

# Versatile Filtered Power Entry Module IEC Inlet Filters FN 370

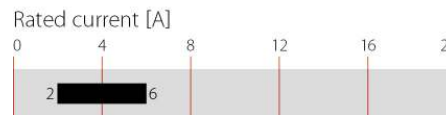


- Rated currents up to 6 A
- Single or dual-fuse holder
- Fuses Ø 6.3 x 32 mm or Ø 5 x 20 mm
- Voltage selector 100/120/230/240 V
- General purpose application
- Optional medical versions (B type)



## Performance indicators

Attenuation performance



## Technical specifications

|                                           |                                                                                                              |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Maximum continuous operating voltage      | 250 V, 50/60 Hz                                                                                              |
| Operating frequency                       | dc to 400 Hz                                                                                                 |
| Rated currents                            | 2 to 6 A @ 40 °C max.                                                                                        |
| High potential test voltage               | P → PE 2000 VAC for 2 sec (standard types)<br>P → PE 2500 VAC for 2 sec (B types)<br>P → N 760 VAC 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 94 V-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                                                                                                      |
| 2st                                       | b, c, e                                                                                                      |
| 3st                                       | a, d                                                                                                         |
| 4st                                       | b, d                                                                                                         |

\* Other selected voltage marking on request.

## Approvals



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 Ø 6.3 x 32mm or EU Ø 5 x 20mm fuses
- Two attenuation performance ranges
- Voltage selector 100/120/230/240 V
- 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<br>@ 40 °C (25 °C) | Leakage current**<br>@ 230 VAC/50 Hz | Inductance<br>L | Capacitance |            | Resistance | Output<br>connections | Fuses*** | Weight |
|----------------------|----------------------------------|--------------------------------------|-----------------|-------------|------------|------------|-----------------------|----------|--------|
|                      | [A]                              | [μA]                                 | [mH]            | Cx<br>[nF]  | Cy<br>[nF] | R<br>[kΩ]  |                       | [Qty]    | [g]    |
| <b>FN 370-2-2.1</b>  | 2 (2.4)                          | 373                                  | 0.70            | 47          | 2.2        |            | 13                    | 1        | 55     |
| <b>FN 370-4-2.1</b>  | 4 (4.8)                          | 373                                  | 0.30            | 47          | 2.2        |            | 13                    | 1        | 55     |
| <b>FN 370-6-2.1</b>  | 6 (7.2)                          | 373                                  | 0.18            | 47          | 2.2        |            | 13                    | 1        | 55     |
| <b>FN 372-2-2.2</b>  | 2 (2.4)                          | 373                                  | 0.70            | 47          | 2.2        |            | 13                    | 2        | 55     |
| <b>FN 372-4-2.2</b>  | 4 (4.8)                          | 373                                  | 0.30            | 47          | 2.2        |            | 13                    | 2        | 55     |
| <b>FN 372-6-2.2</b>  | 6 (7.2)                          | 373                                  | 0.18            | 47          | 2.2        |            | 13                    | 2        | 55     |
| <b>FN 376-2-2.1</b>  | 2 (2.4)                          | 373                                  | 0.70            | 47          | 2.2        |            | 13                    | 1        | 55     |
| <b>FN 376-4-2.1</b>  | 4 (4.8)                          | 373                                  | 0.30            | 47          | 2.2        |            | 13                    | 1        | 55     |
| <b>FN 376-6-2.1</b>  | 6 (7.2)                          | 373                                  | 0.18            | 47          | 2.2        |            | 13                    | 1        | 55     |
| <b>FN 378-2-2.2</b>  | 2 (2.4)                          | 373                                  | 0.70            | 47          | 2.2        |            | 13                    | 2        | 60     |
| <b>FN 378-4-2.2</b>  | 4 (4.8)                          | 373                                  | 0.30            | 47          | 2.2        |            | 13                    | 2        | 60     |
| <b>FN 378-6-2.2</b>  | 6 (7.2)                          | 373                                  | 0.18            | 47          | 2.2        |            | 13                    | 2        | 60     |
| <b>FN 379-2-2.2</b>  | 2 (2.4)                          | 373                                  | 2.00            | 47          | 2.2        |            | 13                    | 2        | 70     |
| <b>FN 379-4-2.2</b>  | 4 (4.8)                          | 373                                  | 0.80            | 47          | 2.2        |            | 13                    | 2        | 70     |
| <b>FN 379-6-2.2</b>  | 6 (7.2)                          | 373                                  | 0.50            | 47          | 2.2        |            | 13                    | 2        | 70     |
| <b>FN 379B-2-2.2</b> | 2 (2.4)                          | 2                                    | 2.00            | 47          |            | 1000       | 13                    | 2        | 70     |
| <b>FN 379B-4-2.2</b> | 4 (4.8)                          | 2                                    | 0.80            | 47          |            | 1000       | 13                    | 2        | 70     |
| <b>FN 379B-6-2.2</b> | 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.

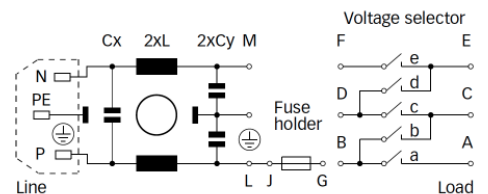
## Product selector

FN 37xx-y-zz

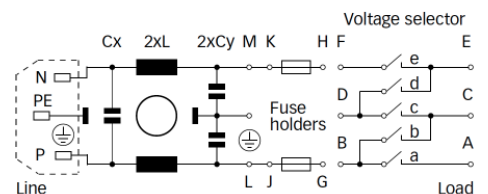
- 1: Fuse Ø5 x 20mm (FUSE-H EUR-1)  
 2: Fuse Ø6.3 x 32mm (FUSE-H USA-1)  
 2: Voltage selector, series / parallel 100/120/230/240V  
 2 to 6: Rated current  
 Blank: Standard version  
 B: Medical version (with bleed resistor and without Y2-capacitor)  
 0: Snap-in version, single-fuse, standard performance  
 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

## Typical electrical schematic

FN 370 / FN 376



FN 372 / FN 378 / FN 379



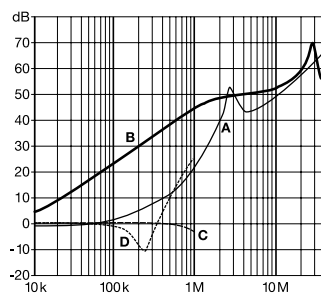
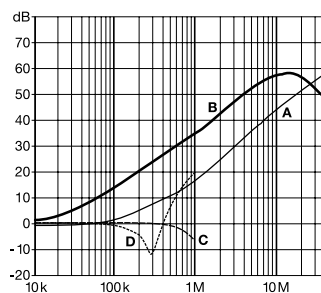
For example: FN 370-6-21, FN 378-4-22, FN 379B-2-22

## Typical filter attenuation

Per CISPR 17; A = 50  $\Omega$ /50  $\Omega$  sym; B = 50  $\Omega$ /50  $\Omega$  asym; C = 0.1  $\Omega$ /100  $\Omega$  sym; D = 100  $\Omega$ /0.1  $\Omega$  sym

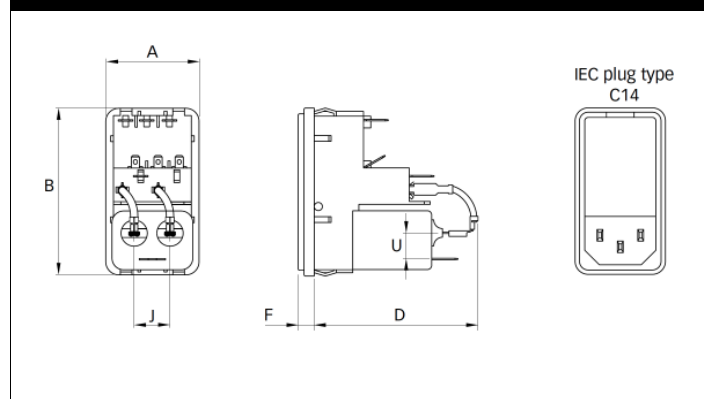
FN 370 / FN 372 / FN 376 / FN 378

FN 379

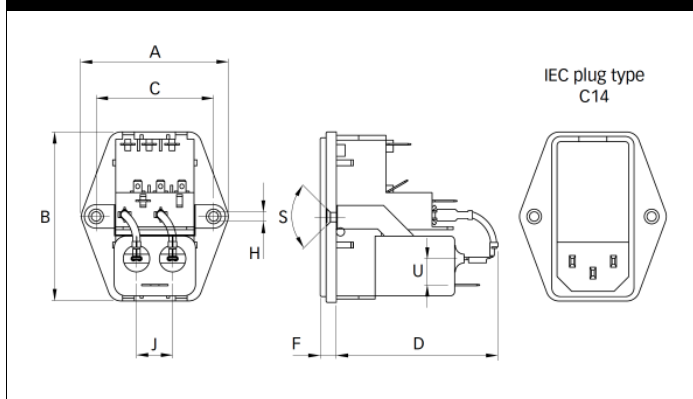


## Mechanical data

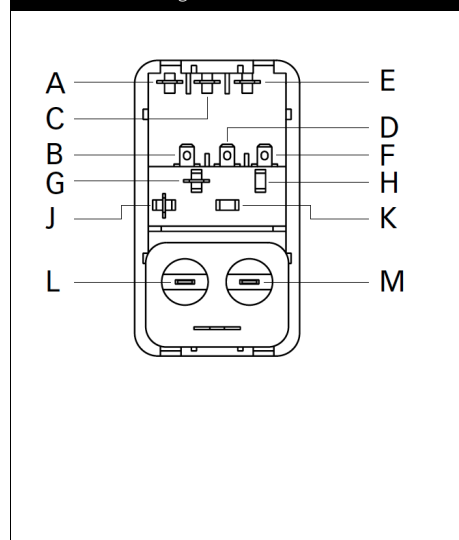
FN 370 / FN 372



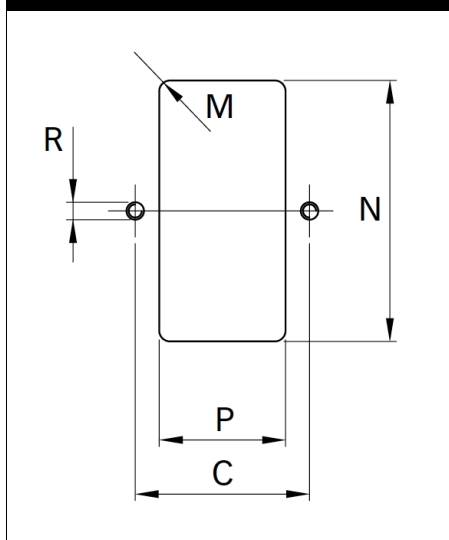
FN 376 / FN 378 / FN 379



Connection designation



Panel cut out



## Dimensions

|          | FN 370       | FN 372       | FN 376       | FN 378       | FN 379       | Tolerances |
|----------|--------------|--------------|--------------|--------------|--------------|------------|
| <b>A</b> | 32           | 32           | 50           | 50           | 50           | ±0.3       |
| <b>B</b> | 58           | 58           | 58           | 58           | 58           | ±0.3       |
| <b>C</b> |              |              | 40           | 40           | 40           | ±0.1       |
| <b>D</b> | 54           | 54           | 54           | 54           | 64.5         |            |
| <b>F</b> | 5.5          | 5.5          | 5.5          | 5.5          | 5.5          |            |
| <b>H</b> |              |              | Ø 3.3        | Ø 3.3        | Ø 3.3        |            |
| <b>J</b> | 12.5         | 12.5         | 12.5         | 12.5         | 12.5         |            |
| <b>M</b> | R ≤ 2        | R ≤ 2        | R ≤ 2        | R ≤ 2        | R ≤ 2        | ±0.1       |
| <b>N</b> | 55.9*/56.2** | 55.9*/56.2** | 55.9*/56.2** | 55.9*/56.2** | 55.9*/56.2** | +0.2/-0    |
| <b>P</b> | 28.5         | 28.5         | 28.5         | 28.5         | 28.5         | +0.2/-0    |
| <b>R</b> |              |              | M3           | M3           | M3           |            |
| <b>S</b> |              |              | 90°          | 90°          | 90°          |            |
| <b>U</b> | 9            | 9            | 9            | 9            | 9            |            |

\* For a panel thickness between 0.8 and 3 mm.

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

All dimensions in mm; 1 inch = 25.4 mm

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

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



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