# C20F

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





Screw-on mounting from front side



Snap-in mounting from front side



See below: Approvals and Compliances

# 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

# 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**

Technical Data			
Ratings IEC	16 A @ Ta 40 °C / 250 VAC; 50 Hz	Appliance inlet/-outlet	C20 acc. to IEC 60320-1,
Ratings UL/CSA	20 A @ Ta 40 °C / 250 VAC; 60 Hz		UL 498, CSA C22.2 no. 42 (for cold
Leakage Current	standard < 0.5 mA (250 V / 60 Hz)		conditions) pin-temperature 70 °C, 16A,
	medical < 5 µA (250 V / 60 Hz)		Protection Class I
Dielectric Strength	> 1.7 kVDC between L-N	Line Filter	Standard and Medical Version, IEC
	> 2.7 kVDC between L/N-PE		60939, UL 1283, CSA C22.2 no. 8
	Test voltage (2 sec)		Technical Details
Impulse Withstand Voltage	> 2.5 kV between L-N (CX2)	MTBF	> 3'000'000 h acc. to MIL-HB-217 F
	> 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 (stran- ded)		
Panel Thickness S	Screw: max 8mm		
	Mounting screw torque max 0.5 Nm		
	Snap-in: 1 mm to 3 mm		
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: C20F

Approval Logo	Certificates	Certification Body	Description
	VDE Approvals	VDE	VDE Certificate Number: 104884
c <b>AL</b> us	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
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
(ŲL)	Designed according to	UL 498	Standard for Attachment Plugs and Receptacles
(ŲL)	Designed according to	UL 1283	Electromagnetic interference filters
GE 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
IEC	Designed for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements
IEC	Designed for applications acc.	IEC 60601-1	Medical electrical equipment - Part 1: General requirements for basic safety and essential performance

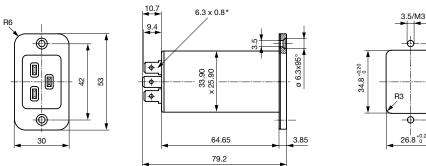
#### Compliances

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.
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	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.
Ť	Medical Equipment	SCHURTER AG	Suitable for use in medical equipment according to IEC/UL 60601-1 (1 MOOP, 1 MOPP)

# **Dimension** [mm]

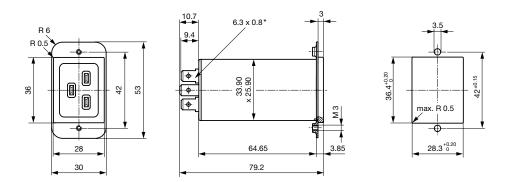
Screw-on from front side



 $42^{\pm 0.15}$ R3 -0 26.8 0

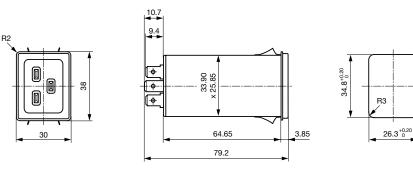
\* Solder terminal: identical outer dimensions

Screw-on mounting from rear side with metal flange

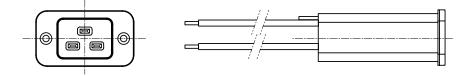


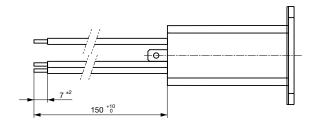


# Snap-in mounting from front side



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]	<b>R [Μ</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

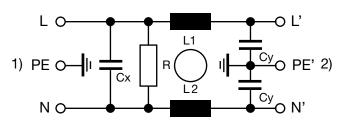
ЮĽ

ΟN

O PE' 2)

# Diagrams

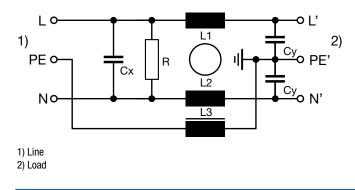
Standard version

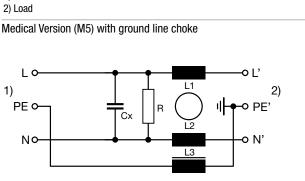


1) Line

2) Load

Standard version with ground line choke





L1

R

I

1) Line 2) Load

Medical Version (M5)

LO

NO

1) PE O

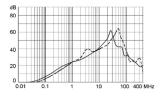
1) Line

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

#### **Attenuation Loss**

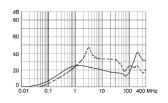
Standard version

20 A

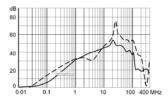


Medical version (M5)

20 A



Standard with Earth Line Choke 20A



Medical (M5) with Earth Line Choke 20A

					11
				·	-
o	1	1		Ň	Y
0.01	0.1		10		400 MH

# 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	ŀ
16	20	Standard version	Snap-in	Front Side	Quick connect terminals 6.3 x 0.8 mm	X1 100nF	٠	C20F.0113	
16	20	Standard version	Snap-in	Front Side	Solder terminals	X2 100nF	٠	C20F.0011	
16	20	Standard version	Snap-in	Front Side	Solder terminals	X1 100nF	٠	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	٠	C20F.0001	
16	20	Standard version	Screw	Front Side	Solder terminals	X1 100nF	٠	C20F.0003	
16	20	Standard version	Screw	Rear Side	Flexible wire AWG14	X2 100nF	٠	C20F.0221	
16	20	Standard version	Screw	Rear Side	Flexible wire AWG14	X1 100nF	٠	C20F.0023	
16	20	Standard version	Screw	Rear Side	Flexible wire AWG14	X1 100nF	٠	C20F.0223	
16	20	Standard version	Screw	Rear Side	Quick connect terminals 6.3 x 0.8 mm	X2 100nF	٠	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	٠	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	ŀ
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	٠	C20F.0012	
16	20	Medical Version (M5)	Snap-in	Front Side	Solder terminals	X1 100nF	٠	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	٠	C20F.0002	
16	20	Medical Version (M5)	Screw	Front Side	Solder terminals	X1 100nF	٠	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	٠	C20F.0222	
16	20	Medical Version (M5)	Screw	Rear Side	Flexible wire AWG14	X1 100nF	٠	C20F.0024	
16	20	Medical Version (M5)	Screw	Rear Side	Flexible wire AWG14	X1 100nF	٠	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	٠	3-124-294	

Rated Current IEC	Rated Current UL	Filter-Type	Panel mounting	Mounting side	Terminal	Capacitor	V-Lock	Order Number
Most Popula								
Availability for a	ll products can	be searched real-time:ht	tps://www.schurter.co	om/en/Stock-Cheo	k/Stock-Check-SCHURTER			
Wire length: 15	0 mm							
<b>T</b> ( )								

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

ackaging unit	20 Pcs	
ccessories		
	Description	
OR Seminar	Wire Harness Wire harness for SCHURTER products	
	Assorted Covers Rear Cover	
		0859.0047
	RC320 Rear Cover for Power Entry Module	
the day in	Cord retaining kits Cord retaining strain relief	
	Countersunk, K	4700.0010
	Flat head, L	4700.0011

# Mating Outlets/Connectors

Category / Description

-	and the second	
R	1	
1	1	

#### 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

# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for AC Power Entry Modules category:

Click to view products by Schurter manufacturer:

Other Similar products are found below :

0098.0050 6167.0002 6609100-2 7-6609955-2 FKI2-50-6/M5 FN361-6-06 FN389-4-22 FN9226B-6-02 FN9233S1-10-06 FN9233S1-8-06 FN9233S1B-8-06 FN9233S1R-1-06 FN9233S1R-12-06 FN9233SB-1-06 FN9233SB-12-06 FN9233SB-8-06 FN9233SR-10-06 FN9244B-15-06HI FN9244EB-3-06 FN9244EB-8-06 FN9244ER-15-06 FN9244ER-8-06 FN9244ES1-8-06 FN9244ESB-8-06 FN9244R-12-06 FN9244S1-12-06 FN9244S1R-3-06 FN9244SB-8-06 FN9244SR-6-06 FN9244U-3-06 FN9244U-8-06 8-6609940-2 PE00SSSXB Fuse-H-EUR-1 Fuse-H-USA-1 PM00XD000 A-0701-HT-H 15EJMS8 1-6609941-2 200JM6-2 CA121003-6 SK-1015(F1-5) 161-R3015-E 1-6609153-2 FN323-1-05 FN9233B-8-06 FN9233EB-1-06 FN9233ES1R-10-06 FN9233R-12-06 FN9233S-10-06