

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

Klingenbergstraße 16

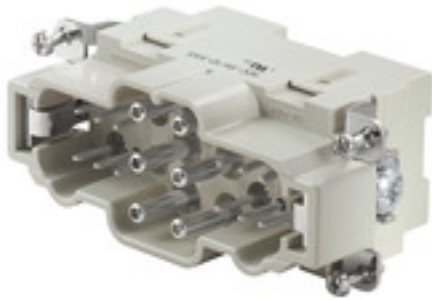
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The MixMate series of connectors can simultaneously transmit high rated currents and voltages as well as signals. An axial screw can be used to secure the wire.
Axial screw connection TOP connection

General ordering data

Type	HDC S6 12 SAS
Order No.	1790000000
Version	HDC insert, Male, 690 V, 48 A, No. of poles: 18, Axial screw connection, Size: 6
GTIN (EAN)	4032248212064
Qty.	1 pc(s).

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Technical data

Dimensions and weights

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

Temperatures

Limit temperature	-40 °C ... 125 °C
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Dimensions

Height of plug	47.3 mm	Total length base	84.5 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	18	No. of power contacts	6
No. 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, 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 ²	Stripping length PE connection	8 mm
Tightening torque, max. PE connection	2.5 Nm	Tightening torque, min. PE connection	2 Nm
Wire connection cross section, finely stranded, max.	10 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 connection cross-section, finely stranded, min.	2.5 mm ²
Wire cross section, AWG (PE), max.	AWG 8	Wire cross section, AWG (PE), min.	AWG 14
Wire cross-section, solid, max.	10 mm ²	Wire cross-section, solid, min.	2.5 mm ²

Power contact

Clamping range, power contact, max.	10 mm ²	Clamping range, power contact, min.	2.5 mm ²
No. 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, power contact, max.	1.7 Nm
Tightening torque, power contact, min.	1.1 Nm	Type of connection, power contact	Axial screw connection

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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	No. 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, signal contact, max.	0.8 Nm	Tightening torque, signal contact, min.	0.4 Nm
Type of connection, signal	Screw connection		

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	≤ 2mΩ	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 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 connection cross-section, finely stranded, min.	2.5 mm ²	Wire cross-section, solid, max.	10 mm ²
Wire cross-section, solid, min.	2.5 mm ²		

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
Descriptive text accessories	Accessories, see chapter J - Tools, see chapter K

Approvals

Approvals



ROHS Conform

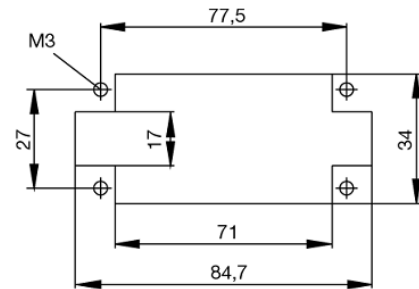
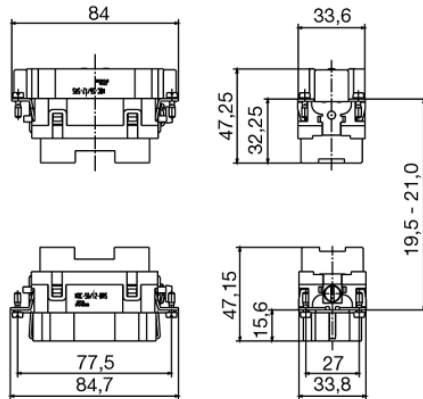
Downloads

Brochure/Catalogue	CAT 3 HDC 17/18 EN FL FIELDWIRING EN
Engineering Data	EPLAN, WSCAD, Zuken E3.S

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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.