Operating and mounting instructions
InBlock i8HV
Order number: 77024-180-30

General usage

Power Block series consists of 4 different devices types. It can be installed in a standard distribution board.

- only 4 DIN Rail modules for 4 outputs and 6 inputs
- only 4 DIN Rail modules for 8 outputs (Binary/Shutter/Blind)
- only 8 DIN Rail modules for 16 outputs (Binary/Shutter/Blind)

A brief overview of the functionality is given in the following table:

Inputs
POTENTIAL FREE CONTACTS (BUTTON)
Switching value Dimming Shutter KNX Scenes Multiple operations Standard motion detectors (230VAC)

ADVANCED FUNCTIONS	
Analog & digital alarms Scene controller Timers (with cyclic sending of time remaining Overwrite end user parameters	Logic functions Advanced scene controller Setpoints Behavior at bus recovery

Device type and accessories

At present the following device types are available in the PowerBlock control group:

Produkt	Beschreibung	Bestell-Nr.:
PowerBlock o8	8 capacitive outputs	77024-180-01
PowerBlock o8m	8 capacitive outputs	77024-180-04
PowerBlock o16	16 capacitive outputs	77024-180-02
PowerBlock o16m	16 capacitive outputs	77024-180-05
PowerBlock io64	4 capacitive outputs + 6 analog / digital inputs	77024-180-03
InBlock i8HV	8 x 230VAC inputs	77024-180-30

Scope of delivery

The following individual components are included in the delivery of the PowerBlock device:

- Complete device with connected bus connector
- Operating and mounting instructions
- 1x heat shrinkable tubing 1.2 x 2cm for additional insulation of the bus cable
- Delivered in break-proof individual packaging

Application programs

The following application program is currently available for the PowerBlock device:

- 77014-PowerBlock i8HV-11-0110

Installation device

Risk of death by electric shock.

- The device is intended for interior installation in dry rooms.
- The device must only be installed and commissioned by an accredited electrical engineer.
- When planning and installing systems, the guidelines, rules and regulations, as well as the valid KNX guidelines of the respective country must be observed.
- For the installation the device must be switched to zero potential.
- The device must not be opened.
- Any faulty device is to be sent together with a return delivery to the manufacturer.

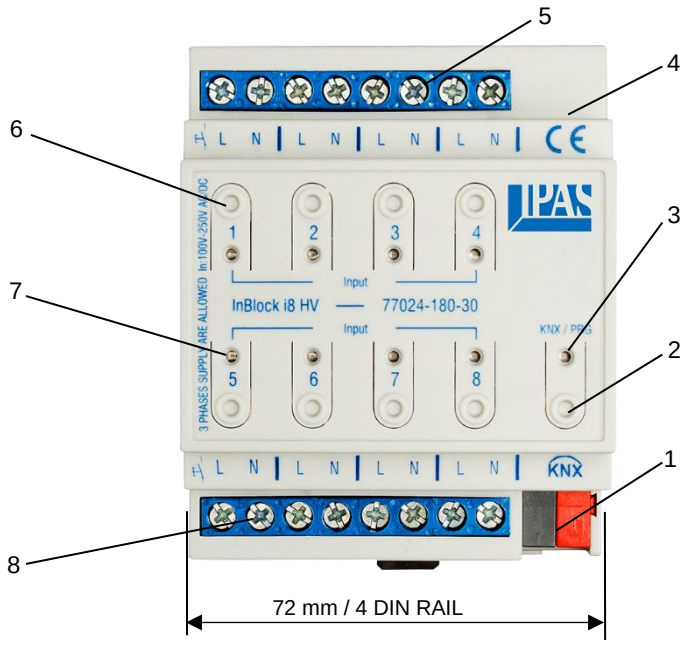
Technical data

POWER AND OUTPUTS SPECIFICATIONS		
Power supply	Supply Voltage: Max. Consumption: Additional power supply:	21..30VDC 9,4mA No
Number of inputs	Total inputs.	8 binary 230VAC inputs with 1 common terminal by each of them.
Type of inputs	Binary	Ready for 100VAC to 250VAC
Scanning voltage		230VAC
Input current		0,06mA per input
Max. phases allowed		3 phases allowed (Each input can be powered by an independent phase)
Max. cable lenght		100m
Output life expectance	Mechanical: Electrical:	$> 3x10^6$ operations (at 60 times/min) $> 4x10^4$ cycles with resistive load at maximal current.
Connections	KNX bus connection terminal: Terminal screw block: Tightening torque for terminal screw:	 0,8 mm Ø solid max. 6 mm Ø solid maximum 0.6 Nm
GENERAL SPECIFICATIONS		
Control and display elements	Programming button: LED, red: 8 x buttons: (for manual channels control) 8 x LEDs, red:	To assign the physical address Displays addressing mode To switch On/Off inputs / Move Up/Down To display actual outputs/channels status

Mechanical data	REG casing 4TE: Width: Hight: Lenght: Weight Mounting:	Plastic ABS – V0 71 mm 58 mm 90 mm 235 g 35 mm DIN rail
Electrical safety	Pollution class: Protection type:* Protection class:** Overvoltage category: KNX Bus:	2 IP20 III III SELV DC 30V
EMC requirements	Complies with:	EMC directive 2014/30/EU
Environmental conditions	Weather resistance: Environmental conditions in operation: Storage emperature: Transportation temperature: Rel. humidity: (non condensing)	EN 50090-2-2 -5°C to +45°C -25°C to +55°C -25°C to +70°C 5 % to 93 %
Certification CE-Signage	KNX registered: According to EMC-Guidelines:	Yes (Residential and commercial buildings), Low Voltage guidelines

* (according to EN 60529); ** (according to IEC 1140)

Location and function of the LEDs and control elements



1: KNX bus connector
2: Programming button
3: Programming LED
4: SD card slot (only for internal use)
5: 230VAC Input, terminal
6: Manual mode: Function according to the ETS parameterization; Telegram will be correct
7: 230V input LED ON = contact closed, LED OFF = contact contact open
8: 230VAC Input, terminal

Mounting and wiring

As an REG device, the Power Block series are suitable for mounting in distribution boxes on 35 mm DIN rails and wall boxes.

To mount the device, it must be angled to slide onto the DIN rail from above and then locked into place with a downward movement.

Please make sure that the security latch at the bottom side of the device snaps into place and that the device is firmly attached to the rail. To dismount the device, the security latch can be pulled downwards with a suitable tool and then the device can be removed from the rail.

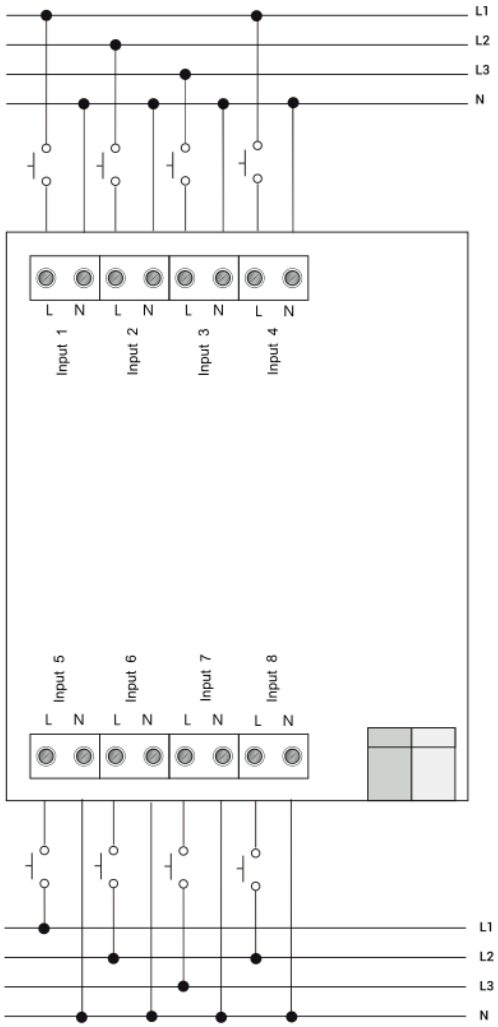
After the device has been inserted, the cables for the Outputs should be attached to the upper and lower connectors. However, please make sure that these are labelled clearly.

To connect the KNX cable, a standard bus connector is plugged into the respective entry on the device. Please make sure that there is double basic insulation between the KNX installation and the power supply. To do so, please insulate the wires of the KNX cable up to the bus connector with the enclosed shrinkable tubing.

Please make sure that the cables are laid in a way that ensures sufficient distance between the inputs and outputs cables.

INPUT SCHEMATIC

Inputs can be configured to receive binary signals between 100VAC and 250VAC: movement detector, switching and monitored input, all of them with 230V.



ANNEX 1: Manual Control

The inputs of the actuator have 1 push button and 1 status LED for each input on the below LED row. These buttons can be activated to control each and every input individually if you select "yes" in the relevant parameter options in Binary Input.

The LEDs represent: Actual input status for the 1,2,3,4,5,6,7,8 inputs.

The function when the button is pressed is NOT indicated on the LED.

MANUAL CONTROL – TEST

BINÄRY

Press action on 1,2,3,4,5,6,7,8: Sends predefined command 0/1 to the “associated object” of the input (simulates the close/open action on the binary contact)

LED = ON (indicates input status -> Input contact closed)

LED = OFF (indicates input status -> Input contact closed)