SNO 1012K

MONITORING OF EMERGENCY STOP AND SAFETY GATES

APPLICATIONS

- Protection of people and machinery
- Monitoring of emergency stop applications
- Monitoring of safety gates
- Up to PL d / Category 3 (EN ISO 13849-1)
- Up to SIL_{CL} 2 (EN 62061)

FEATURES

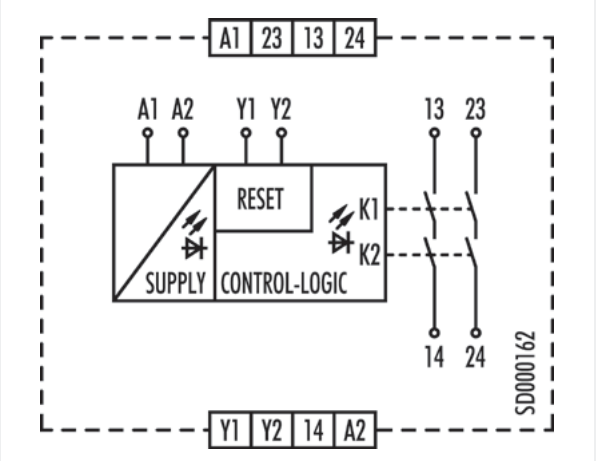
- Stop Category 0 according to EN 60204-1
- Single-channel or two-channel control
- Manual or automatic start
- 2 enabling current paths
- Check of external contactors (EDM)
- Compact design

FUNCTION

After the operating voltage (L+/L1) is applied via an unactuated emergency stop button or safety gate contact on A1 and A2, the device can be switched on via a Y1/Y2-connected reset button. When the device is on, the internal relays K1 and K2 are energized and the enabling current paths 13/14 and 23/24 are closed. When the emergency stop button or the safety gate contact is actuated, the current supply of the internal relays is interrupted and the enabling current paths are opened.

CIRCUIT DIAGRAM

SNO 1012K



OVERVIEW OF DEVICES | PART NUMBERS

Type	Rated voltage	Terminals	Part no.	P.U.
SNO 1012K-A	24 V AC/DC	Screw terminals, pluggable	R1.188.3740.0	1
SNO 1012K-C	24 V AC/DC	Push-in terminals, pluggable	R1.188.3750.0	1

TECHNICAL DATA		
Function		Emergency stop relay
Function display		2 LEDs, green
Power supply circuit		
Rated voltage U_N	A1, A2	24 V AC/DC
Rated consumption	24 V DC	1 W / 2 VA
Rated frequency		50 - 60 Hz
Operating voltage range U_B		0.85 - 1.1 x U_N
Electrical isolation supply circuit - control circuit		no
Control circuit		
Rated output voltage	Y1	24 V DC
Input current / peak current	Y2	50 mA / 70 mA
Response time t_{A1} / t_{A2}		< 20 ms / < 70 ms
Minimum ON time t_M		30 ms
Recovery time t_W		> 200 ms
Release time t_R		< 70 ms
Max. resistivity		≤ (2.5 + (1.176 x U_B / U_N - 1) x 50) Ω
Output circuit		
Enabling paths	13/14, 23/24	normally open contact
Contact assignment		forcebly guided
Contact type		Ag-alloy, gold-plated
Rated switching voltage		240 V AC / 50V DC
Max. thermal current I_{th}	enabling path	6 A
Max. total current I^2 of all current path	(Tu = 55 °C)	72 A^2 / 9 A^2
Application category (NO)	AC-15	U_e 230 V, I_e 3 A
	DC-13	U_e 24 V, I_e 3 A
Short-circuit protection (NO), lead fuse / circuit breaker		6 A class gG / melting integral < 100 A^2s
Mechanical life		10 x 10^6 switching cycles
General data		
Creepage distances and clearances between the circuits		EN 60664-1
Protection degree according to EN 60529 (housing / terminals)		IP40 / IP20
Ambient temperature / storage temperature		-25 °C - +55 °C / -25 °C - + 75 °C
Wire ranges screw terminals,	fine-stranded / solid	1 x 0.2 mm^2 – 2.5 mm^2 / 2 x 0.2 mm^2 – 1.0 mm^2
	fine-stranded with ferrules	1 x 0.25 mm^2 – 2.5 mm^2 / 2 x 0.25 mm^2 – 1.0 mm^2
Permissible torque		0.5 - 0.6 Nm
Wire ranges push-in terminals		2 x 0.25 mm^2 – 1.5 mm^2
Weight		0.12 kg
Standards		EN ISO 13849-1, EN 62061
Approvals		TÜV, cULus, CCC