

# HV

High power connectors  
for DC applications

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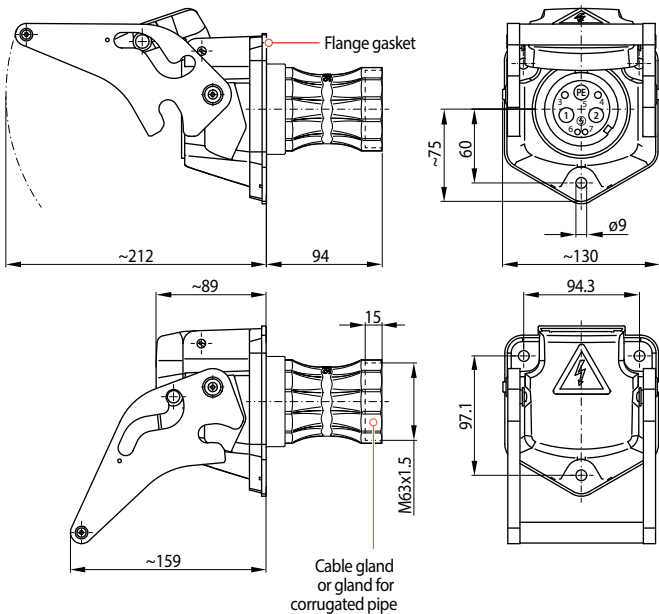
Schaltbau's trusted HV series connectors feature solid power and signal contacts and are suitable for a wide range of high-current applications.

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.

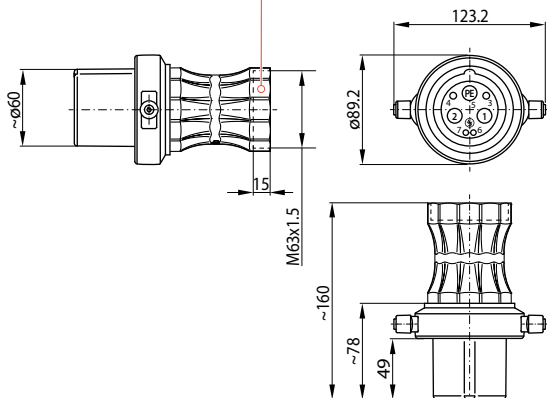
- Wide power range: Rated voltages up to 1,000 volts and rated currents up to 470 amps. Main contacts in the plug and socket housing safely protected against accidental contact.
- Easy operation: One-handed operation - thanks to the sliding mechanism on the handle of the socket housing. This saves effort 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		
<b>Contacts</b>		
Power contacts	①+②	
Contact ø 10 mm	Cross-section	35/50/70/95 mm²
Terminal type, surface		Crimp, silver
PE contact	PE	
Contact ø 10 mm	Cross-section	35/50 mm²
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 mm²
Terminal type, surface		Crimp, silver
Signal contacts	⑥+⑦	
Contact ø 3 mm	Cross-section	0.5/0.75...1/1.5/2.5 mm²
Terminal type, surface		Crimp, silver (gold optional)
<b>Mating sequence</b>		PE > ①+② > ③+④ > ⑥+⑦
<b>Rated voltage U<sub>e</sub></b>		
Power contacts	①+②	1,000 V DC
Signal contacts	③+④ > ⑥+⑦	60 V DC
Pollution degree		PD2
Overvoltage category		OV2
<b>Rated current of individual contacts I<sub>e</sub></b>		
Power contacts	①+②	470 A max. @ 95 mm²
Signal contacts	③+④	50 A max. @ 6 mm²
	⑥+⑦	27.5 A max. @ 2.5 mm²
<b>Switching element</b>		
Feedback plug inserted		1x in socket shell, S870 series, NC contact, 10 A (see catalogue D70.en)
<b>Housing material</b>		
Socket shell		Aluminium die-cast, black
Plug shell		Polyamid PA 6.6, black
Inserts		Polyamid PA 6.6, black
Seals		Silicone
<b>Degree of protection</b>	ISO 20653	IP69K: When mated, socket with closed lid, plug in dummy socket
<b>Mechanical endurance</b>		> 10,000 mating cycles
<b>Operating temperature range</b>		-40° C ... +85° C