





# PROTECTION OF ELECTRONICS IN AUTOMOTIVE ENGINEERING

SCHURTER has been certified according to IATF16949 for many years and serves a large number of customers with fuses that have been tested according to AEC-Q200 for various applications. The close networking with international automotive organizations and the industry itself make SCHURTER a competent partner for all questions concerning the protection of electronics in automotive engineering including charging stations. For decades SCHURTER has had a competence center for EMC solutions in Switzerland, which develops customized solutions.

#### **Key Products**

- Fuse AEO 10,3x38/ Fuseholder CSO
  - Automotive Fuse
  - 1,000 VDC
  - Up to 50 A



#### **Key Products**

- Choke DKIV-1
  - Compensated high current choke
  - 10 50 A
  - THT terminals



### **Key Products**

- Filter FMBD EP
  - 3-phase + N Filter
  - 520 VAC or 760 VAC
  - IEC/UL 62368-1



### **Key Products**

- Switche PSE
  - ATEX and IECEx
  - For explosive environments
  - Long lifetime



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**COMPONENTS** 

**LOGISTICS** 

QUALITY







## PROTECTION OF ELECTRONICS IN AUTOMOTIVE ENGINEERING

Fuses - AEO 10.3x38

Automotive Fuse. With the AEO 10.3x38, SCHURTER launches a high-performance fuse for particularly high voltages up to 1,000 VDC and currents up to 50 A, which is particularly suitable for demanding automotive applications.

#### **Key Features**

- Very high rated current up to 50 A
- Safely interrupting 1,000 VDC

### **Key Applications**

- Battery Management System
- On-Board Battery Charger
- DC/DC Converters
- Air-Conditioning Compressor
- PCT Heater

## **Key Benefits**

- Designed for electric vehicles
- Versatile mounting options

Fuseholders - CSO

**Suitable for high power applications.** The CSO clip offers a very wide range of applications. With a typical contact resistance of  $\leq 1 \text{ m}\Omega$  it is also ideally suited for use in e-mobility charging stations (AC and DC) and other high-current applications.

#### **Key Features**

- Solder/screw/rivet mounting
- For photovoltaic and other DC applications
- Suitable gPV fuse link ASO 10.3x38
- Suitable E-Mobility fuse link AEO 10.3x38

#### **Key Applications**

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- E-Mobility charging stations
- Battery charge controllers
- Photovoltaic applications
- Inverters
- String fuse holder
- DC applications

#### **Key Benefits**

- Special copper alloy material for high efficiency
- Very low contact resistance

- Minimal power dissipation due to strong clamping force
- Ideal for use in high power applications like EV-charging

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#### EMC Filter - DKIV-1

**High current choke in vertical design.** SCHURTER expands the range of successful, current-compensated chokes with a series for 1-phase high-current applications on printed circuit boards. Due to the vertical design, the new DKIV-1 series requires a significantly smaller footprint. The chokes are available with ferrite or nanocrystalline cores for rated currents from 10 A to 50 A. The open design makes the chokes particularly compact and lightweight.

### **Key Features**

- Current compensated choke
- 1-phase choke
- THT-terminals
- Flange for mounting onto printed circuit board

### **Key Applications**

- Frequency converter
- Charge stations
- UPS-systems
- Switching power supplies

#### **Key Benefits**

- Compact size and light weight
- Small footprint on PCB
- Open design optimizes heat dissipation
- Nanocrystalline or ferrite ring cores



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EMC Filter - FMBD EP

**3-phase mains filter.** SCHURTER introduces the FMBD EP double-stage flagship filter family for 3 phases with neutral line systems. Thanks to its particularly compact dimensions and high performance, the new filter series is ideally suited for the tight space conditions in today's machine and industrial plant construction. Due to versions with high nominal voltages, a particularly wide field of applications is possible.

#### **Key Features**

- Terminals for three phases, neutral conductor and ground
- Double stage filter design
- Very high attenuation
- Industrial or low leakage current versions

#### **Key Benefits**

- Compact design with small footprint
- Double stage filter for high attenuation
- Light weight design
- Wide temperature range

#### **Key Applications**

- Voltage rating 520 or 760 VAC for various applications
- Protection against interference voltage from the mains
- Especially designed for industrial applications such as:
  - Frequency Converters
  - Stepper Motor Drives
  - UPS-Systems
  - Inverters
- Suitable for use in equipment according to IEC/UL 62368-1



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Switches - PSE

**Piezo switch for explosive environments.** Piezoelectric switches are particularly tough. They are hermetically sealed and have no mechanical switching contacts.

#### **Key Features**

- Piezo switch certified according to ATEX and IECEx
- Pins / crimp terminal male / plug-in connector

#### **Key Benefits**

- Housing material types: aluminum, brass chrome-plated or stainless steel
- High reliability long lifetime with more than 20 mill. actuations
- Easy to clean due to a tightly closed surface (IP69K)

#### **Key Applications**

- for use in harsh environments, in potentially explosive applications and environments where volatile fumes, gases and dust are present
- for use wherever explosive atmospheres can arise or prevail. Such atmospheres can occur in refineries (petrochemical industry), mills (food processing), gas works, the chemical industry and others



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