



## Safety relay 46212

The compact design of the 4621273E safety evaluation unit allows it to be used even in applications with limited space.

A potential-free safety output in SIL3/PLe up to 4A and a control output with change-over contacts up to 3A are available. A maximum of 4 sensors with normally open/ normally closed contacts can be connected. Input expansion units (interfaces) can't be used. Due to the 24V AC and DC supply voltage, the unit can be used for a wide range of applications.

The 4621273E can be used as a pin-compatible replacement for

462121E1

462121E1U (Note: different operating time)

462121E101

462121E1U1 (Note: different operating time)

462121E104

462124E1 (Note: different operating voltage AC 230 V)

462124E1U (Note: different operating voltage AC 230 V and different operating time)

462121H1

462121H1U (Note: different operating time)

462121H5

462121H5U (Note: different operating time)

Circuit examples are available on request from elobau.

### Technical specifications

- PLe/SIL3/Cat.4
- Supply voltage 24V AC and DC
- Connection for 4 sensors normally open/ normally closed
- Monitoring of connected contactors (EDM)
- Very compact design
- 1 relay safety output potential-free SIL3/PLe/Kat.4
- 1 control output changeover contact potential-free
- LEDs for status and error indication

## Technical drawing

IMAGE 1/2

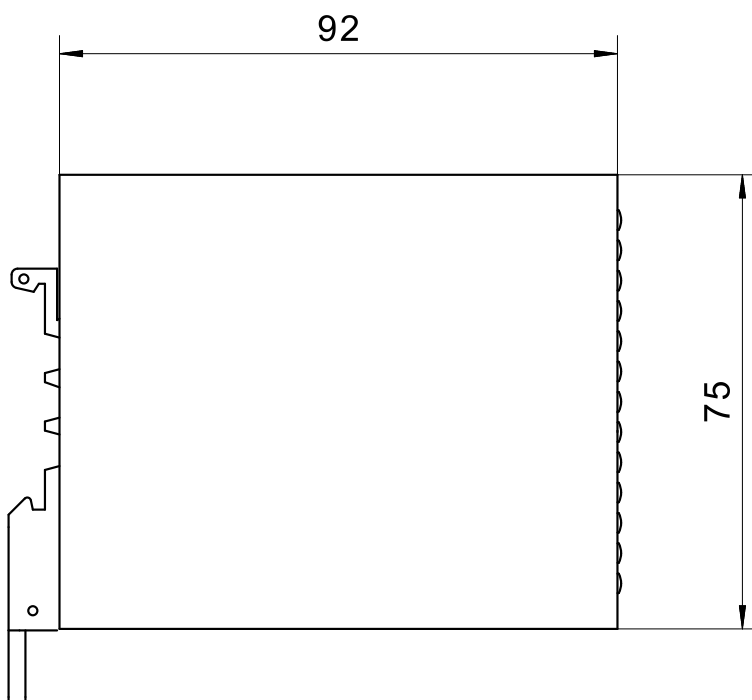
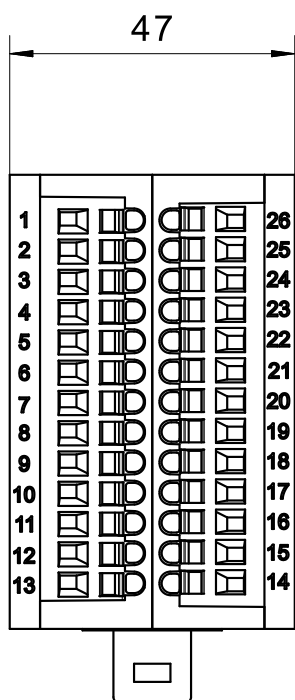
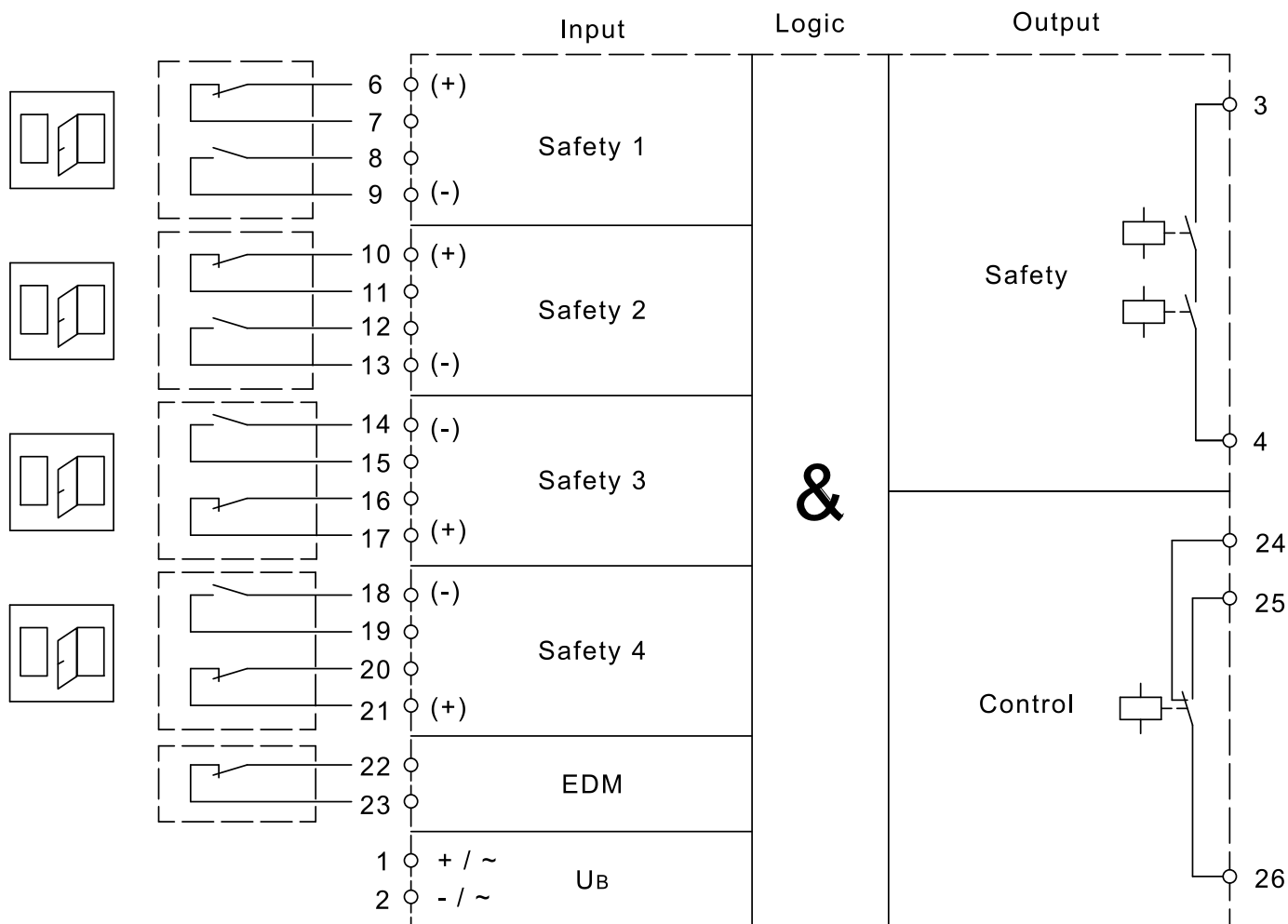


IMAGE 2/2

### 4621273E - example for PLe wiring



## Article characteristics

Attribute	4621273E	4621213E
Max. switching voltage at safety output	30 V DC	
Max. switching voltage at control output	30 V DC	
Max. switching voltage at safety output	250 V AC	
Max. switching voltage at control output	250 V AC	
Max. switching current at safety output	4 A	
Max. switching current at control output	3 A	
Max. switching power at safety output	120 W	
Max. switching power at control output	90 W	
Max. switching power at safety output	1000 VA	
Max. switching power at control output	750 VA	
Number of relay safety outputs	1	
Number of relay control outputs	1	
Number of redundant safety inputs	4	
Stop category 0 (STO) nach IEC 61800-5-2	yes	
Stop category 1 (SS1) nach IEC 61800-5-2	no	
EDM/start input	yes	
Start function	automatic	
Utilization category	AC-15 / DC-13	
Operating voltage min.	21.6 V DC	
Operating voltage max.	26.4 V DC	
Operating voltage min.	21.6 V AC	-
Operating voltage max.	26.4 V AC	-
Current consumption	200 mA	250 mA
Power consumption	5.28 W	6.6 W
Cross-short detection	yes	

Attribute	4621273E	4621213E
LED display	Yes	
Operating time	10000 ms	
Min. switching voltage at safety output	10 V DC	
Min. switching voltage at safety output	10 V AC	
Min. switching current at safety output	0.01 A	
Min. switching power at safety output	0.1 W	
Min. switching power at safety output	0.1 VA	
Turn-on delay (ton)	100 ms	
Turn-off delay (toff)	50 ms	
Max no operating cycles at 0.5A switching current (ohmic load)	370000	
Max no operating cycles at 3A switching current (ohmic load)	180000	
Overvoltage category	III	
Fuse operating voltage	1A fast	
Fuse safety output	4A slow blow	
Internal electronic fuse	no	
Contact form	NO/NC	
Power consumption	5.28 VA	-
PL acc. to EN ISO 13849-1	e	
SIL acc. to IEC 61508	3	
SIL CL acc. to IEC 62061	3	
PFHD according to IEC 61508	5,77 x 10 <sup>-10</sup> 1/h	5,82 x 10 <sup>-10</sup> 1/h
Category acc. to EN ISO 13849-1	4	
Mission time in years	20 a	
Hardware fault tolerance (HFT) according to IEC 61508	1	
Dimensions	75 x 47 x 92 mm (H/B/T)	
Housing material	PBT GF30	
Housing colour	schwarz	
Protection class	IP20 DIN EN 60529	

Attribute	4621273E	4621213E
Protection class, installation space	IP54 DIN EN 60529	
Operating temperature min.	0 °C	
Max. operating temperature	55 °C	
Min. storage temperature	-25 °C	
Max. storage temperature	70 °C	
Shock resistance (Norm)	30 g / 11 ms	
Continuous shock resistance (Norm)	10 g / 16 ms	
Vibration resistance (Norm)	10...55 Hz; 0.5mm; 5g	
Relative humidity	5 - 85 %	
Air pressure	860 - 1060 hPa	
Delta tmax	0.5 °C/min	
Mounting type	Mounting rail	
Weight	250 g	
Installation	arbitrary	
Spring-type terminals	yes	
Pluggable connection terminals	no	
Min. connection cross section	0.14 mm²	
Max. connection cross section	2.5 mm²	
Certified in accordance with	EN ISO 13849-1 IEC 61508 IEC 62061 UL 508	
CE label	yes	