



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 pin compatible as a 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

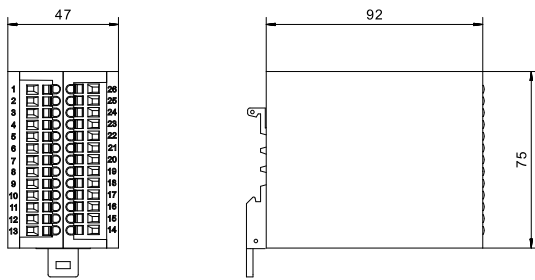
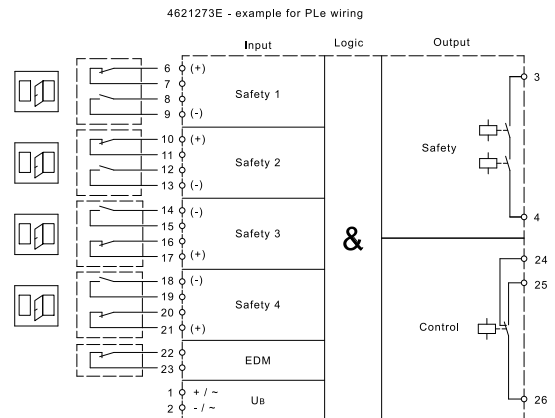


IMAGE 2/2



Electrical data

Attribute	4621273E
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

Electrical data

Attribute	4621273E
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
Power consumption	5.28 W
Cross-short detection	yes
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

Electrical data

Attribute	4621273E
Contact form	NO/NC
Power consumption	5.28 VA

Safety-related characteristics

Attribute	4621273E
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	$5,77 \times 10^{-10}$ 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

Mechanical data

Attribute	4621273E
Dimensions	75 x 47 x 92 mm (H/B/T)

Material information

Attribute	4621273E
Housing material	PBT GF30
Housing colour	schwarz

Environmental conditions

Attribute	4621273E
Protection class	IP20 DIN EN 60529
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

Installation

Attribute	4621273E
Mounting type	Mounting rail
Weight	250 g
Installation	arbitrary

Connection

Attribute	4621273E
Spring-type terminals	yes
Pluggable connection terminals	no
Min. connection cross section	0.14 mm ²
Max. connection cross section	2.5 mm ²

Approvals

Attribute	4621273E
Certified in accordance with	EN ISO 13849-1 IEC 61508 IEC 62061 UL 508
CE label	yes