

# Connectors

## **HV** series

High power connectors for DC applications

Flyer A88.en





### **HV series** 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

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.

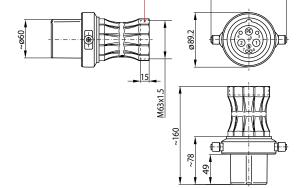
high power rating. Places of application can be the energy transmission between rail cars or equally the connection of track and trailer on heavy e-vehicles. Other applications include the connection of powerful battery packs – here the HV series is used as a high-performance charging connector.

Modularity: Solid power contacts for different connection cross-sections up to 95 mm<sup>2</sup> 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**

# Flange gasket Flange gasket 7212 94 7159 Cable gland or gland for corrugated pipe



Dimensions in mm

### **Specifications**

HV series		Socket	Plug
Number of contacts max.		2-pole + PE + 2 + 2	
Contact arrangement		Socket contacts	Pin contacts
View direction: front view		(1) (PE) (4) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	(a) (PE) (b) (b) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c
Contacts Power contacts Contact ø10 mm Terminal type, surface PE contact Contact ø10 mm Terminal type, surface Signal contacts Contact ø4 mm Terminal type, surface Signal contacts Contact ø3 mm	①+② Cross-section  PE Cross-section ③+④ Cross-section ⑥+⑦ Cross-section	Orimp Ø10 mm, 3 Orimp Ø4 mm, 0.5/0.751/ Orimp Ø3 mm, 0.5/0.75	50/70/95 mm <sup>2</sup> o, silver 35/50 mm <sup>2</sup> o, silver 1.5/2,5/4/6/10 mm <sup>2</sup> o, silver 51/1.5/2.5 mm <sup>2</sup>
Terminal type, surface		Crimp, silver (gold optional)  (PE) $\nearrow$ (1) +(2) $\nearrow$ (3) +(4) $\nearrow$ (6) +(7)	
Mating sequence		PE) / (1)+(2) /	3+4) / 6+0
Rated voltage U <sub>e</sub> Power contacts Signal contacts Pollution degree Overvoltage category	(1)+(2) (3)+(4)/(6)+(7)	60 N	DV DC V DC D2 V2
Rated current I <sub>e</sub> Power contacts Signal contacts	1+2 3+4/6+7		. @ 95 mm² / 5 A max. @ 1.5 mm²
Switching element Feedback plug inserted		1x in socket shell, S870 series, SPDT, 10 A (see catalogue D70.en)	
Housing material Socket shell Plug shell Inserts Seals		Aluminium die-cast, black Polyamid PA 6.6, black Polyamide PA 6.6, black Silicone	
Degree of protection	IEC 60529 IP69K: When mated, socket with closed lid, plug in dummy socket		
Mechanical endurance		> 10,000 mating cycles	
Operating temperature	range	-40° C	+85° C
			<b>S SCHALTBAU</b>

Plug