Cable Sizes

Fire Ventilation System for Actulux Control Panels **24V og 48V (SV / SVM)**

#211588

It is very important to use the correct cable types and sizes to make sure that the fire ventilation system meets the standards and works correct in an emergency. The most important factors are the ability of the cable to resist heat and to make sure that the voltage drop in the cables to the actuators do not exceed 15% at full load on the hatches of the fire ventilation.

Fire resistant cables according to IEC 60331 must be used for the following functions:

Opening systems with actuators 24/48V	2 wires, see diagramme (3 wire by external line surveillance)	Max. cable length
Fire switch 24V	Min. 6 x 0,5 mm² (0,8 mm)	100 m*
Smoke detector 24V	Min. 2 x 0,5 mm² (0,8 mm)	100 m*
Heat detector	Min. 2x0,5 mm² (0,8 mm)	100 m*
Total length of bus cable	3 x 0,5 mm² (0,8 mm)	300 m*

*For cable lengths longer than 100 m, properly closed shielded cables must be used.

Normal cables can be used for the following functions:

Supply for control 230VAC	e.g. 3 x 1,5PVIK-J
Comfort ventilation button 24V	Min. 3 x 0,5 mm²
Wind- and rain sensor 24 V	Min. 4 x 0,5 mm²

Power consumption and overload interrupter:

The max. power consumption of the Actulux actuators is adjusted with switches in the electronic overload interrupter, type LIP.

Important: Always remember to install the electronic overload interrupter type LIP in series with the actuator.

Table for 24V allowable voltage drop 15% = 3,6V

Power consumption per group in ampere	Cable cross section and amount of cores						
	2x1,5 mm²	2x2,5 mm²	4x1,5 mm² (2x1,5+2x1,5)	4x2,5 mm² (2x2,5+2x2,5)	2x6 mm²	5x2,5 mm² (2x2,5+3x2,5)	2x10 mm²
2	74 m	123 m	148 m	246 m	295 m	307 m	492 m
4	37 m	61 m	74 m	122 m	148 m	154 m	244 m
6	25 m	41 m	50 m	82 m	98 m	102 m	164 m
8	18 m	31 m	36 m	62 m	74 m	77 m	124 m
10	15 m	25 m	30 m	50 m	59 m	61 m	100 m
12	12 m	20 m	24 m	40 m	49 m	51 m	80 m
14		18 m	22 m	36 m	42 m	44 m	72 m
16		15 m	18 m	30 m	36 m	38 m	60 m

Table for 48V allowable voltage drop 15% = 7,2V

Power consumption per group in ampere	Cable cross section and amount of cores						
	2x1,5 mm²	2x2,5 mm²	4x1,5 mm² (2x1,5+2x1,5)	4x2,5 mm² (2x2,5+2x2,5)	2x6 mm²	5x2,5 mm² (2x2,5+3x2,5)	2x10 mm²
2	148 m	246 m	295 m	492 m	590 m	615 m	984 m
4	74 m	123 m	148 m	246 m	295 m	307 m	492 m
6	49 m	82 m	98 m	164 m	197 m	205 m	328 m
8	37 m	61 m	74 m	123 m	148 m	154 m	246 m
10	30 m	49 m	60 m	98 m	118 m	123 m	197 m
12	25 m	41 m	50 m	82 m	98 m	102 m	164 m
14		35 m	42 m	70 m	84 m	88 m	141 m
16		31 m	36 m	62 m	74 m	77 m	123 m

Actulux A/S | Haandvaerkervej 2 | DK-9560 Hadsund | Tel: +45 98 57 40 90 | info@actulux.com | www.actulux.com

05.11.2021

VENTIO by hsl SOLUTIONS Str. Sinaia, Nr. 25-29, Ștefănești de Jos, Jud. Ilfov · contact@ventio.ro · www.ventio.ro · 0762.921.795