IEC Appliance Inlet C20 with Filter, Front or Rear Side Mounting

Screw-on mounting
from front side

Snap-in mounting
from front side

C20

70° C

See below:
**Approvals and Compliances**

## Description

- Panel mount :
  Screw-on version from front or rear side, snap-in version from front side
- 2 Functions :
  Appliance Inlet Protection class I , Line filter in standard and medical version
- Solder, quick connect or wires (stranded)

## Unique Selling Proposition

- Attractive flat front design
- Highly resistant since fully potted
- Interrupts ground loops
- V-Lock cord retaining

## Characteristics

- Compact design with optimal shielding
  Suitable for assembly in metal plated plastic housings
- Version with class X1 and X2 (standard version) capacitors
- Universal line filter for standard applications
- Suitable for use in medical equipment according to IEC/UL 60601-1
  For applications according IEC/UL 62368-1 we recommend variants with bleed resistor

## Other versions on request

- 16A according to UL
- Capacity CX 330 nF

## References

Alternative: version without line filter 4793; 4798

## Weblinks

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

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.

## Technical Data

| | |
|---|---|
| Ratings IEC | 16 A @ Ta 40 °C / 250 VAC; 50 Hz |
| Ratings UL/CSA | 20 A @ 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) |
| Impulse Withstand Voltage | > 2.5 kV between L-N (CX2)<br>> 4 kV between L-N (CX1)<br>> 5 kV between L/N-PE (Cy2)<br>voltage (1.2/50 µs) |
| Allowable Operation Temperature | -25 °C to 85 °C |
| Climatic Category | 25/085/21 acc. to IEC 60068-1 |
| IP-Protection | from front side IP40 acc. to IEC 60529 |
| Protection Class | Suitable for appliances with protection class I acc. to IEC 61140 |
| Terminal | Solder, quick connect or wires (stranded) |
| Panel Thickness S | Screw: max 8 mm<br>Mounting screw torque max 0.5 Nm<br>Snap-in: 1 mm to 3 mm |
| Material: Housing | Thermoplastic, black, UL 94V-0 |

| | |
|---|---|
| Appliance inlet/-outlet | C20 acc. to IEC 60320-1,<br>UL 498, CSA C22.2 no. 42 (for cold conditions) pin-temperature 70 °C, 16 A,<br>Protection Class I |
| Line Filter | Standard and Medical Version, IEC 60939, UL 1283, CSA C22.2 no. 8<br>Technical Details |
| MTBF | > 3'000'000 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: C20F

| Approval Logo | Certificates | Certification Body | Description |
|---|---|---|---|
| | VDE Approvals | VDE | VDE Certificate Number: 104884 |
| | UL Approvals | UL | UL File Number: E72928 |
| | CQC Approvals | CQC | CQC Certificate Number: CQC18001191999 |

## Product standards

Product standards that are referenced

| Organization | Design | Standard | Description |
|---|---|---|---|
| | Designed according to | IEC 60320-1 | Appliance couplers for household and similar general purposes |
| | Designed according to | IEC 60939 | Passive filters for suppressing electromagnetic interference |
| | Designed according to | IEC 61058-1 | Switches for appliances. Part 1. General requirements |
| | Designed according to | UL 498 | Standard for Attachment Plugs and Receptacles |
| | Designed according to | UL 1283 | Electromagnetic interference filters |
| | Designed according to | CSA C22.2 no. 42 | General Use Receptacles, Attachment Plugs, and Similar Wiring Devices |
| | Designed according to | CSA C22.2 no. 8 | Electromagnetic interference (EMI) filters |

## Application standards

Application standards where the product can be used

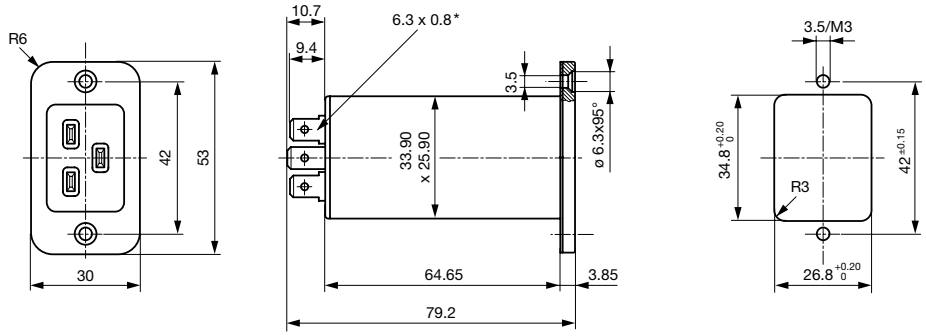
| Organization | Design | Standard | Description |
|---|---|---|---|
| | Designed for applications acc. | IEC/UL 62368-1 | IEC 62368-1 includes the basic requirements for safety of audio, video, information technology and office equipment. |
| | Designed for applications acc. | IEC 60601-1 | Medical electrical equipment - Part 1: General requirements for basic safety and essential performance |

## Compliances

The product complies with following Guide Lines

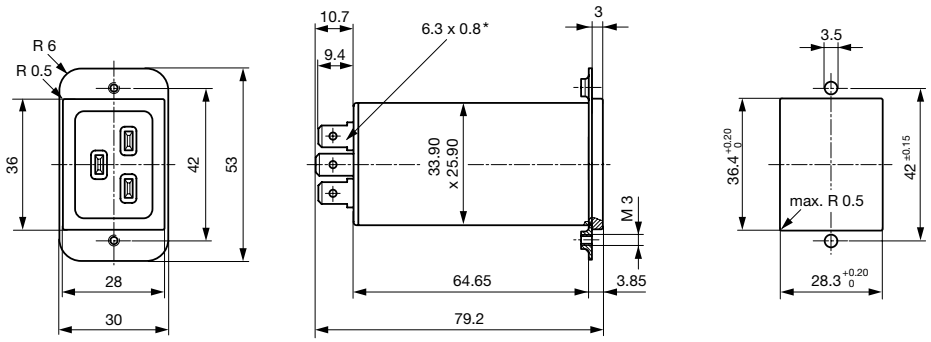
| Identification | Details | Initiator | Description |
|---|---|---|---|
| CE | CE declaration of conformity | SCHURTER AG | The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008. |
| RoHS | RoHS | SCHURTER AG | Directive RoHS 2011/65/EU, Amendment (EU) 2015/863 |
| | 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, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force. |
| V-Lock | Landing Page V-Lock | SCHURTER AG | V-Lock system are based on a matching plug-dose combination. 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. |
| | Medical Technology | SCHURTER AG | Suitable for use in medical equipment according to IEC/UL 60601-1 |

**Dimension [mm]**
Screw-on from front side

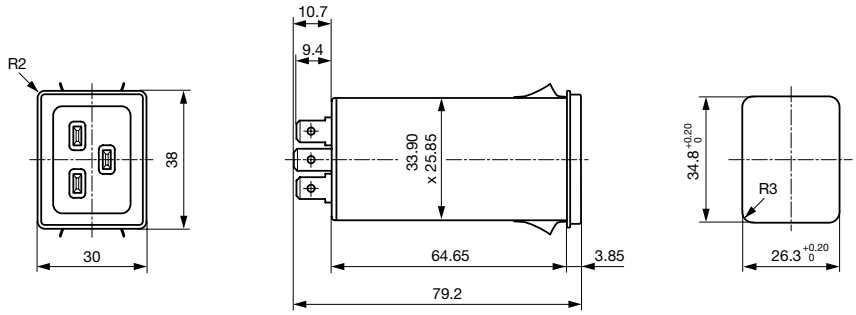



* Solder terminal: identical outer dimensions

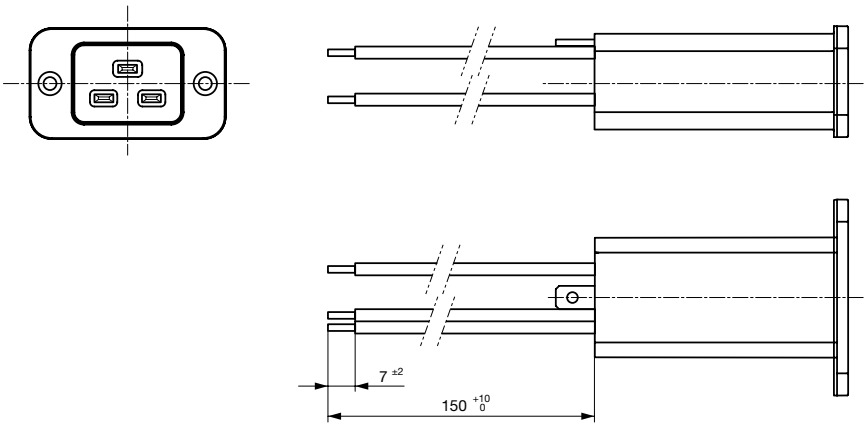
Screw-on mounting from rear side with metal flange




Snap-in mounting from front side



Screw-on mounting from front side with flexible wire

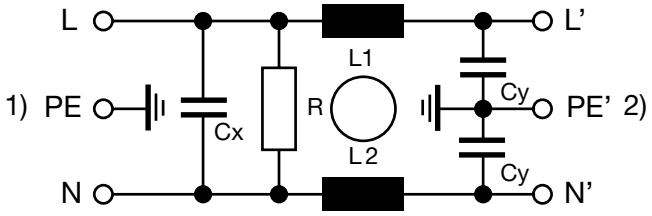



## Technical Data of Filter-Components

| Rated Current [A] | Filter-Type | Inductance L1/ L2 [mH] | Inductance L3 [mH] | Capacitance CX [nF] | Capacitance CY [nF] | R [MΩ] |
|---|---|---|---|---|---|---|
| 16 | Standard version | 2 x 0.3 | - | 100 | 2.2 | 1 |
| 16 | Standard Version with Ground Line Choke | 2 x 0.3 | 0.15 | 330 | 2.2 | 1 |
| 16 | Medical Version (M5) | 2 x 0.3 | - | 100 | - | 1 |
| 16 | Medical Version (M80) | 2 x 0.3 | - | 100 | 0.47 | 1 |
| 16 | Medical Version (M5) with Ground Line Choke | 2 x 0.3 | 0.15 | 330 | - | 1 |

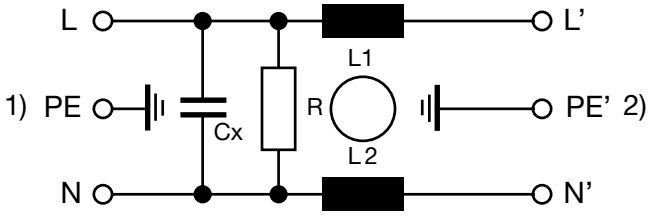
## Diagrams

Standard version



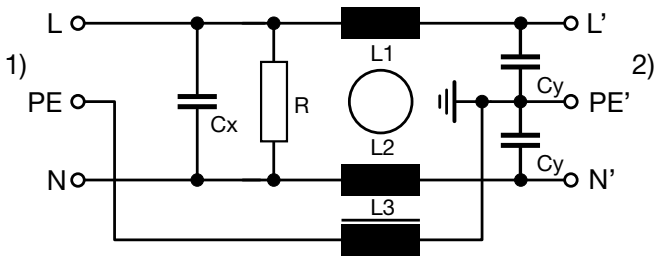

1) Line
2) Load

Medical Version (M5)



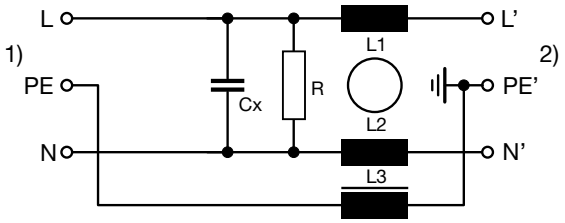

1) Line
2) Load

Standard version with ground line choke




1) Line
2) Load

Medical Version (M5) with ground line choke



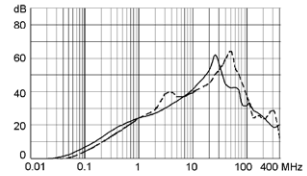

1) Line
2) Load

## Attenuation Loss

- - - - 50Ω differential mode _____ 50Ω common mode

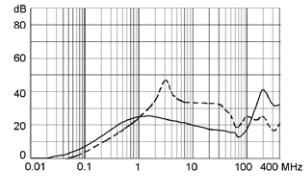
Standard version

20 A



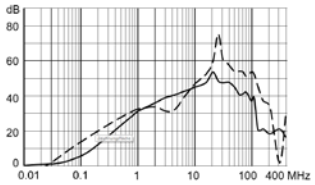

Medical version (M5)

20 A



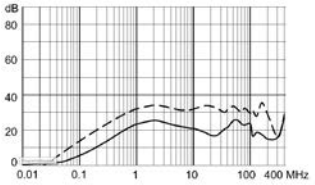

Standard with Earth Line Choke

20A




Medical (M5) with Earth Line Choke

20A




## All Variants

| Rated Current IEC | Rated Current UL | Filter-Type | Panel mounting | Mounting side | Terminal | Capacitor | V-Lock | Order Number |
|---|---|---|---|---|---|---|---|---|
| 16 | 20 | Standard version | Snap-in | Front Side | Quick connect terminals 6.3 x 0.8 mm | X2 100nF | | C20F.0111 |
| 16 | 20 | Standard version | Snap-in | Front Side | Quick connect terminals 6.3 x 0.8 mm | X1 100nF | | C20F.0113 |
| 16 | 20 | Standard version | Snap-in | Front Side | Solder terminals | X2 100nF | | C20F.0011 |
| 16 | 20 | Standard version | Snap-in | Front Side | Solder terminals | X1 100nF | | C20F.0013 |
| 16 | 20 | Standard version | Screw | Front Side | Quick connect terminals 6.3 x 0.8 mm | X2 100nF | ● | C20F.0101 |
| 16 | 20 | Standard version | Screw | Front Side | Quick connect terminals 6.3 x 0.8 mm | X1 100nF | ● | C20F.0103 |
| 16 | 20 | Standard version | Screw | Front Side | Solder terminals | X2 100nF | ● | C20F.0001 |
| 16 | 20 | Standard version | Screw | Front Side | Solder terminals | X1 100nF | ● | C20F.0003 |
| 16 | 20 | Standard version | Screw | Rear Side | Flexible wire AWG14 | X2 100nF | | C20F.0221 |

| Rated Current IEC | Rated Current UL | Filter-Type | Panel mounting | Mounting side | Terminal | Capacitor | V-Lock | Order Number |
|---|---|---|---|---|---|---|---|---|
| 16 | 20 | Standard version | Screw | Rear Side | Flexible wire AWG14 | X1 100nF | | C20F.0023 |
| 16 | 20 | Standard version | Screw | Rear Side | Flexible wire AWG14 | X1 100nF | | C20F.0223 |
| 16 | 20 | Standard version | Screw | Rear Side | Quick connect terminals 6.3 x 0.8 mm | X2 100nF | | C20F.0121 |
| 16 | 20 | Standard version | Screw | Rear Side | Quick connect terminals 6.3 x 0.8 mm | X1 100nF | | C20F.0123 |
| 16 | 20 | Standard version | Screw | Rear Side | Solder terminals | X2 100nF | | C20F.0021 |
| 16 | 20 | Standard Version with Ground Line Choke | Snap-in | Front Side | Quick connect terminals 6.3 x 0.8 mm | X2 330nF | ● | 3-124-295 |
| 16 | 20 | Standard Version with Ground Line Choke | Screw | Front Side | Quick connect terminals 6.3 x 0.8 mm | X2 330nF | ● | 3-124-273 |
| 16 | 20 | Medical Version (M5) | Snap-in | Front Side | Quick connect terminals 6.3 x 0.8 mm | X2 100nF | | C20F.0112 |
| 16 | 20 | Medical Version (M5) | Snap-in | Front Side | Quick connect terminals 6.3 x 0.8 mm | X1 100nF | | C20F.0114 |
| 16 | 20 | Medical Version (M5) | Snap-in | Front Side | Solder terminals | X2 100nF | | C20F.0012 |
| 16 | 20 | Medical Version (M5) | Snap-in | Front Side | Solder terminals | X1 100nF | | C20F.0014 |
| 16 | 20 | Medical Version (M5) | Screw | Front Side | Quick connect terminals 6.3 x 0.8 mm | X2 100nF | ● | C20F.0102 |
| 16 | 20 | Medical Version (M5) | Screw | Front Side | Quick connect terminals 6.3 x 0.8 mm | X1 100nF | ● | C20F.0104 |
| 16 | 20 | Medical Version (M5) | Screw | Front Side | Solder terminals | X2 100nF | ● | C20F.0002 |
| 16 | 20 | Medical Version (M5) | Screw | Front Side | Solder terminals | X1 100nF | ● | C20F.0004 |
| 16 | 20 | Medical Version (M5) | Screw | Rear Side | Flexible wire AWG14 | X2 100nF | | C20F.0022 |
| 16 | 20 | Medical Version (M5) | Screw | Rear Side | Flexible wire AWG14 | X2 100nF | | C20F.0222 |
| 16 | 20 | Medical Version (M5) | Screw | Rear Side | Flexible wire AWG14 | X1 100nF | | C20F.0024 |
| 16 | 20 | Medical Version (M5) | Screw | Rear Side | Flexible wire AWG14 | X1 100nF | | C20F.0224 |
| 16 | 20 | Medical Version (M5) | Screw | Rear Side | Quick connect terminals 6.3 x 0.8 mm | X2 100nF | | C20F.0122 |
| 16 | 20 | Medical Version (M5) | Screw | Rear Side | Quick connect terminals 6.3 x 0.8 mm | X1 100nF | | C20F.0124 |
| 16 | 20 | Medical Version (M5) with Ground Line Choke | Screw | Front Side | Quick connect terminals 6.3 x 0.8 mm | X2 330nF | ● | 3-124-294 |

Most Popular.

Availability for all products can be searched real-time:https://www.schurter.com/en/Stock-Check/Stock-Check-SCHURTER

Wire length: 150 mm

**Packaging unit** 20 Pcs

## Accessories

**Description**

Wire Harness
Wire harness for SCHURTER products

Assorted Covers
Rear Cover

| | |
|---|---|
| | 0859.0047 |

Cord retaining kits
Cord retaining strain relief

| | |
|---|---|
| Countersunk, K | 4700.0010 |
| Flat head, L | 4700.0011 |

## Mating Outlets/Connectors

**Category / Description**

Connector Overview complete

| | |
|---|---|
| 4795, Mounting: Power Cord, Cable Connector: IEC C19 | 4795 |
| 4790, Mounting: Power Cord, Screw Connector: IEC C19 | 4790 |
| 0104U, Mounting: Power Supply Cord, Screw clamps Connector: IEC C19 | 0104U |

Connector further types to C20F

## Mating Outlets/Connectors shuttered

Power Cord Overview complete

| | |
|---|---|
| VAC19KS, Overview, V-Lock cord retaining, diverse Connector IEC C19, diverse, black | VAC19KS |

Power Cord further types to C20F

12.05.2020

The specifications, descriptions and illustrations indicated in this document are based on current information. All content is subject to modifications and amendments. Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability and test each product selected for their own applications.

LifeElectronics
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