

HDC HQ 4/2 MC**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



The HQ series - big features in a compact design. The electrical characteristics speak for themselves. You can also use the proven HD and HX crimp contacts here. The wire connection level is designed for crimp contacts. The proven crimp connection has been in standard use for decades.

Crimp contacts are not included in the scope of delivery of inserts.

Pole count: **4/2 (+PE)**

Rated current: **40/10 A**

Rated voltage: **690 / 250 V**

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

Crimp connection

General ordering data

Version	HDC insert, Pin, 690 V, 40 A, Number of poles: 6, Crimp connection, Size: HQ
Order No.	1003170000
Type	HDC HQ 4/2 MC
GTIN (EAN)	4032248698165
Qty.	1 pc(s).

Creation date January 19, 2023 2:33:40 PM CET

Catalogue status 09.01.2023 / We reserve the right to make technical changes.

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Technical data

Dimensions and weights

Depth	41.6 mm	Depth (inches)	1.638 inch
Height	48 mm	Height (inches)	1.89 inch
Width	22.4 mm	Width (inches)	0.882 inch
Net weight	23 g		

Temperatures

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

Height of plug	48 mm	Total length base	41.6 mm
Width	22.4 mm		

General data

BG		Insulating material	PC glass-fibre reinforced (UL-listed and railway-certified)
	HQ		
Insulating material group	IIIa	Insulation strength	10 ¹⁰ Ω
Material	Copper alloy	Number of poles	6
Number of power contacts	4	Number of signal contacts	2
Plugging cycles, gold	≥ 500	Plugging cycles, silver	≥ 500
Pollution severity	3	Power contact, type	HX
Rated current (DIN EN 61984)	40 A	Rated impulse voltage (DIN EN 61984)	6 kV
Rated voltage (DIN EN 61984)	690 V	Rated voltage according to UL/CSA	600 V AC/DC
Series	HQ	Signal contact, type	HD
Size	HQ	Type	Pin
UL 94 flammability rating	V-0	Volume resistance	≤1 mΩ, ≤4 mΩ

Connection data PE

Connection type PE	Crimp connection	Rated cross-section	6 mm ²
Stripping length PE connection	9 mm	Wire cross section, AWG (PE), max.	AWG 10
Wire cross section, AWG (PE), min.	AWG 16		

Power contact

Clamping range, power contact, max.	6 mm ²	Clamping range, power contact, min.	1.5 mm ²
Number of poles, performance contact	4	Rated current (DIN EN 61984), power contact	40 A
Rated impulse voltage (DIN EN 61984), power contact	6 kV	Rated voltage (DIN EN 61984), power contact	690 V
Stripping length, performance contact	9 mm	Type of connection, power contact	Crimp connection

Signal contact

Clamping range, signal contact, max.	2.5 mm ²	Clamping range, signal contact, min.	0.14 mm ²
Number of poles, signal	2	Rated current (DIN EN 61984), signal	10 A
Rated impulse voltage (DIN EN 61984), signal	4 kV	Rated voltage (DIN EN 61984), signal contact	250 V
Stripping length, signal	8 mm	Type of connection, signal	Crimp connection

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Technical data

Version

BG	HQ	Conductor cross-section, max.	6 mm ²
Conductor cross-section, min.	1.5 mm ²	Material	Copper alloy
Size	HQ	Stripping length, rated connection	9 mm
Type of connection	Crimp connection	Volume resistance	≤1 mΩ, ≤4 mΩ
Wire connection cross section AWG, max.	AWG 10	Wire connection cross section AWG, min.	AWG 16
Wire connection cross section, finely stranded, max.	6 mm ²	Wire connection cross section, finely stranded, min.	1.5 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	ECLASS 12.0	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
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

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Environmental Product Compliance

REACH SVHC	Potassium perfluorobutane sulfonate 29420-49-3 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol 119-47-1
SCIP	90e73fd4-d5ee-4f53-95e4-fe79a5c92ace
Chemical resistance	de.myview.objectmodel.impl.BlockImpl@4614b9f4 de.myview.objectmodel.impl.BlockImpl@2c9fb339 de.myview.objectmodel.impl.BlockImpl@11ffeb33 de.myview.objectmodel.impl.BlockImpl@6db4beba de.myview.objectmodel.impl.BlockImpl@e0c61e1 de.myview.objectmodel.impl.BlockImpl@5fdb0d62 de.myview.objectmodel.impl.BlockImpl@3113d3d9 de.myview.objectmodel.impl.BlockImpl@791afa2f de.myview.objectmodel.impl.BlockImpl@14f49f84 de.myview.objectmodel.impl.BlockImpl@13c32065 de.myview.objectmodel.impl.BlockImpl@3ce1b4df de.myview.objectmodel.impl.BlockImpl@1284eae

Approvals

Approvals



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

Downloads

Approval/Certificate/Document of Conformity	Manufacturer's declaration
Engineering Data	CAD data – STEP
Engineering Data	WSCAD
Catalogues	Catalogues in PDF-format
Brochures	FL FIELDWIRING EN FL FIELDWIRING EN

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.