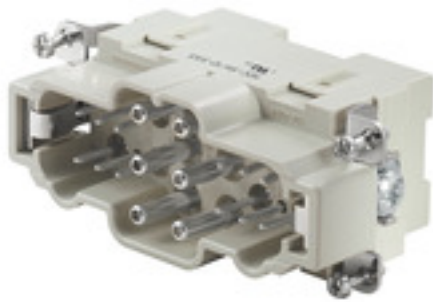


HDC S6 12 SAS**Weidmüller Interface GmbH & Co. KG**

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.	1790000000
Type	HDC S6 12 SAS
GTIN (EAN)	4032248212064
Qty.	1 pc(s).

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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

Insulating material	PC glass-fibre reinforced (UL-listed and railway-certified)	Insulating material group	IIIa
Insulation strength	$10^{10} \Omega$	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	Male	UL 94 flammability rating	V-0
Volume resistance	$\leq 2 \text{ m}\Omega$		

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 ²
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 ²	Clamping range, power contact, min.	2.5 mm ²
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 ²
Clamping range, signal contact, min.	0.5 mm ²	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 ²
Conductor cross-section, min.	2.5 mm ²	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 ²
Wire connection cross section, finely stranded, min.	2.5 mm ²	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	10 mm ²
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min.	2.5 mm ²	Wire cross-section, solid, max.	10 mm ²
Wire cross-section, solid, min.	2.5 mm ²		

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		

Approvals

Approvals



ROHS	Conform
UL File Number Search	E92202

Downloads

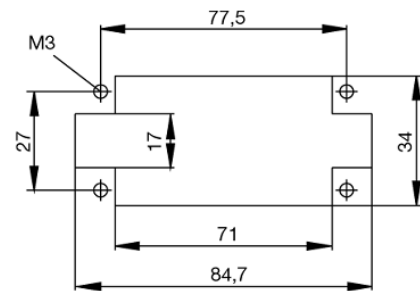
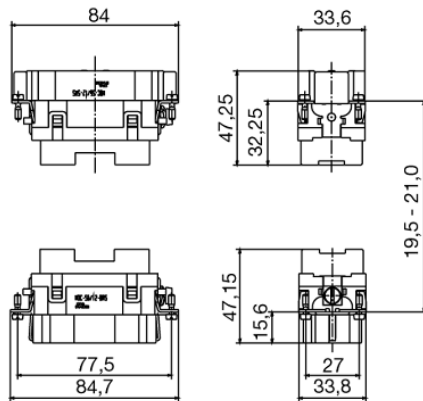
Engineering Data	STEP
Engineering Data	EPLAN, WSCAD, Zuken E3.S
Catalogues	Catalogues in PDF-format
Brochures	FL FIELDWIRING EN FL FIELDWIRING EN

HDC S6 12 SAS

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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
M 2.5	Signal contacts		
	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
M 2.9 x 0.5	Fastening screws		
	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
M 3	Contact screws		
	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
	Signal contacts:		
	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
	PE connection via female contact		
	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
	PE terminal		
	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
	Fastening screws	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0
	Guide pin	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0
	Guide bush	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0
	Coding pins	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0
M 4	Contact screws		
	HSB	1.2 - 1.5	SD 0.6 x 3.5 or 0.8 x 4 mm or PZ1
	PE connection via male contact		
	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
	PE terminal		
	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
M 5	PE terminal		
	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
M 6	Power contacts		
	S 4/0 (Screw connection)	1.2 (1.5 mm ²) / 2 (2.5 mm ²) / 3 (4-16 mm ²)	SD 0.8 x 4 mm
	S 4/2	1.2 (1.5 mm ²) / 2 (2.5 mm ²) / 3 (4-16 mm ²)	SD 0.8 x 4 mm
	S 4/8	1.2 (1.5 mm ²) / 2 (2.5 mm ²) / 3 (4-16 mm ²)	SD 0.8 x 4 mm
M 7 x 0.75	Power contacts		
	S 4	1.1 - 1.7	SW 2
	S 6/6 (+ PE)	6 - 8	SW 4
M 8 x 0.75	Power contacts		
	S 6/12	1.1 - 1.7	SW 2
	S 8/0 (+ PE)	6 (10-16 mm ²) - 7 (25 mm ²)	SW 4
M10 x 1	Power contacts		
	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.