



Fig.1 The USCA6 module.

APPLICATION

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

DESCRIPTION

The USCA6 sums six digital inputs and converts to one analog output signal 0 - 10V. Connecting discrete inputs ($d_1 \div d_6$) to common bus (C) voltage output is generated by the formula:

$$U_{OUT} = 1,65 (d_1 + d_2 + d_3 + d_4 + d_5 + d_6) [V]$$

wher: $d_{1...6} = 0$ for opened terminals
 $d_{1...6} = 1$ for closed terminals

LED diodes indicate digital inputs states.

TECHNICAL DATA

Power supply	24 V AC \pm 10%
Current consumption for $R_L = 1k\Omega$	65mA
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.

USCA6

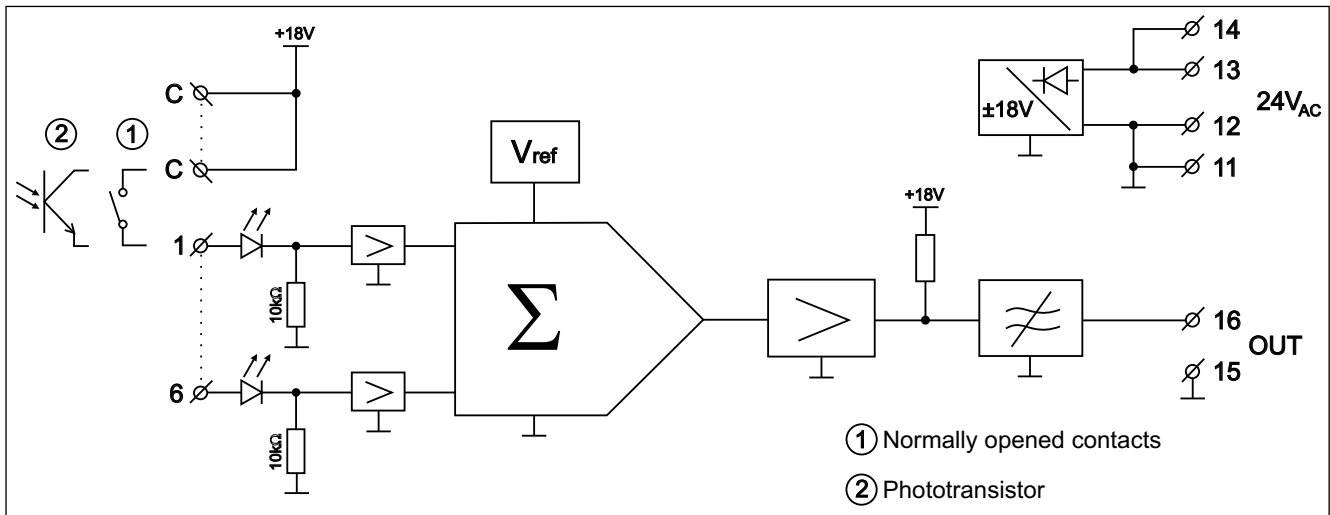


Fig.2 Connections of the USCA6.

TABLE OF STATES

Digital inputs	U_{OUT} [V]
any one input closed	1,65
any two inputs closed	3,30
any three inputs closed	4,95
any four inputs closed	6,60
any five inputs closed	8,25
six inputs closed	9,90

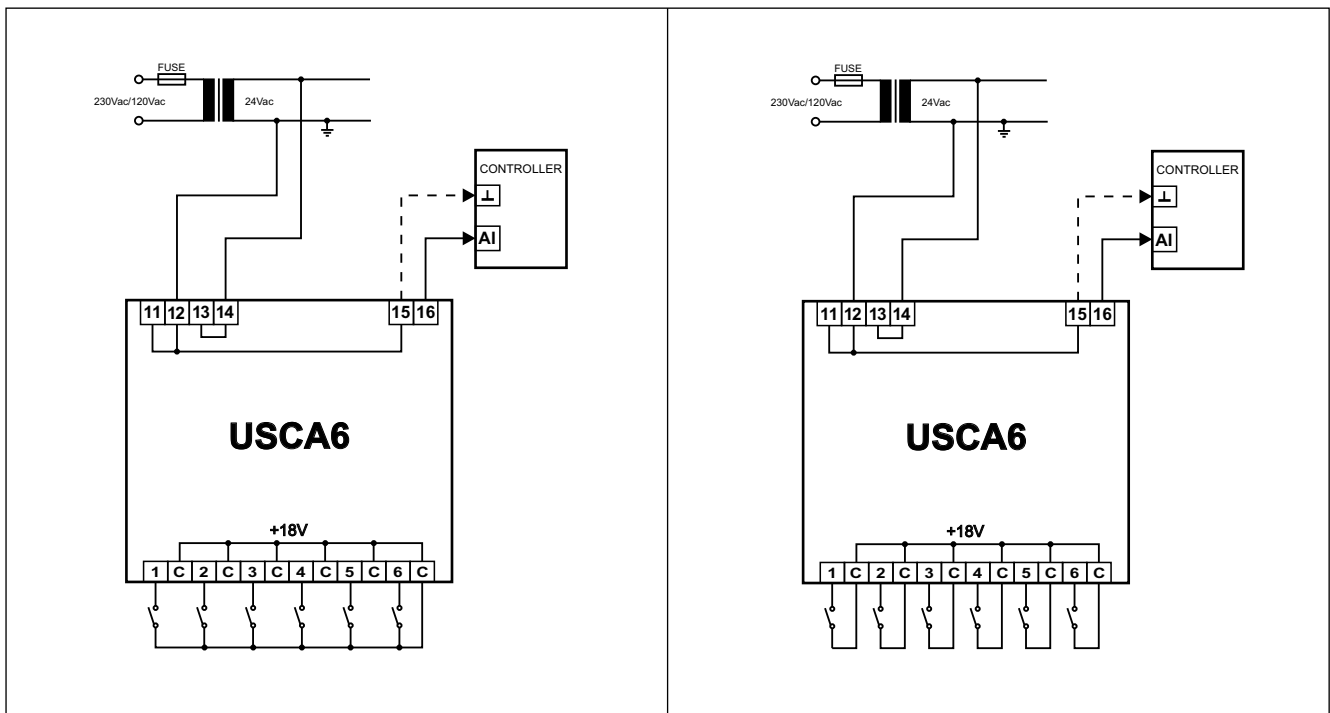


Fig.3 Example ways of connecting circuits with normally opened contacts.

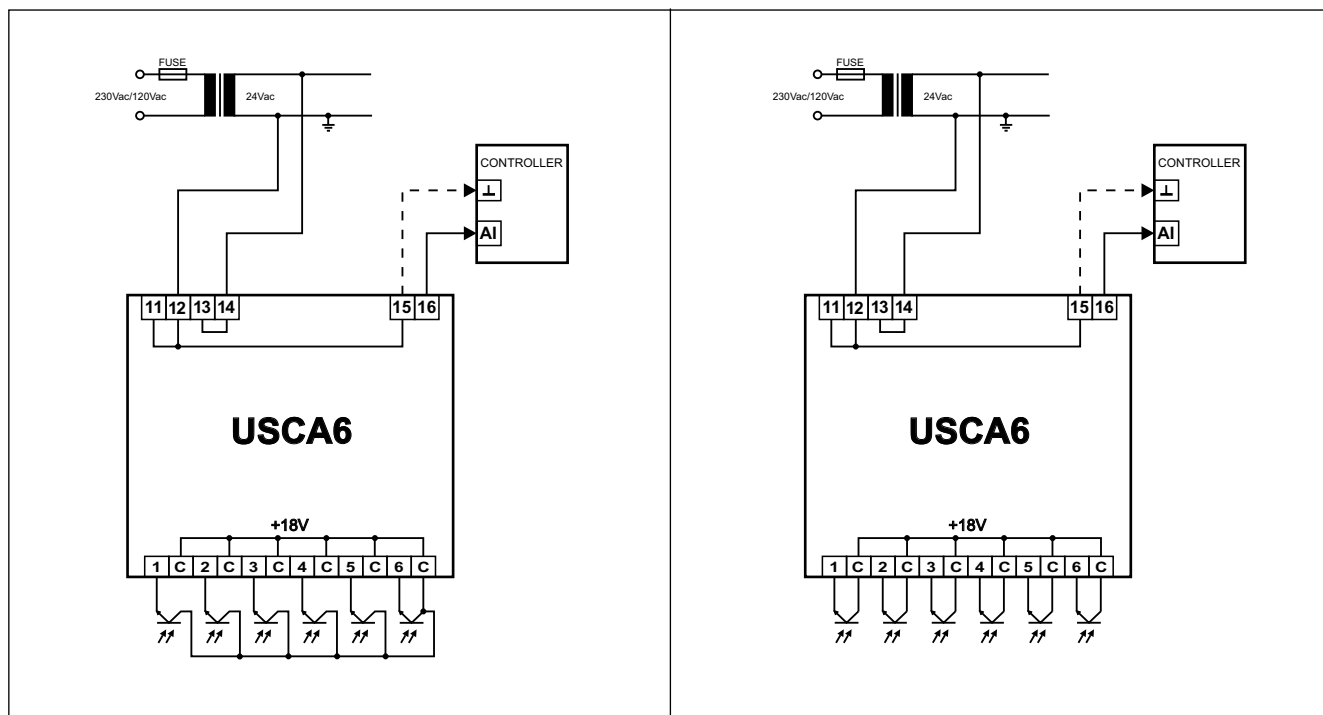


Fig.4 Example ways of connecting circuits with phototransistors.

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