

PVC DC 2I 10 4MPP 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, 1100 V, 4 MPP´s, 2 Inputs / 1 Output per MPP, Surge protection I / II, Remote disconnect, WM4C
Order No.	8000115470
Type	PVC DC 2I 10 4MPP RD SPD1R WM4 11
GTIN (EAN)	4099986849969
Qty.	1 items

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Technical data

Approvals

Approvals



ROHS Conform

Dimensions and weights

Depth	132 mm	Depth (inches)	5.1968 inch
Height	346 mm	Height (inches)	13.622 inch
Width	400 mm	Width (inches)	15.748 inch
Net weight	7559 g		

Temperatures

Ambient temperature -20 °C...50 °C Humidity 5...95 %, no condensation

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cl
REACH SVHC	Lead 7439-92-1
SCIP	bdab5698-6a20-4370-8e28-8810d882d01a

Included in delivery

Included accessories	Article	Mounting foot
	Quantity	4
	Article	Sealing plug
	Quantity	1

Approvals and norms

Approvals EN 61439-2, IEC 61439-2, OVE-Directive R 11-1:2022-05-01

Guarantee

Time interval 5 years

Electrical characteristics

Rated DC voltage	1100 V
Rated short-term current resistance	Rated current 43.75 A
Current per Maximum Power Point, max. 35 A	
Rated DC current per connection	Current per string, max. 35.00 A

Enclosure

Insulating material	Polyester glass-fibre reinforced, Polycarbonate	Type of mounting	Fixing lugs
Impact resistance	IK08 in accordance with IEC 62208, IK10 in accordance with IEC 62262	Enclosure attachment	Via mounting feet

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Protection class	II	Connection type string	Plug WM4C
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General data

Standards	EN 61643-31	Protection degree	IP65
Installation location	Protected outdoor area (Land and Sea)		

Inputs

Amount of maximum power points (MPP)	4		
Functional earth connector	Cable entry	Number of cable entries	2
		Type of connection	Tension clamp connection with actuator
		Flexible, max. H05(07) V-K	25 mm ²
		w. wire end ferrule, DIN 46228 pt 1, max.	16 mm ²
Number of conduit inlets	3		
DC Input + & -	Wire connection	Type of connection	WM4C plug-in connector
		Compatible cable cross-section	EN 50618:2015
		Wire cross-section, min.	4 mm ²
		Wire cross-section, max.	6 mm ²
	Cable entry	Number of cable entries	8
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
		Type of connection	Tension clamp connection with actuator
		Flexible, max. H05(07) V-K	1.5 mm ²
		w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm ²
Number of inputs	8		

Outputs

Max. number of DC outputs	per Maximum Power Point 1 output		
DC Output + & -	Wire connection	Type of connection	WM4C plug-in connector
		Compatible cable cross-section	TÜV 2 Pfg1169/08.07
		Wire cross-section, min.	4 mm ²
		Wire cross-section, max.	6 mm ²

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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	Screw terminal connectors
		Flexible, max. H05(07) V-K	1.5 mm ²
		w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm ²
Remote disconnecter control contact	Cable entry	Number of cable entries	1
	Wire connection	Type of connection	Screw terminal connectors
		Flexible, max. H05(07) V-K	1.5 mm ²
		w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm ²
Type of power circuit disconnection	Under voltage tripping		
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	300 mA	
	Current consumption continuous	30 mA	
Number of breaking operation cycles at rated current	300		
Switch disconnecter execution	Remote disconnecter inside enclosure		
Switching disconnecter capacity	IEC 60947-3, DC-PV1		

Surge protection DC side

Standards	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	Combiner box for inverters with Fireman switch and surge protection for the connection to 4 MPP tracker.
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Technical data

Suitable for remote disconnection of the DC side by the fire department according to VDE-AR-E2100-712.

Max. string voltage Uoc: 1100 VDC Integrated surge protection with class I+II combined arresters with signal contact.

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 Pfg1 169/08.07 / EN 50618:2063

1 output, connection via WM4 C connector, compatible with cable type TÜV 2 Pfg1 169/08.07 / EN 50618:2063

MPP2 to 4: 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 \varnothing) 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 \varnothing) max. conductor cross-section: 1.5 mm².

Protection class: IP65.

All built into a glass fibre reinforced polyester housing. Dimensions

HxWxD: 346x400x132

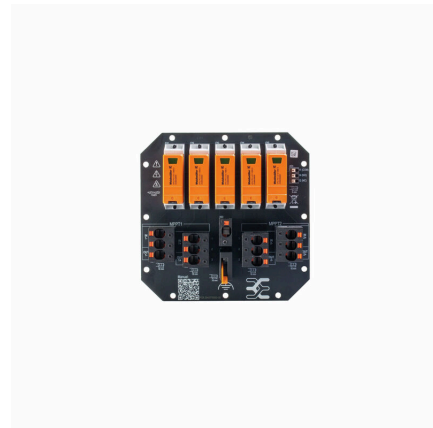
mm. Approval according to low voltage switchgear IEC 61439-1 and EN 61439-2

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Drawings

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Accessories

PV Sun Covers



General ordering data

Type	PV SUNCOVER 30/40/13	Version	
Order No.	8000143253	Photovoltaics, Sun cover	
GTIN (EAN)	4099987 111928		
Qty.	1 ST		

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

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Accessories

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

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		

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Accessories

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	
GTIN (EAN)	4050118102468		
Qty.	10 ST		
Type	PV-STICK- VPE10	Version	
Order No.	1303490000	Photovoltaics, Plug-in connector	
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		

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Accessories

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		

Y-Connector Cables



The Y cable is used for the parallel connection of several strings in a PV system, e.g. for splitting a line in front of an inverter.
 The cables are available in different connection variants.

General ordering data

Type	PVHYM-M-XXXX6W+11	Version	
Order No.	2877850000		Photovoltaics, Y-Connector Cable, 1x WM4 C Female, 2x MC4 Male, 6mm ² , 1100 V
GTIN (EAN)	4064675666417		
Qty.	1 ST		
Type	PVHYM+M+XXXX6W-11	Version	
Order No.	2877860000		Photovoltaics, Y-Connector Cable, 1x WM4 C Male, 2x MC4 Female, 6mm ² , 1100 V
GTIN (EAN)	4064675666424		
Qty.	1 ST		

Emergency stop button



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Accessories

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



General ordering data

Type	VPU PV I+II O 1000	Version	
Order No.	2530600000	Surge voltage arrester, Low voltage, Accessories, Surge protection I /	
GTIN (EAN)	4050118540819	II, Spare arrester	
Qty.	9 ST		
Type	VPU PV I+II OM 1000	Version	
Order No.	2534300000	Surge voltage arrester, Low voltage, Surge protection I / II, Spare	
GTIN (EAN)	4050118545906	arrester	
Qty.	9 ST		