

PVN DC 2I 1O 1MPP RD 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, 1 MPP, 2 Inputs / 1 Output per MPP, Remote disconnecter, WM4C, 1100 V
Order No.	2778860000
Type	PVN DC 2I 1O 1MPP RD WM4 11
GTIN (EAN)	4064675047612
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	132 mm	Depth (inches)	5.197 inch
Height	370 mm	Height (inches)	14.567 inch
Width	200 mm	Width (inches)	7.874 inch
Net weight	2,264 g		

Temperatures

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

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

Time interval	5 years
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Electrical characteristics

Current per Maximum Power Point, max. 35 A

Rated DC voltage	1,100 V
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Rated short-term current resistance	Rated current	43.75 A
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Enclosure

Connection type string	Plug WM4C	Enclosure attachment	Via mounting feet
Impact resistance	IK08 in accordance with IEC 62208, IK10 in accordance with IEC 62262	Insulating material	Polyester glass-fibre reinforced, Polycarbonate
Protection class	II	Type of mounting	Wall mounting, 4 screws

General data

Installation location	Protected outdoor area (>1 km from sea)	Protection degree	IP65
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Inputs

Amount of maximum power points (MPP)	1
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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

Fuse type	Neither fuse cartridge nor holder
Max. number of DC inputs	per Maximum Power Point 2 inputs connected in parallel
Number of conduit inlets	2
Number of string inputs per MPP	≤ 2
Number of inputs	2

Creation date July 3, 2025 8:53:22 PM CEST

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Outputs

DC Output + & -	Wire connection	Type of connection	WM4C plug-in connector
		Compatible cable cross-section	TÜV 2 Pfg 1169/08.07
		Wire cross-section, min.	4 mm ²
		Wire cross-section, max.	6 mm ²
Max. number of DC outputs	per Maximum Power Point 1 output		

Remote disconnecter

Automatic reclosing after voltage drop	Yes		
Number of operating cycles	10,000		
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		

Classifications

ETIM 6.0	EC002928	ETIM 7.0	EC002928
ETIM 8.0	EC003857	ETIM 9.0	EC003857
ETIM 10.0	EC003857	ECLASS 9.0	22-57-92-03
ECLASS 9.1	22-57-02-90	ECLASS 10.0	22-57-02-90
ECLASS 11.0	22-57-02-92	ECLASS 12.0	22-57-02-92
ECLASS 13.0	22-57-02-92	ECLASS 14.0	22-57-02-92
ECLASS 15.0	22-57-02-92		

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Technical data

Tender specification sheets

Long specification

Automatic ON and OFF switching fireman switch for the connection to 1 MPP tracker in the inverter. Suitable for remote disconnection of the DC side by the fire department. Max. string voltage Uoc: 1100V

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

DC fireman switch:
Switching off by undervoltage tripping.
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 cable glands (8-12mmØ) max. conductor cross-section: 1.5mm².
Connection of the signal contact 24 VDC via cable glands (8-12mmØ) max. conductor cross-section: 1.5mm².
Protection class: IP65.
All built into a glas fibre reinforced polyester housing. Dimensions HxWxD: 370x200x132mm.

Approval according to low voltage switchgear IEC 61439-1:2011 and EN 61439-2:2011

Approvals

Approvals



Approvals MAMID

https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/

ROHS

Conform

Creation date July 3, 2025 8:53:22 PM CEST

Catalogue status 21.06.2025 / We reserve the right to make technical changes.

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Technical data

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

Important note

Product information	<p>Intended use of the UPS: This UPS has been especially developed as a safety device for direct current (DC) photovoltaic installations. The DC disconnect switch is used to disconnect the connected strings of the installation in case of an emergency situation. Such an emergency situation could be in case of fire.</p> <p>Normal operation: The UPS will automatically switch to the off position, breaking the DC connection between the solar panels and the inverter, after the AC power to the UPS is interrupted for longer than five seconds. The UPS will automatically switch to the on position, restoring the DC connection between the solar panels and the inverter, once the AC power to the UPS is restored longer than five seconds.</p> <p>Special Operation: If the temperature inside the UPS enclosure exceeds the 100°C, the UPS will automatically switch to OFF to protect the internal components and create a safe situation. When the installation is checked and the UPS is not affected, the UPS can be switched ON again by removal and re-applying the AC voltage to the UPS. The UPS will also automatically switch to OFF if there is an internal failure. If this occurs please try to reset the UPS by removal and re-applying the AC voltage to the UPS.</p> <p>Emergency switch not included. The SCIP number was assigned due to a lead content of more than 0.1 % of the net weight.</p> <p>Safe use instruction according to ECHA: The identification of the hazardous substance is sufficient to allow safe use of the article throughout its life cycle, including the service life, disassembly and waste/recycling phase</p>
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Downloads

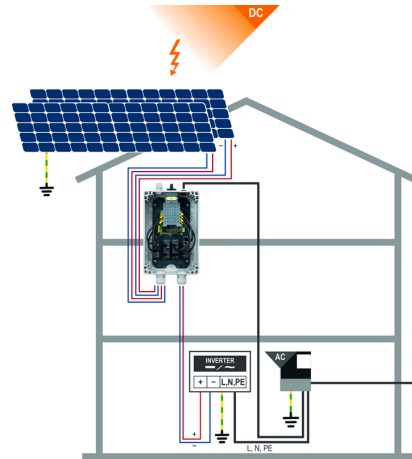
Approval/Certificate/Document of Conformity	PV Next RD Declaration of Conformity
Engineering Data	CAD data – STEP
Technical Documentation	PVN1M1I2S1FXVXO1TXPX11 CAD data – Schematic diagram
User Documentation	MANUAL PV NEXT RD DE/EN
White paper	Fact Sheet DE PV CB Lastentrennschalter Fact-Sheet EN PV CB Load break switch Fact Sheet DE PV Feuerwehrscharter Fact Sheet EN PV Fireman switch
Catalogues	Catalogues in PDF-format

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Drawings



PVN 1 M2 I6 S0 F3 V1 Q1 TX PX 10									
Series		Voltage		Power supply		Monitoring		Output Type	
PVN = PV Next		10 = 1kV		x = n/a		x = n/a		0 = GG	
VPD = PV Protect		11 = 1.1kV						1 = VMAC	
		15 = 1.5kV						2 = MCA-Exp 2	
Level		Inputs		SPD		Fuses			
1 = DC trunk box (L1)		1...12 inputs		0 = TYP II		x = n/a			
Series				1 = TYP I+II		3 = only fuse holders			
1 = 1 MPP supported				X = No SPD					
2 = 2 MPP supported									
3 = 3 MPP supported									
4 = 4 MPP supported									
6 = 6 MPP supported									
Switch									
x = n/a									
0 = manual switch									
1 = remote switch									

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Accessories

UV-resistant cable ties

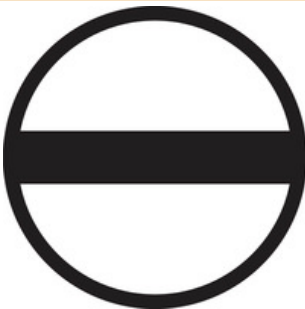


UV-resistant polyamide 6.6 ensures long durability of our special cable ties even with strong UV radiation. Ideal for continuous outdoor use.

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 pc(s).	

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

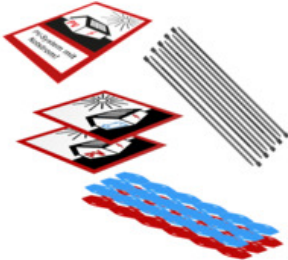
Type	SDIS 0.6X3.5X100	Version
Order No.	2749810000	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm
GTIN (EAN)	4050118897012	
Qty.	1 pc(s).	
Type	SDIS 1.0X5.5X125	Version
Order No.	2749850000	Screwdriver, Blade width (B): 5.5 mm, Blade length: 125 mm, Blade thickness (A): 1 mm
GTIN (EAN)	4050118897050	
Qty.	1 pc(s).	

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www.weidmueller.com**Accessories****PV marking sets****General ordering data**

Type	PV MARKER 1-3 MPP	Version	Packaging
Order No.	8000149520	Photovoltaics, Device markers, Accessories, Conductor and cable	Plastic bag
GTIN (EAN)	4099987229197	markers, Cable ties, Marking set, Warning label, Cable marker	
Qty.	1 pc(s).		

Sealing sets**General ordering data**

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

Type	BLINDPLUG SET5 7X28MM	Version
Order No.	3077670000	Photovoltaics, Blind plug
GTIN (EAN)	4099987081894	
Qty.	1 pc(s).	

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Accessories

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 pc(s).	

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.	2877860000	Photovoltaics, Y-Connector Cable, 1x WM4 C Male, 2x MC4 Female,
GTIN (EAN)	4064675666424	6mm², 1100 V
Qty.	1 pc(s).	
Type	PVHYM-M-XXXX6W+11	Version
Order No.	2877850000	Photovoltaics, Y-Connector Cable, 1x WM4 C Female, 2x MC4 Male,
GTIN (EAN)	4064675666417	6mm², 1100 V
Qty.	1 pc(s).	

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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 pc(s).	

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.	1303490000	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102529	
Qty.	10 pc(s).	
Type	PV-STICK- VPE50	Version
Order No.	1303500000	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102536	
Qty.	50 pc(s).	
Type	PV-STICK- VPE200	Version
Order No.	1303510000	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102390	
Qty.	200 pc(s).	

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Accessories

Type	PV-STICK+ VPE200	Version
Order No.	1303470000	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102543	
Qty.	200 pc(s).	
Type	PV-STICK SET	Version
Order No.	1422030000	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118225723	
Qty.	1 pc(s).	
Type	PV-STICK+ VPE50	Version
Order No.	1303460000	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102383	
Qty.	50 pc(s).	
Type	PV-STICK+ VPE10	Version
Order No.	1303450000	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102468	
Qty.	10 pc(s).	

Emergency stop button



General ordering data

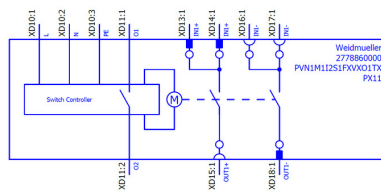
Type	AC SB E 5A 1POL PO 06KV	Version
Order No.	3077660000	Photovoltaics
GTIN (EAN)	4099987081887	
Qty.	1 pc(s).	

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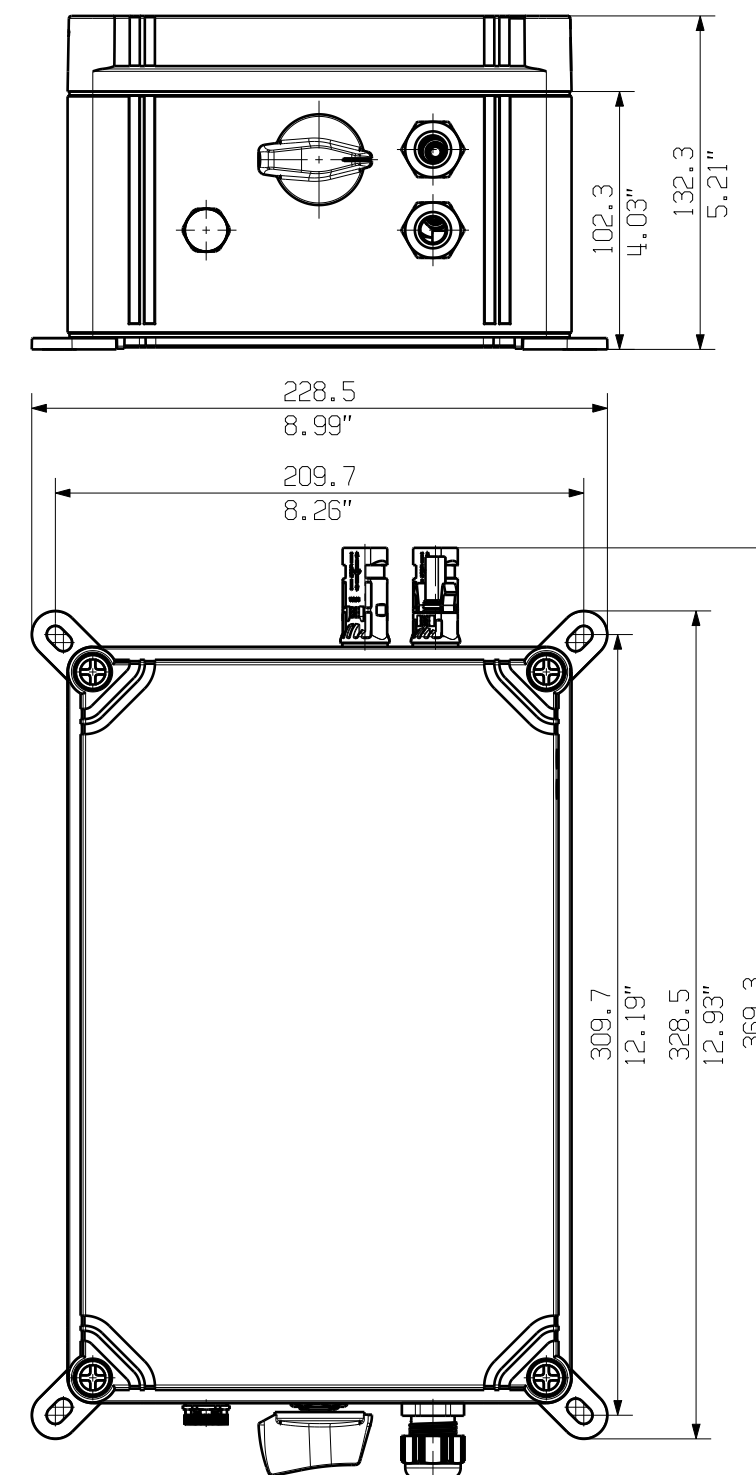
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Drawings



The English version is binding



Darstellung mit Zubehoer
Shown with accessory 9536040000 MF FPC

Nicht im Lieferumfang enthalten!
Not included in delivery!

General Tolerances:			<input type="checkbox"/> WN700144-W..	<input type="checkbox"/> WN 212010	<input type="checkbox"/> ISO 2768-mK	Tolerances ISO 8015	
Changes:						75772	
Mat. No. (SAP)			2778860000			Drawing no.	
Drawings Assembly						Scale: 1/3	
Drawn			Miske, Anna			Sheet 3 / 3	
Responsible			Wohlgemuth, Klaus			Inde	
Approved			Püschner, Klaus			0	
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Drehmoment
Torque $3\text{ Nm} \pm 0.5$

Drehmoment
Torque 0.8Nm \pm 0.15

