

HDC HA 16 MS**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



The small and thin HA series can be used wherever space is limited.

The wire connection level is designed as a screw element. All screw connections are equipped with a wire protection spring (with the exception of size 1).

Pole count: 16

Rated current: 22 A

Rated voltage 250 V

Nominal voltage acc. to UL/CSA: 600 V AC/DC

Screw connection

General ordering data

Version	HDC insert, Male, 250 V, 16 A, Number of poles: 16, Screw connection, Size: 5
Order No.	1650770000
Type	HDC HA 16 MS
GTIN (EAN)	4008 190299392
Qty.	1 pc(s).

Creation date March 17, 2022 9:15:53 AM CET

Catalogue status 11.03.2022 / We reserve the right to make technical changes.

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Technical data

Dimensions and weights

Depth	73 mm	Depth (inches)	2.874 inch
Height	29 mm	Height (inches)	1.142 inch
Width	23 mm	Width (inches)	0.906 inch
Net weight	67 g		

Temperatures

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

REACH SVHC Lead 7439-92-1, Potassium perfluorobutane sulfonate 29420-49-3

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	29 mm	Total length base	73 mm
Width	23 mm		

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Technical data

General data

BG	5	Conductor cross-section	2.5 mm ²
Insulating material	PC glass-fibre reinforced (UL-listed and railway-certified)	Insulating material group	IIIa
Insulation strength	10 ¹⁰ Ω	Material	Copper alloy
Max. torque for main contact	0.55 Nm	Min. torque for main contact	0.5 Nm
Number of poles	16	Plugging cycles, silver	≥ 500
Pollution severity	3	Rated current (DIN EN 61984)	16 A
Rated impulse voltage (DIN EN 61984)	4 kV	Rated voltage (DIN EN 61984)	250 V
Rated voltage according to UL/CSA	600 V AC/DC	Series	HA
Size	5	Surface finish	Silver passivated
Type	Male	UL 94 flammability rating	V-0
Volume resistance	≤2 mΩ		

Connection data PE

Blade size, slotted (PE connection)	SD 0.8 x 4.0	Connection type PE	Screw connection
Fixing screw	M 4	Rated cross-section	2.5 mm ²
Stripping length PE connection	10 mm	Tightening torque, max. PE connection	1.5 Nm
Tightening torque, min. PE connection	1.2 Nm	Wire cross section, AWG (PE), max.	AWG 14
Wire cross section, AWG (PE), min.	AWG 20		

Version

BG	5	Blade size	size PHO
Blade size, slotted (screw connection)	SD 0.6 x 3.5	Clamping screw	M 3
Conductor cross-section, max.	2.5 mm ²	Conductor cross-section, min.	0.5 mm ²
Material	Copper alloy	Max. torque for main contact	0.55 Nm
Min. torque for main contact	0.5 Nm	Size	5
Stripping length, rated connection	9 mm	Surface finish	Silver passivated
Type of connection	Screw connection	Volume resistance	≤2 mΩ
Wire connection cross section AWG, max.	AWG 14	Wire connection cross section AWG, min.	AWG 20
Wire connection cross section, finely stranded, max.	2.5 mm ²	Wire connection cross section, finely stranded, min.	0.5 mm ²
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	2.5 mm ²	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min.	0.5 mm ²
Wire cross-section, solid, max.	2.5 mm ²	Wire cross-section, solid, min.	0.5 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		

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Technical data

Approvals

Approvals



ROHS	Conform
UL File Number Search	E92202

Downloads

Approval/Certificate/Document of Conformity	Manufacturer's declaration
Engineering Data	CAD data – STEP
Engineering Data	EPLAN, WSCAD, Zuken E3.S
Technical Documentation	1650770000 HDC HA 16 MS STP Blatt 1.pdf
Catalogues	Catalogues in PDF-format
Brochures	FL FIELDWIRING EN FL FIELDWIRING EN

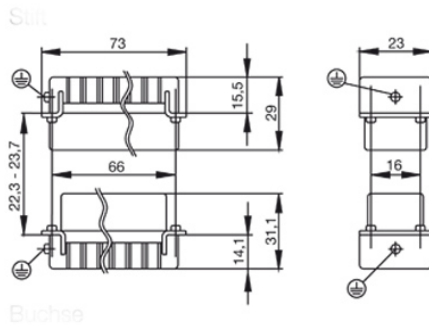
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Drawings

Abmessungen



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.