

Data sheet

Art.No.: R1.188.0590.0

Device for monitoring of safety-related circuits SNE4004K-A AC/DC 24V (A)

output expansion unit, 4 enabling current paths, 3 signalling outputs, AC/DC 24 V 50-60Hz, screw-terminals fixed



Art.No.	R1.188.0590.0
EAN	4015573808645
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 ² - 2,5 mm ² / 2 x 0,2 mm ² - 1,0 mm ²
Wire ranges screw terminals, 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 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	0
Rail mounting possible	Yes

Connection Data

Detachable clamps	Yes
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Type of electric connection	Screw connection
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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	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	6 A
Max. thermal current I_{th} , signaling paths	2 A
Max. total current I^2 of all current path	40 A ²
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 ² s
Mechanical life	10 ⁷ switching cycles
Outputs, signalling function, undelayed, with contact	3
Outputs, signalling function, delayed, with contact	0
Outputs, safe, undelayed, with contact	4
Outputs, safe, delayed, with contact	0

Control circuit

Response time tA1	25 ms
Response time tA2	25 ms
Recovery time tW	> 40 ms
Release time tR	< 20 ms
max. resistivity, per channel	$\leq (5 + (1,176 \times U_B / U_N - 1) \times 100) \Omega$

Supply circuit

Nominal voltage U_N	AC/DC 24 V
Rated consumption AC	3.3 VA
Rated consumption DC	1.6 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 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 _{CL} (IEC 62061)	2
PFD _d (Low demand mode)	3.2 E-6
PFH _d (High demand mode)	8.1 E-10 1/h
HFT	1
SSF	99.5 %
DC	99 %
MTTF _d	55 a
λS	2075 FIT
λD	2075 FIT
λDU	2054 FIT
λDD	21 FIT
T _M	20 a
Proof test intervall (High demand mode)	20 a
Proof test intervall (Low demand mode)	1 a

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R1.188.0460.0
R1.188.0470.0
R1.188.0480.0
R1.188.0490.0
R1.188.0500.1
R1.188.0530.1
R1.188.0590.0
R1.188.0620.0
R1.188.0640.0
R1.188.0660.0
R1.188.0680.0
R1.188.0700.2
R1.188.0720.2
R1.188.0900.1
R1.188.0910.1
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R1.188.0950.1
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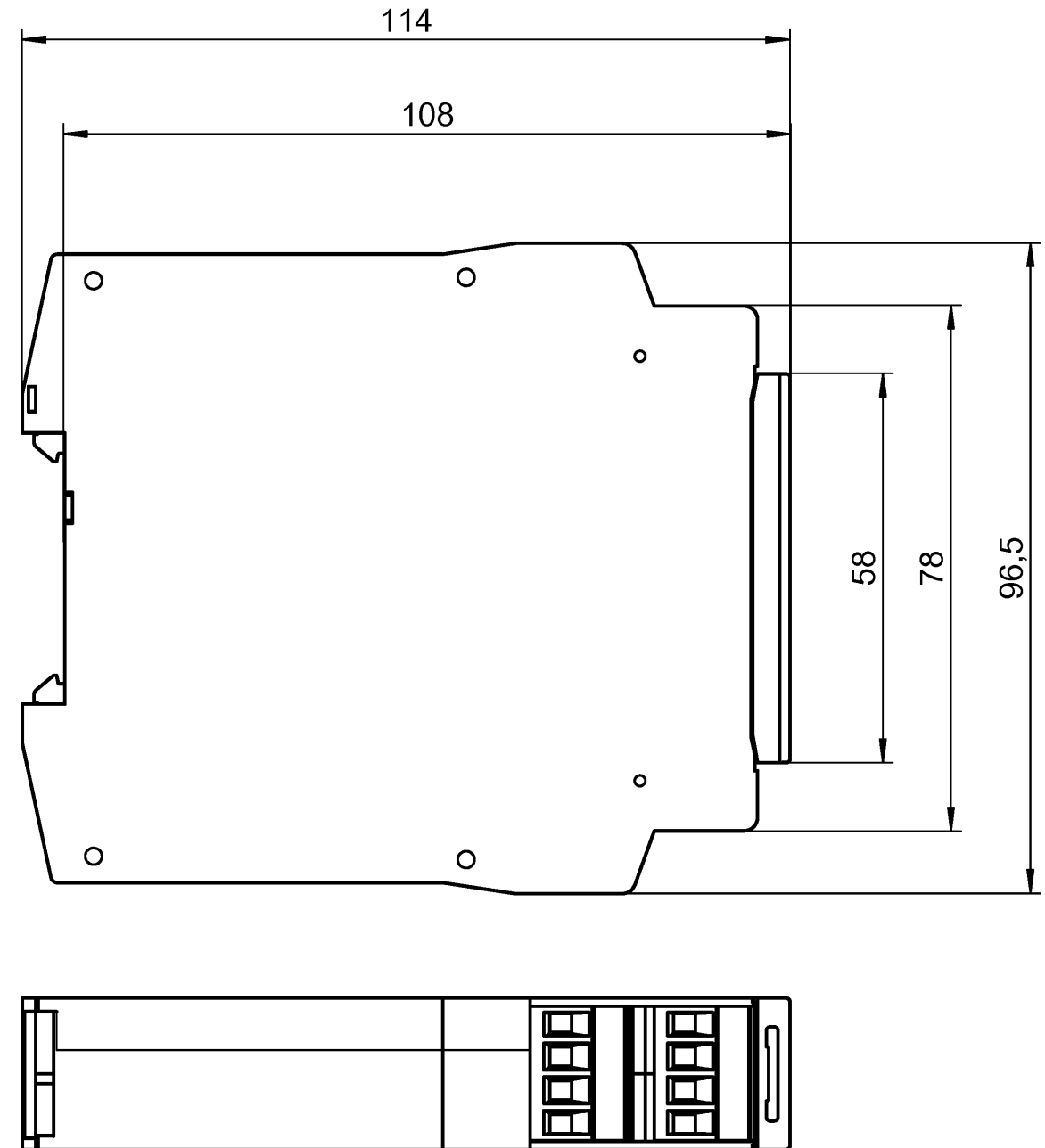
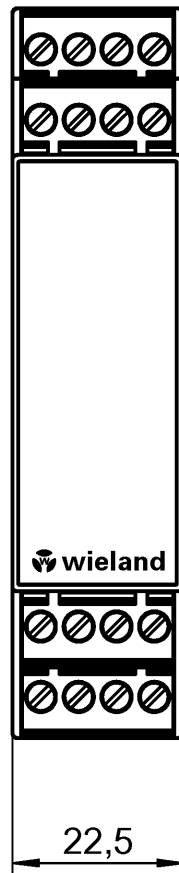
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Werkstoff/ Material		2014 gezeichnet drawn	Tag/ Date 06.06.	Name Kötzner	
ⓔ	22.04.16	Maßstab/Scale	Maße in mm/Dimensions are in mm		
ⓓ	17.03.15	Datei/ File: 030181_E01K.DCD		Ersatz für/ Replacement for:	
ⓐ	04.07.14	www.wieland-electric.com		Benennung/ Title Maßbildzeichnung/dimension drawing Standardgehäuse u. -deckel, Baubreite 22,5mm, Schraubenklemmen steckbar standard housing and cover, overall with 22,5mm plug-in pcb terminal	
ⓑ	25.06.14	Index Datum/ Blatt Date/ Sheet			
Änderung/ Revision					

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