



UE12-2FG3D0

UE12-2FG

SAFETY RELAYS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
UE12-2FG3D0	1043918

Other models and accessories → www.sick.com/UE12-2FG

Detailed technical data

Safety-related parameters

Safety integrity level	SIL 3 (IEC 61508) ¹⁾
Category	Category 4 (EN ISO 13849) ¹⁾
Performance level	PL e (EN ISO 13849) ¹⁾
B _{10d} parameter	1 x 10 ⁵ switching cycles (AC-15, 230 V, I = 2 A) 2.5 x 10 ⁵ switching cycles (AC-15, 230 V, I = 1 A) 5.4 x 10 ⁵ switching cycles (DC-13, 24 V, I = 0.5 A) 1 x 10 ⁷ switching cycles (DC-13, 24 V, I ≤ 2 A)
PFH _D (mean probability of a dangerous failure per hour)	1.2 x 10 ⁻⁹ (EN ISO 13849)
T _M (mission time)	20 years (EN ISO 13849)

¹⁾ If the feedback current path Y1 - Y2 (external device monitoring) is monitored using an appropriate main unit.

Electronics - Operating data

Voltage supply	B1/A2, B2/A2
Output circuit > 25 V AC / 60 V DC	PELV
Output circuit ≤ 25 V AC / 60 V DC	PELV or SELV
Residual ripple	(≤ 2.4 V _{pp}) ¹⁾
Power consumption	(≤ 2 W (DC))
Overvoltage category	II
Rated insulation voltage U _i	300 V AC
Rated impulse withstand voltage U _{imp}	4 kV
Test voltage	1.2 kV (50 Hz) (EN 60439-1)

¹⁾ In DC operation, within the limits of V_S.

Electronics - Input circuits: B1, B2

Input voltage	24 V DC (16.8 V DC ... 27.6 V DC)
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Input current	≤ 50 mA
Reset time	≤ 30 ms
Test pulse width	≤ 1 ms

Electronics - Output current paths: 13/14, 23/24, Y1/Y2

Response time	(≤ 10 ms)
Number of enabling current paths (N/O)	2, relevant for safety
Number of feedback current paths (normally closed)	1, external device monitoring (EDM)
Contact type	Positively driven
Contact material	Silver alloy, gold flashed
Switching voltage	
Enabling current path	10 V AC/DC ... 250 V AC/DC
Feedback current path	0.1 V AC/DC ... 60 V AC/DC
Current loading	
Enabling current path	10 mA ... 6 A
Feedback current path	1 mA ... 300 mA
Switching capacity	≤ 1,500 VA (AC) ≤ 200 W (DC)
Usage category	AC-15/DC-13 (EN 60947-5-1)
Rated operating current (voltage)	3 A (230 V AC) 4 A (24 V DC)
Mechanical life (relay contacts)	1 x 10 ⁷ switching cycles
Electrical life (relay contacts)	1 x 10 ⁵ switching cycles

Mechanics

Dimensions (W x H x D)	17.8 mm x 105.5 mm x 70.8 mm
Contamination rating	3 (EN 50178)
Weight	91 g

Certificates

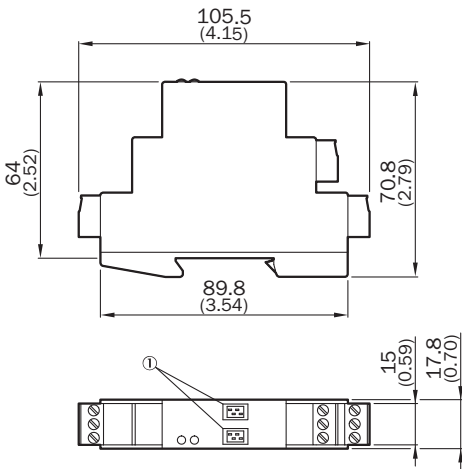
EU declaration of conformity	✓
Type-Examination certificate	✓

Classifications

ECLASS 5.0	27371990
ECLASS 5.1.4	27371990
ECLASS 6.0	27371819
ECLASS 6.2	27371819
ECLASS 7.0	27371819
ECLASS 8.0	27371819
ECLASS 8.1	27371819
ECLASS 9.0	27371819
ECLASS 10.0	27371819
ECLASS 11.0	27371819

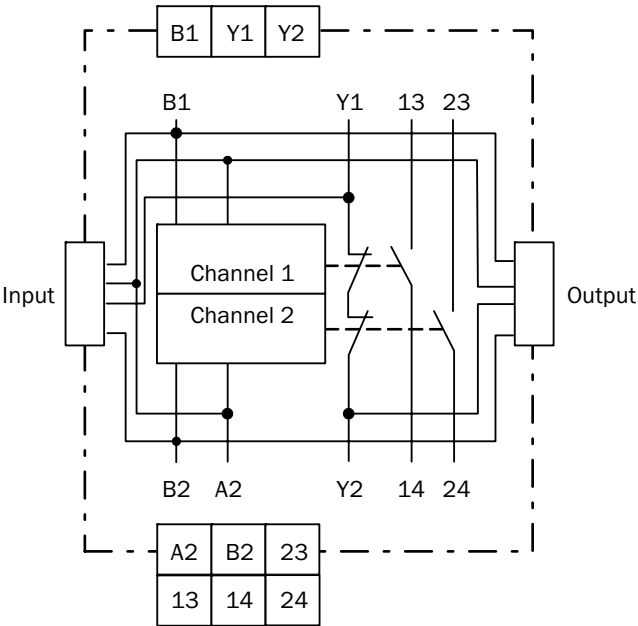
ECLASS 12.0	27371819
ETIM 5.0	EC001449
ETIM 6.0	EC001449
ETIM 7.0	EC001449
ETIM 8.0	EC001449
UNSPSC 16.0901	41113704

Dimensional drawing UE10-2FG3, UE12-2FG3



Dimensions in mm (inch)
① Only valid for UE12-2FG3

Connection diagram



SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

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