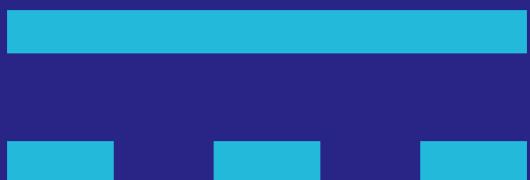


HV

High power connectors
for DC applications

DC



HV - High power connectors for DC applications

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

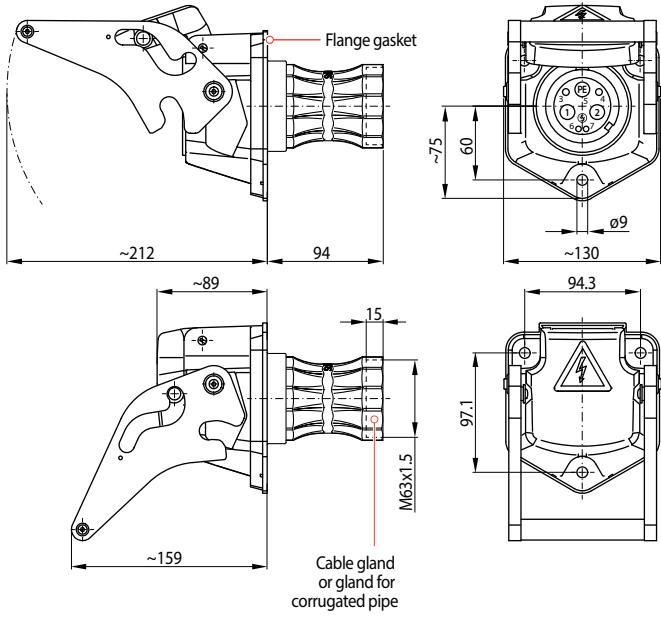
The connectors have a robust, modular design and protect against accidental contact. They are IP69K certified and designed for a high number of mating cycles.

Perfect for high power rating, HV connectors are well suited for energy transmission between rail cars or the connection of track and trailer on heavy e-vehicles. Another application is the connection of powerful battery packs where connectors can be used as a high-performance charging connectors.

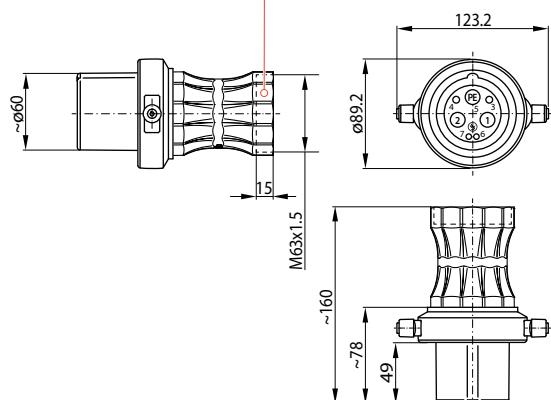
- Wide power range: Rated voltages up to 1,000 volts and rated currents up to 470 amps. Main contacts in the plug and socket housing safely protected against accidental contact.
- Easy operation: One-handed operation – thanks to the sliding mechanism on the handle of the socket housing. This saves effort 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 four universally applicable signal contacts are available. Also configured with cable or individual conductors in a robust corrugated pipe.
- Nonflammable: Meets the requirements of UL94-V0 and the following fire protection 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	35/50/70/95 mm ²
Contact ø 10 mm	Cross-section	Crimp, silver
Terminal type, surface		
PE contact	⑤	35/50 mm ²
Contact ø 10 mm	Cross-section	Crimp, silver
Terminal type, surface		
Signal contacts	③+④	0.5/0.75...1/1.5/2.5/4/6 mm ²
Contact ø 4 mm	Cross-section	Crimp, silver
Terminal type, surface		
Signal contacts	⑥+⑦	0.5/0.75...1/1.5/2.5 mm ²
Contact ø 3 mm	Cross-section	Crimp, silver (gold optional)
Terminal type, surface		
Mating sequence	⑤ > 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, NC contact, 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