Realization of elevator and safety functions

PSU03 – Light



Cannot be combined with electromechanical safety gear

The PSU03 evaluation unit is used in combination with the Ants LES03 sensor to implement elevator and safety functions in accordance with EN 81-20/-21/-50.

CANopen LIFT · SSI · RS485 · SIL3 Functional Safety EN 81

Order code PSU03 – Light

PSU03	.	X	X	1	.	X	X	1	.	A	1	2	.	XX	1
Type		a	b			d	e					f		g	

a *Safety device*
A = safety chain
B = safety chain, can be combined with alternative brake (e.g. rope brake)

b *Voltage safety chain*
1 = 24 ... 60 V DC (±10%)
2 = 100 ... 130 V AC (±10%)
3 = 220 ... 240 V AC (±10%)

d *Door bridging*
1 = parameter preset to “door bridging via PSU03”
2 = parameter preset to “external door bridging”

e *UCM*
1 = with all actuators (SC, ESA)
3 = no UCM

f *Language menu navigation*
2 = EN – English (can be changed to DE, FR, IT, ES via menu)

g *Interface / Interface profile*
(adjustable termination resistor, default = off)
22 = CANopen Lift
31 = CANopen Lift + RS485 (9 Byte, 24 Bit position data)
41 = CANopen Lift + SSI, Gray (25 Bit)

Stock type PSU03
PSU03.A11.111.A12.221
PSU03.A31.111.A12.221

The parameters d, e and f can be changed to one of the specified options via the display.
(The stock type can be changed to the desired configuration in the field)

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Technical data – evaluation unit

Electrical characteristics

Connection type		Push-in spring connection
Supply voltage +V		24 V DC ±10 %
Power		< 8.5 W the power ratings of the external components must be taken into account when selecting the power supply unit
Digital output (CLK)	V_{CLK}	+V – 1.0 V, max. 200 mA wiring may only be carried out in acc.with the operating instructions
Digital output (BUZ)	V_{BUZ}	+V – 1.0 V, max. 50 mA
Integration of safety chain (SC) potential-free contact		220 V ... 240 V AC, max. 2 A 100 V ... 130 V AC, max. 2 A 24 V DC, max. 1 A 48 V DC, max. 0,5 A 60 V DC, max. 0,48 A
Integration of safety chain / additional brake (ESA) potential-free contact		220 V ... 240 V AC, max. 2 A 100 V ... 130 V AC, max. 2 A 24 V DC, max. 1 A 48 V DC, max. 0,5 A 60 V DC, max. 0,48 A
Integration of door contacts (Door) potential-free contact		220 V ... 240 V AC, max. 2 A 100 V ... 130 V AC, max. 2 A 24 V DC, max. 1 A 48 V DC, max. 0,5 A 60 V DC, max. 0,48 A
Digital output (DO1)	V_{DO1}	+V – 1.0 V, max. 50 mA
Relay output (REL1, REL2) potential-free contact		24 V AC, max. 0.1 A 24 V DC, max. 0.1 A
Digital input (DI1, DI2, DI3, DI4))		max. 30 V DC low < 2.0 V DC high > 12 V DC

Safety characteristics

Shutdown time / system response time	< 30 ms (incl. relay switching times)

Mechanical characteristics

Mounting	DIN rail mounting
Housing (material)	plastic (PC/ ABS)
Weight	390 g (without connector)
Protection acc. to EN 60529	IP20
Vibration resistance acc. to EN 60068-2-6	10... 55 Hz, ±0.35 mm, 20 m/s²
Shock resistance acc. to EN 60068-2-27	300 m/s², 11 ms (3 shocks per direction)
Continuous shock resistance acc. to EN 60068-2-27	100 m/s², 16 ms (1000 shocks per direction)
Dimensions L x W x H	178 x 95 x 45 mm [7.00 x 3.74 x 1.77“] with connector +16 mm [0.63“]

Environmental conditions

Humidity	< 95 % (non-condensing)
Operating temperature	-20 °C ... +65 °C [-4 °F ... +149 °F]
Storage temperature	-40 °C ... +85 °C [-40 °F ... +185 °F]
Air pressure (operating altitude)	800 ... 1013 hPa (up to 2000 m [6562 ft] above NN)

Approvals

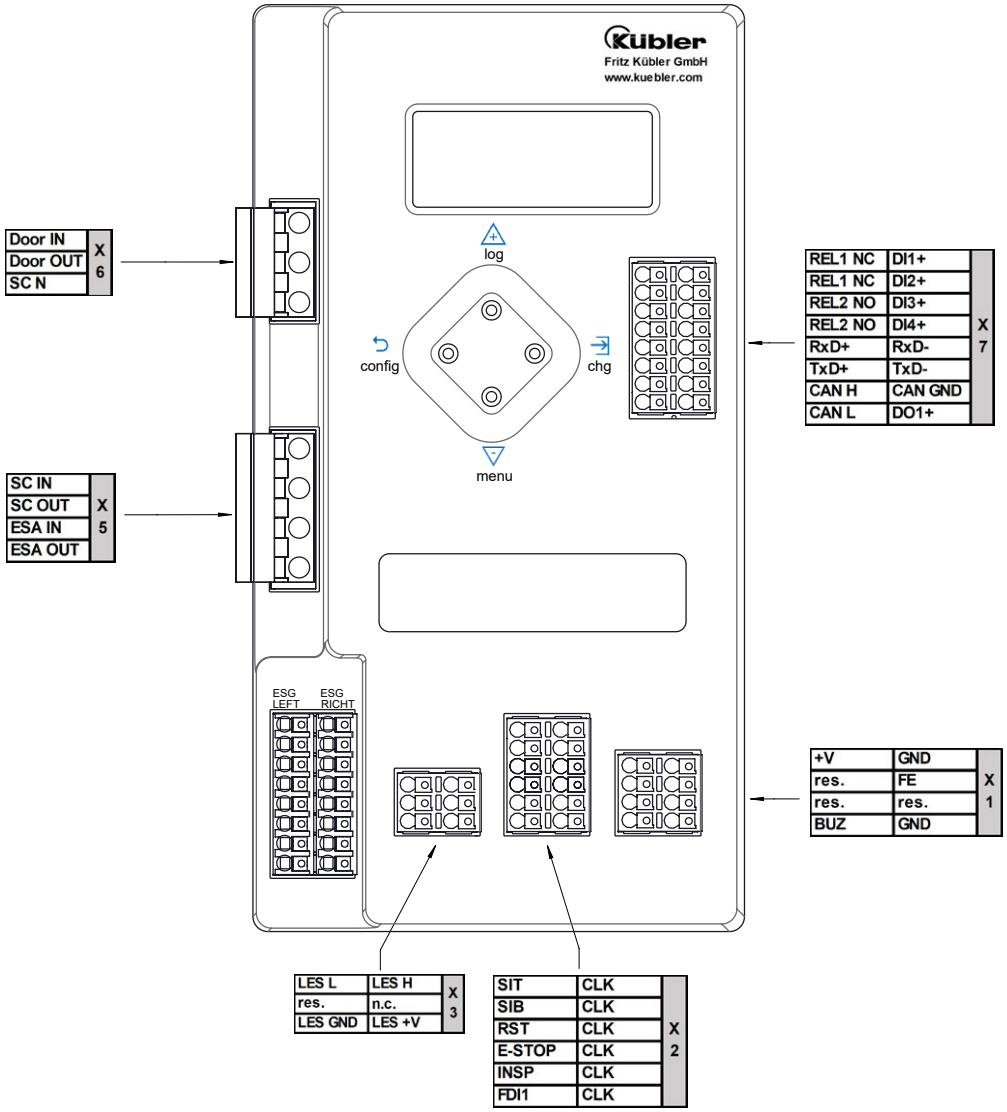
EU type-examination certificate	TÜV-A-AT-1-25-0752-EUES
Classification	SIL3
System structure	2 channel
PFH_d value	< 10^{-7} h^{-1}
Mission time / Proof test interval	20 years
Relevant standards	EN 81-20; EN 81-50; EN 81-21; EN 62061; EN 61508-1-7; EN 60664-1; EN 61784-3
CE compliant in accordance with	
EMC Directive	2014/30/EU
RoHS Directive	2011/65/EU
Elevator Directive	2014/33/EU

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Terminal assignment



Dimensions PSU03

Dimensions in mm [inch]

