GB
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Eltako ELECTRONICS

4-fold impulse switch with integrated relay function ESR12Z-4 DX-UC

also for central control and group control

CE

With 4 independent contacts, 1NO contact each potential free 16A/250V AC, incandescent lamp load up to 2000W. Standby loss 0.4 watt only.

Modular devices for DIN-EN 60715 TH35 rail mounting. 2 modules = 36 mm wide, 58 mm deep.

Eltako Duplex technology (DX) allows you to switch 3 of the 4 normally potential free contacts in zero passage switching when 230V A/C voltage 50Hz is switched. This drastically reduces wear. To achieve this, simply connect the N conductor to the terminal (N) and the phase conductors to 1(L), 3(L) or 5(L). This results in an additional standby consumption of only 0.1 watt. If the channels are used to control switchgear that has no zero passage switching, (N) should not be connected, otherwise the additional off-delay would have the opposite effect.

Local universal control voltage 8 to 230V UC. In addition universal control inputs central ON and central OFF for 8 to 230V UC, electrically isolated from the local inputs.

With additional group control inputs ON and OFF for 8..230V UC. Same potential like the local control inputs. Groups of these impulse switches can be controlled separately using the group control inputs.

Supply voltage like the local control voltage.

State-of-the-art hybrid technology combines advantages of nonwearing electronic control with high capacity of special relays.

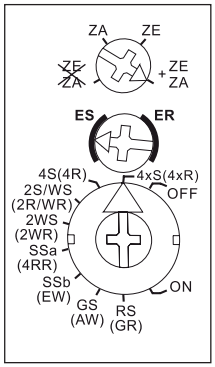
By using a bistable relay coil power loss and heating is avoided even in the on mode.

The switched consumers may not be connected to the mains before the automatic short synchronisation after installation has terminated.

Central commands always have priority, local control inputs are blocked as long as central commands are activated.

In case of a power failure the system is disconnected in a defined mode.

Function rotary switches



With the upper rotary switch this impulse switch with integrated relay function can be partly or completely excluded from central control:

ZE+ZA = central ON and central OFF

ZE = central ON only

ZA = central OFF only

~~**ZE+ZA**~~ = no central control

With the middle rotary switch ES/ER the functions of the lower rotary switch will be preselected. The setting ER selects the function in brackets. With the lower rotary switch 18 different functions may be selected:

OFF = Permanent OFF; **ON** = Permanent ON

4xS = 4-fold impulse switch with 1 NO contact each, control inputs A1, A3, A5 and A7

(4xR) = 4-fold switching relay with 1 NO contact each, control inputs A1, A3, A5 and A7

4S = Impulse switch with 4 NO contacts

(4R) = Switching relay with 4 NO contacts

2S/WS = Impulse switch with 3 NO contacts and 1 NC contact

(2R/WR) = Switching relay with 3 NO contacts and 1 NC contact

2WS = Impulse switch with 2 NO contacts and 2 NC contacts

(2WR) = Switching relay with 2 NO contacts and 2 NC contacts

SSa = Impulse multi circuit switch 2 + 2 NO contacts for switching sequence 0-2-2+4-2+4+6; check back signal 8

(4RR) = closed-circuit current relay with 4 NC contacts

SSb = Impulse multi circuit switch 2 + 2 NO contacts for switching sequence 0-2-2+4-2+4+6-2+4+6+8

(EW) = Impulse relay for fleeting NO contact with 3 NO contacts and 1 NC contact, wiping time 1 sec

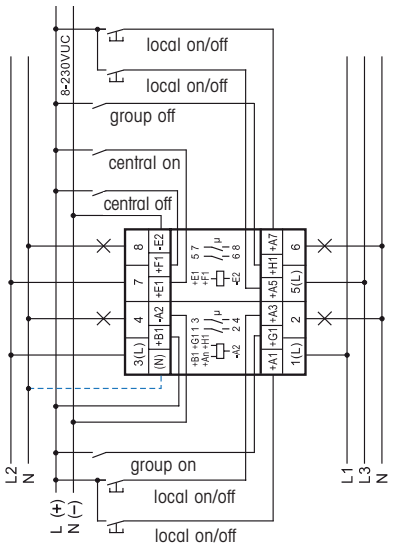
GS = Impulse group switch. Switching sequence 0-2-0-4-0-6-0; check back signal 8

(AW) = Impulse relay fleeting NC contact with 3 NO contacts and 1 NC contact, wiping time 1 sec

RS = Switch with 4 NO contacts, A1= set control input and A3 = reset control input

(GR) = Group relay 1 + 1 + 1 +1 NO contacts

Typical circuit with central control and group control



If N is connected the zero passage switching is active at the contacts 1-2, 3-4 and 5-6.

Tecnical data

Rated swiching capacity	16A/250V AC
Incandescent lamp load and halogen lamp load [1] 230V	2000W
Fluorescent lamp load with KVG in lead-lag circuit or non compensated	1000VA
Fluorescent lamp load with KVG shunt-compensated or with EVG	500VA
Compact fluorescent lamp with EVG and energy saving lamps	15x7W, 10x20W [2]
Standby loss (activ power)	0,4W

[1] For lamps with 150W max.

[2] If zero passage switching is activated, otherwise I on ≤ 70A/10ms [3]

[3] For electronic ballast gears a 40 fold inrush current has to be calculated. For steady loads of 1200W use the current-limiting relay SBR12.

The strain relief clamps of the terminals must be closed, that means the screws must be tightened for testing the function of the device. The terminals are open ex works.

Warning!

Only a trained electrician may install this equipment, otherwise there is a risk of fire or electric shock.