### 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

### **Description**

- Panel mount :

Screw-on version from front or rear side, snap-in version front side

- 2 Functions:

Appliance Inlet Protection class I, Line filter in standard and medical version

- Solder / quick connect / wires (stranded)

### **Unique Selling Proposition**

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

### See below:

#### **Approvals and Compliances**

#### **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 (1 MOOP, 1 MOPP)

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

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** 16A @ Ta 40 °C / 250 VAC; 50 Hz Ratings IEC Ratings UL/CSA 20A @ Ta 40 °C / 250 VAC; 60 Hz Leakage Current standard < 0.5 mA (250 V / 60 Hz) medical $< 5 \mu A (250 V / 60 Hz)$ Dielectric Strength > 1.7 kVDC between L-N > 2.7 kVDC between L/N-PE Test voltage (2 sec) Impulse Withstand Voltage > 2.5 kV between L-N (CX2) > 4 kV between L-N (CX1) > 5 kV between L/N-PE (Cy2) voltage (1.2/50 µs) Allowable Operation Tempe--25°C to 85°C rature 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 class I acc. to IEC 61140 Terminal Solder / quick connect / wires (stranded) Panel Thickness S Screw: max 8 mm Mounting screw torque max 0.5 Nm Snap-in: 1 mm to 3 mm Material: Housing Thermoplastic, black, UL 94V-0

Appliance inlet/-outlet	C20 acc. to IEC 60320-1, UL 498, CSA C22.2 no. 42 (for cold conditions) pin-temperature 70 °C, 16A, Protection Class I		
Line Filter	Standard and Medical Version, IEC 60939, UL 1283, CSA C22.2 no. 8 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
<b>₽</b> VE	VDE Approvals	VDE	VDE Certificate Number: 104884
c <b>FL</b> °us	UL Approvals	UL	UL File Number: E72928
Cac	CQC Approvals	CQC	CQC Certificate Number: CQC18001191999

#### **Product standards**

Product standards that are referenced

Organization	Design	Standard	Description
<u>IEC</u>	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
<u>IEC</u>	Designed according to	IEC 61058-1	Switches for appliances. Part 1. General requirements
(ŲL)	Designed according to	UL 498	Standard for Attachment Plugs and Receptacles
(ŲL)	Designed according to	UL 1283	Electromagnetic interference filters
CSA Group	Designed according to	CSA C22.2 no. 42	General Use Receptacles, Attachment Plugs, and Similar Wiring Devices
CSA 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
<u>IEC</u>	Designed for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements
<u>IEC</u>	Designed for applications acc.	IEC 60601-1	Medical electrical equipment - Part 1: General requirements for basic safety and essential performance

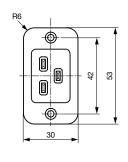
# Compliances

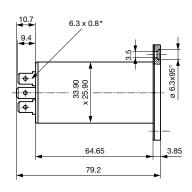
The product complies with following Guide Lines

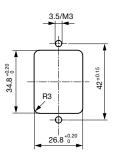
Identification	Details	Initiator	Description
C€	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
UK CA	UKCA declaration 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	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, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.
<b>V</b> -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.
T	Medical Equipment	SCHURTER AG	Suitable for use in medical equipment according to IEC/UL 60601-1 (1 MOOP, 1 MOPP)

### Dimension [mm]

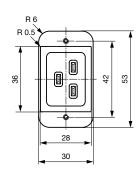
Screw-on from front side

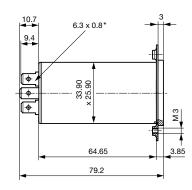


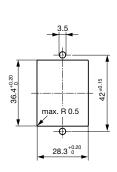




Screw-on mounting from rear side with metal flange

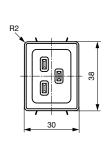


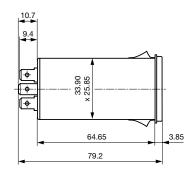


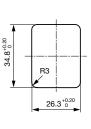


<sup>\*</sup> Solder terminal: identical outer dimensions

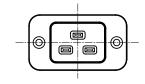
# Snap-in mounting from front side

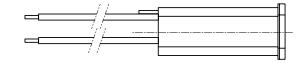


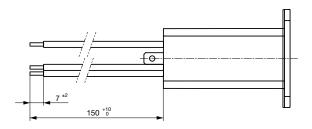




# Screw-on mounting from front side with flexible wire







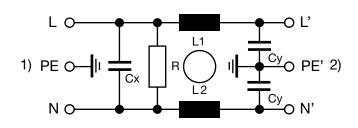
# **Technical Data of Filter-Components**

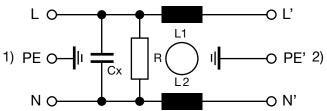
Rated Current [A]	Filter-Type	Inductance L1/ L2 [mH]	Inductance L3 [mH]	Capacitance CX [nF]	Capacitance CY [nF]	<b>R</b> [ <b>M</b> Ω]
16	Standard version	2 x 0.3	-	100	2.2	1
16	Standard Version with Ground Line Choke	2 x 0.3	0.15	330	2.2	1
16	Medical Version (M5)	2 x 0.3	-	100	-	1
16	Medical Version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

Medical Version (M5)



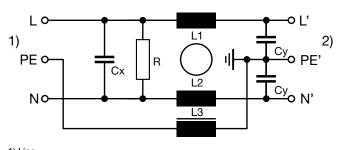


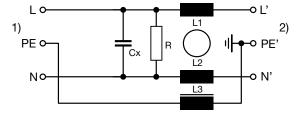
- 1) Line
- 2) Load

Standard version with ground line choke

1) Line 2) Load

Medical Version (M5) with ground line choke





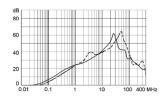
- 1) Line
- 2) Load

1) Line 2) Load

# **Attenuation Loss**

Standard version

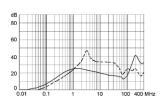
20 A



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

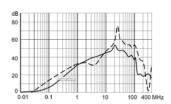
# Medical version (M5)

20 A

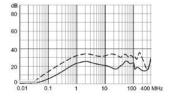


### Standard with Earth Line Choke

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	
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	

Rated Current Rated Current Filter-Type Panel mounting Mounting side **Terminal** Capacitor V-Lock Order Number IEC UL

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

The fuse drawer is not included and must be ordered separately (see required accessory).

Packaging unit

20 Pcs

#### **Accessories**

### Description



Wire harness for SCHURTER products



Assorted Covers Rear Cover

0859.0047



RC320 Rear Cover for Power Entry Module



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

# Mating Outlets/Connectors shuttered



#### Power Cord Overview complete

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