

HDC HQ 4/2 FC**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, Female, 690 V, 40 A, Number of poles: 6, Crimp connection, Size: HQ
Order No.	1003160000
Type	HDC HQ 4/2 FC
GTIN (EAN)	4032248698158
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	41.6 mm	Depth (inches)	1.638 inch
Height	39.8 mm	Height (inches)	1.567 inch
Width	22.4 mm	Width (inches)	0.882 inch
Net weight	13.2 g		

Temperatures

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

Height of socket	39.8 mm	Total length base	41.6 mm
Width	22.4 mm		

General data

BG	HQ	Colour	beige
Free from halogens	false	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
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	Female	Type of connection	Crimp connection
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 8
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 current power circuit (UR)	Wire connection cross section AWG	AWG 10	
	Rated current	40 A	
	Wire connection cross section AWG	AWG 12	
	Rated current	20 A	
	Wire connection cross section AWG	AWG 14	
	Rated current	15 A	
Rated current power circuit (UR)	Wire connection cross section AWG	AWG 16	
	Rated current	10 A	

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Rated current power circuit (cUR)	Wire connection cross section AWG	AWG 10
	Rated current	30 A
	Wire connection cross section AWG	AWG 12
	Rated current	25 A
	Wire connection cross section AWG	AWG 14
	Rated current	18 A
Rated current signal circuit (UR)	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	5 A
Rated current signal circuit (cUR)	Wire connection cross section AWG	AWG 22
	Rated current	3 A
	Wire connection cross section AWG	AWG 14
	Rated current	10.5 A
	Wire connection cross section AWG	AWG 16
	Rated current	8.2 A
Rated current signal circuit (cUR)	Wire connection cross section AWG	AWG 18
	Rated current	6.8 A
	Wire connection cross section AWG	AWG 20
	Rated current	5.7 A
	Wire connection cross section AWG	AWG 22
	Rated current	4.3 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 current power circuit (UR)	Wire connection cross section AWG	AWG 10
	Rated current	40 A
	Wire connection cross section AWG	AWG 12
	Rated current	20 A
	Wire connection cross section AWG	AWG 14
	Rated current	15 A
Rated current power circuit (cUR)	Wire connection cross section AWG	AWG 16
	Rated current	10 A
	Wire connection cross section AWG	AWG 10
	Rated current	30 A
	Wire connection cross section AWG	AWG 12
	Rated current	25 A
Rated current power circuit (cUR)	Wire connection cross section AWG	AWG 14
	Rated current	18 A
	Wire connection cross section AWG	AWG 16
	Rated current	14 A

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Rated current signal circuit (UR)	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	5 A	
Rated current signal circuit (cUR)	Wire connection cross section AWG	AWG 22	
	Rated current	3 A	
	Wire connection cross section AWG	AWG 14	
	Rated current	10.5 A	
	Wire connection cross section AWG	AWG 16	
	Rated current	8.2 A	
	Wire connection cross section AWG	AWG 18	
	Rated current	6.8 A	
Rated impulse voltage (DIN EN 61984), signal	Wire connection cross section AWG	AWG 20	
	Rated current	5.7 A	
	Wire connection cross section AWG	AWG 22	
	Rated current	4.3 A	
	Rated voltage (DIN EN 61984), signal contact	250 V	
	Stripping length, signal	8 mm	
	Type of connection, signal	Crimp connection	

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 8	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	ETIM 9.0	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		

Substance	Acetone
Chemical resistance	Resistant
Substance	Ammonia, watery
Chemical resistance	Conditionally resistant
Substance	Petrol
Chemical resistance	Resistant
Substance	Benzene
Chemical resistance	Resistant

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Technical data

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

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	Potassium perfluorobutane sulfonate 29420-49-3
SCIP	1609748e-c278-4c9b-b3d1-e6215d2988cd
Chemical resistance	de.myview.objectmodel.impl.BlockImpl@35f90b25 de.myview.objectmodel.impl.BlockImpl@435cf535 de.myview.objectmodel.impl.BlockImpl@2d02d3c9 de.myview.objectmodel.impl.BlockImpl@75864876 de.myview.objectmodel.impl.BlockImpl@85bc5c0 de.myview.objectmodel.impl.BlockImpl@2c8a6ca3 de.myview.objectmodel.impl.BlockImpl@17ad6e60 de.myview.objectmodel.impl.BlockImpl@502f411b de.myview.objectmodel.impl.BlockImpl@68ceb1b de.myview.objectmodel.impl.BlockImpl@791c701d de.myview.objectmodel.impl.BlockImpl@53ecf30 de.myview.objectmodel.impl.BlockImpl@2fb36115

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
Catalogues	Catalogues in PDF-format
Brochures	FL FIELDWIRING EN FL FIELDWIRING EN

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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.