

FN 402

Low-cost PCB filter

- 0.5-6.5 A current ratings
 - compact PCB-mountable design
 - very low profile
 - optional medical versions (B types)
- Nennströme von 0,5 bis 6,5 A
 - Kompaktes printmontierbares Design
 - Raumsparender Aufbau
 - Für medizinische Geräte als Option (Typ B)
- courants de service de 0,5 à 6,5 A
 - conception compact pour montage sur circuit imprimé
 - hauteur très réduite
 - version pour appareils médicaux en option (type B)



Filter selection table

Choose the family **FN xxx** with the required current rating and features, and add **/??** to determine input/output (line/load) connection style. Example: FN 402-4/02 is a 4A filter with PCB-connections.

Approvals



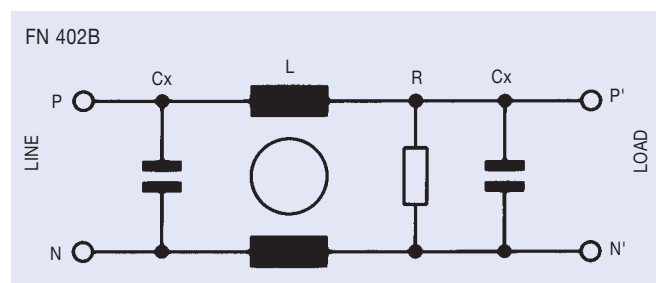
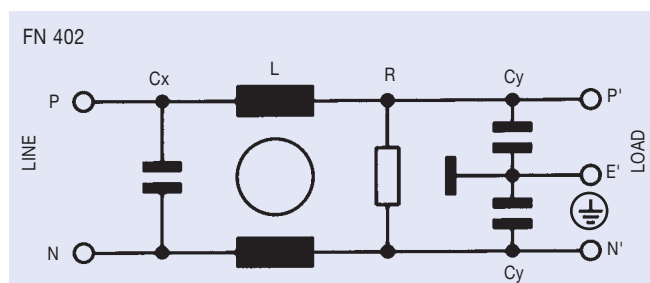
| Family | Connections | Current ratings A at 40°C (25°) | Inductance L mH | Housing | Weight g |
|-----------------|-------------|------------------------------------|-----------------------|---------|-------------|
| FN 402 -0.5 /?? | /02 | 0.5 (0.6) | 40 | KA 4 | 40 |
| FN 402 -1 /?? | /02 | 1 (1.2) | 10 | KA 4 | 40 |
| FN 402 -1.6 /?? | /02 | 1.6 (1.9) | 6 | KA 4 | 40 |
| FN 402 -2.5 /?? | /02 | 2.5 (3.0) | 2 | KA 4 | 40 |
| FN 402 -4 /?? | /02 | 4 (4.7) | 1 | KA 4 | 40 |
| FN 402 -6.5 /?? | /02 | 6.5 (7.5) | 1 | KA 4 | 40 |

Additional specifications

| Filter type | Capacitance | | Res. R MΩ | Maximum leakage μA/phase | Maximum operating voltage | | Operating frequency Hz | Hipot test voltage | |
|-------------------|-------------|----------|-----------------|--------------------------------|------------------------------|-------|------------------------------|--------------------|------------|
| | Cx nF | Cy nF | | | VAC | Hz | | PN→E VAC | P→N VDC |
| Standard types | 100 | 2.2 | 1 | 190 | 250 | 50/60 | DC to 400 | 2000 | 1700 |
| B types (medical) | 100 | - | 1 | 2 | 250 | 50/60 | DC to 400 | 2500 | 1700 |

MTBF at 40°C, 230V, per Mil-HB-217F: 1,900,000 hours. (standard types); 1,200,000 hours (B types)

Electrical schematics

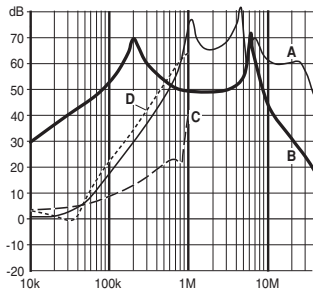


See tables for component values.

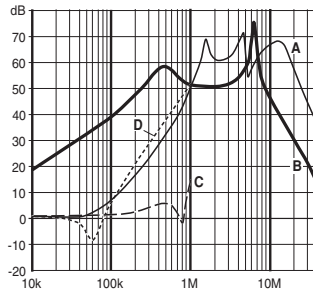
FN 402 insertion loss

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

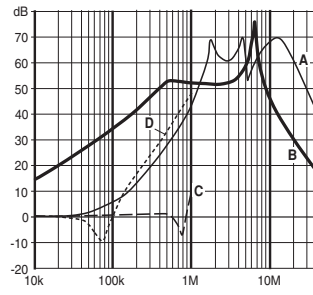
0.5 amp types



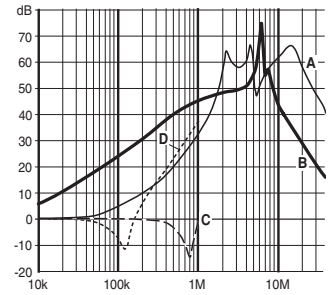
1 amp types



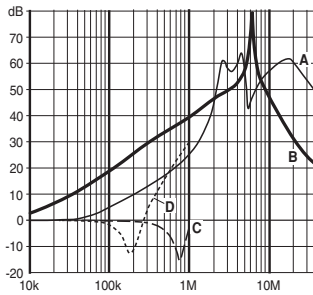
1.6 amp types



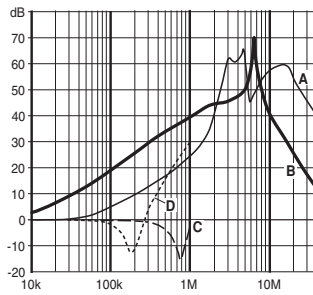
2.5 amp types



4 amp types



6.5 amp types



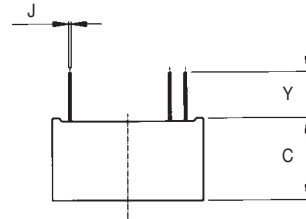
Mechanical data

FN 402-A-02

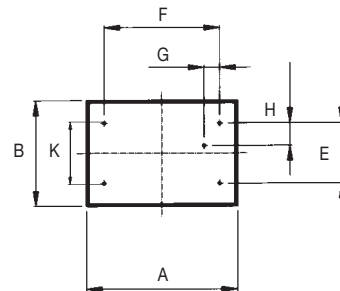
| | | Tol.* mm |
|----------|------|-------------|
| A | 45 | ± 0.5 |
| B | 28 | ± 0.5 |
| C | 16.5 | ± 0.5 |
| E | 20 | ± 0.2 |
| F | 33 | ± 0.2 |
| G | 0 | ± 0.2 |
| H | 10 | ± 0.2 |
| J | ∅0.6 | ± 0.1 |
| K | 10 | ± 0.2 |
| Y | 4 | ± 0.5 |

* Measurements share this common tolerance unless otherwise stated.

SIDE VIEW



BOTTOM VIEW



All dimensions in mm; 1 inch = 25.4 mm