

IMPULSE MEMORY RELAY



Impulse memory relay

- For electric circuit switching up to 16 A by impulse command.
- However, mainly for control of lighting circuits from more points 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 by one push-button when leaving the house.
- The relay does not need permanent power supply; it is supplied only for the time of control impulse duration.
- The position of the make-and-break contact can only be changed by applying an impulse on 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 switches the contact to position 11-14.
 - **OFF input** - each impulse led on this input switches the contact to position 11-12.

Control voltage U_n	Type	Product code	Number of modules	Weight [kg]	Package [pcs]
230	MIR-16-001-A230	35675	1	0.085	1

Accessories

Compensation block

- It enables control of relay by more than 15 control push-buttons with glow discharge tube.
- Connection: parallel with MIR.
- Rated voltage: 230 V a.c.
- Max. voltage: 400 V a.c.
- Capacity: 3 x 1 μ F.



Type	Product code	Number of modules	Weight [kg]	Package [pcs]
OD-MIR-BK	35676	1	0.055	1

Multi-level central control block


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



Type	Product code	Number of modules	Weight [kg]	Package [pcs]
OD-MIR-CO	35677	1	0.05	1

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Specifications

Type	MIR-16-001-A230		
Standards	EN 61812-1		
Approval marks			
Main circuit (contact)			
Arrangement of contacts ^{1) 2)}	001		
Rated operating voltage	U_e	230 V a.c.	
Rated current	I_n	AC-1	16 A
		AC-5a	2 A
Max. switched power ²⁾	4000 VA		
Lamp load max.	460 W		
Max. fluorescent tube load	compensated $\cos \varphi = 0.8$		8x 36 W
	uncompensated $\cos \varphi = 0.5$		25x 36 W, 13x 65 W
Min. switched power	50 mW (10 V / 5 mA)		
Rated frequency	f_n	50 Hz	
Mechanical endurance	10 000 000 operating cycles		
Electrical endurance	100 000 operating cycles		
Switching frequency	10 operating cycles/min		
Connection	0.2 ÷ 2.5 mm ²		
Torque	0.5 Nm		
Control circuit			
Rated voltage	U_c	230 V a.c.	
Rated frequency	f_n	50 Hz	
Min. excitation time	200 ms		
Max. excitation time	compensated		
Min. time period between pulses	1 s		
Max. number of push-buttons with glow lamp 1.1 mA	15 pcs ³⁾		
Connection	0.2 ÷ 2.5 mm ²		
Torque	0.5 Nm		
Other data			
Mounting on "U" rail according to EN 60715 - type	TH 35		
Degree of protection	IP20		
Ambient temperature	-20 ÷ + 50 °C		
Working position	Arbitrary		

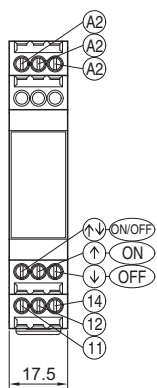
¹⁾ Each digit indicates successively the number of make, break and break-make contacts

²⁾ Different contact sequence or load increase can be solved by the use of installation contactors RSI

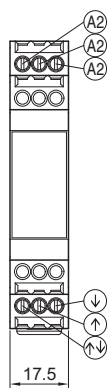
³⁾ On ON input and OFF output there must be the same number of push-buttons with a glow discharge tube. For the number of push-buttons with a glow discharge tube higher than 15 it is necessary to use the compensation bloc OD-MIR-BK

Dimensions

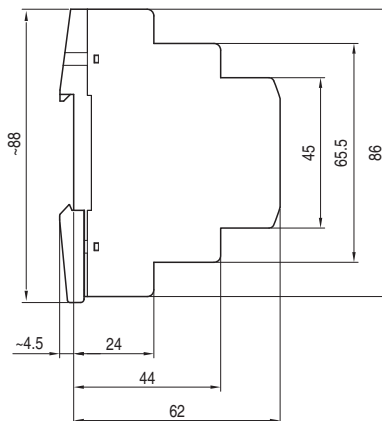
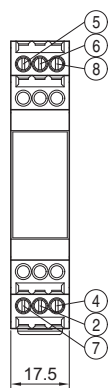
MIR-16-001-A230



OD-MIR-BK

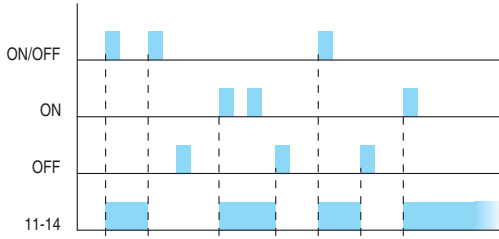


OD-MIR-CO

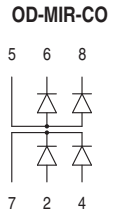
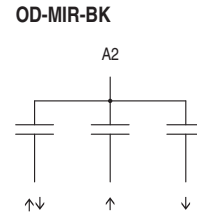
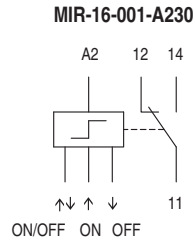


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Graph



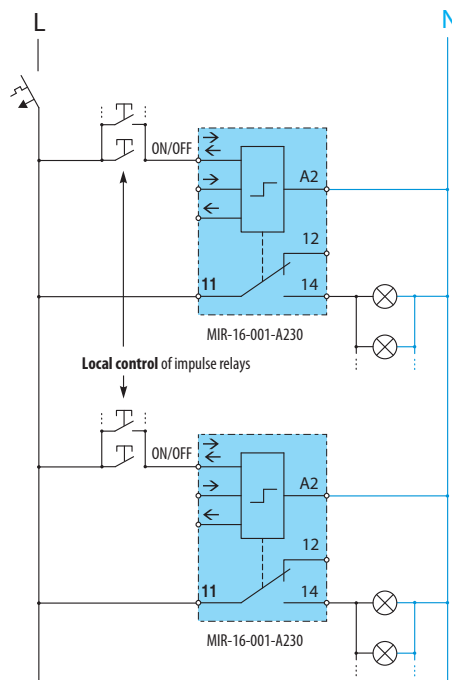
Diagram



Connection examples

Local control

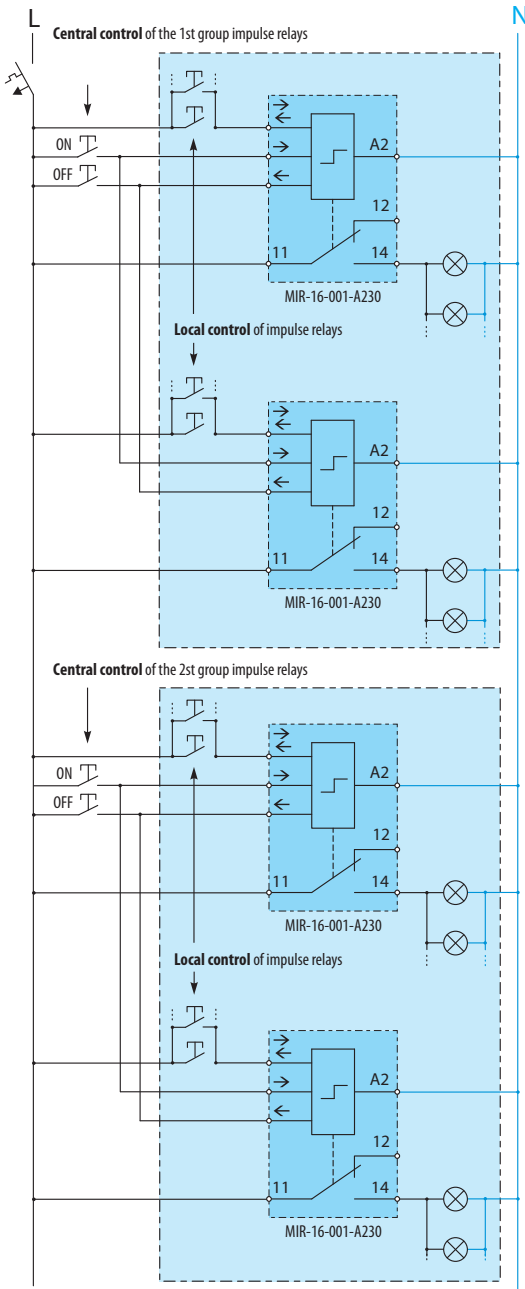
- Each relay is locally controlled by push-buttons.



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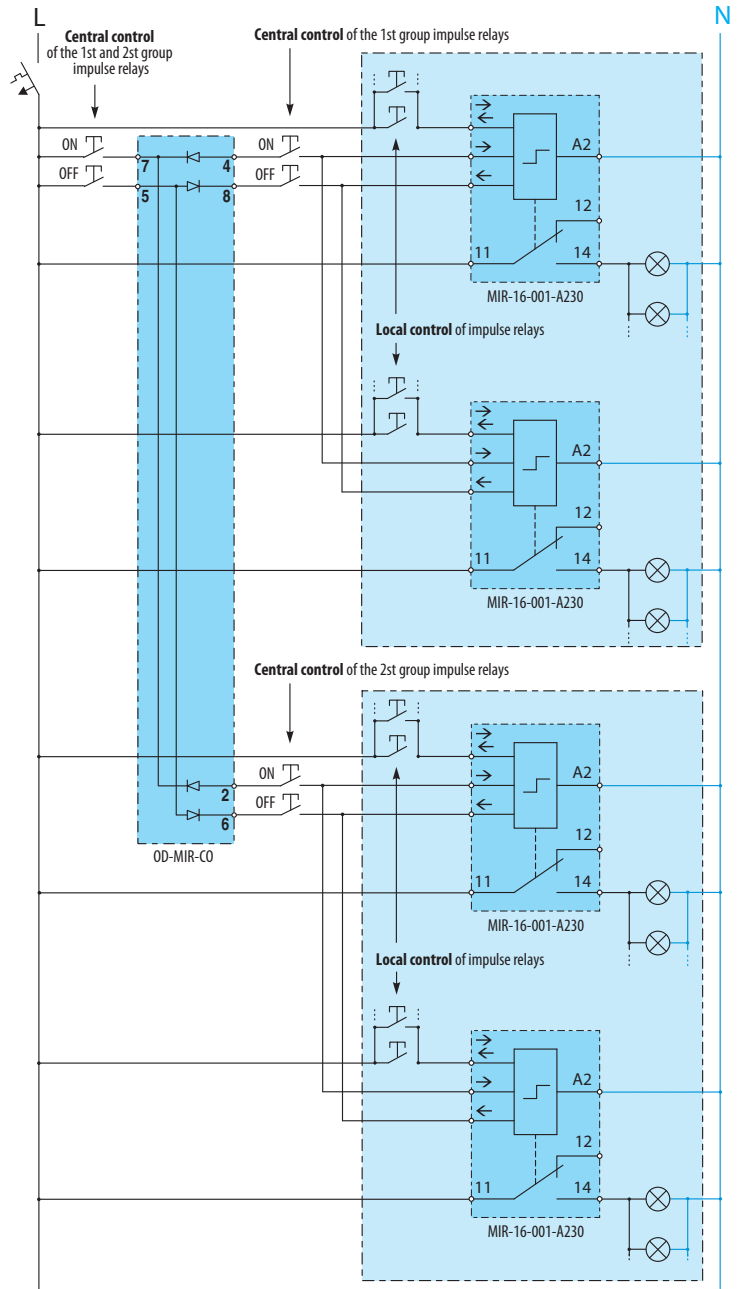
Local + central control

- 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); all levels are jointly controlled by a single command 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 control); all levels are jointly controlled by a single command from a point (central multi-level control).



Connection of signalling of pushed button

- When the connection of signalling of pushed button is done according to the figure relay can be controlled only by ON/OFF input. In such case of signalling connection when the ON or OFF button is pushed the current is closed through the relay electronics and thus can damage it.

