

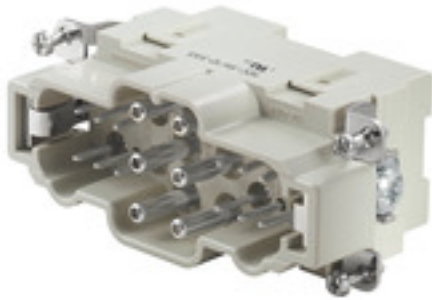
**HDC S6 12 SAS****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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**

Version	HDC insert, Pin, 690 V, 48 A, Number of poles: 18, Axial screw connection, Size: 6
Order No.	<a href="#">1790000000</a>
Type	HDC S6 12 SAS
GTIN (EAN)	4032248212064
Qty.	1 pc(s).

Creation date March 25, 2021 8:26:06 AM CET

Catalogue status 12.03.2021 / We reserve the right to make technical changes.

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## Technical data

### Dimensions and weights

Depth	84.5 mm	Depth (inches)	3.327 inch
Height	47.3 mm	Height (inches)	1.862 inch
Net weight	147 g	Width	34 mm
Width (inches)	1.339 inch		

### Temperatures

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

REACH SVHC	Lead 7439-92-1	
Chemical resistance	Substance	Acetone
	Chemical resistance	Resistant
	Substance	Ammonia, watery
	Chemical resistance	Conditionally resistant
	Substance	Petrol
	Chemical resistance	Resistant
	Substance	Benzene
	Chemical resistance	Resistant
	Substance	Diesel oil
	Chemical resistance	Conditionally resistant
	Substance	Acetic acid, concentrated
	Chemical resistance	Resistant
	Substance	Potassium hydroxide
	Chemical resistance	Conditionally resistant
	Substance	Methanol
	Chemical resistance	Conditionally resistant
	Substance	Motor oil
Chemical resistance	Conditionally resistant	
Substance	Lye, diluted	
Chemical resistance	Resistant	
Substance	Hydrochlorofluorocarbons	
Chemical resistance	Conditionally resistant	
Substance	Outdoor use	
Chemical resistance	Conditionally resistant	

### Dimensions

Height of plug	47.3 mm	Total length base	84.5 mm
Width	34 mm		

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## Technical data

## General data

Insulating material	PC glass-fibre reinforced (UL-listed and railway-certified)	Insulating material group	IIIa
Insulation strength	10 <sup>10</sup> Ω	Material	Copper alloy
Number of poles	18	Number of power contacts	6
Number of signal contacts	12	Plugging cycles, silver	≥ 500
Pollution severity	3	Rated current (DIN EN 61984)	48 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	6	Surface finish	Silver passivated
Type	Pin	UL 94 flammability rating	V-0
Volume resistance	≤2 mΩ		

## Connection data PE

Blade size, crosshead	Gr. PZ2	Blade size, slotted (PE connection)	SD 0.8 x 4.0
Connection type PE	Screw connection	Fixing screw	M 5
Rated cross-section	10 mm <sup>2</sup>	Stripping length PE connection	8 mm
Tightening torque, max. PE connection	2.5 Nm	Tightening torque, min. PE connection	2 Nm
Wire cross section, AWG (PE), max.	AWG 8	Wire cross section, AWG (PE), min.	AWG 14

## Power contact

Clamping range, power contact, max.	10 mm <sup>2</sup>	Clamping range, power contact, min.	2.5 mm <sup>2</sup>
Hexagon socket	2 mm	Number of poles, performance contact	6
Rated current (DIN EN 61984), power contact	48 A	Rated impulse voltage (DIN EN 61984), power contact	8 kV
Rated voltage (DIN EN 61984), power contact	690 V	Stripping length, performance contact	8 mm
Tightening torque, max.	0.9 Nm	Tightening torque, min.	0.45 Nm
Tightening torque, power contact, max.	1.7 Nm	Tightening torque, power contact, min.	1.1 Nm
Type of connection, power contact	Axial screw connection		

## 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>	Number of poles, signal	12
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, max.	0.9 Nm	Tightening torque, min.	0.45 Nm
Tightening torque, signal contact, max.	0.8 Nm	Tightening torque, signal contact, min.	0.4 Nm
Type of connection, signal	Screw connection		

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**Technical data****Version**

Clamping screw	M 8 x 0.75 mm	Conductor cross-section, max.	10 mm <sup>2</sup>
Conductor cross-section, min.	2.5 mm <sup>2</sup>	Material	Copper alloy
Size	6	Stripping length, rated connection	8 mm
Surface finish	Silver passivated	Type of connection	Axial screw connection
Volume resistance	≤2 mΩ	Wire connection cross section AWG, max.	AWG 8
Wire connection cross section AWG, min.	AWG 14	Wire connection cross section, finely stranded, max.	10 mm <sup>2</sup>
Wire connection cross section, finely stranded, min.	2.5 mm <sup>2</sup>	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	10 mm <sup>2</sup>
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min.	2.5 mm <sup>2</sup>	Wire cross-section, solid, max.	10 mm <sup>2</sup>
Wire cross-section, solid, min.	2.5 mm <sup>2</sup>		

**Classifications**

ETIM 6.0	EC000438	ETIM 7.0	EC000438
ECLASS 9.0	27-44-02-05	ECLASS 9.1	27-44-02-05
ECLASS 10.0	27-44-02-05	ECLASS 11.0	27-44-02-05

**Approvals**

Approvals



ROHS	Conform
UL File Number Search	E92202

**Downloads**

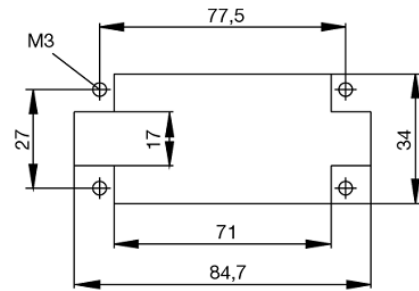
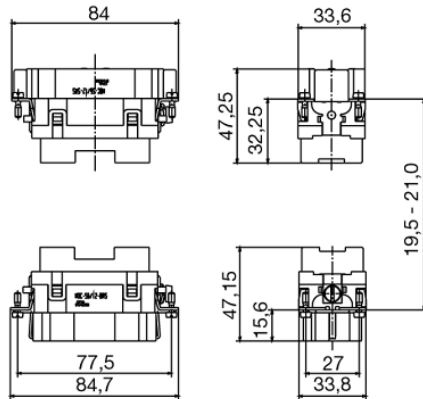
Engineering Data	<a href="#">STEP</a>
Engineering Data	<a href="#">EPLAN, WSCAD, Zuken E3.S</a>

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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 PZ0	
	S 6/12	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0	
<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 PZ0	
	HVE	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0	
	<b>Signal contacts:</b>			
	S 4/2	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0	
	S 4/8	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0	
	<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 PZ0	
	<b>Guide pin</b>	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0	
	<b>Guide bush</b>	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0	
	<b>Coding pins</b>	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0	
	<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.