

## Data sheet

Commercial Art.No.: R1.188.0500.1

Device for monitoring of safety-related circuits SNO4003K-A AC/DC 24V (B)

Base unit, single channel control, automatic-/manual reset with reset switch monitoring, 3 enabling current paths, 1 signalling out put, AC/DC 24 V 50-60Hz, screw-terminals pluggable



Commercial Art.No.	R1.188.0500.1
EAN	4015573808348
Order Unit	1

Certificates / Approvals



## Technical data

### General

Function display	2 LED, green
Creepage distances and clearances between the circuits	EN 60664-1
Protection degree according to DIN EN 60529 (housing)	IP40
Protection degree according to DIN EN 60529 (terminals)	IP20
Ambient temperature min.	-25 °C
Ambient temperature max.	55 °C
Wire ranges screw terminals, fine-stranded / solid	1 x 0,2 mm <sup>2</sup> - 2,5 mm <sup>2</sup> / 2 x 0,2 mm <sup>2</sup> - 1,0 mm <sup>2</sup>
Wire ranges screw terminals, fine-stranded with ferrules	1 x 0,25 mm <sup>2</sup> - 2,5 mm <sup>2</sup> / 2 x 0,25 mm <sup>2</sup> - 1,0 mm <sup>2</sup>
Permissible torque min.	0.5 Nm
Permissible torque max.	0.6 Nm
Tightening moment	0.6 Nm
Weight	0.2 kg
Standards	EN ISO 13849-1 EN 62061; EN 62061
Suited for safety functions	yes
With muting function	No
Feedback circuit	yes
Start contact	yes
Stop category acc. to IEC 60204	0
Rail mounting possible	yes

### Connection Data

Detachable clamps	yes
Type of electric connection	screw connection

### Application

Model	Basic device
Suitable for monitoring of magnetic switches	No
Suitable for monitoring of proximity switches	yes
Suitable for monitoring of emergency-stop circuits	yes
Suitable for monitoring of optoelectronic protection equipment	No
Suitable for monitoring of position switches	yes

### Output circuit

Enabling paths	Normally open contact
Signaling paths	Opener
Contact material	Ag-alloy, gold-plated
Rated switching voltage, enabling paths AC	230 V
Rated switching voltage, enabling paths DC	24 V
Rated switching voltage, signaling paths AC	230 V
Rated switching voltage, signaling paths DC	24 V
Max. thermal current $I_{th}$ , enabling paths	8 A
Max. thermal current $I_{th}$ , signaling paths	5 A
Max. total current $I^2$ of all current path	9 A <sup>2</sup>
Application category AC-15 (NO)	Ue 230V, Ie 5A
Application category DC-13 (NO)	Ue 24V, Ie 5A
Short-circuit protection (NO), max. fuse insert	6 A class gG fuse, fuse integral < 100 A <sup>2</sup> s
Mechanical life	10 <sup>7</sup> switching cycles
Outputs, signalling function, undelayed, with contact	1
Outputs, safe, undelayed, with contact	3

### Control circuit

Nominal output voltage DC	24 V
Input current (safety circuit / reset circuit)	90 mA
max. peak current (safety circuit / reset circuit)	1500 mA
Response time tA1	60 ms
Response time tA2	60 ms
Min. switch-on time	60 ms
Recovery time tW	> 200 ms
Release time tR	< 80 ms
max. resistivity, per channel	$\leq (5 + (1,333 \times U_R / U_N - 1) \times 200) \Omega$
Type of switch function of the inputs	Normally open contact
Evaluation inputs	1-channel

### Supply circuit

Nominal voltage $U_N$	AC/DC 24 V
Rated consumption AC	3.2 VA
Rated consumption DC	1.3 W
Rated frequency min.	50 Hz
Rated frequency max.	60 Hz
Operating voltage min.	20.4 V
Operating voltage max.	26.4 V
Electrical isolation supply circuit - control circuit	No
Min. rated control supply voltage at AC 50 Hz	20.4 V
Max. rated AC voltage for controls, 50 Hz	26.4 V

Min. rated DC voltage for controls	20.4 V
Max. rated DC voltage for controls	26.4 V
Min. rated control supply voltage at DC	20.4 V
Rated control supply voltage at AC 60HZ	20.4 V
Rated control supply voltage at AC 50HZ	26.4 V

#### Dimensions

Depth	114 mm
Width	22.5 mm
Height	96.5 mm

#### Classification

ECLASS 11	
ECLASS 8.1	27371819
ETIM 7.0	EC001449
ETIM 6.0	EC001449
ETIM 5.0	EC001449
ETIM 4.0	EC001449
ETIM 3.0	EC001449

#### Safety parameters

Category (ISO 13849-1)	4
PL (ISO 13849-1)	Level e
SIL <sub>Cl</sub> (IEC 62061)	3
PFD <sub>d</sub> (Low demand mode)	3.6 E-6
PFH <sub>d</sub> (High demand mode)	8.6 E-10 1/h
HFT	1
SSF	99.5 %
DC	99 %
MTTF <sub>d</sub>	73 a
λS	1570 FIT
λD	1570 FIT
λDU	16 FIT
λDD	1554 FIT
T <sub>M</sub>	20 a
Proof test intervall (High demand mode)	20 a
Proof test intervall (Low demand mode)	1 a

#### Product compliance

ROHS conformity status	Compliant/Exempted
ROHS exceptions	III-6(c)
REACH-SVHC conformity status	Duty-To-Declare
REACH-SVHC substances	Lead
REACH-SVHC CAS numbers	7439-92-1