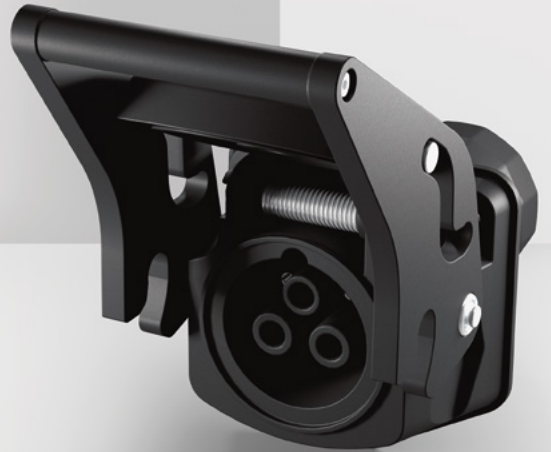


HV

High power connectors
for DC applications

DC



HV - High power connectors for DC applications

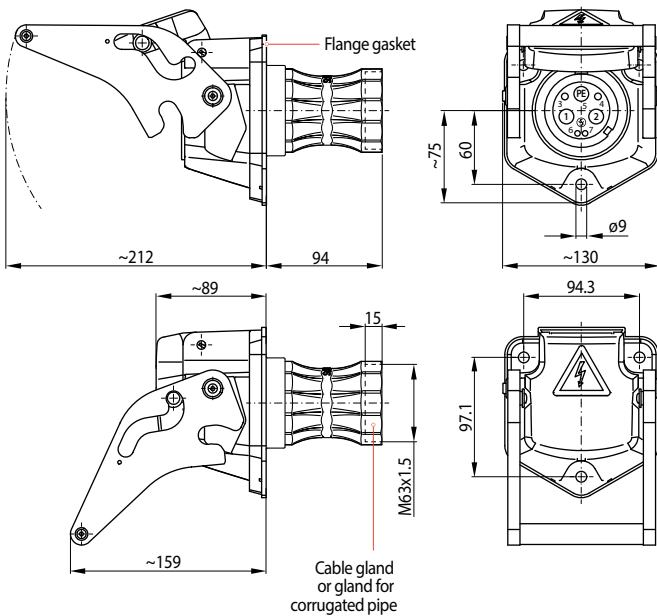
Schaltbau's newly developed HV series connectors feature solid power and signal contacts and are suitable for a wide range of high-current applications.

The robust connectors have a modular design and protection against accidental contact. They are IP69K certified and designed for a high number of mating cycles. The HV connectors are perfect for high power rating. Places of application can be the energy transmission between rail cars or equally the connection of track and trailer on heavy e-vehicles. Other applications include the connection of powerful battery packs - here the HV series is used as a high-performance charging connector.

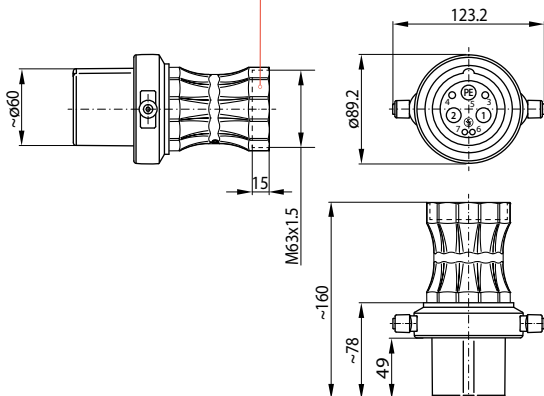
- Wide power range: Rated voltages up to 1,000 volts and rated currents up to 470 amps. Main contacts in the plug and socket housing safely protected against accidental contact.
- Rugged housing: One-handed operation - thanks to the sliding mechanism on the handle of the socket housing. This saves effort and ensures safe locking and unlocking of the plug in the socket.
- Feedback plug inserted: Optional switching element in the socket housing signals a correctly plugged-in connector.
- Modularity: Solid power contacts for different connection cross-sections up to 95 mm² and 4 universally applicable signal contacts are available. Also configured with cable or individual conductors in a robust corrugated pipe.
- Flammability: Meets the requirements of UL94-V0 and the following fireprotection standards EN 45545.

Dimension diagram

• Socket



• Plug



Specifications

HV series	Socket	Plug
Number of contacts max.	2-pole + PE + 2 + 2	
Contact arrangement	Socket contacts	Pin contacts
View direction: front view		
Contacts		
Power contacts	①+②	
Contact ø 10 mm	Cross-section	35/50/70/95 mm ²
Terminal type, surface		Crimp, silver
PE contact	Ⓟ	
Contact ø 10 mm	Cross-section	35/50 mm ²
Terminal type, surface		Crimp, silver
Signal contacts	③+④	
Contact ø 4 mm	Cross-section-	0.5/0.75...1/1.5/2.5/4/6 mm ²
Terminal type, surface		Crimp, silver
Signal contacts	⑥+⑦	
Contact ø 3 mm	Cross-section	0.5/0.75...1/1.5/2.5 mm ²
Terminal type, surface		Crimp, silver (gold optional)
Mating sequence	Ⓟ > ①+② > ③+④ > ⑥+⑦	
Rated voltage U_e		
Power contacts	①+②	1,000 V DC
Signal contacts	③+④ / ⑥+⑦	60 V DC
Pollution degree	PD2	
Overvoltage category	OV2	
Rated current of individual contacts I_e		
Power contacts	①+②	470 A max. @ 95 mm ²
Signal contacts	③+④	50 A max. @ 6 mm ²
	⑥+⑦	27.5 A max. @ 2.5 mm ²
Switching element		
Feedback plug inserted	1x in socket shell, S870 series, SPDT, 10 A (see catalogue D70.en)	
Housing material		
Socket shell	Aluminium die-cast, black	
Plug shell	Polyamid PA 6.6, black	
Inserts	Polyamid PA 6.6, black	
Seals	Silicone	
Degree of protection	ISO 20653	IP69K: When mated, socket with closed lid, plug in dummy socket
Mechanical endurance	> 10,000 mating cycles	
Operating temperature range	-40° C ... +85° C	