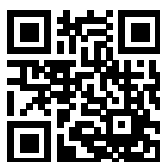


## High Performance dual-stage IEC C14 inlet filter with earth line choke

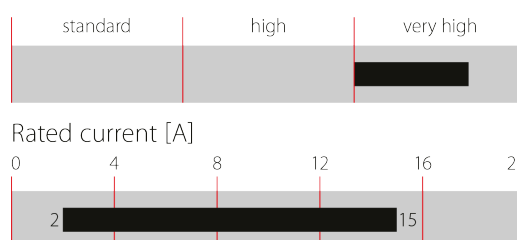


- Rated currents up to 15 A
- Excellent performance/size ratio
- Earth line choke Version
- IEC C14 inlet acc. IEC 60320-1
- Medical versions (B type) acc. to IEC/EN 60601-1
- Snap-in and rear mount versions (S and M type)



## Performance indicators

### Attenuation performance



## Technical Specifications

<b>Maximum continuous operating voltage</b>	250 VAC, 50/60 Hz
<b>Nominal operating voltage</b>	230 VAC
<b>Rated currents</b>	2 to 15 A @ 40°C
<b>Operating frequency</b>	DC to 400 Hz
<b>High potential test voltage</b>	P → PE 2500 VAC for 2 sec P → N 760 VAC for 2 sec
<b>Surge pulse protection (Z type)</b>	Helps compliance to IEC61000-4-5 (Differential Mode only)
<b>Temperature range (operation and storage)</b>	-25°C to +85°C (25/85/21)
<b>Protection category</b>	IP 40 according to IEC 60529
<b>Flammability corresponding to</b>	UL 94 V-0
<b>Approvals by rated current</b>	ENEC and CQC: 2 to 10 A UL: 2 to 15A
<b>Design corresponding to</b>	UL 60939-3, CSA Std C22.2 No. 8, IEC/EN 60939-3, GB/T 15287, GB/T 15288
<b>MTBF (Mil-HB-217F)</b>	>1,000,000 h @ 40°C/230 V

## Approvals & Compliances



The FN9255 E IEC inlet filter incorporates a dual stage filter with Earth line choke into an IEC inlet that offers excellent filter attenuation in a compact housing. Using an IEC inlet, at the point of entry offers an optimized position and practical solution for integrating an EMC filter into any system. A wide selection of current ratings, output connections and mounting possibilities are available. The E Version of this family complies to medical application and safety requirements, with enhanced performance without added leakage current.

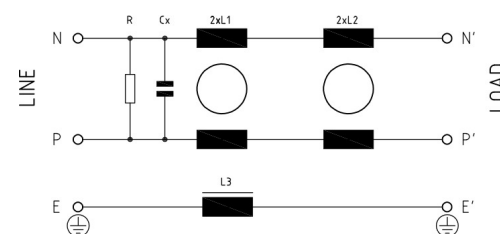
## Features and Benefits

- Exceptional attenuation performance from 150kHz to 300MHz due to dual-stage design
- High saturation resistance and excellent thermal behavior
- FN 9255 B versions comply with the requirements of 1MOP acc. to IEC/EN 60601-1 for creepage and clearance, leakage current and high potential testing
- Suitable for IEC/EN 55014 tests up to 300MHz
- Rear and Front flange or snap-in mounting options
- Earth line choke Version, for standard version see FN 9255
- All versions according IEC/EN 62368-1



## Typical Applications

- Medical devices (MDD)
- Household and similar products as per IEC/EN 55014
- Test and measurement equipment
- In-vitro diagnostic medical devices (IVDD)
- Portable electrical and electronic equipment
- Small to medium-sized machines and household equipment
- Single-phase power supplies, switch-mode power supplies (SMPS)

### Typical electrical schematic



Filter Selection Table

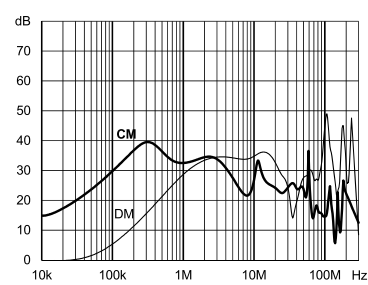
Filter	Rated current @ 40°C	Leakage current* @ 250 VAC/50 Hz (@ 120 VAC/60 Hz)	Inductance			Capacitance Cx	Resistance R	Output connections		
			L1	L2	L3			**		
	[A]	[mA]	[mH]	[μH]	[mH]	[μF]	[kΩ]			[g]
FN 9255 ExB-2-06	2	-	4.8	18	0.4	0.1	1000	-06	-07	66
FN 9255 ExB-4-06	4	-	2.1	18	0.4	0.1	1000	-06	-07	66
FN 9255 ExB-6-06	6	-	0.9	18	0.4	0.1	1000	-06	-07	66
FN 9255 ExB-10-06	10	-	0.2	18	0.4	0.1	1000	-06	-07	68
FN 9255 ExB-15-06	15	-	0.13	8	0.1	0.1	1000	-06	-07	68

Test conditions: 25°C±2°C; Measuring frequency for Inductance: 1 kHz; 50 mV;  
Tolerances: Inductance: +50%, -30%; Capacitance: ±25%; Resistor: ±15%; For mechanical tolerances refer to mechanical data section.  
\* Maximum leakage under normal operating conditions (acc. to IEC60939-3). Note: if the neutral line is interrupted, worst case leakage could reach twice this level.  
\*\* Standard length is 100 mm

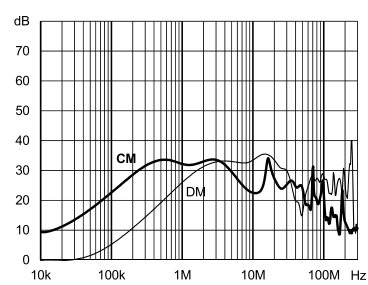
Typical Filter Attenuation

Per CISPR 17; symmetrical 50 Ω/50 Ω - Differential Mode (DM); asymmetrical 50 Ω/50 Ω - Common Mode (CM)

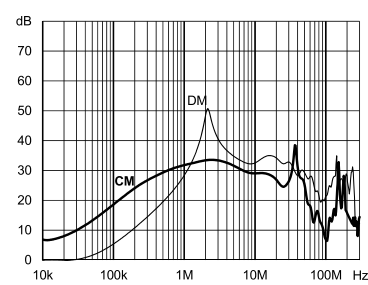
2 A type



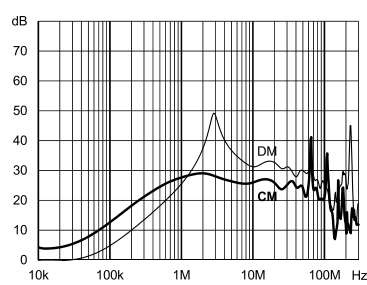
4 A type



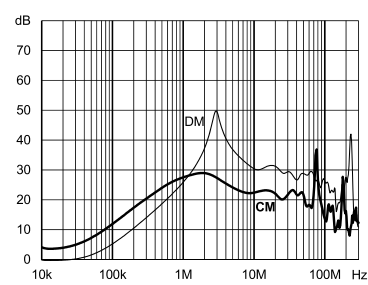
6 A type



10 A type



15 A type



Product selector

FN 9255 E x B -yy-...-(zz)

Snap-in range for S version only

Blank: Snap-in range 0.7 to 1.5 mm

20: Snap-in range 1.5 to 2.2 mm

06: Faston 6.3 x 0.8 mm (spade/soldering)

07: Wire leads

2 to 15: Rated current

Blank: Standard housing with mounting flanges (front mount)

M: Standard housing with mounting flanges (rear mount)

S: Snap-in version, snapper on vertical side

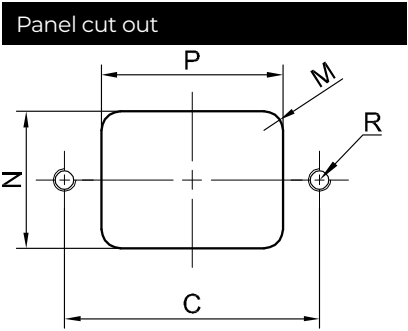
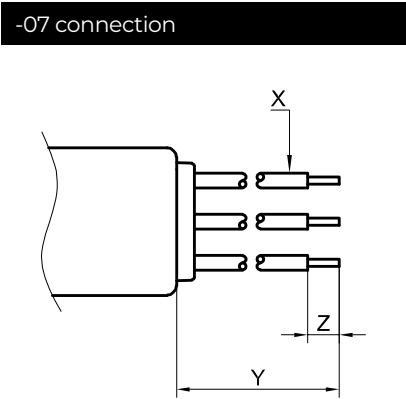
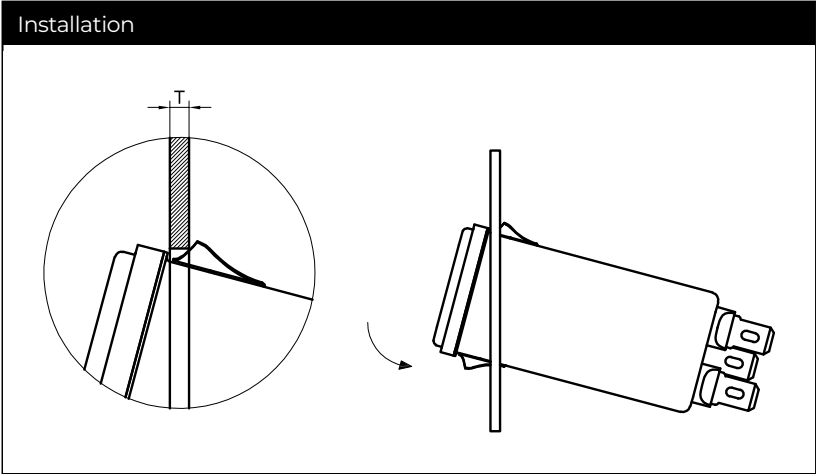
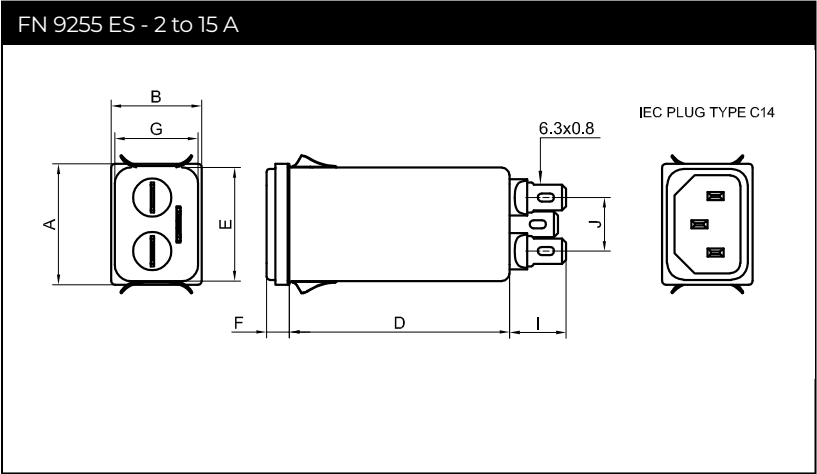
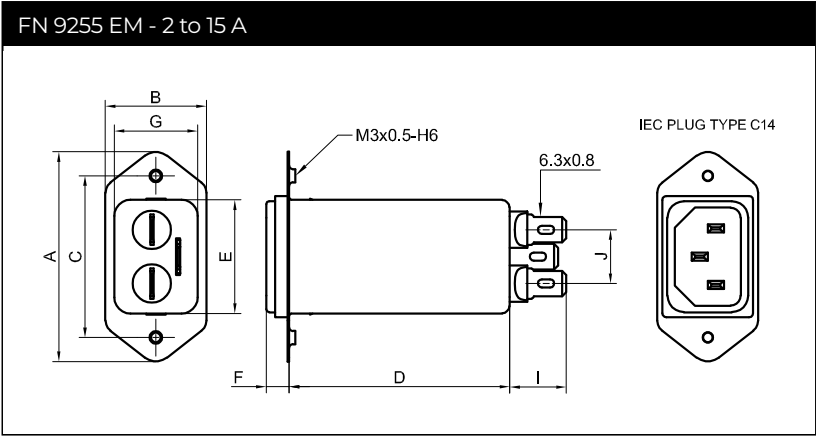
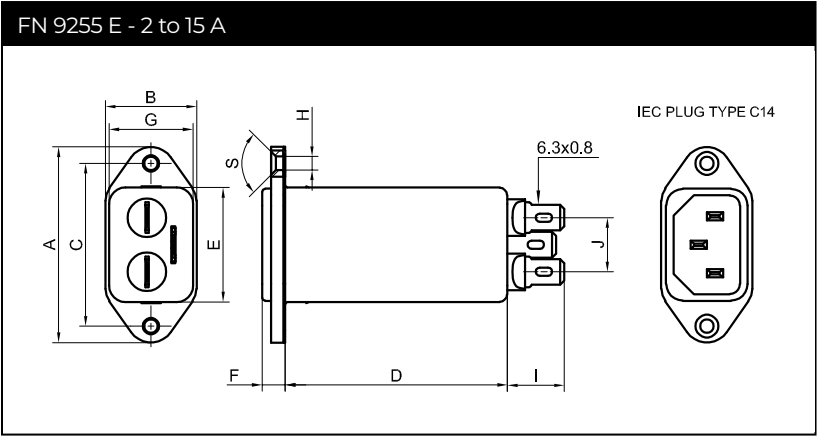
For example:

FN 9255 EB-15-06, 15A Version with fast-on terminals

FN 9255 ESB-10-06, 10A Version with fast-on terminals, snap-in version

FN 9255 EMB-2-07, 2A Version with wire leads, rear mount version

Mechanical Data



Dimensions

	FN 9255 EB	FN9255 EMB	FN9255 ESB
A	48	51.85	29.9
B	22.4	25	22.4
C	40 ±0.2	40 ±0.2	
D	76.2	76.2	76.2
E	28.1 ±0.3	28.1 ±0.3	28.1 ±0.3
F	5.8 ±0.2	5.8 ±0.2	5.8 ±0.2
G	20.6 ±0.3	20.6 ±0.3	20.6 ±0.3
H	Ø3.3	M3	
I	14	14	14
J	13.3	13.3	13.3
M	R ≤ 3	R ≤ 1	R ≤ 1.5
N	21.5 +0.5/-0	22.9 +0.2/-0	21.5 +0.5/-0
P	28.5 +0.5/-0	30.4 +0.2/-0	29.4
R*	M3	Ø3.4	
S / T	S: 90°		T: 0.7 to 1.5
X / Y	AWG 18 / 100 mm (>6A: AWG 16)	AWG 18 / 100 mm (>6A: AWG 16)	AWG 18 / 100 mm (>6A: AWG 16)
Z	6	6	

\*\*Recommended torque for M3 (90° countersunk flat head) is 0.5 Nm

All dimensions in mm; 1 inch = 25.4 mm  
For values without dedicated tolerances ISO 2768-m/EN 22768-m applies.

Please visit [www.schaffner.com](http://www.schaffner.com) to find more details on connectors.

Accessories

IL 13P IEC C13 Rewireable Connectors with Locking System



The locking system has a tensile force of typical 300N. It is recommended to use it with flange mount filters. For details refer to our Application Note "Using IEC Lock Power Cords with IEC Inlets and Filters".

Schaffner power connector with IEC lock guard against accidental disconnection of all electrical appliances with an IEC inlet. No exchange or modification of the IEC inlet or IEC inlet filter system is needed. Easy retrofit .for all electronic equipments and devices

IL 13P IEC C13 Rewireable Angled Connectors with Locking System



- Protects appliances that are vulnerable to vibration
- Connector cannot be accidentally pulled or vibrated out of the inlet
- Space availability/constraints
- Different angles for ease of access
- Space saving
- Release locking mechanism
- Prevents accidental disconnection

Power Cord with angled Locking System C13



- Protects appliances that are vulnerable to vibration
- Connector cannot be accidentally pulled or vibrated out of the inlet
- Space availability/constraints
- Different angles for ease of access
- Space saving
- Release locking mechanism
- Prevents accidental disconnection

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