

EN54C-LS8 v.1.0 LS8 sequential module

EN54C-LS8 sequential module for actuators with return spring



Edition: 2 from 22.11.2022 Supercedes edition: 1 from 14.02.2019

EN

Features:

- supply voltage 20 ÷ 30 V DC
- designed for actuators with return spring
- 8 outputs independently secured with polymer fuses
- parametric trigger input INPUT (2x4,7 kΩ)
- technical output of failure
- · optical indication of failure
- dedicated to fire alarm power supplies of EN54C series
- warranty 5 years from production date

Description.

The sequential module is designed for actuators with return spring used for fire dampers and smoke vents. These devices are used in fire alarm systems and smoke and heat control systems.

When switching on the electric actuator, a short-term current surge, exceeding its rated current, may occur. If multiple electric actuators are connected, the above-mentioned surge current poses a risk of incorrect operation of the power supply (e.g. triggering the protection of output circuit), despite not exceeding the current capacity of the power supply.

The sequential switching module causes the receivers connected to its outputs to be sequentially switched, with a delay of 100 ms. Thanks to this solution, the surge current is reduced to the value ensuring correct operation of the power supply. Thus, it enables safe connection of additional actuators. All outputs are independently protected by PTC polymer fuses and have LED diodes signaling the activation of each output.

The module is controlled by a control device (e.g. a CSP control panel) configuring the resistance at the INPUT connector (see Table 2). For example: a $4.7~\text{k}\Omega$ resistance will activate the OUT1-OUT8 outputs. The technical output of failure indicates failures at the parametric INPUT input - this situation can occur, among others, when the control cables are damaged.

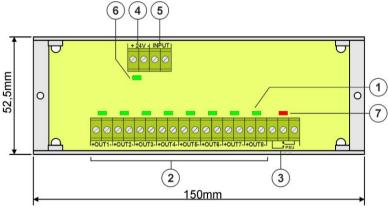


Fig.1. Module view.

Table 1. Description of components

Component	Opis	
No.		
[1]	LED - green LEDs (OUT1÷OUT8 ouputs status)	
[2]	OUT1 ÷ OUT8 independently secured outputs	
[3]	PSU - technical relay output of parametric input failure	
[4]	+24V- power input 20-30 V DC	
[5]	INPUT parametric input	
[6]	LED green LED for 24 V power supply indication	
[7]	PSU red LED indicating failure	

Table 2. Status of outputs depending on

ine input				
Input	OUT1-OUT8	PSU		
resistance	outputs status			
<4,7 kΩ	OFF	ON		
4,7 kΩ	ON	OFF		
>4,7 kΩ,	OFF	ON		
<9,4 kΩ	<u> </u>			
9,4 kΩ	OFF	OFF		
>9,4 kΩ	OFF	ON		

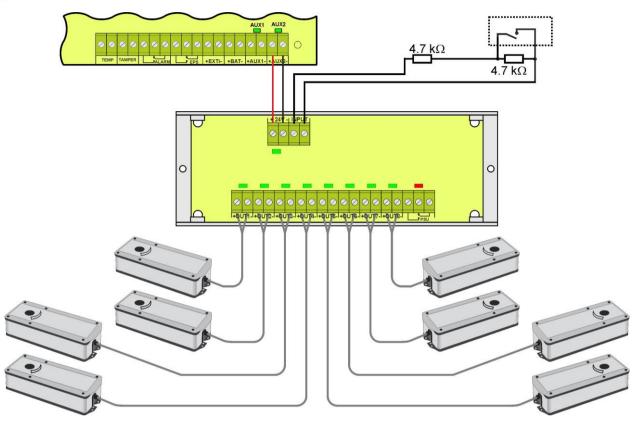
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Installation.

- 1) The module should be installed in the fixed section of the enclosure.
- 2) Connect AUX1 and AUX2 outputs with 24 V module inputs using the supplied cables.
- 3) The parametric INPUT input should be connected to actuator control device, e.g. CSP control panel.
- 1) If necessary, connect the PSU failure output.



When installing the fuse module in the power supply unit, power supply current consumption, used for the calculation of standby time, should be considered.



Technical parameters.

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Supply voltage	20 ÷ 30 V DC
Current consumption	20 ÷ 30mA @ U _{IN} =20 ÷ 30 V DC
Output voltage	$U_{AUX} = U_{IN}$ (according to supply voltage)
Output current	8 x 0,5 A
Number of power outputs	8 (OUT1 ÷ OUT8)
Overload protection	polymer fuses
Optical signaling of operation	8x LEDs - outputs condition OUT1÷OUT8 (green LEDs) PSU - failure indication (red LED)
Control input	INPUT - parametric, 2x4,7 kΩ
PSU failure output	relay type: 1 A@ 30 V DC / 48 V AC
Operating conditions	II environmental class, -10°C ÷ +50°C
Dimensions (LxWxH)	150 x 52,5 x 27 [mm]
Net/gross weight	0,12 / 0,14 [kg]
Storage temperature	-20°C+60°C
Additional equipment	Screws x 2

WEEE Label

According to the European Union WEEE Directive, waste electrical and electronic equipment should be disposed of separately from normal household waste.

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