

**HDC insert  
HDC S6 6 SAS**

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com



The MixMate series of connectors can simultaneously transmit high rated currents and voltages as well as signals. An axial screw can be used to secure the wire.  
Axial screw connection TOP connection

**General ordering data**

Type	HDC S6 6 SAS
Order No.	<a href="#">1790030000</a>
Version	HDC insert, Male, 690 V, 100 A, No. of poles: 12, Axial screw connection, Size: 8
GTIN (EAN)	4032248212095
Qty.	1 pc(s).

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**Technical data****Dimensions and weights**

Length	111 mm	Length (inches)	4.37 inch
Width	34 mm	Width (inches)	1.339 inch
Height	47.8 mm	Height (inches)	1.882 inch
Net weight	286 g		

**Temperatures**

Limit temperature	-40 °C ... 125 °C
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**Environmental Product Compliance**

REACH SVHC	Lead 7439-92-1
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**Dimensions**

Height of plug	47.8 mm	Total length base	111 mm
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**General data**

Insulating material	PC glass-fibre reinforced (UL-listed and railway-certified)	Insulating material group	IIIa
Insulation resistance	$10^{10} \Omega$	Material	Copper alloy
No. of poles	12	No. of power contacts	6
No. of signal contacts	6	Plugging cycles, silver	$\geq 500$
Pollution severity	3	Rated current (DIN EN 61984)	100 A
Rated impulse voltage (DIN EN 61984)	8 kV	Rated voltage (DIN EN 61984)	690 V
Rated voltage according to UL/CSA	600 V AC/DC	Series	MixMate
Size	8	Surface finish	Silver passivated
Type	Male	UL 94 flammability rating	V-0
Volume resistance	$\leq 1 \text{ m}\Omega$		

**Connection data PE**

Connection type PE	Screw connection	Rated cross-section	35 mm <sup>2</sup>
Stripping length PE connection	8 mm	Tightening torque, max. PE connection	8 Nm
Tightening torque, min. PE connection	6 Nm	Wire connection cross section, finely stranded, max.	35 mm <sup>2</sup>
Wire connection cross-section, finely stranded, min.	16 mm <sup>2</sup>	Wire cross section, AWG (PE), max.	AWG 2
Wire cross section, AWG (PE), min.	AWG 6		

**Power contact**

Clamping range, power contact, max.	35 mm <sup>2</sup>	Clamping range, power contact, min.	16 mm <sup>2</sup>
No. of poles, performance contact	6	Rated current (DIN EN 61984), power contact	100 A
Rated impulse voltage (DIN EN 61984), power contact	8 kV	Rated voltage (DIN EN 61984), power contact	690 V
Stripping length, performance contact	13 mm	Tightening torque, power contact, max.	8 Nm
Tightening torque, power contact, min.	6 Nm	Type of connection, power contact	Axial screw connection

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**Technical data****Signal contact**

AF size	SD 0.6 x 3.5	Clamping range, signal contact, max.	2.5 mm <sup>2</sup>
Clamping range, signal contact, min.	0.5 mm <sup>2</sup>	No. of poles, signal	6
Rated current (DIN EN 61984), signal	16 A	Rated impulse voltage (DIN EN 61984), signal	6 kV
Rated voltage (DIN EN 61984), signal contact	400 V	Stripping length, signal	12 mm
Tightening torque, signal contact, max.	0.8 Nm	Tightening torque, signal contact, min.	0.4 Nm
Type of connection, signal	Screw connection		

**Version**

Clamping screw	M 7 x 0.75 mm	Conductor cross-section, max.	35 mm <sup>2</sup>
Conductor cross-section, min.	16 mm <sup>2</sup>	Material	Copper alloy
Size	8	Stripping length, rated connection	13 mm
Surface finish	Silver passivated	Type of connection	Axial screw connection
Volume resistance	≤ 1 mΩ	Wire connection cross section AWG, max.	AWG 2
Wire connection cross section AWG, min.	AWG 6	Wire connection cross section, finely stranded, max.	35 mm <sup>2</sup>
Wire connection cross-section, finely stranded, min.	16 mm <sup>2</sup>		

**Classifications**

ETIM 3.0	EC002413	ETIM 4.0	EC001121
ETIM 5.0	EC001121	ETIM 6.0	EC000438
UNSPSC	30-21-18-01	eClass 5.1	27-14-34-19
eClass 6.2	27-26-12-90	eClass 7.1	27-44-02-90
eClass 8.1	27-44-02-90	eClass 9.0	27-44-02-90
eClass 9.1	27-44-02-05		

**Product information**

Descriptive text ordering data	The signal contacts are designed for a rated voltage of 400V and a rated current of 16A.
Descriptive text technical data	Rated voltage 1000 V / 8 kV at pollution degree 2. PE connection using a middle axial screw connection to receive the wire in the same way as a power contact.
Instructions for accessories	Accessories, see chapter J - Tools, see chapter K

**Approvals**

Approvals



ROHS

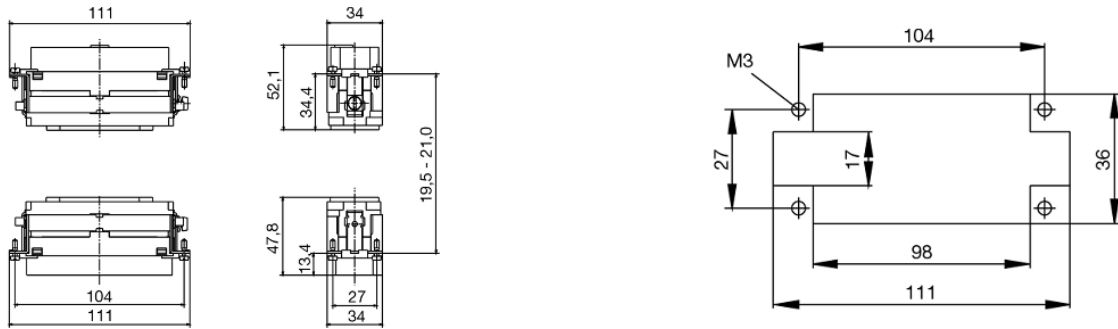
Conform

**Downloads**

Brochure/Catalogue	<a href="#">CAT 3 HDC 17/18 EN</a> <a href="#">FL FIELDWIRING EN</a>
Engineering Data	<a href="#">EPLAN, WSCAD, Zuken E3.S</a>

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**Drawings**

# Tightening torques and screwing tools

Screw size	Connector type	Dia. tightening torque in Nm	Recommended blade inserts and AF size for hexagon socket
<b>M 2.5</b>	<b>Signal contacts</b>		
	S 6/6	0.5 - 0.55	SD 0.6 x 3.5 mm or PZO
	S 6/12	0.5 - 0.55	SD 0.6 x 3.5 mm or PZO
<b>M 2.9 x 0.5</b>	<b>Fastening screws</b>		
	HQ 4/2	0.8 (plastic) / 1.1 (metal)	SD 0.6 x 3.5 mm or PH0
	HQ 8	0.8 (plastic) / 1.1 (metal)	SD 0.6 x 3.5 mm or PH0
	HQ 17	0.8 (plastic) / 1.1 (metal)	SD 0.6 x 3.5 mm or PH0
<b>M 3</b>	<b>Contact screws</b>		
	HA 3	0.5 - 0.55	SD 0.5 x 3.0 mm
	HA 4	0.5 - 0.55	SD 0.5 x 3.0 mm
	HA 10 bis HA 48	0.5 - 0.55	SD 0.6 x 3.5 mm or PH0
	HE	0.5 - 0.55	SD 0.6 x 3.5 mm or PZO
	HVE	0.5 - 0.55	SD 0.6 x 3.5 mm or PZO
	<b>Signal contacts:</b>		
	S 4/2	0.5 - 0.55	SD 0.6 x 3.5 mm or PZO
	S 4/8	0.5 - 0.55	SD 0.6 x 3.5 mm or PZO
	<b>PE connection via female contact</b>		
	S 4	0.5 - 0.8	SD 0.6 x 3.5 mm
	ConCept modular frame, metal	0.5 - 0.55	SD 0.6 x 3.5 mm
	<b>PE terminal</b>		
	HQ 5	0.5 - 0.55	SD 0.6 x 3.5 or 0.8 x 4 mm
	HQ 7	0.5 - 0.55	SD 0.6 x 3.5 or 0.8 x 4 mm
	<b>Fastening screws</b>	0.5 - 0.55	SD 0.6 x 3.5 mm or PZO
	<b>Guide pin</b>	0.5 - 0.55	SD 0.6 x 3.5 mm or PZO
	<b>Guide bush</b>	0.5 - 0.55	SD 0.6 x 3.5 mm or PZO
	<b>Coding pins</b>	0.5 - 0.55	SD 0.6 x 3.5 mm or PZO
	<b>M 4</b>	<b>Contact screws</b>	
HSB		1.2 - 1.5	SD 0.6 x 3.5 or 0.8 x 4 mm or PZ1
<b>PE connection via male contact</b>			
S 4		0.5 - 0.8	SD 0.6 x 3.5 mm
ConCept modular frame, metal		1.2 - 1.5	SD 0.6 x 3.5 mm
<b>PE terminal</b>			
HA		1.2 - 1.5	SD 0.6 x 3.5 or 0.8 x 4 mm or PH1
HE		1.2 - 1.5	SD 0.6 x 3.5 or 0.8 x 4 mm or PH1
HEE		1.2 - 1.5	SD 0.6 x 3.5 or 0.8 x 4 mm or PH1
HVE		1.2 - 1.5	SD 0.6 x 3.5 or 0.8 x 4 mm or PH1
HD		1.2 - 1.5	SD 0.6 x 3.5 or 0.8 x 4 mm or PZ1
HDD		1.2 - 1.5	SD 0.6 x 3.5 or 0.8 x 4 mm or PZ1
S 6/6 (for signal contacts)		1.2 - 1.5	0.8 x 4 mm or PZ1
ConCept modular frame, plastic		1.2 - 1.5	0.8 x 4 mm or PZ1
<b>M 5</b>		<b>PE terminal</b>	
	HSB	2 - 2.5	SD 1 x 5.5 mm or PZ2
	S 4/0 (Screw connection)	2 - 2.5	SD 1.2 x 6.5 mm or PH2
	S 4/0 (Axial screw connection)	2 - 2.5	SD 0.8 x 4 mm or PZ 2
	S 4/2	2 - 2.5	SD 1.2 x 6.5 mm or PH2
	S 4/8	2 - 2.5	SD 1.2 x 6.5 mm or PH2
	S 6/12	2 - 2.5	SD 0.8 x 4 mm or PZ 2
	S 6/36	2 - 2.5	SD 1.2 x 6.5 mm or PH2
	S 8/24	2 - 2.5	SD 1.2 x 6.5 mm or PH2
	S 12/2	2 - 2.5	SD 1.2 x 6.5 mm or PH2
	<b>M 6</b>	<b>Power contacts</b>	
S 4/0 (Screw connection)		1.2 (1.5 mm <sup>2</sup> ) / 2 (2.5 mm <sup>2</sup> ) / 3 (4-16 mm <sup>2</sup> )	SD 0.8 x 4 mm
S 4/2		1.2 (1.5 mm <sup>2</sup> ) / 2 (2.5 mm <sup>2</sup> ) / 3 (4-16 mm <sup>2</sup> )	SD 0.8 x 4 mm
S 4/8		1.2 (1.5 mm <sup>2</sup> ) / 2 (2.5 mm <sup>2</sup> ) / 3 (4-16 mm <sup>2</sup> )	SD 0.8 x 4 mm
<b>M 7 x 0.75</b>	<b>Power contacts</b>		
	S 4	1.1 - 1.7	SW 2
	S 6/6 (+ PE)	6 - 8	SW 4
<b>M 8 x 0.75</b>	<b>Power contacts</b>		
	S 6/12	1.1 - 1.7	SW 2
	S 8/0 (+ PE)	6 (10-16 mm <sup>2</sup> ) - 7 (25 mm <sup>2</sup> )	SW 4
<b>M10 x 1</b>	<b>Power contacts</b>		
	S 4/0 (Axial connection)	2 - 3	SW 3

Increasing the tightening torque does not improve the contact resistance. The stated torque settings offer optimal mechanical, thermal and electrical conditions. Exceeding the recommended values may even damage the conductor and terminal.