



Fig.1 The USCA5 module.

APPLICATION

The extension module allowing attach five digital inputs to one analog input of the controller.

DESCRIPTION

The USCA5 sums five digital inputs and converts to one analog output signal 0 - 10V. Connecting discrete inputs (d_1, \dots, d_5) to common bus (C) voltage output is generated by the formula:

$$U_{OUT} = 2,0 (d_1 + d_2 + d_3 + d_4 + d_5) [V]$$

where: $d_{1...5} = 0$ for opened terminals
 $d_{1...5} = 1$ for closed terminals

LED diodes indicate digital inputs states.

TECHNICAL DATA

Power supply	24 V AC \pm 10%
Current consumption for $R_L = 1k\Omega$	63mA
Input current for $R_{IN} = 0\Omega$	2,2mA
Max. resistance for input terminals	1k Ω
Max. output current	13mA
Adjust accuracy	< 1%
Protection class of the case	IP-40
Protection class of terminals	IP-20
Ambient temperature range	-10...+55°C
Diameter of terminals	2,5 mm ²
Mounting	DIN-35 or DIN-32 rail
Dimensions (L x W x H)	96mm x 70,5mm x 42mm
Weight	115 g

REMARK: Output voltage can be individually set according to the specification.

USCA5

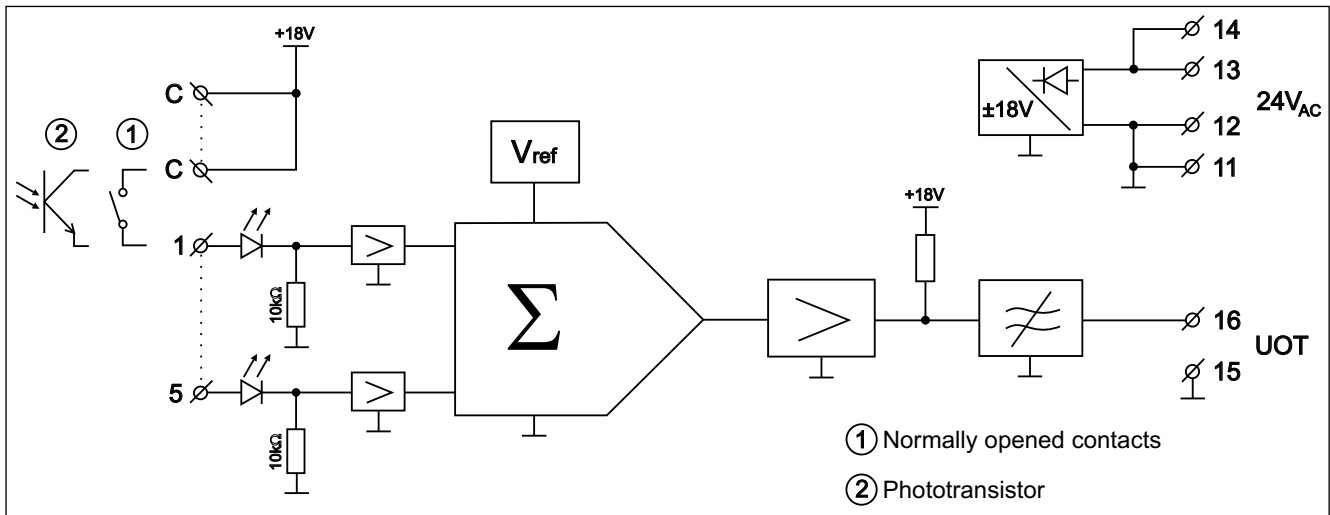


Fig.2 Connections of the USCA5.

TABLE OF STATES

Digital inputs	U_{OUT} [V]
any one input closed	2,0
any two inputs closed	4,0
any three inputs closed	6,0
any four inputs closed	8,0
five inputs closed	10,0

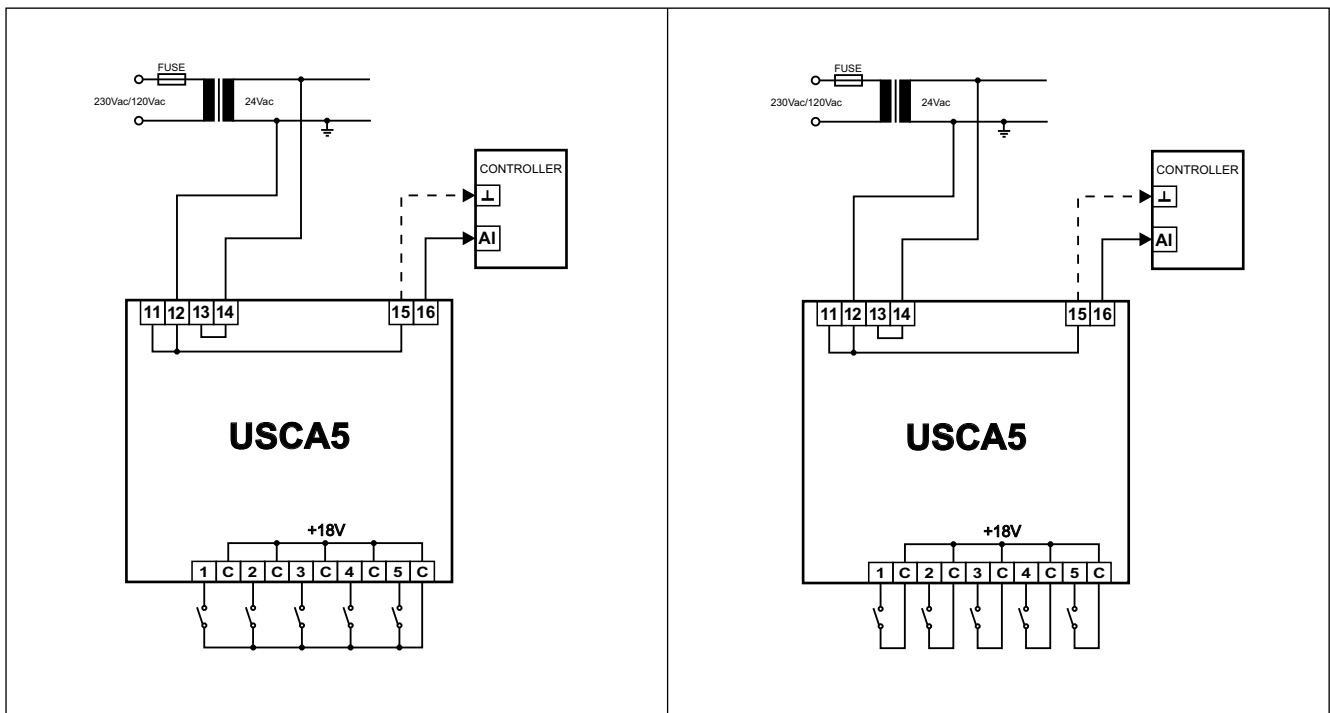


Fig.3 Example ways of connecting circuits with normally opened contacts.

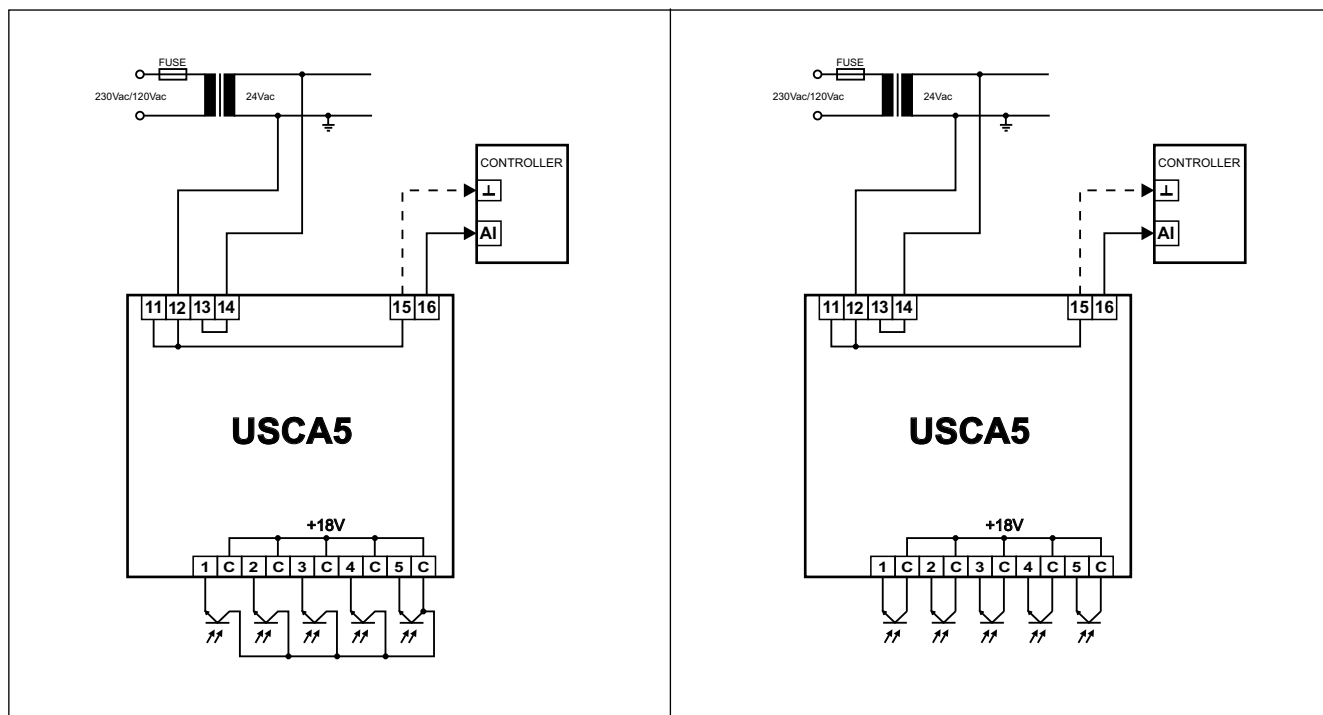


Fig.4 Example ways of connecting circuits with phototransistors.

Terminals 11 and 13 are supporting, for example, to provide power to other modules.
 Connection the terminal 15 to the ground is recommended.