

## IMPULSE (MEMORY) RELAY



- For switching of electric circuits up to 16 A by an impulse command
- Above all for control of lighting circuits from more places in a corridor, on stairs, in the whole house etc.
- It saves crossbar switches; the lighting can be controlled by push-buttons instead of a combination of crossbar and three-way switches
- It saves conductors - it is possible to use smaller cross-sections for the control circuit than for power circuit
- It brings higher comfort of control; for example it is possible to switch off all lights when leaving the house
- The position of the brake-make contact can only be changed by an impulse applied to the following inputs (supply voltage failures have no effect):
  - **ON/OFF input** - each impulse led on this input changes the contact position (local control of the impulse relay)
  - **ON input** - each impulse led on this input powers up the relay (central control of the impulse relay)
  - **OFF input** - each impulse led on this input trips the relay (central control of the impulse relay)
- Light indication of the contact status on the front panel of the device with connected contact A1-12
- Possibility of local control by insertion of a pin  $\varnothing$  2 mm into the hole marked ON/OFF on the front panel of the device

### Impulse (memory) relay

Control voltage AC [V]	Type	Product code	Contact		Weight [kg]	Packing [pcs]
			Sequence <sup>1)</sup>	Voltage/current [V/A]		
230	<b>IR116K</b>	18236	001	230/16	0.095	1

<sup>1)</sup> Each digit indicates successively the number of make, break and break-make contacts

### IR116K accessories

Label	<b>P...LSN</b>	page 25
Compensation block	<b>C-IR</b>	page 74
Multi-level central control block	<b>D-IR</b>	page 74

### Specification

Type	<b>IR116K</b>		
Approval marks			
<b>Main circuit (contact)</b>			
Sequence <sup>1)2)</sup>			001
Rated operating voltage/current	AC-1	$U_e / I_n$	230 V a.c. / 16 A
Max. switched power <sup>2)</sup>			4000 VA
Max. lamp load			460 W
Max. fluorescent tube load	compensated $\cos\varphi=0.8$		8x36 W
	uncompensated $\cos\varphi=0.5$		25x36 W, 13x65 W
Min. switched power			500 mW (10 V/5 mA)
Rated frequency			50 Hz
Indication at tripping			red LED
Endurance	electrical		100 000 operating cycles
	mechanical		10 000 000 operating cycles
Frequency of switching			600 operating cycles/h
Connection	conductor cross-section		0.75 ÷ 6 mm <sup>2</sup> , 2x(0.75 ÷ 2.5) mm <sup>2</sup>
<b>Control circuit (coil)</b>			
Rated control voltage (A1, A2)		$U_e$	230 V a.c.
Rated frequency			50 Hz
Excitation time - input	ON/OFF		unlimited
	ON, OFF		max. 5 s
Max. number of push-buttons with glow lamp	ON/OFF		15 pcs
1.1 mA - input	ON, OFF		15 pcs <sup>3)</sup>
Connection	conductor cross-section		0.75 ÷ 6 mm <sup>2</sup> , 2x(0.75 ÷ 2.5) mm <sup>2</sup>
<b>Other data</b>			
Mounting on the rail DIN EN 50 022-width			35 mm
Degree of protection			IP20
Ambient temperature			-20 ÷ 55 °C
Seismic immunity (8÷55 Hz)			3 g
Operating position			arbitrary

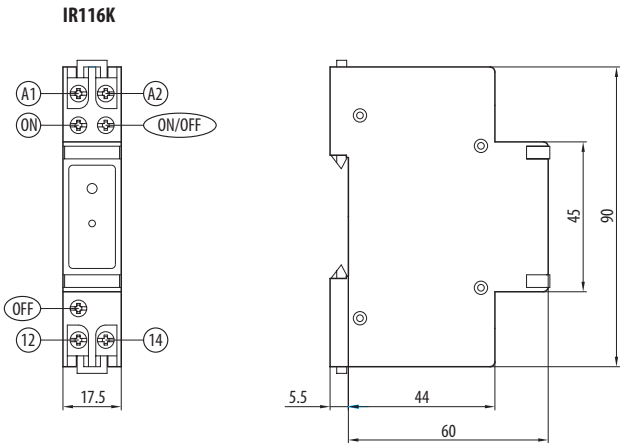
<sup>1)</sup> Each digit indicates successively the number of make, break and break-make contacts

<sup>2)</sup> Different contact sequence or load increase can be solved by the use of installation contactors S20, S25, S40, S63

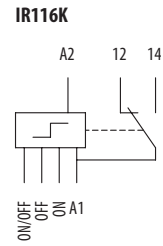
<sup>3)</sup> Max. number of push-buttons with glow lamp is good on input ON if the same number of push-buttons is on input OFF and vice versa.

# IMPULSE (MEMORY) RELAY

## Dimensions

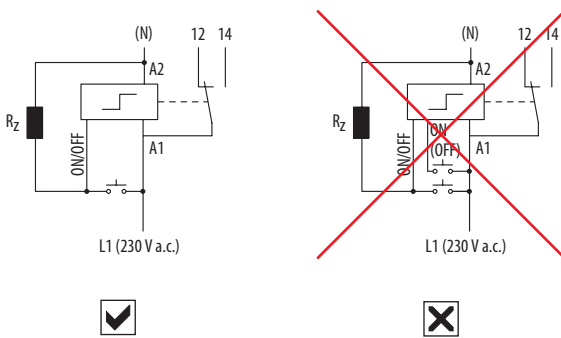


## Diagram



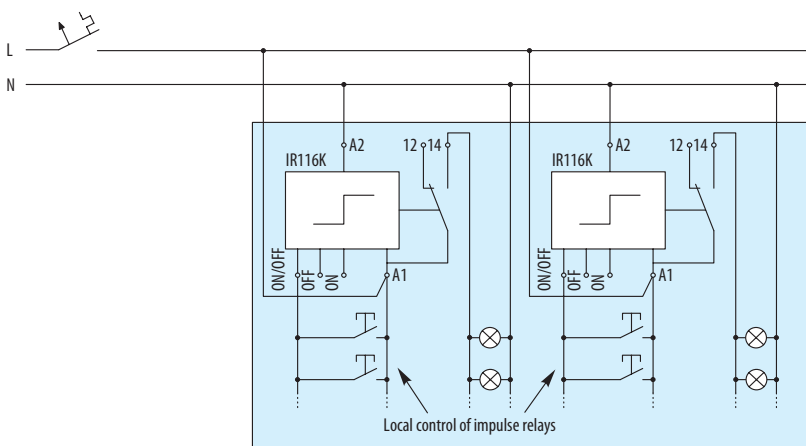
## Wiring diagram examples

- At the load  $R_z$  connected in accordance with the drawing the relay cannot be controlled by ON or OFF input, but only by ON/OFF



## Local control

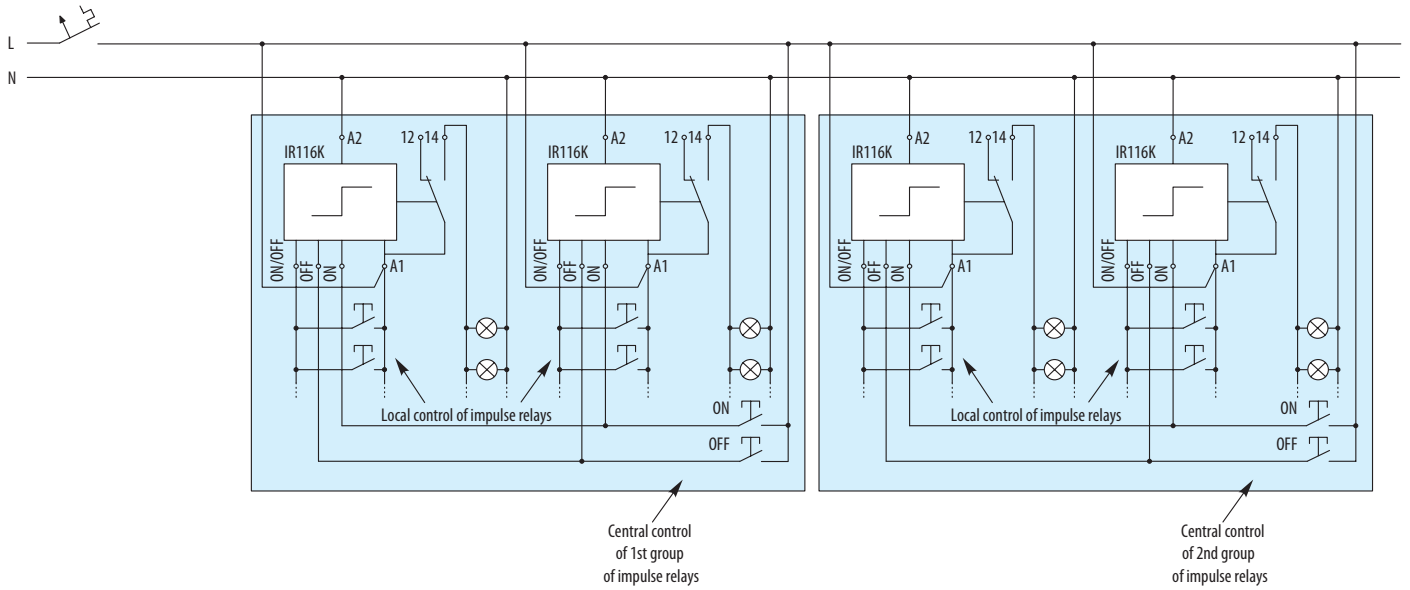
- Each relay is locally controlled by push-buttons



## IMPULSE (MEMORY) RELAY

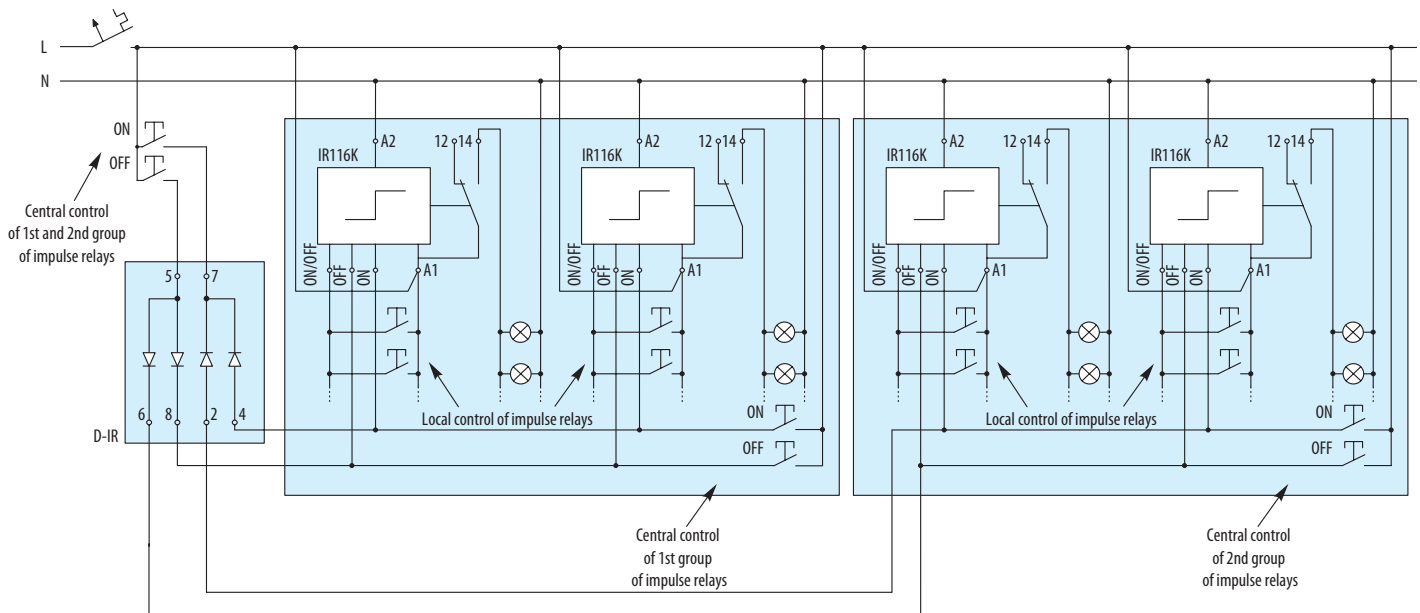
### Local + central control

- Each impulse relay is locally controlled by push-buttons (local control); each level or set of impulse relays is controlled simultaneously from a point (central control)

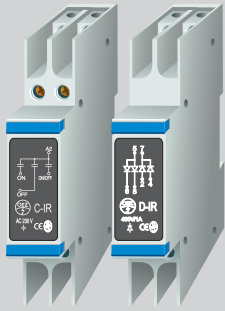


### Local + central + central multi-level control

- Each impulse relay is locally controlled by push-buttons (local control); each level or set of impulse relays is controlled simultaneously from a point (central control); all levels are jointly controlled by a single command from a point (central multi-level control)



## COMPENSATION BLOCK AND MULTI-LEVEL CENTRAL CONTROL BLOCK



### Compensation block C-IR:

- Accessories to: IR116K, MCR etc.
- It makes it possible to control a relay by means of a higher number of control push-buttons with a glow lamp than as specified in technical data for IR116K, MCR etc.
- It provides for compensation of a selected device
- Connection: in parallel to IR116K, MCR etc.
- Rated voltage: 230 V a.c.
- Maximum voltage: 400 V a.c.
- Capacity: 3 x 1  $\mu$ F

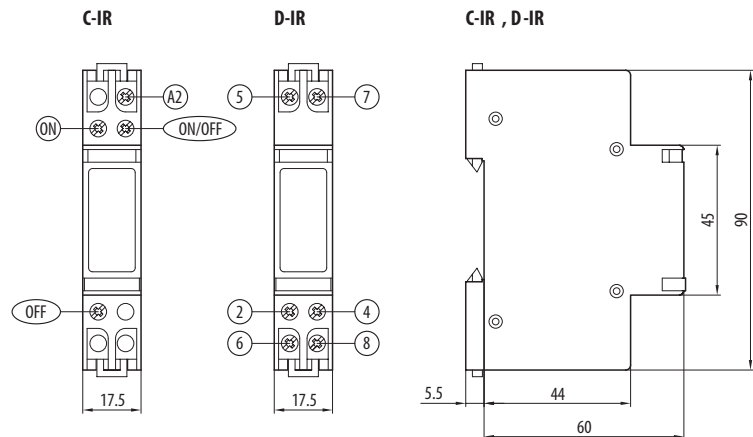
### Multi-level central control block D-IR:

- Accessories to: IR116K
- It provides for multi-level central control of IR116K
- Rated voltage: 230 V a.c.
- Description: each impulse relay is locally controlled by push-buttons (local control); each level or set of impulse relays is controlled simultaneously from a point (central control); all levels are simultaneously controlled by a single command from a point (central multi-level control)

### Compensation block and multi-level central control block

Description	Type	Product code	Weight [kg]	Packing [pcs]
Compensation block	<b>C-IR</b>	11177	0.07	1
Multi-level central control block	<b>D-IR</b>	11178	0.07	1

### Dimensions



### Diagram

