#### IEC Appliance Inlet C14 with Filter 2-Stage, Fuseholder 2-pole, Line Switch 2-pole





# Description

- Panel mount :
- Screw-on mounting front side
- 4 Functions :
- Appliance Inlet Protection class I , Fuseholder for fuse-links 5 x 20 mm 2-pole , Line Switch 2-pole , Line filter in standard and medical version , 2 stage
- Quick connect terminals 6.3 x 0.8 mm

#### See below: Approvals and Compliances

#### **Characteristics**

- Compact design with optimal shielding
- All single elements are already wired
- Plug removal necessary for fuse-link replacement
- 2-stage line filter with increased attenuation
- With EMC-shield - For applications according IEC/UL 62368-1 we recommend variants with bleed resistor Suitable for use in medical equipment according to IEC/UL 60601-1 (1
- MOOP, 1 MOPP)

#### Other versions on request

# - Medical Version (M80)

References

Alternative: version without line filter 6765 Alternative: version with 1-stage filter FKI We recommend for new applications the type DD14

#### Weblinks

pdf data sheet, html datasheet, General Product Information, Approvals, Distributor-Stock-Check, Accessories, Detailed request for product

#### **Technical Data**

| Ratings IEC                          | 1 - 10 A @ Ta 40 °C / 250 VAC; 50 Hz  |
|--------------------------------------|---|
| Ratings UL/CSA                       | 1 - 10A @ Ta 40 °C / 250 VAC; 60 Hz   |
| Leakage Current                      | standard < 0.5 mA (250 V / 60 Hz)<br>medical < 5 μA (250 V / 60 Hz)         |
| Dielectric Strength                  | > 1.7 kVDC between L-N<br>> 2.7 kVDC between L/N-PE<br>Test voltage (2 sec) |
| Allowable Operation Tempe-<br>rature | -25 °C to 85 °C   |
| Climatic Category                    | 25/085/21 acc. to IEC 60068-1   |
| IP-Protection                        | front side IP40 acc. to IEC 60529   |
| Protection Class                     | Suitable for appliances with protection<br>class I acc. to IEC 61140        |
| Terminal                             | Quick connect terminals 6.3 x 0.8 mm  |
| Panel Thickness S                    | Screw: max 8mm<br>Mounting screw torque max 0.5Nm                           |
| Material                             | Thermoplastic, black, UL 94V-0  |

| Appliance inlet/-outlet              | C14 acc. to IEC 60320-1,<br>UL 498, CSA C22.2 no. 42 (for cold<br>conditions) pin-temperature 70 °C, 10 A,<br>Protection Class I |
|--------------------------------------|--|
| Fuseholder                           | 2-pole, Shocksafe category PC2 acc. to<br>IEC 60127-6,<br>for fuse-links 5 x 20mm  |
| Rated Power Acceptance @<br>Ta 23 °C | 5 x 20: 1.6W (2-pole)  |
| Power Acceptance @ Ta ><br>23°C      | Admissible power acceptance at higher<br>ambient temperature see derating cur-<br>ves  |
| Line Switch                          | 2-pole, non-illuminated, acc. to IEC<br>61058-1<br>Technical Details   |
| Line Filter                          | Standard and Medical Version, IEC<br>60939, UL 1283, CSA C22.2 no. 8<br>Technical Details  |
| MTBF                                 | > 1'200'000 h acc. to MIL-HB-217 F   |

#### **Approvals and Compliances**

Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in Details about Approvals

SCHURTER products are designed for use in industrial environments. They have approvals from independent testing bodies according to national and international standards. Products with specific characteristics and requirements such as required in the automotive sector according to IATF 16949, medical technology according to ISO 13485 or in the aerospace industry can be offered exclusively with customer-specific, individual agreements by SCHURTER.

# **FKID**

# Approvals

The approval mark is used by the testing authorities to certify compliance with the safety requirements placed on electronic products. Approval Reference Type: FKID

| Approval Logo  | Certificates  | Certification Body | Description                  |
|----------------|---------------|--------------------|------------------------------|
| 10             | VDE Approvals | VDE                | Certificate Number: 40004665 |
| c <b>FL</b> us | UL Approvals  | UL                 | UR File Number: E72928       |

# Product standards

Product standards that are referenced

| Organi     | zation     | Design                | Standard         | Description   |
|------------|------------|-----------------------|------------------|---|
| IEC        |            | Designed according to | IEC 60320-1      | Appliance couplers for household and similar general purposes         |
| <u>IEC</u> |            | Designed according to | IEC 60939        | Passive filters for suppressing electromagnetic interference          |
| <b>IEC</b> |            | Designed according to | IEC 60127-6      | Miniature fuses. Part 6. Fuse-holders for miniature fuse-links        |
| IEC.       |            | Designed according to | IEC 61058-1      | Switches for appliances. Part 1. General requirements                 |
| (h         |            | Designed according to | UL 498           | Standard for Attachment Plugs and Receptacles                         |
| (IL)       |            | Designed according to | UL 1283          | Passive filters for suppressing electromagnetic interference          |
|            | SA<br>roup | Designed according to | CSA C22.2 no. 42 | General Use Receptacles, Attachment Plugs, and Similar Wiring Devices |
|            | SA<br>roup | Designed according to | CSA C22.2 no. 8  | Electromagnetic interference (EMI) filters                            |
|            |            |                       |                  |   |

# Application standards

Application standards where the product can be used

|              | •                              |                |  |
|--------------|--------------------------------|----------------|--|
| Organization | Design                         | Standard       | Description  |
| IEC.         | Suitable for applications acc. | IEC/UL 62368-1 | Audio/video, information and communication technology equipment - Part<br>1: Safety requirements   |
| IEC          | Suitable for applications acc. | IEC 60601-1    | Medical electrical equipment - Part 1: General requirements for basic<br>safety and essential performance  |
| IEC          | Suitable for applications acc. | IEC 60335-1    | Safety of electrical appliances for household and similar purposes. Meets the requirements for appliances in unattended use. This includes the enhanced requirements of glow wire tests acc. to IEC 60695-2-11 or -12 & -13. |

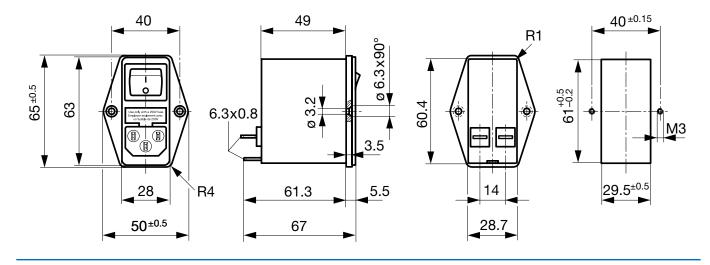
## Compliances

The product complies with following Guide Lines

| Identification | Details                        | Initiator   | Description   |
|----------------|--------------------------------|-------------|---|
| CE             | CE declaration of conformity   | SCHURTER AG | The CE marking declares that the product complies with the applicable<br>requirements laid down in the harmonisation of Community legislation on<br>its affixing in accordance with EU Regulation 765/2008. |
| UK<br>CA       | UKCA declaration of conformity | SCHURTER AG | The UKCA marking declares that the product complies with the applicable requirements laid down in the British Amendment of Regulation (EC) 765/2008.  |
|                | RoHS                           | SCHURTER AG | Directive RoHS 2011/65/EU, Amendment (EU) 2015/863  |
| <b>(</b>       | China RoHS                     | SCHURTER AG | The law SJ / T 11363-2006 (China RoHS) has been in force since 1 March 2007. It is similar to the EU directive RoHS.  |
| REACH          | REACH                          | SCHURTER AG | On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration,<br>Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as<br>"REACH") entered into force.                               |
| 00             | White Paper Glow wire test     | SCHURTER AG | Meets the requirements of IEC 60335-1 for appliances in unattended use.<br>This includes the enhanced requirements of glow wire tests acc. to IEC<br>60695-2-11 or -12 &-13.                                |
| T              | Medical Equipment              | SCHURTER AG | Suitable for use in medical equipment according to IEC/UL 60601-1 (1 MOOP, 1 MOPP)  |

## Dimension [mm]

Case 45



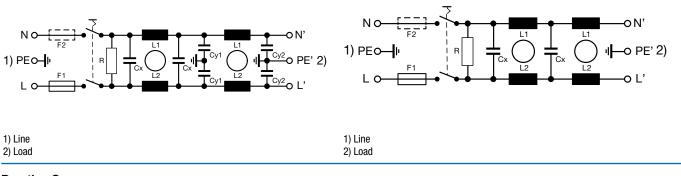
# **Technical Data of Filter-Components**

| Rated Current<br>[A] | Filter-Type          | Inductances<br>L [mH] | Capacitance<br>CX [nF] | Capacity Cy1<br>[nF] | Capacity Cy2<br>[nF] | <b>R [M</b> Ω] |
|----------------------|----------------------|-----------------------|------------------------|----------------------|----------------------|----------------|
| 1                    | Standard version     | 2 x 10                | 68                     | 1.5                  | 1                    | 1              |
| 2                    | Standard version     | 2 x 4                 | 68                     | 1.5                  | 1                    | 1              |
| 4                    | Standard version     | 2 x 1.5               | 68                     | 1.5                  | 1                    | 1              |
| 6                    | Standard version     | 2 x 0.8               | 68                     | 1.5                  | 1                    | 1              |
| 10                   | Standard version     | 2 x 0.3               | 68                     | 1.5                  | 1                    | 1              |
| 1                    | Medical Version (M5) | 2 x 10                | 68                     | -                    | -                    | 1              |
| 2                    | Medical Version (M5) | 2 x 4                 | 68                     | -                    | -                    | 1              |
| 4                    | Medical Version (M5) | 2 x 1.5               | 68                     | -                    | -                    | 1              |
| 6                    | Medical Version (M5) | 2 x 0.8               | 68                     | -                    | -                    | 1              |
| 10                   | Medical Version (M5) | 2 x 0.3               | 68                     | -                    | -                    | 1              |

### Diagrams

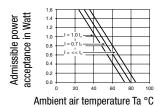
Standard version

Medical Version (M5)



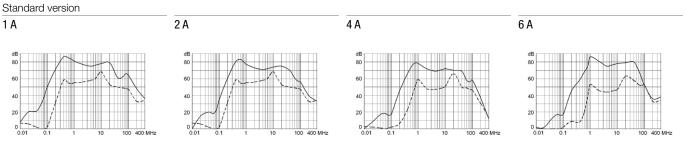
# **Derating Curves**

2-pole



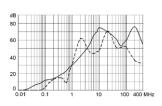
# Attenuation Loss

- - - - 50 $\Omega$  differential mode \_\_\_\_\_ 50 $\Omega$  common mode

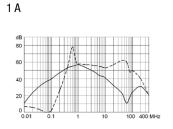


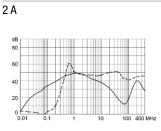
4 A

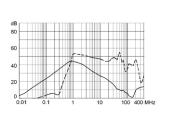


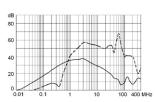


Medical version (M5)









6 A

10 A

| dB<br>80 |     |          |    |             |
|----------|-----|----------|----|-------------|
| 60       |     |          |    |             |
| 40       |     | , .<br>, | í\ | ~~~         |
| 20       |     |          |    | $\sim$      |
| 0.01     | 0.1 | 1        | 10 | 100 400 MHz |

#### Variants

| Туре | Rated Current<br>[A] | Filter-Type          | Fuseholder | Line Switch | Housing | Material: Housing   | Order Number |
|------|----------------------|----------------------|------------|-------------|---------|---------------------|--------------|
| FKID | 1                    | Standard version     | 2-pole     | 2-pole      | 45      | Nickel plated steel | 4304.5021    |
| FKID | 2                    | Standard version     | 2-pole     | 2-pole      | 45      | Nickel plated steel | 4304.5022    |
| FKID | 4                    | Standard version     | 2-pole     | 2-pole      | 45      | Nickel plated steel | 4304.5023    |
| FKID | 6                    | Standard version     | 2-pole     | 2-pole      | 45      | Nickel plated steel | 4304.5024    |
| FKID | 10                   | Standard version     | 2-pole     | 2-pole      | 45      | Nickel plated steel | 4304.5025    |
| FKID | 2                    | Medical Version (M5) | 2-pole     | 2-pole      | 45      | Nickel plated steel | 4304.5067    |
| FKID | 1                    | Standard version     | 2-pole     | 2-pole      | 45      | Aluminum            | 4304.5061    |
| FKID | 2                    | Standard version     | 2-pole     | 2-pole      | 45      | Aluminum            | 4304.5062    |
| FKID | 4                    | Standard version     | 2-pole     | 2-pole      | 45      | Aluminum            | 4304.5063    |
| FKID | 6                    | Standard version     | 2-pole     | 2-pole      | 45      | Aluminum            | 4304.5064    |
| FKID | 10                   | Standard version     | 2-pole     | 2-pole      | 45      | Aluminum            | 4304.5065    |
| FKID | 1                    | Medical Version (M5) | 2-pole     | 2-pole      | 45      | Aluminum            | 4304.5081    |
| FKID | 2                    | Medical Version (M5) | 2-pole     | 2-pole      | 45      | Aluminum            | 4304.5082    |
| FKID | 4                    | Medical Version (M5) | 2-pole     | 2-pole      | 45      | Aluminum            | 4304.5083    |

| Туре | Rated Current<br>[A] | Filter-Type          | Fuseholder | Line Switch | Housing | Material: Housing | Order Number |
|------|----------------------|----------------------|------------|-------------|---------|-------------------|--------------|
| FKID | 6                    | Medical Version (M5) | 2-pole     | 2-pole      | 45      | Aluminum          | 4304.5084    |
| FKID | 10                   | Medical Version (M5) | 2-pole     | 2-pole      | 45      | Aluminum          | 4304.5085    |

Availability for all products can be searched real-time: https://www.schurter.com/en/info-center/support-tools/stock-check-distributors

| Packaging unit 10 Pcs |
|-----------------------|
|-----------------------|

#### Accessories

Description



RC320

Rear Cover for Power Entry Module

# Mating Outlets/Connectors

Category / Description



#### Appliance Outlet Overview complete

| 4787, Mounting: Screw-on mounting, Appliance Outlet: IEC Solder terminals, 10 A, Suitable for appliances with pro-<br>tection class I | 4787 |
|---|------|
| IEC Appliance Outlet F or H, Screw-on Mounting, Front Side, Solder, PCB or Quick-connect Terminal                                     | 5091 |

#### Connector Overview complete

| 4782 Mounting: Power Cord, 3 x 1 mm <sup>2</sup> / 3 x 18 AWG, Cable, Connector: IEC C13    | 4782    |
|---|---------|
| 4785 Mounting: Power Cord, 3 x 1 mm <sup>2</sup> / 3 x 18 AWG, Cable, Connector: IEC C13    | 4785    |
| 4300-06 Mounting: Power Cord, 3 x 1 mm <sup>2</sup> / 3 x 18 AWG, Cable, Connector: IEC C13 | 4300-06 |
| 4781 Mounting: Power Cord, Cable, Connector: IEC C15  | 4781    |
| 4784 Mounting: Power Cord, 3 x 1 mm <sup>2</sup> / 3 x 18 AWG, Cable, Connector: IEC C15    | 4784    |

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