

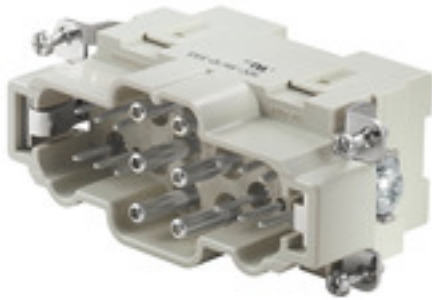
**HDC S6 12 SAS****Weidmüller Interface GmbH & Co. KG**

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, Male, 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 September 16, 2022 11:48:34 AM CEST

Catalogue status 09.09.2022 / 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
Width	34 mm	Width (inches)	1.339 inch
Net weight	147 g		

## 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

BG		Insulating material	PC glass-fibre reinforced (UL-listed and railway-certified)
	6	Insulation strength	10 <sup>10</sup> Ω
Insulating material group	IIIa	Number of poles	18
Material	Copper alloy	Number of signal contacts	12
Number of power contacts	6	Pollution severity	3
Plugging cycles, silver	≥ 500	Rated impulse voltage (DIN EN 61984)	8 kV
Rated current (DIN EN 61984)	48 A	Rated voltage according to UL/CSA	600 V AC/DC
Rated voltage (DIN EN 61984)	690 V	Size	6
Series	MixMate	Type	Male
Surface finish	Silver passivated	Volume resistance	≤2 mΩ
UL 94 flammability rating	V-0		

## Connection data PE

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**

BG	6	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
ETIM 8.0	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	ECLASS 12.0	27-44-02-05

**Approvals**

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E92202

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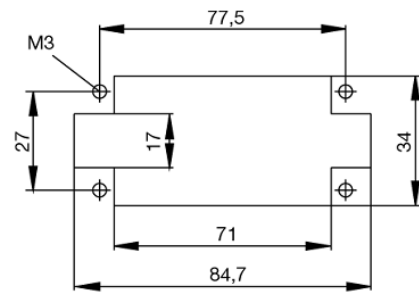
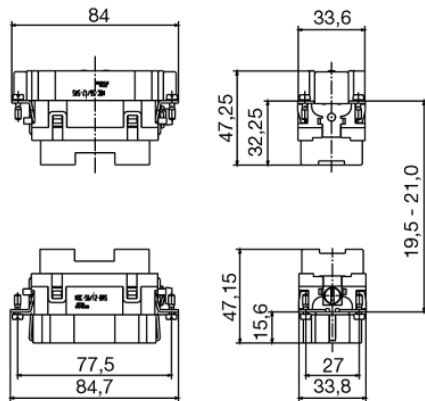
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**Drawings**



# 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.

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