



Pushing Performance  
Since 1945



PEOPLE. POWER. PARTNERSHIP.

## **HARTING** Han® S 200

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Safe and error-free connections  
in energy storage systems

# HARTING Han® S 200

## Solution overview and compliance to standards

In line with the market trends for energy storage systems, Han® S was developed as a front mounting solution for high power transmissions with flexibility and safety. This single pole connector family can work with rated currents up to 200 A at a voltage of 1500 V, while assuring safe installations with finger safe contacts with different termination types (bolt or busbar) and visible control of the locking status. Moreover, the product is vibration proof and available in different colours, complete with a mechanical coding system that makes misconnections impossible.

### Han® S complies with all relevant standards for energy storage systems







-  **IEC 60664-1 (VDE 0110-0)**  
Principles, requirements and tests
-  **IEC 61984 (VDE 0627)**  
Connectors, safety requirements and tests
-  **UL 1977 (in release processing)**  
Standard for component connectors for use in data, signal, control and power applications
-  **UL 4128**  
Outline of investigation for intercell and intertier connectors for use in electrochemical battery system applications
-  **UL 1973**  
Standard for batteries in use in stationary, vehicle auxiliary power and light electrical rail
-  **UL 9540**  
Standard for energy storage and equipment



# HARTING Han® S 200

## Key features and advantages

Besides the fact of holding the brand-new approval UL 4128, Han® S provides important additional features currently not existing in the segment. As a matter of a fact, Han® S assures safe and error-free connections with high flexibility.

-  High power transmission in a compact design: rated currents up to 200 A at a voltage of 1500 V due to an effective contact resistance of less than 0.3 mΩ
-  Safe installations due to visible control of the locking status, finger protected contacts, mechanical & colour coding system and shock & vibration resistance
-  Easy (dis) assembly due to (un) screwing the contact of the screw mounted housing from the front. Easy mating through a self-opening single lever
-  High flexibility due to different mounting possibilities and contact terminations as well as 360° positioning for cable entry
-  Complies with all relevant energy storage standards, including the brand-new UL 4128
-  Free of lead and halogens

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

# HARTING Han® S 200

## Technical characteristics

Inserts/electrical data acc. to DIN EN 60664-1 and DIN EN 61984

<b>Number of contacts</b>	1
<b>Rated current</b> - Han® S 200	200 A
<b>Rated voltage</b>	1500 V
<b>Rated impulse voltage</b>	8 kV
<b>Pollution degree</b>	2
<b>Insulation resistance</b>	≥ 108 Ω
<b>Contact resistance</b>	≤ 0.3 mΩ
<b>Limiting temperatures</b>	-40 °C ... +125 °C
<b>Number of mating cycles</b>	≥ 500
<b>Degree of protection</b> acc. to IEC/EN 60529 - mated condition - unmated condition	Touch safe male and female contacts  IP40 IP20 (1500 VDC, 1000 VAC)
<b>Coding system</b>	Mechanical & colour
<b>Locking system</b>	Single lever (with visible status)
<b>Vibration and shock resistance</b> acc. to IEC 16373	Category 1, class B
<b>Cable entry</b>	Angled, available rotation through 360°

# HARTING Han® S 200

## Technical characteristics


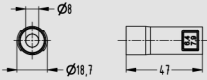
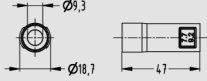
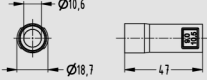
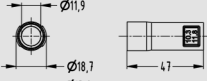
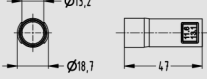
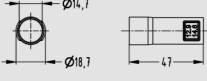

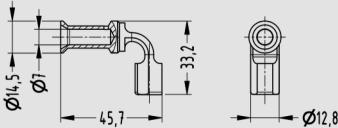
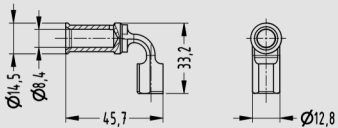
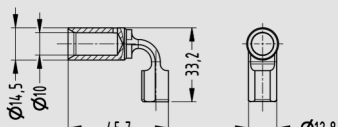
Inserts/electrical data acc. to DIN EN 60664-1 and DIN EN 61984

<b>Cable outer diameter</b> - Han® S 200	6.5 -14.6 mm
<b>Cable gland tightening torque</b> - Han® S 200	2.5 Nm
<b>Contact termination (hood)</b> - cable stripping length - suitable tools/crimp-dies	Crimp (conductor cross-section 25 ... 50 mm²) 22 mm refer to the Han® S Assembly Instructions
<b>Contact termination (housing)</b> - recommended tightening torque •Han® S 200	Bolt/busbar  11 Nm*
<b>Fixing screws (housing)</b> - recommended tightening torque	M3, 6 mm long, flat head (acc. to ISO 7380-2) 0.5 - 0.8 Nm
<b>Colour (hood/housing)</b> - black - red - blue	RAL 9005 (jet black) RAL 3001 (signal red) RAL 5015 (sky blue)
<b>Material (hood/housing)</b>	Polyamide (PA)
<b>Material (contacts)</b>	Copper alloy
<b>Material flammability class</b> acc. to UL 94	V-0

\* for bulkhead mounted housings, the use of a counter wrench is mandatory if applying more than recommended tightening torque.


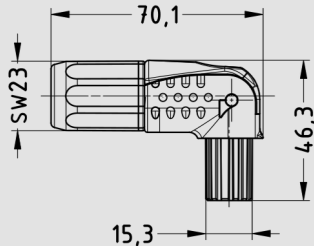

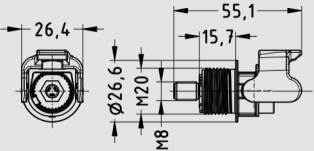
# HARTING Han® S 200

## Components and part numbers

Han® S 200			
	Identification/part no.	Figure	Drawings
Rubber sleeve	Cable outer diameter 6.4 – 7.9 mm 09 93 000 7221		
	Cable outer diameter 7.7 – 9.2 mm 09 93 000 7222		
	Cable outer diameter 9.0 – 10.5 mm 09 93 000 7223		
	Cable outer diameter 10.3 – 11.8 mm 09 93 000 7224		
	Cable outer diameter 11.6 – 13.1 mm 09 93 000 7225		
	Cable outer diameter 12.9 – 14.6 mm 09 93 000 7226		
Contact	<b>200 A female crimp contact,</b> silver plated		
	25 mm² conductor cross-section 09 93 000 7262		
	35 mm² conductor cross-section 09 93 000 7263		

# HARTING Han® S 200

## Components and part numbers


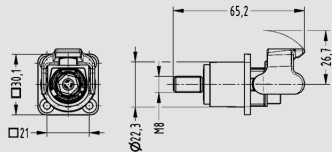

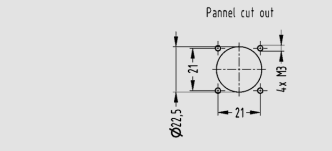

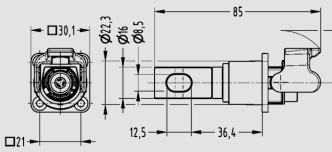

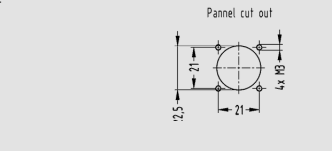
Han® S 200			
	Identification/part no.	Figure	Drawings
Hood	<b>Angled hood, 25 ... 50 mm² conductor cross-section, contact incl. cable gland</b>		
	Black 09 93 001 0501  Red 09 93 001 0502		
SMH/Bolt	<b>Screw mounted housing,</b> incl. male contact with <b>M8 bolt</b> termination		
	Black 09 93 001 0101  Red 09 93 001 0102		

# HARTING Han® S 200

## Components and part numbers



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Han® S 200			
	Identification / part no.	Figure	Drawings
BMH/Bolt	<b>Bulkhead mounted housing, incl. male contact with M8 bolt termination</b>		
	Black 09 93 001 0301		
	Red 09 93 001 0302		
BMH/Busbar	<b>Bulkhead mounted housing, incl. male contact with busbar termination</b>		
	Black 09 93 001 0303		
	Red 09 93 001 0304		

Han® S 200 parts also available in blue colour, having an exclusive mechanical coding  
Han® S 200 housings also available with Unlocking Protected lever (unlocking only possible using a tool)  
Han® S 200 accessories available, such as protect cover for transport purposes and assembly tools  
Han® S 200 cable assemblies available

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