

PVC DC 2I 2O 12MPP RD SPD1R WM4 11

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com



For safe remote shutdown Rooftop photovoltaic systems can require a disconnection device at the point where the cables enter into the building, that is connected to the power grid in the building. This allows the fire brigade to carry out their work in an emergency without being unnecessarily endangered. When the power supply is restored, the PV Next Fireman Switch automatically reconnects the PV strings.

General ordering data

Version	Photovoltaics, Combiner Box, Fireman's switch, PV Next, 12 MPP's, 2 Inputs / 2 Outputs per MPP, Surge protection I / II, Remote disconnecter, WM4C, 1100 V
Order No.	8000130057
Type	PVC DC 2I 2O 12MPP RD SPD1R WM4 11
GTIN (EAN)	4099987231800
Qty.	1 items

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Technical data

Approvals

ROHS	Conform
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Dimensions and weights

Depth	307 mm	Depth (inches)	12.0866 inch
Height	640 mm	Height (inches)	25.1968 inch
Width	800 mm	Width (inches)	31.496 inch
Net weight	20036.34 g		

Temperatures

Ambient temperature	-20 °C...50 °C	Humidity	5 - 90 %, no condensation
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Environmental Product Compliance

RoHS Compliance Status	Compliant
REACH SVHC	Lead 7439-92-1

Included in delivery

Included accessories	Article	Mounting foot
	Quantity	4
	Article	Dustcap VSSO
	Quantity	48
	Article	Sealing plug
	Quantity	4

Guarantee

Time interval	5 years
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Electrical characteristics

Rated DC voltage	1100 V	
Rated short-term current resistance	Rated current	51.25 A
Current per Maximum Power Point, max.	41 A	
Rated DC current per connection	Current per string, max.	35.00 A

Enclosure

Cover	Hinged door	Insulating material	Polyester glass-fibre reinforced, Polycarbonate
Type of mounting	Wall mounting	Impact resistance	IK10 in accordance with IEC 62262
Enclosure attachment	Via mounting feet	Protection class	II
Connection type string	Plug WM4C		

General data

Standards	EN 61439-2, OVE-Directive R 11-1:2022-05-01, EN 61643-31	Protection degree	IP65
Installation location	Protected outdoor area (>1 km from sea)		

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Inputs

Amount of maximum power points (MPP)	12		
Functional earth connector	Cable entry	Number of cable entries	2
		Wire connection	Type of connection PUSH IN with actuator
		Flexible, max. H05(07) 25 mm ² V-K	
		w. wire end ferrule, DIN 46228 pt 1, max.	16 mm ²
Number of conduit inlets	6		
DC Input + & -	Wire connection	Type of connection	WM4C plug-in connector
		Wire cross-section, min.	4 mm ²
		Wire cross-section, max.	6 mm ²
Fuse type	Neither fuse cartridge nor holder		
Fuses	No		
Max. number of DC inputs	per Maximum Power Point 2 inputs connected in parallel		
Number of string inputs per MPP	≤ 2		
Surge protection auxiliary contact	Cable entry	Number of cable entries	1
		Wire connection	Type of connection PUSH IN with actuator
		Flexible, max. H05(07) 2.5 mm ² V-K	
		w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm ²
Number of inputs	24		

Outputs

Max. number of DC outputs	per Maximum Power Point 2 outputs connected in parallel		
DC Output + & -	Wire connection	Type of connection	WM4C plug-in connector
		Wire cross-section, min.	4 mm ²
		Wire cross-section, max.	6 mm ²

Remote disconnecter

Automatic reclosing after voltage drop	Yes		
Number of operating cycles	10000		
Control voltage	100 V AC - 250 V AC 50/60Hz		
Remote disconnecter auxiliary contact	Cable entry	Number of cable entries	1
		Wire connection	Type of connection PUSH IN with actuator
		Flexible, max. H05(07) 2.5 mm ² V-K	
		w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm ²
Remote disconnecter control contact	Cable entry	Number of cable entries	1
		Wire connection	Type of connection PUSH IN with actuator
		Flexible, max. H05(07) 2.5 mm ² V-K	
		w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm ²
Type of power circuit disconnection	Under voltage tripping		

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Technical data

Turn-off time	1.5 s	
Current consumption of switch	Type of switch	Fireman switch
	Current consumption, note	The Peak current only arises for a short time when the capacitors of the fireman switch were previously completely discharged.
	Current consumption peak	900 mA
	Current consumption continuous	90 mA
Number of breaking operation cycles at rated current	300	
Switch disconnecter execution	Remote disconnecter inside enclosure	
Switching disconnecter capacity	DC-PV1	

Surge protection DC side

Standards	EN 61439-2, OVE-Directive R 11-1:2022-05-01, EN 61643-31	Lightning test current limp (10/350 µs)	5 kA
Protection level Up (+/-, -/PE, +/-PE)	≤ 3.8 kV	Standby power consumption PC	<0.2 W
Short-circuit current ISCPV	11000 A	Total discharge current I _{total} (8/20µs)	50 kA
Discharge current I _n (8/20 µs)	20 kA	Requirements class	Type I/II
Total discharge current I _{total} (10/350µs)	10 kA	Protection level Up (-/PE)	≤ 3.8 kV
Protection level Up (+/-)	≤ 3.8 kV	Protection level Up (+/PE)	≤ 3.8 kV
PV system voltage, max. U _{cpv}	1100 V	Surge protection DC side	1000 V type I + II
Maximum continuous operating voltage DC UCPV mode +/-, -/PE, +/-PE	1100 V		

Classifications

ETIM 8.0	EC003857	ETIM 9.0	EC003857
ETIM 10.0	EC003857	ECLASS 14.0	22-57-02-92
ECLASS 15.0	22-57-02-92		

Tender specification sheets

Long specification	<p>Combiner box for inverters with Fireman switch and surge protection for the connection to 12 MPP tracker.</p> <p>Suitable for remote disconnection of the DC side by the fire department according to VDE-AR-E2100-712.</p> <p>Max. string voltage U_{oc}: 1100 VDC Integrated surge protection with class I+II combined arresters with signal contact.</p> <p>Suitable for protection against overvoltages in a photovoltaic system according to DIN CLC/TS 51643-32. MPP1: 2 inputs, connection via WM4 C connector, compatible with cable type TÜV 2 Pfg 1169/08.07 / EN 50618:2063</p> <p>2 outputs, connection via WM4 C connector,</p>
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compatible with cable type
TÜV 2 Pfg 1 169/08.07 /
EN 50618:2063
MPP2 to 12:
identical to MPP1 DC
fireman switch:
Switching off by
undervoltage tripping.
Switching off by reaching a
temperature of ≥ 100 °C in
the housing.
Automatic reconnection
after the control voltage
(230 V AC) is applied
again.
With signal contact.
Connection of the fireman
switch control line 230
VAC via M16 cable glands
(Clamping range 5-10
mm \emptyset) max. conductor
cross-section: 1.5 mm².
Connection of the signal
contact 24 VDC (max. 300
mA) via M16 cable glands
(Clamping range 5-10
mm \emptyset) max. conductor
cross-section: 1.5 mm².
Protection class: IP65.
All built into a glas fibre
reinforced polyester
housing. Dimensions
HxWxD: 683x800x327
mm. Approval according to
low voltage switchgear IEC
61439-1 and EN 61439-2

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Drawings

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Accessories

Cutting tools



Cutting tools for conductors up to 8 mm, 12 mm, 14 mm and 22 mm outside diameter. The special blade geometry allows pinch-free cutting of copper and aluminium conductors with minimum physical effort. The cutting tools (KT 8 to KT 22) also come with VDE and GS-tested protective insulation up to 1,000 V in accordance with EN/IEC 60900.

General ordering data

Type	KT 14	Version	
Order No.	1157820000	Cutting tools, Cutting tool for one-hand operation	
GTIN (EAN)	4032248945344		
Qty.	1 ST		

Tools



- For flexible and solid conductors with special insulating materials
- High-quality stripping for industrial applications (complies with aircraft industry requirements)
- Specially shaped blades enable stripping of special types of insulation and conductor configurations
- Stripping length adjustable via end stop
- Very versatile thanks to interchangeable stripping units
- Stripping results reproduced accurately over and over again
- No damage to the conductor
- A long-lasting, reliable tool thanks to its sturdy design
- Integrated cutting function

General ordering data

Type	MULTI-STRIPAX PV	Version	
Order No.	1190490000	Photovoltaics, Plug-in connector	
GTIN (EAN)	4032248973262		
Qty.	1 ST		

Crosshead screwdriver Phillips



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

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Accessories

General ordering data

Type	SDK PH3	Version	
Order No.	9008500000	Screwdriver, Screwdriver	
GTIN (EAN)	4032248056491		
Qty.	1 ST		

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 0.6X3.5X100	Version	
Order No.	9008330000	Screwdriver, Screwdriver	
GTIN (EAN)	4032248056286		
Qty.	1 ST		
Type	SDS 1.0X5.5X150	Version	
Order No.	9008350000	Screwdriver, Screwdriver	
GTIN (EAN)	4032248056316		
Qty.	1 ST		

PV-Stick field connectors



Faster is better. This also applies to the cabling of solar systems. Our handy connectors stay firmly in your grip even in frosty temperatures and can be installed very quickly and easily without a crimping tool.

You don't need crimp contacts and crimping tools and you avoid assembly errors. This saves up to 50% installation time – without affecting quality. The new photovoltaic connectors are TÜV-approved and comply with IEC 62852.

Our "SNAP IN" technology enables safe connections with minimal effort – insert, turn: current!

- 1.500 V DC (DE) / 1,500 V DC (EN)
- SNAP IN technology
- Standard-compliant quality in accordance with IEC 62852
- Ergonomic, prize-winning design
- Fastest PV connector currently available
- Reliable latching

General ordering data

Type	PV-STICK+ VPE10	Version	
Order No.	1303450000	Photovoltaics, Plug-in connector, DC version	
GTIN (EAN)	4050118102468		
Qty.	10 ST		

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Accessories

Type	PV-STICK- VPE10	Version	
Order No.	1303490000		Photovoltaics, Plug-in connector, DC version
GTIN (EAN)	4050118102529		
Qty.	10 ST		

Accessories



The dust protection cap "Dustcap VSSO" protects the Weidmüller and type 4 solar connectors against dust and dirt.

The "SafetyClip" protects the Weidmüller solar connectors against unintentional opening and can only be released using the special multi-tool.

General ordering data

Type	VSSO WM4 C	Version	
Order No.	1254870000		Photovoltaics, Flat design
GTIN (EAN)	4050118047479		
Qty.	100 ST		

UV-resistant cable ties



UV-resistant polyamide 6.6 ensures long durability of our special cable ties even with strong UV radiation. Ideal for continuous outdoor use.

General ordering data

Type	CB-UVR 290/4,5 BK	Version	
Order No.	2659350000		Cable ties, 4.5 x 290 mm, Polyamide 66, 220 N
GTIN (EAN)	4050118682816		
Qty.	100 ST		

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Accessories

Emergency stop button



General ordering data

Type	AC SB E 5A 1POL PO 06KV	Version	
Order No.	3077660000	Photovoltaics, Emergency stop button, 1 pole, 600 V AC, 5 A,	
GTIN (EAN)	4099987081887	Complete enclosure	
Qty.	1 ST		

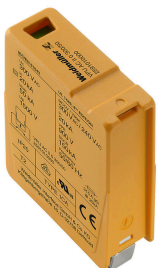
Sealing sets



General ordering data

Type	BLINDPLUG SET5 7X28MM	Version	
Order No.	3077670000	Photovoltaics, Blind plug	
GTIN (EAN)	4099987081894		
Qty.	1 ST		
Type	BLINDPLUG SET50 7X28MM	Version	
Order No.	3077650000	Photovoltaics, Blind plug, Accessories, Blind plug, 50 pieces	
GTIN (EAN)	4099987081870		
Qty.	1 ST		

Spare Arrester



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Accessories

General ordering data

Type	VPU PV I+II 5 0 1000	Version
Order No.	2857000000	
GTIN (EAN)	4064675537366	
Qty.	9 ST	
Type	VPU PV I+II 5 0M 1000	Version
Order No.	2856650000	
GTIN (EAN)	4064675536581	
Qty.	9 ST	

Replacement parts



General ordering data

Type	BRES REPLACEMENT HINGE	Version
Order No.	3098500000	Photovoltaics, Spare part, Hinge pin, 10 MPP's, 12 MPP's
GTIN (EAN)	4099987129831	
Qty.	1 ST	
Type	BRES BO-OFM-14-B44-86 W...	Version
Order No.	3139420000	Photovoltaics, Mounting foot, Spare part, Mounting foot, 10 MPP's,
GTIN (EAN)	4099987378390	12 MPP's
Qty.	1 ST	