

IEC Inlet Filters
FN 370

Versatile Filtered Power Entry Module

schaffner
energy efficiency and reliability



- **Rated currents up to 6A**
- **Single or dual-fuse holder**
- **Fuses Ø6.3 x 32mm or Ø5 x 20mm**
- **Voltage selector 100/120/230/240V**
- **General purpose application**
- **Optional medical versions (B type)**

Approvals

RoHS

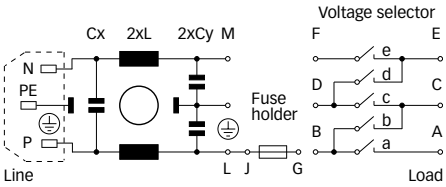
Technical specifications

Maximum continuous operating voltage:	250VAC, 50/60Hz
Operating frequency:	dc to 400Hz
Rated currents:	2 to 6A @ 40°C max.
High potential test voltage:	P –> PE 2000VAC for 2 sec (standard types)
	P –> PE 2500VAC for 2 sec (B types)
	P –> N 760VAC for 2 sec
Protection category:	IP40 according to IEC 60529
Temperature range (operation and storage):	-25°C to +85°C (25/85/21)
Design corresponding to:	UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939
Flammability corresponding to:	UL 94V-2 or better
MTBF @ 40°C/230V (Mil-HB-217F):	550,000 hours
Voltage selector description:	VOL-SE 4SP-4
Function:	Series/parallel
Voltage marking*:	
1st:	100
2nd:	120
3rd:	230
4th:	240
Closed internal contact corresponding to:	
1st:	a, c, e
2nd:	b, c, e
3rd:	a, d
4th:	b, d

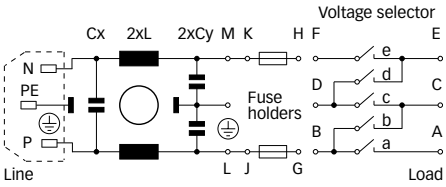
* Other selected voltage marking on request.

Typical electrical schematic

FN 370 / FN 376



FN 372 / FN 378 / FN 379



The FN 370 power entry module combines an IEC inlet, a mains filter with a single or dual-fuse holder and a voltage selector. Choosing FN 370 product line brings you the rapid availability of a standard filter associated with the necessary safety acceptances. Standard IEC connector filters are a practical solution helping you to pass EMI system approval in a short time. A wide selection on amperage ratings, fuse options, mounting possibilities and filters for medical applications are designed to offer you the desired solution.

Features and benefits

- Good conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior.
- Rear/front or snap-in mounting.
- Single or dual-fuse holder.
- USA Ø6.3 x 32mm or EU Ø5 x 20mm fuses.
- Two attenuation performance ranges.
- Voltage selector 100/120/230/240V.
- Custom-specific versions are available on request.

Typical applications

- Portable electrical and electronic equipment
- Consumer goods
- EDP and office equipment
- Single-phase power supplies, switch-mode power supplies
- Test and measurement equipment
- Medical equipment

Filter selection table

Filter*	Rated current @ 40°C (25°C) [A]	Leakage current** @ 230VAC/50Hz [µA]	Inductance L [mH]	Capacitance Cx [nF]	Capacitance Cy [nF]	Resistance R [kΩ]	Output connections	Fuses*** [Qty]	Weight [g]
FN 370-2-2.1	2 (2.4)	373	0.70	47	2.2		13	1	55
FN 370-4-2.1	4 (4.8)	373	0.30	47	2.2		13	1	55
FN 370-6-2.1	6 (7.2)	373	0.18	47	2.2		13	1	55
FN 372-2-2.2	2 (2.4)	373	0.70	47	2.2		13	2	55
FN 372-4-2.2	4 (4.8)	373	0.30	47	2.2		13	2	55
FN 372-6-2.2	6 (7.2)	373	0.18	47	2.2		13	2	55
FN 376-2-2.1	2 (2.4)	373	0.70	47	2.2		13	1	55
FN 376-4-2.1	4 (4.8)	373	0.30	47	2.2		13	1	55
FN 376-6-2.1	6 (7.2)	373	0.18	47	2.2		13	1	55
FN 378-2-2.2	2 (2.4)	373	0.70	47	2.2		13	2	60
FN 378-4-2.2	4 (4.8)	373	0.30	47	2.2		13	2	60
FN 378-6-2.2	6 (7.2)	373	0.18	47	2.2		13	2	60
FN 379-2-2.2	2 (2.4)	373	2.00	47	2.2		13	2	70
FN 379-4-2.2	4 (4.8)	373	0.80	47	2.2		13	2	70
FN 379-6-2.2	6 (7.2)	373	0.50	47	2.2		13	2	70
FN 379B-2-2.2	2 (2.4)	2	2.00	47		1000	13	2	70
FN 379B-4-2.2	4 (4.8)	2	0.80	47		1000	13	2	70
FN 379B-6-2.2	6 (7.2)	2	0.50	47		1000	13	2	70

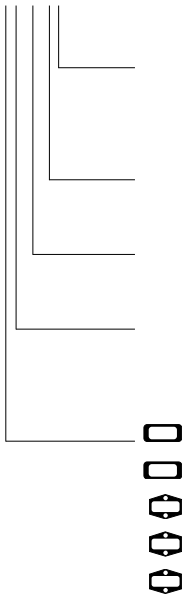
* Select the requested fuse holder for fuse EUR-1 or USA-1.

** Maximum leakage under normal operating conditions. Note: if the neutral line is interrupted, worst case leakage could reach twice this level.

*** Filters are delivered without fuse.

Product selector

FN 37xx-y-zz



1: Fuse Ø5 x 20mm (FUSE-H EUR-1)

2: Fuse Ø6.3 x 32mm (FUSE-H USA-1)

2: Voltage selector, series / parallel 100/120/230/240V

2 to 6: Rated current

Blank: Standard version

B: Medical version (with bleed resistor and without Y2-capacitor)

0: Snap-in version, single-fuse, standard performance

2: Snap-in version, dual-fuse, standard performance

6: Flange mounting version, single-fuse, standard performance

8: Flange mounting version, dual-fuse, standard performance

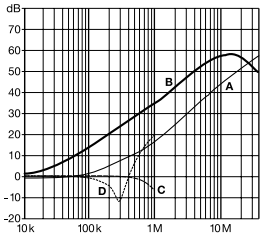
9: Flange mounting version, dual-fuse, high performance

For example: FN 370-6-21, FN 378-4-22, FN 379B-2-22

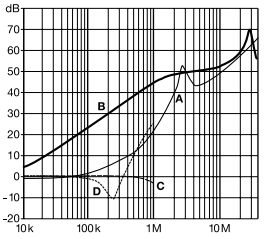
Typical filter attenuation

Per CISPR 17; A = 50Ω/50Ω sym; B = 50Ω/50Ω asym; C = 0.1Ω/100Ω sym; D = 100Ω/0.1Ω sym

FN 370 / FN 372 / FN 376 / FN 378

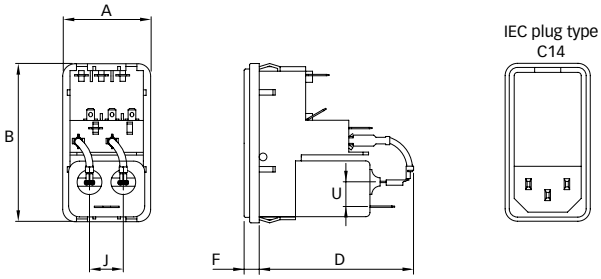


FN 379

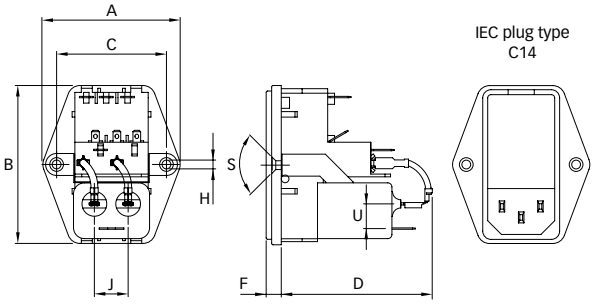


Mechanical data

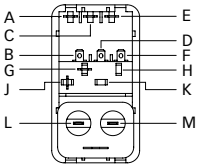
FN 370 / FN 372



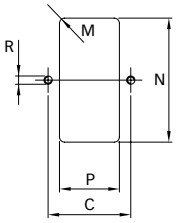
FN 376 / FN 378 / FN 379



Connection designation



Panel cut out



Dimensions

	FN 370	FN 372	FN 376	FN 378	FN 379	Tolerances
A	32	32	50	50	50	±0.3
B	58	58	58	58	58	±0.3
C			40	40	40	±0.1
D	54	54	54	54	64.5	
F	5.5	5.5	5.5	5.5	5.5	
H			Ø3.3	Ø3.3	Ø3.3	
J	12.5	12.5	12.5	12.5	12.5	
M	R ≤ 2	R ≤ 2	R ≤ 2	R ≤ 2	R ≤ 2	±0.1
N	55.9*/56.2**	55.9*/56.2**	55.9*/56.2**	55.9*/56.2**	55.9*/56.2**	+0.2/-0
P	28.5	28.5	28.5	28.5	28.5	+0.2/-0
R			M3	M3	M3	
S			90°	90°	90°	
U	9	9	9	9	9	

* For a back panel thickness between 0.8 and 2.0mm

** For a back panel thickness between 2.1 and 3.2mm

All dimensions in mm; 1 inch = 25.4mm

Tolerances according: ISO 2768-m / EN 22768-m

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09/2012 EN

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