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	15 g		

Temperatures

Limit temperature	-40 °C ... 125 °C

Dimensions

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

General data

BG	HQ	Insulating material	PC glass-fibre reinforced (UL-listed and railway-certified)
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	Female
UL 94 flammability rating	V-0	Volume resistance	≤1 mΩ, ≤4 mΩ

Connection data PE

Connection type PE	Crimp connection	Rated cross-section	6 mm²
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 mm²	Clamping range, power contact, min.	1.5 mm²
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 mm²	Clamping range, signal contact, min.	0.14 mm²
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 mm²
Conductor cross-section, min.	1.5 mm²	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 mm²	Wire connection cross section, finely stranded, min.	1.5 mm²

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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Technical data

Environmental Product Compliance

REACH SVHC	Potassium perfluorobutane sulfonate 29420-49-3
SCIP	1609748e-c278-4c9b-b3d1-e6215d2988cd
Chemical resistance	de.myview.objectmodel.impl.BlockImpl@4e3783cd de.myview.objectmodel.impl.BlockImpl@11c3ec4b de.myview.objectmodel.impl.BlockImpl@8c21404 de.myview.objectmodel.impl.BlockImpl@1a10c7c5 de.myview.objectmodel.impl.BlockImpl@684b16a1 de.myview.objectmodel.impl.BlockImpl@66641e57 de.myview.objectmodel.impl.BlockImpl@7e9e44ab de.myview.objectmodel.impl.BlockImpl@62ac9a52 de.myview.objectmodel.impl.BlockImpl@52e266b8 de.myview.objectmodel.impl.BlockImpl@14325c15 de.myview.objectmodel.impl.BlockImpl@1885f924 de.myview.objectmodel.impl.BlockImpl@1e7d8e6c

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.