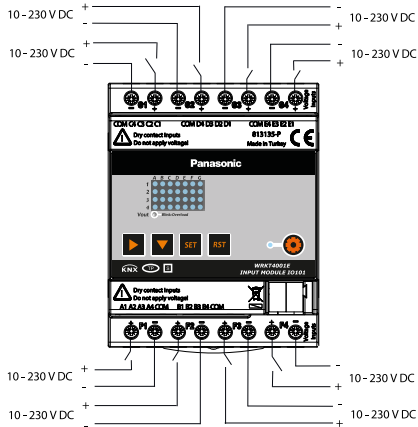
## WARNING

- Ensure that the power is cut off before the assembly of the products.
- Connection and assembly of the electrical devices should be carried out only by the technical personnel having certificate of competency.
- No responsibility is assumed for the entire of the malfunction, accident and loss arising from the assembly or interference of the persons not having the competency certificate.
- Use dry or slightly damp cloth to clean the buttons, cover and frame of the product. Never use alcohol, cologne, detergent or other similar chemicals for cleaning. Do not perform wet cleaning do not contact the product with water when the product is energized.
- In case the surface to which the product is connected is dyed, store the product by removing its cover and the frames.
- Keep the product away from the damp or wet environment during the transportation and shipping.
- It is intended for indoor use only.

## Service and Guarantee

- Warranty period starts as of the delivery date of the product and it is 2 years.
- Warranty covers the malfunctions likely to occur due to the manufacturing defects of the product and within the warranty period.
- The product including all of its parts is under warranty as a whole. If the product turns out to be defective, the consumer can use one of the following rights stipulated in Article 11 of Consumer Protection Law no. 6502;
  - a- Withdrawal from the contract
  - b- Demanding discount from sales fee
  - c- Demanding free repair,
  - d- Demanding the replacement of the sold one with a fungible one free from defects.
 In case the consumer chooses the right of free repair among those rights; the dealer is obliged to repair the product or have the product repaired without claiming any fee under the name of replaced part fee, labor cost or for any other reasons. The consumer can also use the right of free repair against the manufacturer or exporter. The dealer, manufacturer and exporter are jointly and severally liable for the usage of this right by the consumer.
- In case the consumer uses the right of free repair and if the product
  - Fails within the warranty period again and
  - The maximum period required for the repair is exceeded and
  - Authorized service station, dealer, manufacturer or exporter state that it's not possible to repair the product in a report, the consumer can demand the return of the product fee, fee discount at the ratio of the defect or the replacement with the one free of defects, if possible, from the dealer. The dealer can not reject the demand of the consumer. In case this demand is not met, the dealer, manufacturer and exporter shall jointly and severally be held responsible.
- The repair period of the product can not exceed 20 business days. This period starts on the notification of the failure on the product to the authorized service station or the dealer within the warranty period and from the date of delivery of the product to the authorized service station out of warranty period. In case of not eliminating the product malfunction within 10 business days, manufacturer or importer is obliged to dedicate another product with similar characteristics to the use of the consumer until the completion of the product repair. In case the product fails within the warranty period, elapsed time is added to the warranty period.
- Usage of the product contrary to the rules stipulated in user's manual, operating out of determined voltage, current and environmental conditions, damage on the cable connection due to the user's fault and failure of the product due to the facts arising from the fire, flood, earthquake, lightning and similar disasters are not under warranty.
- The consumer can apply to the arbitration committee for consumers or the consumer court where the consumer operations are made or in the residential area for the disputes to be occurred regarding the usage of the rights arising from the warranty.
- In case the dealer doesn't provide this certificate of warranty, the consumer can apply to the General Directorate of Consumer Protection and Market Surveillance of Ministry of Customs and Trade".

## 10-230V DC Connection

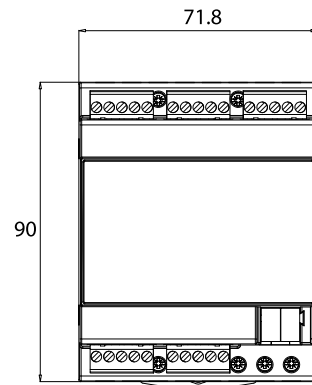


⚠ Only supported devices are permitted to be connected to Vout port. In case of connecting a not supported device, the KNX Input Module may be damaged.

Supported devices:

- Panasonic Energy Saver Card Reader 13.56 MHz MP (Wxxx0580)
- Panasonic Energy Saver Card Reader SW (Wxxx0582)
- For the complete list please contact the sales team

## Dimensions



## Device Behavior

### Factory Default

In the delivered state, the device application is unloaded, the manual control and Vout are disabled, and the input signal status LEDs are enabled. An input signal status LED turns on when a signal is applied on its terminals. The manual control and Vout can be enabled and the input signal status LEDs can be disabled by ETS.

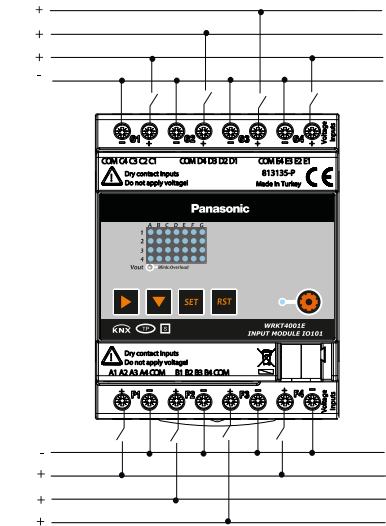
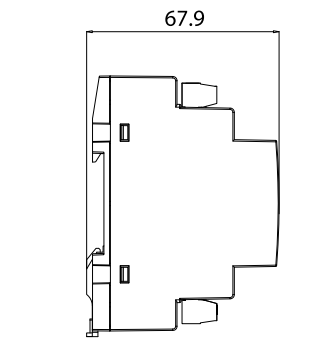
### ETS Programming

User can define the device behavior and connect it to another KNX devices after programming it by ETS. The behavior of the device after programming with the ETS depends on the configuration. The description of the features, parameters and objects is in the device reference manual.

### Manual Control

Manual control is available only after enabling it in ETS. To enter the manual control mode, press [SET] button for 5 seconds. An input's LED will start to blink indicating that the manual control is operated on that input. Press [▶] button to change the group of the controlled input and [▼] button to change the controlled input number in the same group. Press [SET] or [RST] buttons to simulate setting or resetting an input signal. Press [RST] button for 5 seconds to exit the manual control mode.

## Dimensions



⚠ Correct polarity must be observed when a DC voltage is applied on the 10-230V AC/DC inputs. The input status cannot be read if a wrong connection is made.