

## IEC Appliance Inlet C20 with Filter, Line Switch 2-pole



C20  
  
70° C

See below:  
[Approvals and Compliances](#)

### Description

- Panel mount :  
Screw-on mounting from front side
- 3 Functions :  
Appliance Inlet Protection class I , Line Switch 2-pole , Line filter in standard and medical version
- Quick connect terminals 6.3 x 0.8 mm

### Characteristics

- All single elements are already wired
- Line switch non-illuminated
- With EMC-shield
- 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

### Other versions on request

- Line switch, illuminated
- Line switch with other rocker marking
- Variant with notch for V-Lock mating Cordsets

### References

Alternative: version without line filter [EC11](#)

Alternative: Standard version

### 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.

### Technical Data

|                                 |                                                                             |                         |                                                                                                                         |
|---------------------------------|-----------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Ratings IEC                     | 12 - 16 A @ Ta 40 °C / 250 VAC; 50 Hz                                       | Appliance inlet/-outlet | C20 acc. to IEC 60320-1, UL 498, CSA C22.2 no. 42 (for cold conditions) pin-temperature 70 °C, 16 A, Protection Class I |
| Ratings UL/CSA                  | 12 - 20 A @ Ta 40 °C / 250 VAC; 60 Hz                                       | Line Switch             | Rocker switch 2-pole, non-illuminated, acc. to IEC 61058-1<br><a href="#">Technical Details</a>                         |
| Leakage Current                 | standard < 0.5 mA (250 V / 60 Hz)<br>medical < 5 µA (250 V / 60 Hz)         | Line Filter             | Standard and Medical Version, IEC 60939, UL 1283, CSA C22.2 no. 8<br><a href="#">Technical Details</a>                  |
| Dielectric Strength             | > 1.7 kVDC between L-N<br>> 2.7 kVDC between L/N-PE<br>Test voltage (2 sec) | MTBF                    | > 1'700'000 h acc. to MIL-HB-217 F                                                                                      |
| 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                        | Quick connect terminals 6.3 x 0.8 mm                                        |                         |                                                                                                                         |
| Panel Thickness S               | Screw: max 8 mm<br>Mounting screw torque max 0.5 Nm                         |                         |                                                                                                                         |
| Material: Housing               | Thermoplastic, black, UL 94V-0                                              |                         |                                                                                                                         |

### 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: EC12

| Approval Logo                                                                    | Certificates                  | Certification Body | Description                  |
|----------------------------------------------------------------------------------|-------------------------------|--------------------|------------------------------|
|  | <a href="#">VDE Approvals</a> | VDE                | Certificate Number: 40001522 |
|  | <a href="#">UL Approvals</a>  | UL                 | UL File Number: E72928       |

## 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

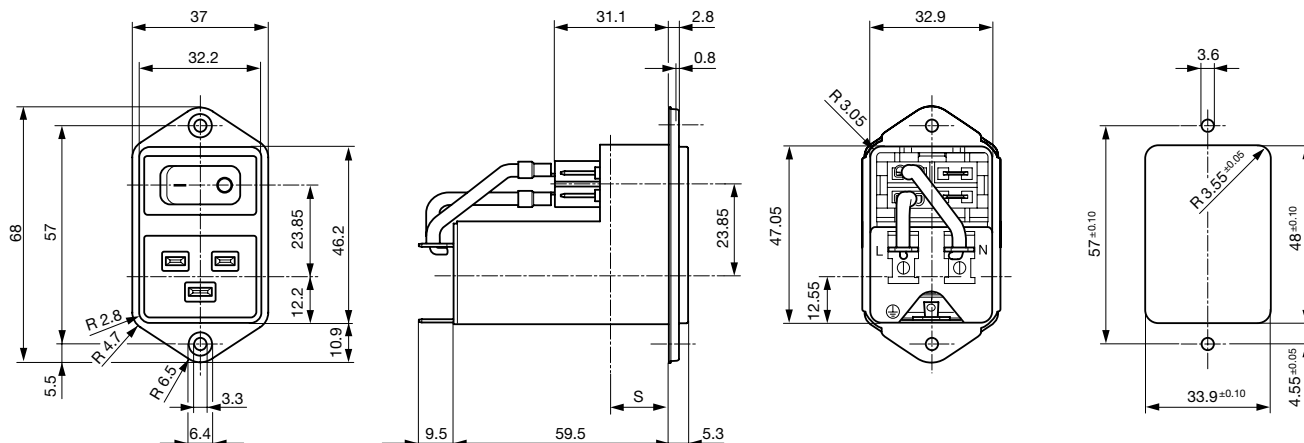
| Organization                                                                       | Design                         | Standard       | Description                                                                                                          |
|------------------------------------------------------------------------------------|--------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------|
|  | 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                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------|----------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <a href="#">CE declaration of conformity</a> | 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                                         | 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                                        | 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.                                                      |
|  |                                              | 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. |
|  | <a href="#">Medical Technology</a>           | SCHURTER AG | Suitable for use in medical equipment according to IEC/UL 60601-1                                                                                                                                                            |

## Dimension [mm] EC12

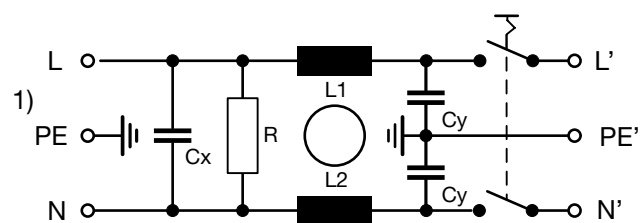


## Technical Data of Filter-Components

| Rated Current<br>[A] | Filter-Type          | Inductances L [mH] | Capacitance<br>CX [nF] | Capacitance<br>CY [nF] | R [M $\Omega$ ] |
|----------------------|----------------------|--------------------|------------------------|------------------------|-----------------|
| 12                   | Standard version     | 2 x 0.8            | 100                    | 2.2                    | 1               |
| 16                   | Standard version     | 2 x 0.6            | 100                    | 2.2                    | 1               |
| 20                   | Standard version     | 2 x 0.3            | 100                    | 2.2                    | 1               |
| 12                   | Medical Version (M5) | 2 x 0.8            | 100                    | -                      | 1               |
| 16                   | Medical Version (M5) | 2 x 0.6            | 100                    | -                      | 1               |
| 20                   | Medical Version (M5) | 2 x 0.3            | 100                    | -                      | 1               |

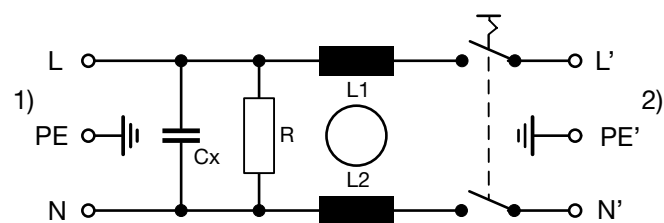
## Diagrams

### Standard version



1) Line  
2) Load

### Medical Version (M5)



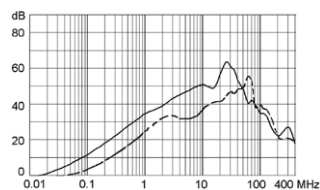
1) Line  
2) Load

## Attenuation Loss

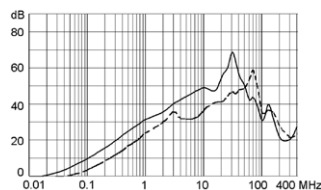
--- 50 $\Omega$  differential mode \_\_\_\_ 50 $\Omega$  common mode

### Standard version

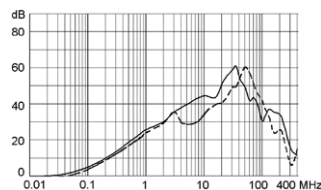
#### 12 A



#### 16 A

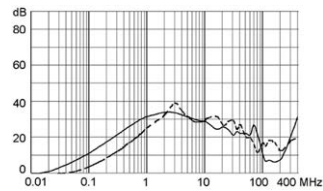


#### 20 A

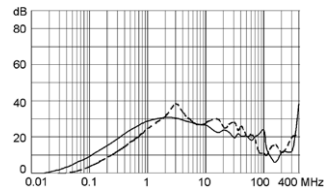


Medical version (M5)

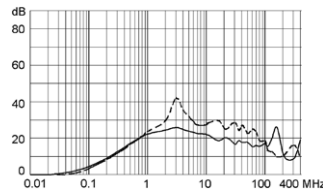
12 A



16 A



20 A



All Variants

| Rated Current [A] | Filter-Type          | Internally wired | Line Switch | V-Lock | Order Number     |
|-------------------|----------------------|------------------|-------------|--------|------------------|
| 12                | Standard version     | ●                | 2-pole      |        | EC12.3101.001    |
| 12                | Standard version     | ●                | 2-pole      | ●      | EC12.3101.001.21 |
| 16                | Standard version     | ●                | 2-pole      |        | EC12.2101.001    |
| 20                | Standard version     | ●                | 2-pole      |        | EC12.1101.001    |
| 12                | Standard version     |                  | 2-pole      |        | EC12.3101.002    |
| 16                | Standard version     |                  | 2-pole      |        | EC12.2101.002    |
| 20                | Standard version     |                  | 2-pole      |        | EC12.1101.002    |
| 12                | Medical Version (M5) | ●                | 2-pole      |        | EC12.3201.001    |
| 16                | Medical Version (M5) | ●                | 2-pole      |        | EC12.2201.001    |
| 16                | Medical Version (M5) | ●                | 2-pole      | ●      | EC12.2201.001.21 |
| 20                | Medical Version (M5) | ●                | 2-pole      |        | EC12.1201.001    |
| 12                | Medical Version (M5) |                  | 2-pole      |        | EC12.3201.002    |
| 16                | Medical Version (M5) |                  | 2-pole      |        | EC12.2201.002    |
| 20                | Medical Version (M5) |                  | 2-pole      |        | EC12.1201.002    |

Most Popular.

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

Packaging unit 20 Pcs

Accessories

Description



Wire Harness  
Wire harness for SCHURTER products



Assorted Covers  
Rear Cover

0859.0108



Cord retaining kits  
Cord retaining strain relief

|              |           |
|--------------|-----------|
| Flat head, H | 4700.0008 |
|--------------|-----------|

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 EC12

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 EC12

## Данный компонент на территории Российской Федерации

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