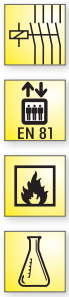


SNE 4012K / SNE 4024K

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.

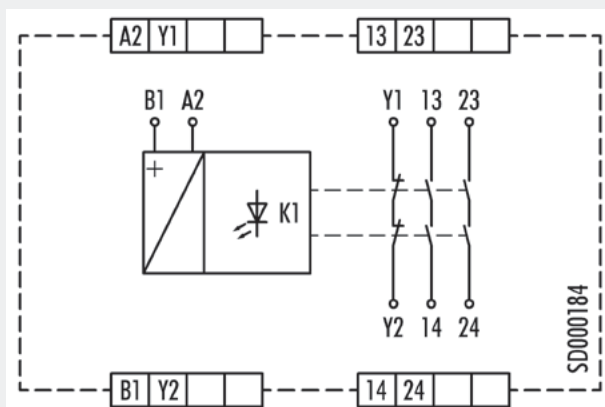
FUNCTION

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.

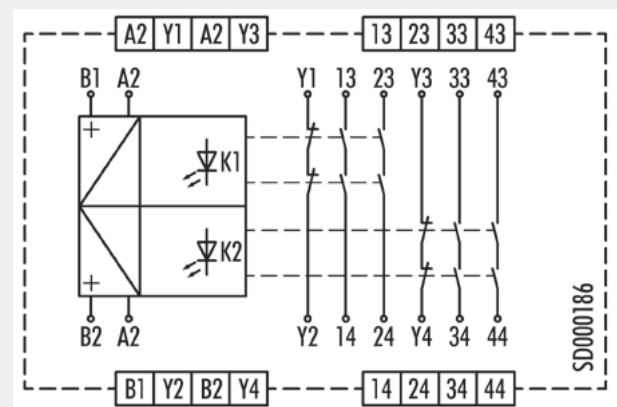
When the supply voltage is ceased, the enabling current paths (NOC) are immediately opened and the signaling current paths (NCC) are immediately closed.

CIRCUIT DIAGRAMS

SNE 4012K



SNE 4024K





OVERVIEW OF DEVICES | PART NUMBERS

| Type | Rated voltage | Terminals | Part no. | P.U. |
|-------------|---------------|------------------------------|---------------|------|
| SNE 4012K-A | 24 V DC | Screw terminals, pluggable | R1.188.3910.0 | 1 |
| SNE 4012K-C | 24 V DC | Push-in terminals, 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 | Push-in terminals, 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 | ≤ 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 (Tu = 55 °C) | 72 A ² | | |
| Max. total current I^2 of all current path | – SNE 4024K (Tu = 55 °C) | 2 x 72 A ² / 2 x 8 A ² | | |
| Application category (NO) | AC-15 DC-13 | U_e 230 V, I_e 3 A U_e 24 V, I_e 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 push-in terminals | 1 x 0.25 mm ² – 1.5 mm ² | | | |
| Weight | 0.180 kg | | | |
| Standards | EN ISO 13849-1, EN 62061, DIN EN 50156-1, EN 61511 | | | |
| Approvals | TÜV, cULus, CCC | | | |

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