

HDC HA 16 FS 33-48**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

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

The wire connection level is designed for screw connections. All screw connection elements are equipped with wire protection (with the exception of size 1).

Screw connection

General ordering data

Version	HDC insert, Female, 250 V, 16 A, Number of poles: 16, Screw connection, Size: 5
Order No.	1651020000
Type	HDC HA 16 FS 33-48
GTIN (EAN)	4008190299644
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	73 mm	Depth (inches)	2.874 inch
Height	31.1 mm	Height (inches)	1.224 inch
Width	23 mm	Width (inches)	0.906 inch
Net weight	62.48 g		

Temperatures

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

Height of socket	31.1 mm	Total length base	73 mm
Width	23 mm		

General data

BG	5	
Colour	beige	
Conductor cross-section	2.5 mm²	
Free from halogens	true	
Insulating material	PC glass-fibre reinforced (UL-listed and railway-certified)	
Insulating material group	IIIa	
Insulation strength	10 ¹⁰ Ω	
Low smoke acc. DIN EN 45545-2	Yes	
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 current (UR)	Wire connection cross section AWG	AWG 12
	Rated current	20 A
	Wire connection cross section AWG	AWG 14
	Rated current	15 A
	Wire connection cross section AWG	AWG 16
	Rated current	10 A
	Wire connection cross section AWG	AWG 18
	Rated current	7 A
	Wire connection cross section AWG	AWG 20
Rated current (cUR)	Rated current	5 A
	Wire connection cross section AWG	AWG 12
	Rated current	18.7 A
	Wire connection cross section AWG	AWG 14
	Rated current	14.5 A
	Wire connection cross section AWG	AWG 16
	Rated current	10.5 A
	Wire connection cross section AWG	AWG 18
	Rated current	10 A
Rated current (cUR)	Wire connection cross section AWG	AWG 20
	Rated current	7.5 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	

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Technical data

Series	HA
Size	5
Surface finish	Silver passivated
Type	Female
Type of connection	Screw connection
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	ETIM 9.0	EC000438
ETIM 10.0	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
ECLASS 13.0	27-44-02-05	ECLASS 14.0	27-44-02-05
ECLASS 15.0	27-44-02-05		

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

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Technical data

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

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	6c
REACH SVHC	Lead 7439-92-1 Potassium perfluorobutane sulfonate 29420-49-3
SCIP	b67daa31-7dca-434d-8290-da7fb52f83a2
Chemical resistance	de.myview.objectmodel.impl.BlockImpl@311cd00c de.myview.objectmodel.impl.BlockImpl@495a2ec7 de.myview.objectmodel.impl.BlockImpl@6d4f3b6 de.myview.objectmodel.impl.BlockImpl@7d54f675 de.myview.objectmodel.impl.BlockImpl@2a9fc563 de.myview.objectmodel.impl.BlockImpl@322beae1 de.myview.objectmodel.impl.BlockImpl@13c3e651 de.myview.objectmodel.impl.BlockImpl@497e4d02 de.myview.objectmodel.impl.BlockImpl@1d9e3d93 de.myview.objectmodel.impl.BlockImpl@708fb023 de.myview.objectmodel.impl.BlockImpl@7cf2310d de.myview.objectmodel.impl.BlockImpl@47df75cc

Approvals

Approvals



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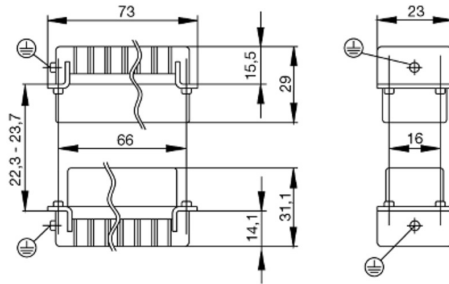
Approval/Certificate/Document of Conformity	Manufacturer's declaration
Engineering Data	CAD data – STEP
Technical Documentation	1651020000_HDC_HA_16_FS_33-48_STP_Blatt_1.pdf
Catalogues	Catalogues in PDF-format
Brochures	FL FIELDWIRING EN FL FIELDWIRING EN

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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.