

# Press Release

Lucerne, 03.03.2015  
M600



## KFA: Compact Power Entry Module with filter now with Ground Line Choke

**SCHURTER's popular power entry module, KFA series, is now equipped with an additional ground line choke to suppress high frequency interference arising from ground loops on the ground line. In addition, the newly added ground line choke improves asymmetric attenuation in higher frequencies in medical filter versions. The KFA series with existing common-mode choke on the phase and neutral conductors, together with an additional ground line choke, is well enhanced to address the growing EMC challenges facing compliance engineers today.**



Ground loops arise through different impedances of different ground line connections in one or multiple pieces of equipment. While all ground connections have the same potential level for the 50 Hz load current, these can have different potential levels for high-frequency interference. The ground line choke, which is wired between the power-inlet connector and the filter output, smartly addresses this phenomenon. Because of its placement directly at the power line input, high-frequency interference currents on the ground line are prevented from bypassing the filter through the equipment housing. The ground line choke isolates the equipment chassis against high frequencies and the equipment ground from the ground on the line power connection. This approach effectively breaks any possible ground loops.

Audio equipment for instance is known for being prone to ground loop problems. Often referred to as hum or buzz, the KFA, with ground line choke, is well suited for suppressing interferences that lead to diminished sound quality. The KFA is also well suited for medical equipment required to use low leakage filters for increased patient safety. The reduced Y capacitance to ground, or absence thereof, leads to reduced asymmetric attenuation in higher frequencies. The KFA with ground line choke helps to compensate for this reduced performance.

The KFA power entry module includes an IEC C14 power inlet connector with a 1- or 2-pole fuseholder and EMC filter and is available in a wide range of models and designs. The series offers current levels from 1A to 10A at 250 VAC according to IEC and UL standards. The series has ENEC and cURus approvals and is suited for applications according to IEC 60950. Special filter versions, M5 and M80, are available for medical devices according to IEC 60601-1. Wiring is done using quick-connect terminals or wire leads. The KFA is compatible with V-Lock cord sets, designed to safeguard against unintentional disconnection of the power.

## Technical data

- IEC C14 power-inlet connector with 1/2-pole fuseholder and a filter
- Filter standard, medical M5 / M80 versions
- Rated currents: 1, 2, 4, 6, 10A (ENEC / UL / CSA) at 40°C
- Screw or snap-in assembly
- V-Lock plug-retention safeguard

## Applications

- For applications with noise on the ground wire
- For applications with ground loops
- Applications with high asymmetrical attenuation requirements
- Suited for medical equipment according to IEC 60601-1

## Internet

[Datasheet KFA](#) [1]

[Power Entry Modules with Filter](#) [2]

## Company

SCHURTER continues to be a progressive innovator and manufacturer of electronic and electrical components worldwide. Our products ensure safe and clean supply of power, while making equipment easy to use. We offer a broad range of standard products including circuit protection, connectors, EMC products, switches and input systems, electronic manufacturing services as well as solutions. Moreover, SCHURTER is ready to work with our customers to meet their application specific requirements, not covered in our standard range. You can rely on SCHURTER's global network of companies and partners to guarantee a high level of local service and product delivery. SCHURTER AG is furthermore proud winner of the ESPRIX Swiss Award for Excellence 2014 in the category large-scale enterprises.

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[1]: <http://www.schurter.ch/en/datasheet/KFA>

[2]: [http://www.schurter.ch/wwwsc/con\\_pg06.asp](http://www.schurter.ch/wwwsc/con_pg06.asp)