

**HDC HVE 10+2 MS****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)

The HVE-series high-voltage inserts are equipped with two lagging contacts.

The wire connection level is designed as a screw element. All screw connections are equipped with a wire protection spring.

Number of poles: **12**

Rated current: **23 A**

Rated voltage: **830 V**

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

Screw connection

**General ordering data**

Version	HDC insert, Male, 830 V, 20 A, Number of poles: 12, Screw connection, Size: 8
Order No.	<a href="#">1651350000</a>
Type	HDC HVE 10+2 MS
GTIN (EAN)	4008190299958
Qty.	1 pc(s).

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## Technical data

## Dimensions and weights

Depth	111 mm	Depth (inches)	4.37 inch
Height	35.7 mm	Height (inches)	1.406 inch
Width	34 mm	Width (inches)	1.339 inch
Net weight	97 g		

## Temperatures

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

Height of plug	35.7 mm	Total length base	111 mm
Width	34 mm		

## General data

BG	8	Colour	beige
Conductor cross-section	2.5 mm <sup>2</sup>	Free from halogens	true
Insulating material	PC glass-fibre reinforced (UL-listed and railway-certified)	Insulating material group	IIIa
Insulation strength	10 <sup>10</sup> 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	12
Number of power contacts	10	Number of signal contacts	2
Plugging cycles, silver	≥ 500	Pollution severity	3
Rated current (DIN EN 61984)	20 A	Rated impulse voltage (DIN EN 61984)	8 kV
Rated voltage (DIN EN 61984)	830 V	Rated voltage according to UL/CSA	600 V AC/DC
Series	HVE	Size	8
Surface finish	Silver passivated	Type	Male
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	4 mm <sup>2</sup>
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 12
Wire cross section, AWG (PE), min.	AWG 20		

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## Technical data

## Version

BG	8	Blade size	size PZ0
Blade size, slotted (screw connection)	SD 0.6 x 3.5	Clamping screw	M 3
Conductor cross-section, max.	2.5 mm <sup>2</sup>	Conductor cross-section, min.	0.5 mm <sup>2</sup>
Material	Copper alloy	Max. torque for main contact	0.55 Nm
Min. torque for main contact	0.5 Nm	Size	8
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.	4 mm <sup>2</sup>	Wire connection cross section, finely stranded, min.	0.5 mm <sup>2</sup>
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	4 mm <sup>2</sup>	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min.	0.5 mm <sup>2</sup>
Wire cross-section, solid, max.	4 mm <sup>2</sup>	Wire cross-section, solid, min.	0.5 mm <sup>2</sup>

## 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

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

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## Technical data

Chemical resistance	Conditionally resistant
Substance	Outdoor use
Chemical resistance	Conditionally resistant

## Environmental Product Compliance

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@8c56506 de.myview.objectmodel.impl.BlockImpl@76502c37 de.myview.objectmodel.impl.BlockImpl@1361c02e de.myview.objectmodel.impl.BlockImpl@eedb3aa de.myview.objectmodel.impl.BlockImpl@2d231a24 de.myview.objectmodel.impl.BlockImpl@5ae5aa23 de.myview.objectmodel.impl.BlockImpl@479871e1 de.myview.objectmodel.impl.BlockImpl@240bea5b de.myview.objectmodel.impl.BlockImpl@114c36c4 de.myview.objectmodel.impl.BlockImpl@668f327c de.myview.objectmodel.impl.BlockImpl@621c5035 de.myview.objectmodel.impl.BlockImpl@19be271f

## Approvals

Approvals



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

## Downloads

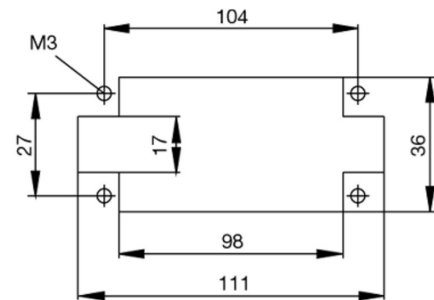
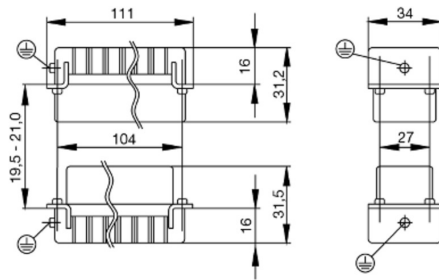
Approval/Certificate/Document of Conformity	<a href="#">Manufacturer's declaration</a>
Engineering Data	<a href="#">CAD data – STEP</a>
Technical Documentation	<a href="#">1651350000 HDC HVE 10+2 MS STP Blatt_1.pdf</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	<a href="#">FL FIELDWIRING EN</a> <a href="#">FL FIELDWIRING EN</a>

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## Drawings



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[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Crosshead screwdriver Phillips**

Crosshead screwdriver, Phillips, SDK PH DIN 5262, ISO 8764/2-PH, output to ISO 8764-PH, ChromTop tip, SoftFinish grip

**General ordering data**

Type	SDK PH1	Version
Order No.	<a href="#">9008480000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248056477	
Qty.	1 pc(s).	

**DSTV**

Various accessories are available for our inserts. This includes coding elements for the inserts.

**General ordering data**

Type	DSTV COBU5	Version
Order No.	<a href="#">1471500000</a>	Heavy-duty connectors, Accessories, Coding element
GTIN (EAN)	4008190178543	
Qty.	100 pc(s).	
Type	DSTV COST4	Version
Order No.	<a href="#">1471300000</a>	Heavy-duty connectors, Accessories, Coding System
GTIN (EAN)	4008190017354	
Qty.	100 pc(s).	

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[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Slotted screwdriver**

Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

**General ordering data**

Type	SDS 0.8X4.0X100	Version
Order No.	<a href="#">9008340000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248056293	
Qty.	1 pc(s).	
Type	SDS 0.6X3.5X100	Version
Order No.	<a href="#">9008330000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248056286	
Qty.	1 pc(s).	

**Crosshead screwdriver Phillips**

VDE insulated crosshead screwdriver, for Phillips screws, SDIK PH DIN 7438, ISO 8764/2-PH, output to ISO 8764-PH, SoftFinish grip

**General ordering data**

Type	SDIK PH1	Version
Order No.	<a href="#">9008570000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248056569	
Qty.	1 pc(s).	

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[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Slotted screwdriver**

VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1.  
SoftFinish grip

**General ordering data**

Type	SDIS 0.8X4.0X100	Version
Order No.	<a href="#">9008400000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248056361	
Qty.	1 pc(s).	
Type	SDIS 0.6X3.5X100	Version
Order No.	<a href="#">9008390000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248056354	
Qty.	1 pc(s).	



# Tightening torques and screwing tools

Screw size	Connector type	Dia. tightening torque in Nm	Recommended blade inserts and AF size for hexagon socket
<b>M 2.5</b>	<b>Signal contacts</b>		
	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
<b>M 2.9 x 0.5</b>	<b>Fastening screws</b>		
	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
<b>M 3</b>	<b>Contact screws</b>		
	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
	<b>Signal contacts:</b>		
	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
	<b>PE connection via female contact</b>		
	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
	<b>PE terminal</b>		
	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
	<b>Fastening screws</b>	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0
	<b>Guide pin</b>	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0
	<b>Guide bush</b>	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0
	<b>Coding pins</b>	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0
<b>M 4</b>	<b>Contact screws</b>		
	HSB	1.2 - 1.5	SD 0.6 x 3.5 or 0.8 x 4 mm or PZ1
	<b>PE connection via male contact</b>		
	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
	<b>PE terminal</b>		
	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
<b>M 5</b>	<b>PE terminal</b>		
	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
<b>M 6</b>	<b>Power contacts</b>		
	S 4/0 (Screw connection)	1.2 (1.5 mm <sup>2</sup> ) / 2 (2.5 mm <sup>2</sup> ) / 3 (4-16 mm <sup>2</sup> )	SD 0.8 x 4 mm
	S 4/2	1.2 (1.5 mm <sup>2</sup> ) / 2 (2.5 mm <sup>2</sup> ) / 3 (4-16 mm <sup>2</sup> )	SD 0.8 x 4 mm
	S 4/8	1.2 (1.5 mm <sup>2</sup> ) / 2 (2.5 mm <sup>2</sup> ) / 3 (4-16 mm <sup>2</sup> )	SD 0.8 x 4 mm
<b>M 7 x 0.75</b>	<b>Power contacts</b>		
	S 4	1.1 - 1.7	SW 2
	S 6/6 (+ PE)	6 - 8	SW 4
<b>M 8 x 0.75</b>	<b>Power contacts</b>		
	S 6/12	1.1 - 1.7	SW 2
	S 8/0 (+ PE)	6 (10-16 mm <sup>2</sup> ) - 7 (25 mm <sup>2</sup> )	SW 4
<b>M10 x 1</b>	<b>Power contacts</b>		
	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.