

## Data sheet

Commercial Art.No.: R1.188.0490.0

Device for monitoring of safety-related circuits SNE4004KV-A 3S DC 24V (A)

output expansion unit, 4 enabling current paths, 3 signalling outputs, off-delay buffered 1s, DC 24 V, screw-terminals pluggable



Commercial Art.No.	R1.188.0490.0
EAN	4015573808324
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 13849-1EN 62061
Suited for safety functions	yes
With muting function	No
Feedback circuit	yes
Start contact	No
Stop category acc. to IEC 60204	1
Rail mounting possible	yes

### Connection Data

Detachable clamps	yes
Type of electric connection	screw connection

**Application**

Model	Expansion device
Suitable for monitoring of magnetic switches	No
Suitable for monitoring of emergency-stop circuits	No
Suitable for monitoring of optoelectronic protection equipment	No
Suitable for monitoring of position switches	No
Suitable for monitoring of tactile sensors	No

**Output circuit**

Enabling paths, time delayed	Normally open contact, off delay
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	6 A
Max. thermal current $I_{th}$ , signaling paths	2 A
Max. total current $I^2$ of all current path	40 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	0
Outputs, signalling function, delayed, with contact	3
Outputs, safe, undelayed, with contact	0
Outputs, safe, delayed, with contact	4

**Control circuit**

Response time tA1	150 ms
Response time tA2	150 ms
Recovery time tW	> 40 ms
Release time tR	3 s
max. resistivity, per channel	$\leq (5 + (1,176 \times U_B / U_N - 1) \times 100) \Omega$

**Supply circuit**

Nominal voltage $U_N$	DC 24 V
Rated consumption DC	1.6 W
Operating voltage min.	20.4 V
Operating voltage max.	26.4 V
Electrical isolation supply circuit - control circuit	No
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

**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)	3
PL (ISO 13849-1)	Level d
SIL <sub>Cl</sub> (IEC 62061)	2
PFD <sub>d</sub> (Low demand mode)	3.2 E-6
PFH <sub>d</sub> (High demand mode)	8.1 E-10 1/h
HFT	1
SSF	99.5 %
DC	99 %
MTTF <sub>d</sub>	55 a
λS	2075 FIT
λD	2075 FIT
λDU	21 FIT
λDD	2054 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