# IEC Appliance Inlet C14 with Filter, Line Switch 1- or 2-pole, PCB Mounting





# Description

- Panel mount :
- Screw-on mounting on PCB rear-side
- 3 Functions :
- Appliance Inlet Protection class I , Line Switch 1- or 2-pole , Line filter in standard and medical version
- For PCB mounting

See below: Approvals and Compliances

#### **Characteristics**

- Ultra-compact design
- All single elements are already wired
- Line switch non-illuminated or illuminated
- With EMC-shield
- Especially suitable for use in switching power supplies Ideal for application with high transient loads
- 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

- Fixing on PCB with self-tapping screws 3 mm or pre-inserted nuts M3
- Other rocker marking
- Illuminated green
- Medical Version (M80)
- Capacitance CX1

# References

Alternative: version without line filter DC21 Alternative: Standard version DC21

# Weblinks

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

Newly available variants corresponding to V-Lock mating cordset. The connector is equipped with a notch intended for use with the latching cordset. The cord latching system prevents against accidental removal of the cordset.

| Ratings IEC                          | 1 - 10A @ Ta 40 °C / 250 VAC; 50 Hz   | Appliance i |
|--------------------------------------|---|-------------|
| 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)                       | Line Switch |
| Allowable Operation Tempe-<br>rature | -25 °C to 85 °C   | Line Filter |
| 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                              | MTBF        |
| Terminal                             | For PCB mounting : Ground terminal:<br>Quick connect terminals 6.3 x 0.8 mm<br>angled to pin axis |             |
| Panel Thickness S                    | Screw: max 4 mm<br>Mounting screw torque max 0.5 Nm   |             |
| 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 |
|-------------------------|---|
| Line Switch             | Rocker switch 1-/2-pole, non-illumi-<br>nated or illuminated red, acc. to IEC<br>61058-1<br>Technical Details                   |
| Line Filter             | Standard and Medical Version, IEC<br>60939, UL 60939-3, CSA C22.2 no. 8<br>Technical Details                                    |
| MTBF                    | > 2'100'000 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.

## Approvals

The approval mark is used by the testing authorities to certify compliance with the safety requirements placed on electronic products. Approval Reference Type: DC22

| Approval Logo  | Certificates  | Certification Body | Description                  |
|----------------|---------------|--------------------|------------------------------|
| 10             | VDE Approvals | VDE                | Certificate Number: 40001522 |
| c <b>FL</b> us | UL Approvals  | UL                 | UR File Number: E495089      |

## **Product standards**

Product standards that are referenced

| Organization | Design                | Standard         | Description   |
|--------------|-----------------------|------------------|---|
| IEC          | Designed according to | IEC 60320-1      | Appliance couplers for household and similar general purposes         |
| IEC.         | Designed according to | IEC 60939        | Passive filters for suppressing electromagnetic interference          |
| 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                         |
| (h)          | Designed according to | UL 60939-3       | Passive filters for suppressing electromagnetic interference          |
| CSA<br>Group | Designed according to | CSA C22.2 no. 42 | General Use Receptacles, Attachment Plugs, and Similar Wiring Devices |
| CSA<br>Group | 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 |

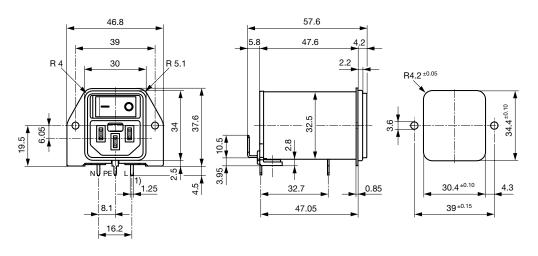
#### Compliances

The product complies with following Guide Lines

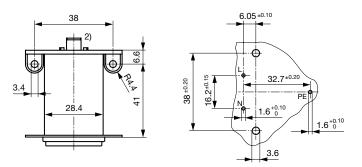
| Identification | Details                        | Initiator   | Description   |
|----------------|--------------------------------|-------------|---|
| CE             | CE declaration of conformity   | SCHURTER AG | The CE marking declares that the product complies with the applicable<br>requirements 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<br>requirements laid down in the British Amendment of Regulation (EC)<br>765/2008.  |
| ROHS           | 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.   |
| <b>V</b> -Lock |                                | SCHURTER AG | V-Lock system are based on a matching plug-dose combination. The<br>connector is equipped with a notch intended for use with the latching<br>cordset. The cord latching system prevents against accidental removal of<br>the cordset. |
| T              | Medical Equipment              | SCHURTER AG | Suitable for use in medical equipment according to IEC/UL 60601-1 (1 MOOP, 1 MOPP)  |

# Dimension [mm]

Screw-on mounting



1) all pins

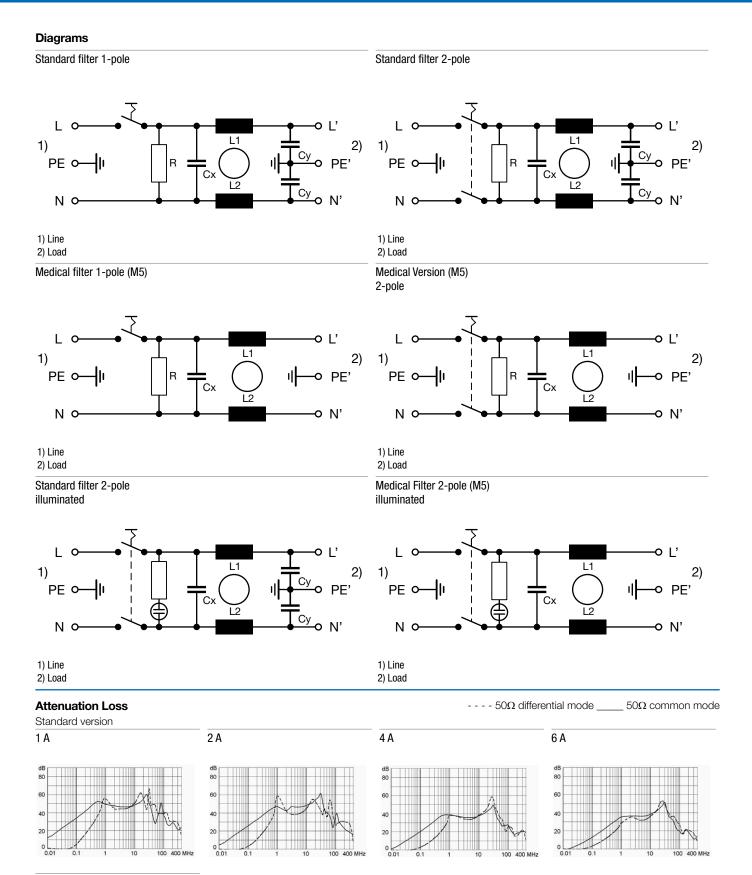


# 2) PE additionally as quick-connect terminal 6.3 x 0.8

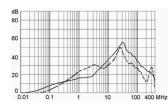
# Technical Data of Filter-Components

| Rated Current<br>[A] | Filter-Type          | Inductances<br>L [mH] | Capacitance<br>CX [nF] | Capacitance<br>CY [nF] | <b>R [Μ</b> Ω] |
|----------------------|----------------------|-----------------------|------------------------|------------------------|----------------|
| 1                    | Standard version     | 2 x 10                | 100                    | 2.2                    | 1              |
| 2                    | Standard version     | 2 x 4                 | 100                    | 2.2                    | 1              |
| 4                    | Standard version     | 2 x 1.5               | 100                    | 2.2                    | 1              |
| 6                    | Standard version     | 2 x 0.8               | 100                    | 2.2                    | 1              |
| 10                   | Standard version     | 2 x 0.3               | 100                    | 2.2                    | 1              |
| 1                    | Medical Version (M5) | 2 x 10                | 100                    | -                      | 1              |
| 2                    | Medical Version (M5) | 2 x 4                 | 100                    | -                      | 1              |
| 4                    | Medical Version (M5) | 2 x 1.5               | 100                    | -                      | 1              |
| 6                    | Medical Version (M5) | 2 x 0.8               | 100                    | -                      | 1              |
| 10                   | Medical Version (M5) | 2 x 0.3               | 100                    | -                      | 1              |

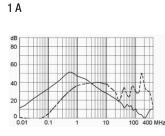
# **DC22**



10 A

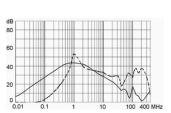


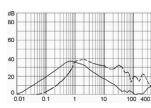
2 A



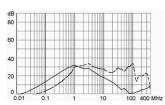
10 A

| 30   |     |   |            |             | Ħ         |
|------|-----|---|------------|-------------|-----------|
| 50   |     |   |            |             | Ħ         |
| 10   |     |   |            |             |           |
| 20   |     | 1 | <br>$\geq$ | <u>ک</u> ر. | $\Lambda$ |
| 0.01 | 0,1 | 1 | 10         | 100         | 400 MI    |





4 A



**DC22** 

| Rated current | Filter-Type          | Line Switch | Illumination | Color | Weight [g] | V-Lock | Order Number  |
|---------------|----------------------|-------------|--------------|-------|------------|--------|---------------|
|               |                      |             |              |       |            |        |               |
| 1             | Standard version     | 1-pole      |              | -     | 67 g       | •      | DC22.1111.111 |
| 2             | Standard version     | 1-pole      |              | -     | 67 g       | •      | DC22.2111.111 |
| 4             | Standard version     | 1-pole      |              | -     | 67 g       | •      | DC22.4111.111 |
| 6             | Standard version     | 1-pole      |              | -     | 67 g       | ٠      | DC22.6111.111 |
| 10            | Standard version     | 1-pole      |              | -     | 67 g       | ٠      | DC22.9111.111 |
| 1             | Standard version     | 2-pole      |              | -     | 67 g       | •      | DC22.1121.111 |
| 2             | Standard version     | 2-pole      |              | -     | 67 g       | •      | DC22.2121.111 |
| 4             | Standard version     | 2-pole      |              | -     | 67 g       | •      | DC22.4121.111 |
| 6             | Standard version     | 2-pole      |              | -     | 67 g       | •      | DC22.6121.111 |
| 10            | Standard version     | 2-pole      |              | -     | 67 g       | •      | DC22.9121.111 |
| 1             | Standard version     | 2-pole      | •            | red   | 67 g       | •      | DC22.1123.111 |
| 2             | Standard version     | 2-pole      | •            | red   | 67 g       | •      | DC22.2123.111 |
| 4             | Standard version     | 2-pole      | •            | red   | 67 g       | ٠      | DC22.4123.111 |
| 6             | Standard version     | 2-pole      | •            | red   | 67 g       | ٠      | DC22.6123.111 |
| 10            | Standard version     | 2-pole      | •            | red   | 67 g       | ٠      | DC22.9123.111 |
| 1             | Medical Version (M5) | 2-pole      |              | -     | 67 g       | •      | DC22.1221.111 |
| 2             | Medical Version (M5) | 2-pole      |              | -     | 67 g       | ٠      | DC22.2221.111 |
| 4             | Medical Version (M5) | 2-pole      |              | -     | 67 g       | •      | DC22.4221.111 |
| 6             | Medical Version (M5) | 2-pole      |              | -     | 67 g       | •      | DC22.6221.111 |
| 10            | Medical Version (M5) | 2-pole      |              | -     | 67 g       | •      | DC22.9221.111 |
| 1             | Medical Version (M5) | 2-pole      | •            | red   | 67 g       | ٠      | DC22.1223.111 |
| 2             | Medical Version (M5) | 2-pole      | •            | red   | 67 g       | •      | DC22.2223.111 |
| 4             | Medical Version (M5) | 2-pole      | •            | red   | 67 g       | ٠      | DC22.4223.111 |
| 6             | Medical Version (M5) | 2-pole      | •            | red   | 67 g       | •      | DC22.6223.111 |
| 10            | Medical Version (M5) | 2-pole      | •            | red   | 67 g       | •      | DC22.9223.111 |

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



Cord\_retaining\_kits Cord retaining strain relief

Description

Flat head, H

4700.0008

# 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    |

# Mating Outlets/Connectors shuttered



### Connector Overview complete

| 4783 Mounting: Power Cord, 3 x 1 mm <sup>2</sup> / 3 x 18 AWG, Cab | le, Connector: IEC C13 | 4783 |
|--|------------------------|------|
|--|------------------------|------|



# Power Cord Overview complete

VAC13KS, Overview, V-Lock cord retaining, diverse Connector IEC C13, diverse, black

VAC13KS