

## Excellent Performance EMC/EMI Filter



- Superior attenuation performance
- Optional earth line choke
- Complies with IEC/EN 60601-1
- Snap-in versions (S and S1 type)
- Hot inlet versions (HI type)



### Performance indicators

Attenuation performance



Rated current [A]



### Approvals & Compliances



(CQC except HI-types)

The FN 9244 IEC inlet filter combines an IEC inlet and mains filter with superior filter attenuation in a small form factor. Choosing the FN 9244 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, output connections, mounting possibilities and filters for medical applications are designed to offer you the desired solution.

### Technical specifications

|                                                  |                                                                                                               |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| <b>Maximum continuous operating voltage</b>      | 250 VAC, 50/60 Hz                                                                                             |
| <b>Operating frequency</b>                       | DC to 400 Hz                                                                                                  |
| <b>Rated currents</b>                            | 1 to 15 A @ 50°C max.                                                                                         |
| <b>Approvals by rated current</b>                | 1 to 10 A (ENEC, CQC)<br>1 to 15 A (UL, CSA)                                                                  |
| <b>High potential test voltage</b>               | P → PE 2000 VAC for 2 sec (standard types)<br>P → PE 2500 VAC for 2 sec (B types)<br>P → N 1000 VAC for 2 sec |
| <b>Protection category</b>                       | IP 40 according to IEC 60529                                                                                  |
| <b>Temperature range (operation and storage)</b> | -25°C to +85°C (25/85/21)                                                                                     |
| <b>Design corresponding to</b>                   | UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939                                                                    |
| <b>Flammability corresponding to</b>             | UL 94 V-2 or better                                                                                           |
| <b>MTBF @ 40°C/230 V (Mil-HB-217F)</b>           | ≤8 A: 2,035,000 hours<br>≤15 A: 1,035,000 hours                                                               |

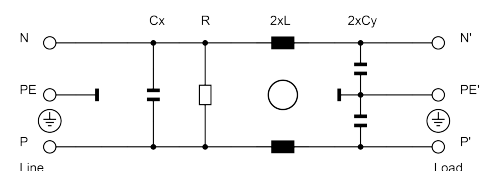
### Features and benefits

- Exceptional conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior
- Rear/front or snap-in mounting
- Standard or wide mounting flange
- FN 9244 B versions comply with the requirements of 1MOP acc. to IEC/EN 60601-1 for creepage and clearance, leakage current and high potential testing
- Optional earth line choke see FN 9244 E data sheet
- Custom-specific versions are available on request

### Typical applications

- Portable electrical and electronic equipment
- Small to medium-sized machines and household equipment
- Single-phase power supplies, switch-mode power supplies
- Test and measurement equipment
- Medical devices (MDD)
- In-vitro diagnostic medical devices (IVDD)
- Rack mounting equipment

### Typical electrical schematic



## Filter selection table

<td/> <td/>

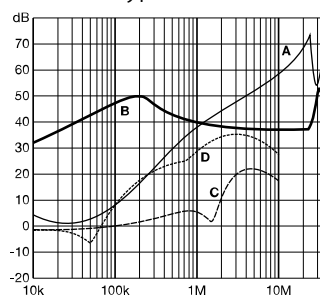
| Filter           | Rated current<br>@ 50°C (25°C) | Leakage current*<br>@ 250 VAC/50 Hz<br>(@ 120 VAC/60 Hz) | Inductance<br>L | Capacitance |      | Resistance<br>R | Output<br>connections                                                               | Weight |
|------------------|--------------------------------|----------------------------------------------------------|-----------------|-------------|------|-----------------|-------------------------------------------------------------------------------------|--------|
|                  |                                |                                                          |                 | Cx          | Cy   |                 |                                                                                     |        |
|                  | [A]                            | [mA]                                                     | [mH]            | [μF]        | [nF] | [kΩ]            |  | [g]    |
| FN9244x-1-06     | 1 (1.2)                        | 0.31 (0.18)                                              | 59.53           | 0.1         | 2.2  |                 | -06                                                                                 | 38     |
| FN9244x-3-06     | 3 (3.5)                        | 0.31 (0.18)                                              | 13.45           | 0.1         | 2.2  | -06             | 38                                                                                  |        |
| FN9244x-6-06     | 6 (7.2)                        | 0.31 (0.18)                                              | 4.1             | 0.1         | 2.2  | -06             | 38                                                                                  |        |
| FN9244x-8-06     | 8 (10.6)                       | 0.31 (0.18)                                              | 2.3             | 0.1         | 2.2  |                 | -06                                                                                 | 38     |
| FN9244x-10-06    | 10 (11.6)                      | 0.31 (0.18)                                              | 1.02            | 0.1         | 2.2  |                 | -06                                                                                 | 38     |
| FN9244x-12-06    | 12 (12)                        | 0.31 (0.18)                                              | 0.58            | 0.1         | 2.2  |                 | -06                                                                                 | 38     |
| FN9244x-15-06    | 15 (15)                        | 0.31 (0.18)                                              | 0.4             | 0.1         | 2.2  |                 | -06                                                                                 | 38     |
| FN9244x-12-06HI  | 12 (12)                        | 0.31 (0.18)                                              | 0.58            | 0.1         | 2.2  |                 | -06                                                                                 | 38     |
| FN9244x-15-06HI  | 15 (15)                        | 0.31 (0.18)                                              | 0.4             | 0.1         | 2.2  |                 | -06                                                                                 | 38     |
| FN9244xR-1-06    | 1 (1.2)                        | 0.31 (0.18)                                              | 59.53           | 0.1         | 2.2  | 1000            | -06                                                                                 | 38     |
| FN9244xR-3-06    | 3 (3.5)                        | 0.31 (0.18)                                              | 13.45           | 0.1         | 2.2  | 1000            | -06                                                                                 | 38     |
| FN9244xR-6-06    | 6 (7.2)                        | 0.31 (0.18)                                              | 4.1             | 0.1         | 2.2  | 1000            | -06                                                                                 | 38     |
| FN9244xR-8-06    | 8 (10.6)                       | 0.31 (0.18)                                              | 2.3             | 0.1         | 2.2  | 1000            | -06                                                                                 | 38     |
| FN9244xR-10-06   | 10 (11.6)                      | 0.31 (0.18)                                              | 1.02            | 0.1         | 2.2  | 1000            | -06                                                                                 | 38     |
| FN9244xR-12-06   | 12 (12)                        | 0.31 (0.18)                                              | 0.58            | 0.1         | 2.2  | 1000            | -06                                                                                 | 38     |
| FN9244xR-15-06   | 15 (15)                        | 0.31 (0.18)                                              | 0.4             | 0.1         | 2.2  | 1000            | -06                                                                                 | 38     |
| FN9244xR-12-06HI | 12 (12)                        | 0.31 (0.18)                                              | 0.58            | 0.1         | 2.2  | 1000            | -06                                                                                 | 38     |
| FN9244xR-15-06HI | 15 (15)                        | 0.31 (0.18)                                              | 0.4             | 0.1         | 2.2  | 1000            | -06                                                                                 | 38     |
| FN9244xB-1-06    | 1 (1.2)                        | 0.00                                                     | 59.53           | 0.1         |      | 1000            | -06                                                                                 | 38     |
| FN9244xB-3-06    | 3 (3.5)                        | 0.00                                                     | 13.45           | 0.1         |      | 1000            | -06                                                                                 | 38     |
| FN9244xB-6-06    | 6 (7.2)                        | 0.00                                                     | 4.1             | 0.1         |      | 1000            | -06                                                                                 | 38     |
| FN9244xB-8-06    | 8 (10.6)                       | 0.00                                                     | 2.3             | 0.1         |      | 1000            | -06                                                                                 | 38     |
| FN9244xB-10-06   | 10 (11.6)                      | 0.00                                                     | 1.02            | 0.1         |      | 1000            | -06                                                                                 | 38     |
| FN9244xB-12-06   | 12 (12)                        | 0.00                                                     | 0.58            | 0.1         |      | 1000            | -06                                                                                 | 38     |
| FN9244xB-15-06   | 15 (15)                        | 0.00                                                     | 0.4             | 0.1         |      | 1000            | -06                                                                                 | 38     |
| FN9244xB-12-06HI | 12 (12)                        | 0.00                                                     | 0.58            | 0.1         |      | 1000            | -06                                                                                 | 38     |
| FN9244xB-15-06HI | 15 (15)                        | 0.00                                                     | 0.4             | 0.1         |      | 1000            | -06                                                                                 | 38     |

\* 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.

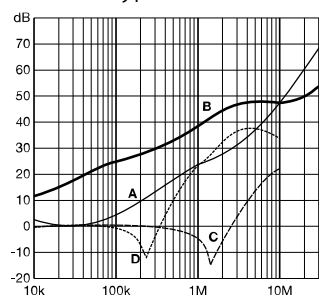
## Typical filter attenuation

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

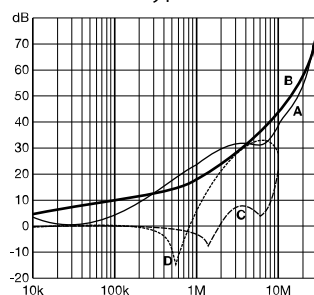
1 and 3 A types



6 to 10 A types

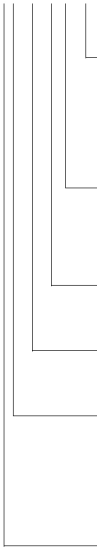


12 and 15 A types



Product selector

FN 9244xx-yy-...HI-ZZ



- Snap-in range for S version only
- Blank: Snap-in range 0.7 to 1.5mm
- 20: Snap-in range 1.5 to 2.2mm
- Blank: Standard IEC inlet type C14
- HI: Hot IEC inlet type C16 (12 and 15A types only)
- 06: Faston 6.3 x 0.8mm (spade/soldering)
- 1 to 15: Rated current
- Blank: Standard version
- R: Bleed resistor
- B: Medical version (with bleed resistor and without Y2-capacitor)
- Blank: Standard housing with mounting flanges
- U: Housing with wider mounting flanges
- S: Snap-in version, snapper on vertical side
- S1: Snap-in version, snapper on horizontal side

Distributor inventory



Check stock levels at global distributors via the QR code

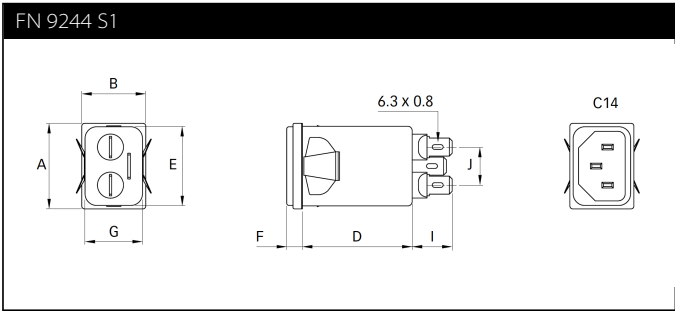
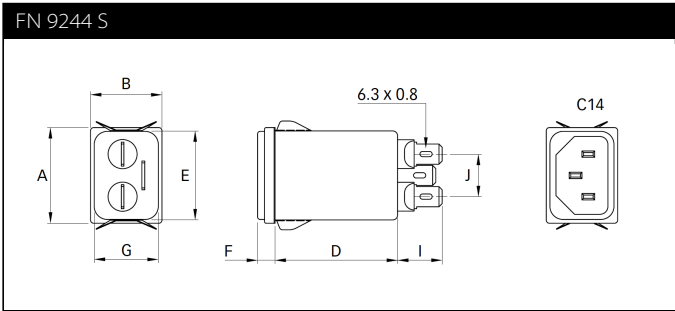
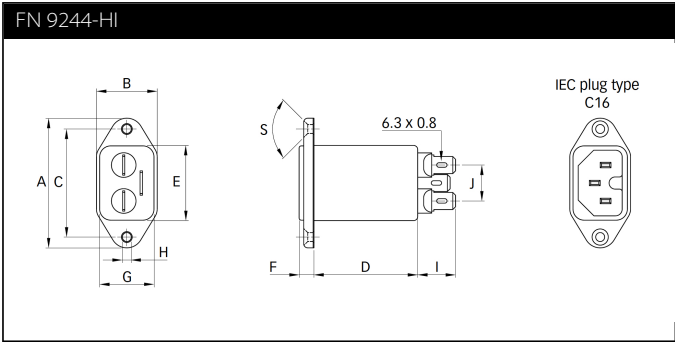
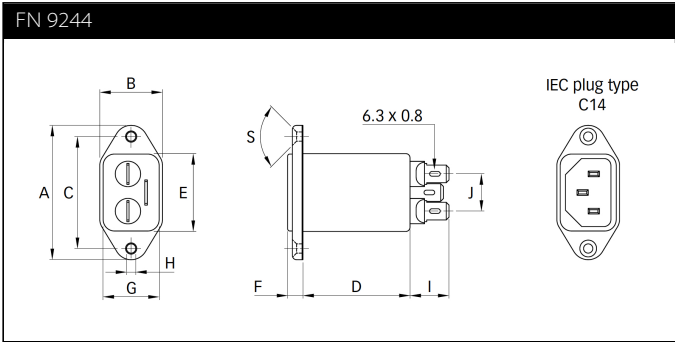
Search for the individual filter at <https://products.schaffner.com/stock> (qr-code)

Wider range of stock level availability:

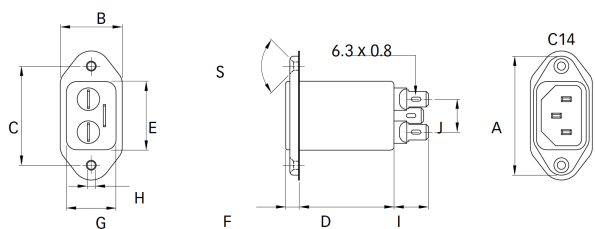
| Stock level per types 1 - 15 A          | Link |
|-----------------------------------------|------|
| Standard housing types                  |      |
| Housing with wider mounting flanges (U) |      |
| Snap-in housing types (S&S1)            |      |
| Medical versions (B)                    |      |
| Bleed resistor types (R)                |      |

For example: FN 9244 B-15-06, FN 9244 S1B-10-06-20, FN 9244 R-12-06HI, FN 9244 UB-8-06

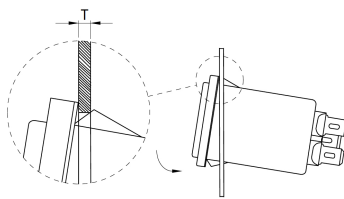
Mechanical data



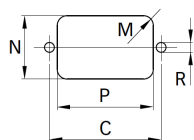
## FN 9244 U



## Installation



## Panel cut out



## Dimensions

|            | FN 9244 | FN 9244 U | FN 92244 S | FN 92244 S1 | FN 9244-HI | Tol.    |
|------------|---------|-----------|------------|-------------|------------|---------|
| <b>A</b>   | 48      | 48        | 29.9       | 29.9        | 48         |         |
| <b>B</b>   | 22.4    | 25        | 22.4       | 22.4        | 22.4       |         |
| <b>C</b>   | 40      | 40        |            |             | 40         | ±0.2    |
| <b>D</b>   | 38.25   | 38.25     | 38.25      | 38.25       | 38.25      |         |
| <b>E</b>   | 27.8    | 27.7      | 27.8       | 27.8        | 27.8       | +0.6/-0 |
| <b>F</b>   | 5.7     | 5.7       | 5.7        | 5.7         | 5.7        |         |
| <b>G</b>   | 20.1    | 20.1      | 20.1       | 20.1        | 20.1       | +0.6/-0 |
| <b>H</b>   | Ø3.3    | Ø3.3      |            |             | Ø3.3       |         |
| <b>I</b>   | 14      | 14        | 14         | 14          | 14         |         |
| <b>J</b>   | 13.3    | 13.3      | 13.3       | 13.3        | 13.3       |         |
| <b>M</b>   | R ≤3    | R ≤3      | R ≤1.5     | R ≤1.5      | R ≤3       |         |
| <b>N</b>   | 21.5    | 21.5      | 20.8       | 21.9        | 21.5       |         |
| <b>P</b>   | 28.5    | 28.5      | 29.4       | 28.5        | 28.5       |         |
| <b>R*</b>  | M3      | M3        |            |             | M3         |         |
| <b>S</b>   | 90°     | 90°       |            |             | 90°        |         |
| <b>T**</b> |         |           | 0.7-1.5    | 0.7-1.5     |            |         |
| <b>T**</b> |         |           | 1.5-2.2    | 1.5-2.2     |            |         |

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

\*\* For selecting the panel thickness, please refer to the filter selector table.

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 connectors.

## Accessories

### Power Cord with angled Locking System C13



- | Locking system for standardized IEC C14 inlet filter
- | No accidental disconnection
- | Rated current up to 15 A
- | Fits any Schaffner IEC C14 inlet filter
- | Retrofit for any IEC C14 inlet
- | Various power line plugs for international usage

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### IL 13P IEC C13 Rewireable Angled Connectors with Locking System



- | Locking system for standardized IEC C14 inlet filter
- | No accidental disconnection
- | Rated current up to 15 A
- | Fits any Schaffner IEC C14 inlet filter
- | Retrofit for any IEC C14 inlet
- | Various power line plugs for international usage

[Datasheet PDF >](#)

### IL 13P IEC C13 Rewireable Connectors with Locking System



- | Guards against accidental disconnection
- | Requires no other equipment or special inlets to secure it
- | Rewireable - offering total flexibility when assembling cables
- | Fits any Schaffner IEC C14 inlet Filter
- | Can be retrofitted
- | Various power line plugs for international usage
- | LSZH - Low smoke zero halogen

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