



Pushing Performance



People | Power | Partnership

## **HARTING Han<sup>®</sup> S**

Safe connections for modular  
battery storage systems

---

# HARTING Han® S

## Safe connections for modular battery storage systems

---

The Han® S series provides secure connection technology for modular battery storage systems, using a design that complies with all technical requirements as well as the latest standards for stationary energy storage systems (incl. UL 4128). The compact, flexible hoods and housings offer space for contacts with a capacity of up to 200 A.

### Features

- On the cable side, there is a 90-degree angled female contact with an internal spring, enabling the 360-degree rotation.
- Low contact resistance
- Error-free connections through an effective mechanical coding system
- Complies with all relevant standards for energy storage systems

### Compliance with standards

- UL 1973: Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail (LER) Applications
- UL 9540: Standard for Energy Storage Systems and Equipment
- UL 4128: Outline of Investigation for Intercell and Intertier Connectors for Use in Electrochemical Battery System Applications
- UL 1977: Standard for Component Connectors for Use in Data, Signal, Control and Power Applications



# HARTING Han® S

## Safe connections for modular battery storage systems

---

The bulkhead mounted housing can be freely rotated, even when mated. The locking mechanism can be accessed intuitively. The colours (red for plus, black for minus) and the mechanical coding prevent incorrect mating. Han® S thus enables a fast, reliable termination and simplifies the assembly of large numbers of connectors.



### Customer benefits



Compact size/design



Easy & fast assembly /  
disassembly due to screwing  
of contacts from the front



Safe installation due to  
visible locking mechanism  
and finger-proof contacts



Housings can be rotated 360°, even  
in mated condition



Free of lead and halogens

# Technical characteristics

## Han<sup>®</sup> S hoods


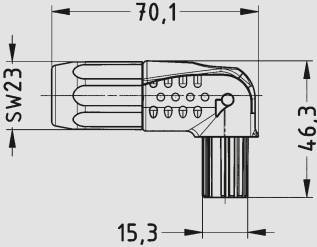


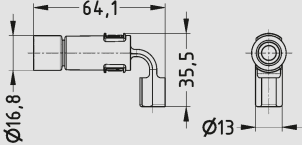
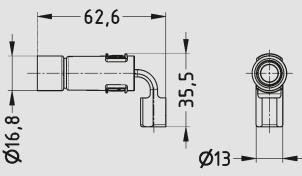
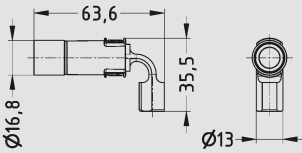
Inserts/electrical data acc. to DIN EN 60 664-1 and DIN EN 61 984

<b>Contacts</b>	1
<b>Rated current</b>	200 A
<b>Rated voltage</b>	1500 V
<b>Rated impulse voltage</b>	8 kV
<b>Pollution degree</b>	2
<b>Insulation resistance</b>	≥ 10 <sup>8</sup> Ω
<b>Material</b>	Polycarbonate
<b>Limiting temperatures</b>	-40 °C ... +125 °C
<b>Mating cycles</b>	≥ 500
<b>Degree of protection acc. to IEC 60529</b>	IP20
<b>Material hood/housing</b>	Polyamide (PA)
<b>Colour hood/housing, black</b>	RAL 9005 (jet black)
<b>Colour hood/housing, red</b>	RAL 3001 (signal red)
<b>Material contacts</b>	Copper alloy
<b>Material accessories</b>	Thermoplastic polyurethane (TPU)
<b>Flammability acc. to UL 94</b>	V 0
<b>Cable stripping length</b>	22 mm
<b>Maximum cable diameter</b>	16 mm
<b>Suitable tools / crimp-dies</b>	Catalogue Han <sup>®</sup> Industrial Connectors, chapter 90

For more information refer to data sheet:  
[www.HARTING.com/datasheet-han-s](http://www.HARTING.com/datasheet-han-s)

# Technical characteristics

## Components and part numbers

	Identification/part no.	Figure	Drawings
Hood	<b>Han® S Hood,</b> angled, black Conductor cross-section: 25 ... 50 mm <sup>2</sup>  09 93 001 0501		
	<b>Han® S Hood,</b> angled, red Conductor cross-section: 25 ... 50 mm <sup>2</sup>  09 93 001 0502		
Contact	<b>Han® S Crimp contact,</b> female, incl. sealing Contact surface: silver plated Conductor cross-section: 25 mm <sup>2</sup>  09 93 000 6262		
	Conductor cross-section: 35 mm <sup>2</sup>  09 93 000 6263		
	Conductor cross-section: 50 mm <sup>2</sup>  09 93 000 6264		

For more information refer:  
[www.HARTING.com/hans](http://www.HARTING.com/hans)

# Technical characteristics

## Han<sup>®</sup> S Screw mounting housings


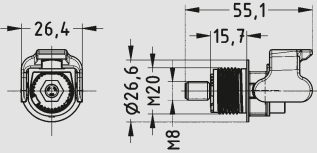


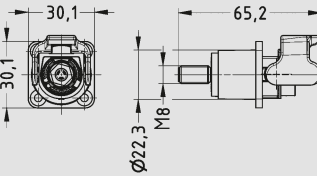


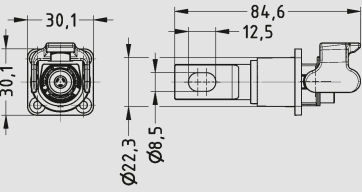

Inserts/electrical data acc. to DIN EN 60 664-1 and DIN EN 61 984

<b>Contacts</b>	1
<b>Rated current</b>	200 A
<b>Rated voltage</b>	1500 V
<b>Rated impulse voltage</b>	8 kV
<b>Pollution degree</b>	2
<b>Insulation resistance</b>	≥ 10 <sup>8</sup> Ω
<b>Material</b>	Polycarbonate
<b>Limiting temperatures</b>	-40 °C ... +125 °C
<b>Mating cycles</b>	≥ 500
<b>Degree of protection acc. to IEC 60529</b>	IP20
<b>Hood/housing material</b>	Polyamide (PA)
<b>Colour of hood/housing (black)</b>	RAL 9005 (jet black)
<b>Colour of hood/housing (red)</b>	RAL 3001 (signal red)
<b>Contacts, material</b>	Copper alloy
<b>Accessories, material</b>	Thermoplastic polyurethane (TPU)
<b>Flammability acc. to UL 94</b>	V 0
<b>Tightening torque:</b> - M8 thread - M3 screws	13 Nm – when tightening, counter the screws with a socket spanner, A/F 9 mm! 0.5 – 0.8 Nm

For more information refer to data sheet:  
[www.HARTING.com/datasheet-han-s](http://www.HARTING.com/datasheet-han-s)

# Technical characteristics

## Components and part numbers

	Identification /part no.	Figure	Drawings
Screw mounting housing (M8 thread)	<b>Han® S, Screw mounting housing,</b> incl. male contact M8, black 09 93 001 0101		
	<b>Han® S, Screw mounting housing,</b> incl. male contact M8, red 09 93 001 0102		
Bulkhead mounted housing (M8 thread)	<b>Han® S, Bulkhead mounted housing,</b> incl. male contact M8, black Contact surface: silver plated 09 93 001 0301		
	<b>Han® S, Bulkhead mounted housing,</b> incl. male contact M8, red Contact surface: silver plated 09 93 001 0302		
Bulkhead mounted housing (busbar)	<b>Han® S, Bulkhead mounted housing,</b> incl. male contact busbar, black Contact surface: silver plated 09 93 001 0303		
	<b>Han® S, Bulkhead mounted housing,</b> incl. male contact busbar, red Contact surface: silver plated 09 93 001 0304		



Pushing Performance

**HARTING.com** –  
the gateway to your  
country website

---