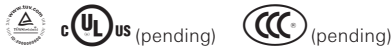


SNE 4012K / SNE 4024K Contact expansion



Applications

- Expansion of a basic device's enabling current paths
- Contact expansion in safety equipment
- Up to PL e/Category 3 (EN ISO 13849-1)*
- Up to SIL_{CL} 3 (EN 62061)*

Features

- Stop Category 0 and 1 according to EN 60204-1 (see "Function")
- Single-channel control
- SNE 4012K: 2 enabling current paths (NO contact)
- SNE 4024K: 2x2 enabling current paths (NO contact)

* Depends on the category of the basic device or the safety control.

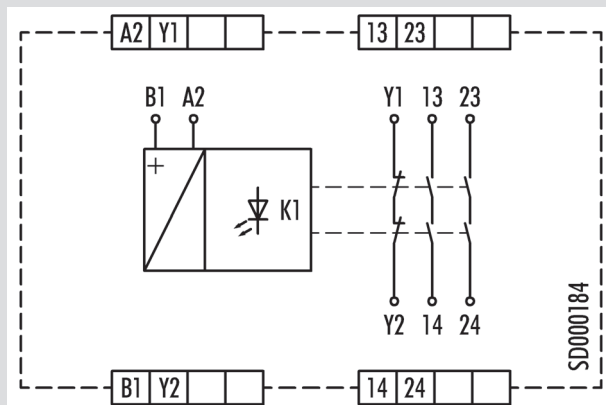
Function

Once the supply voltage has been applied to terminals B1/A2 (B2/A2), the enabling current paths (NOC) are automatically closed and the signaling current paths (NCC) are opened.

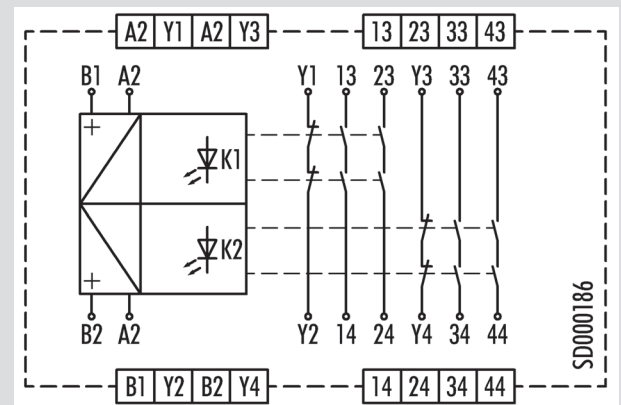
When the supply voltage is ceased, the enabling current paths (NOC) are immediately opened and the signaling current paths (NCC) are immediately closed.

Circuit diagrams

SNE 4012K



SNE 4024K



Overview of devices | part numbers

Type	Rated voltage	Terminals	Part no.	Std. Pack
SNE 4012K-A	24 V DC	Screw terminals, pluggable	R1.188.3910.0	1
SNE 4012K-C	24 V DC	Cage clamp, pluggable	R1.188.3920.0	1
SNE 4024K-A	24 V DC	Screw terminals, pluggable	R1.188.3930.0	1
SNE 4024K-C	24 V DC	Cage clamp, pluggable	R1.188.3940.0	1

Technical data

Function	Emergency stop expansion relay	
Function display – SNE 4012K	1 LED, green	
Function display – SNE 4024K	2 LED, green	
Power supply circuit		
Rated voltage U_N	B1/A2; B2/A2	24 V DC
Rated consumption – SNE 4012K	0.7 W	
Rated consumption – SNE 4022K	1.4 W	
Operating voltage range U_B	0.75 - 1.25 U_N	
Control circuit		
Input current / peak current	B1/A2	ca. 30 mA / 110 mA
	B2/A2	ca. 30 mA / 110 mA
Response time t_{A1} / t_{A2}	< 15 ms	
Recovery time t_w	≤ 30 ms	
Release time t_R t_{R1}	≤ 15 ms	
Max. resistivity, per channel ¹⁾	≤ (5 + (1,333 x U_B / U_N - 1) x 200) Ω	
Output circuit		
Enabling paths	13/14, 23/24	normally open contact
	33/34, 43/44	normally open contact
Signaling paths	Y1/Y2	normally closed contact
	Y3/Y4	normally closed contact
Contact assignment	forcebly guided	
Contact type	Ag-alloy	
Rated switching voltage	230 V AC, 24 V DC	
Max. thermal current I_{th}	enabling / signaling path	6 A
Max. total current I^2 of all current path	– SNE 4012K ($T_u = 55$ °C)	72 A ²
Max. total current I^2 of all current path	– SNE 4024K ($T_u = 55$ °C)	2 x 72 A ² / 2 x 8 A ²
Application category (NO)	AC-15 DC-13	U_o 230 V, I_o 3 A U_o 24 V, I_o 1 A
Short-circuit protection (NO), lead fuse / circuit breaker	6 A class gL / melting integral < 100 A ² s	
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 - +65 °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 cage clamp terminals	1 x 0.25 mm ² – 1.5 mm ²	
Weight	0.180 kg	
Standards	EN ISO 13849-1, EN 62061, EN81-1, DIN EN 50156-1, EN 61511	
Approvals	TÜV, cULus (pending), CCC (pending)	

¹⁾ If two-channel devices are installed as single channel, the value is halved.