

## Data sheet

Commercial Art.No.: R1.188.1980.0

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

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



|                    |               |
|--------------------|---------------|
| Commercial Art.No. | R1.188.1980.0 |
| EAN                | 4046521297419 |
| 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  |
| tightening moment                                       | 0.6 Nm                                       |
| wire range cage clamp terminals                         | 2 x 0.25mm <sup>2</sup> - 1.5mm <sup>2</sup> |
| weight  | 0.2 kg                                       |
| standards   | EN ISO 13849-1/EN 62061                      |
| suitable 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                     |
| type of electric connection | spring clamp connection |

### safety parameters



|   |              |
|---|--------------|
| 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          |

#### 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 <sub>th</sub> , enabling paths  | 6 A   |
| max. thermal current I <sub>th</sub> , signaling paths | 2 A   |
| max. total current I <sup>2</sup> 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  | 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 | $\leq (5 + (1.176 \times UB / UN - 1) \times 100) \Omega$ |
|-------------------------------|---|

**supply circuit**

|   |            |
|---|------------|
| nominal voltage UN                                    | 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 | 106.5 mm |

**classification**

|            |          |
|------------|----------|
| ECLASS 11  |          |
| ECLASS 8.1 | 27371819 |
| ETIM 9.0   | EC001449 |
| ETIM 8.0   | EC001449 |
| ETIM 7.0   | EC001449 |
| ETIM 6.0   | EC001449 |
| ETIM 5.0   | EC001449 |
| ETIM 4.0   | EC001449 |
| ETIM 3.0   | EC001449 |

**product compliance**

|                              |                    |
|------------------------------|--------------------|
| ROHS conformity status       | compliant/exempted |
| ROHS exceptions              | III-7(c)I          |
| REACH-SVHC conformity status | compliant          |

| Teile Nr. / Part No. |
|----------------------|
| R1.188.1940.0        |
| R1.188.1950.0        |
| R1.188.1960.0        |
| R1.188.1970.0        |
| R1.188.1980.0        |
| R1.188.1990.0        |
| R1.188.2000.0        |
| R1.188.2010.0        |
| R1.188.2020.0        |
| R1.188.2390.0        |
| R1.188.2410.0        |
| R1.188.2420.0        |
| R1.188.2430.0        |
| R1.188.2440.0        |
| R1.188.2450.0        |
| R1.188.3400.0        |
| R1.188.3410.0        |
| R1.188.3420.0        |
| R1.188.3430.0        |
| R1.188.3490.0        |
| R1.188.3600.0        |

| Teile Nr. / Part No. |
|----------------------|
| R1.188.3610.0        |
| R1.188.3630.0        |
| R1.188.3650.0        |
| R1.188.3670.0        |
| R1.188.3730.0        |
| R1.188.3820.0        |
| R1.188.3850.0        |
| R1.188.3860.0        |
| R1.188.3900.0        |
| R1.188.3920.0        |
| R1.188.3940.0        |
| R1.188.4000.0        |
| R1.188.4010.0        |
| R1.188.4030.0        |
| R1.188.4130.0        |
| R1.188.4140.0        |
| R1.188.4150.0        |
| R1.188.4160.0        |
| R1.188.4210.0        |
| R1.188.5000.0        |

(a)

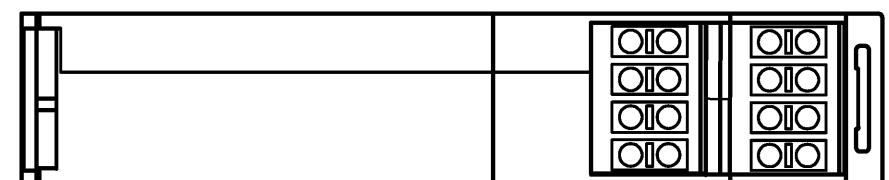
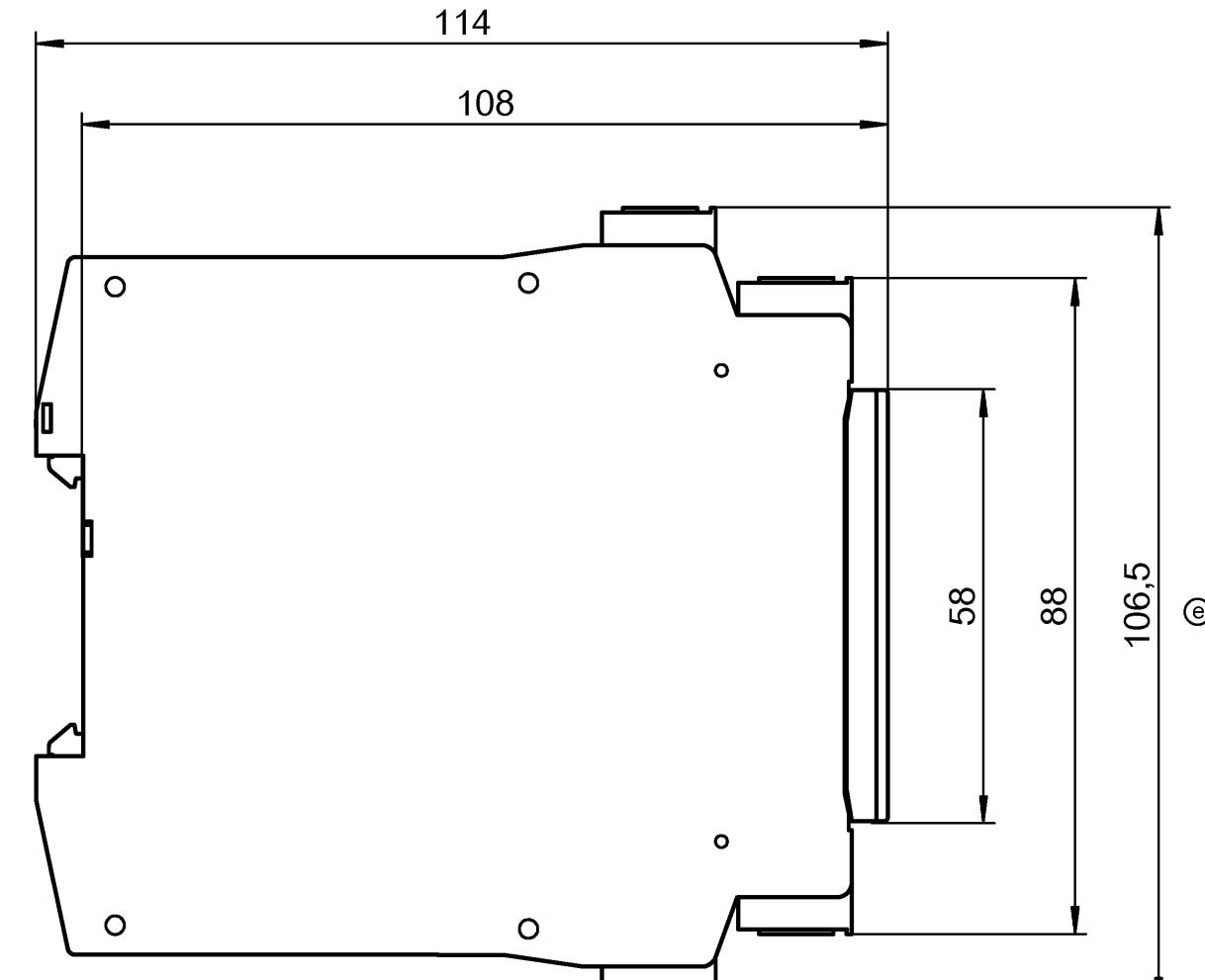
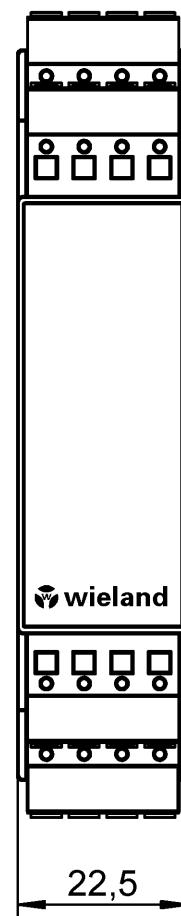
(d)

(b)

(c)

(e)

(f)



Weitere Angaben siehe KATALOG oder eKatalog.  
Additional data see CATALOG or eCatalog.

[www.wieland-electric.com](http://www.wieland-electric.com)  
[eshop.wieland-electric.com](http://eshop.wieland-electric.com)

| ja/yes <input type="checkbox"/> Stoffverbots- und Deklarationsliste nach WN 5020.010 ist einzuhalten.<br>Conformity with Wieland document WN 5020.010 e (list of prohibited / declarable hazardous substances) to be declared! |                           | CAD-Zeichnung, keine manuellen Änderungen<br>CAD-Drawing, no manual modifications allowed |                    |                           | 1. Verwendung:<br>First Use: |   | Blatt:<br>Sheet:                |
|--|---------------------------|---|--------------------|---------------------------|------------------------------|---|---------------------------------|
| (f)  | 09.08.19                  |   | Werkstoff/Material | 2014                      | Tag/Date                     | Name  | Zeichnung Nr./Drawing No.       |
| (e)  | 26.08.16                  |   |                    | gezeichnet<br>drawn       | 06.06.                       | Koetzner  | TR1.188.1940.0 01K              |
| (d)  | 22.04.16                  |   |                    | geprüft<br>checked        |                              |   |                                 |
| (c)  | 03.07.15                  | Datei/File:   | 036141_F01K.DCD    | Normgepr.<br>Stand. check |                              |   |                                 |
| (b)  | 30.06.15                  |   |                    |                           |                              |   |                                 |
| (a)  | 03.02.15                  |   |                    |                           |                              |   | Maße in mm/Dimensions are in mm |
| Index  | Datum/Blatt<br>Date/Sheet |   |                    |                           |                              |   |                                 |
| Änderung/Revision  |                           |   |                    |                           |                              |   |                                 |
|  |                           |   | wieland            | Type                      | Benennung/Title              | Maßbildzeichnung/Dimension drawing<br>Standardgehäue u. -deckel, Baubreite 22,5mm,<br>Federkraftklemme steckbar |                                 |
|  |                           |   |                    |                           |                              | Standard housing and cover, overall width 22,5mm plug-in<br>spring-clamp terminal                               |                                 |
|  |                           |   |                    |                           |                              |   |                                 |