

VPUM2I2SXXFXV1O1TXPX10**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



PV Protect is the solution for optimum protection of the inverter against overvoltages. It is very compact and only requires Y-cables to connect to the PV strings. So it is a perfect product to retrofit existing PV residential installations with overvoltage protection.

General ordering data

Version	Surge protection, 2 MPP's, Surge protection I / II, WM4C, 1000 V
Order No.	2764150000
Type	VPUM2I2SXXFXV1O1TXPX10
GTIN (EAN)	4064675016120
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	91 mm	Depth (inches)	3.583 inch
Height	160 mm	Height (inches)	6.299 inch
Width	168 mm	Width (inches)	6.614 inch
Net weight	1,008 g		

Temperatures

Storage temperature	-40 °C...85 °C	Ambient temperature	-40 °C...85 °C
Operating temperature	-40 °C...85 °C	Humidity	5 - 95% rel. humidity

Approvals and norms

Approvals	EN 50539-11
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Enclosure

Connection type string	Plug WM4C	Enclosure attachment	Via the four holes under the cover screws
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General data

Protection degree	IP67	Standards	EN 50539-11
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Inputs

Amount of maximum power points (MPP)	2 MPP		
DC Input + & -	Wire connection	Type of connection	WM4 C field connector
	Cable entry	Number of cable entries	2
Functional earth connector	Cable entry	Number of cable entries	1
	Wire connection	Type of connection	PUSH IN
Fuse type	Neither fuse cartridge nor holder		
Number of string inputs per MPP	1		

Surge protection DC side

Conditions and requirements	EN 50539-11	Discharge current I_n (8/20 μ s)	20 kA
Discharge current, max. (8/20 μ s)	40 kA	Lightning test current I_{imp} (10/350 μ s)	6.25 kA
Maximum continuous operating voltage DC UCPV mode +/-, -/PE, +/-PE	1,100 V	Operating height in the grounded PV system	≤ 4000 m
Operating height in ungrounded PV system	≤ 4000 m	PV system voltage, max. U_{cpv}	1,100 V
Protection level U_p (+/-, -/PE, +/-PE)	$\leq 4,2$ kV	Requirements class	Type I/II
Short-circuit current I_{SCP}	11 kA	Standards	EN 50539-11
Total discharge current I_{total} (8/20 μ s)	50 kA	Total discharge current I_{total} (10/350 μ s)	12.5 kA

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Classifications

ETIM 6.0	EC000941	ETIM 7.0	EC000941
ETIM 8.0	EC000941	ETIM 9.0	EC000941
ETIM 10.0	EC000941	ECLASS 9.1	27-13-08-05
ECLASS 10.0	27-13-08-05	ECLASS 11.0	27-13-08-05
ECLASS 12.0	27-17-90-90	ECLASS 13.0	27-17-90-90
ECLASS 14.0	27-17-90-90	ECLASS 15.0	27-17-90-90

Tender specification sheets

Long specification	Designation 2: VPU PV BOX WM4 I+II 5 1000 2M Over voltage protection box for inverters with 2Mpp tracker, used to protect the DC side. Max. String voltage Uoc: 1000 V MPPT1: 1 input, connection via WM4 C plug-in connector, compatible with cable type TÜV 2 Pfg1 169/08.07 / EN 50618:2069 MPPT 2 is identical to MPPT 1 Connection of the box in stitch without DC switch 2 surge protection type II Connection of functional earth via cable glands (8-12mmØ) cable cross-section: 16mm² Protection class: IP65 and IP67 Plastic enclosure Dimensions HxWxD: 168x160x91 mm According to standard, EN 50539-11: 2013+A1:2014 IEC 61643-31: 2018
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Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

Important note

Product information	The SPD in the box cannot be replaced.
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Approvals

Approvals	
Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/
ROHS	Conform

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Technical data

Downloads

Approval/Certificate/Document of Con-
formity

[PV Protect EU Declaration of Conformity](#)

User Documentation

[Manual PV Protect T1](#)

Catalogues

[Catalogues in PDF-format](#)

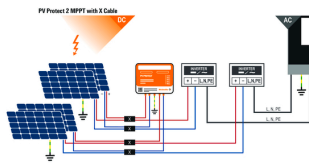
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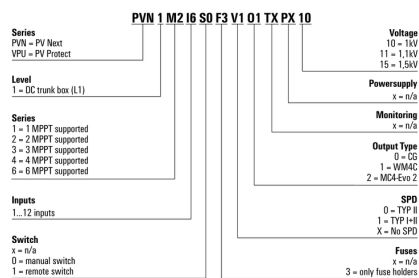
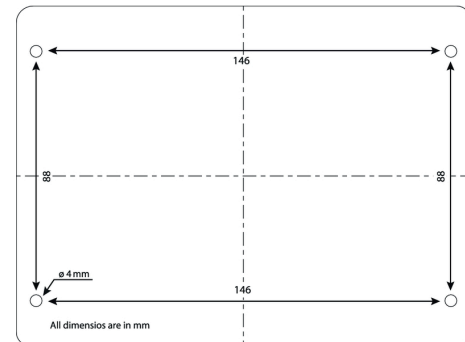
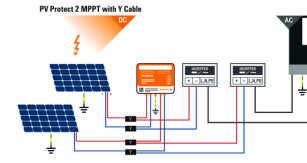
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Drawings

Connection diagram



Connection diagram



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Accessories

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	SAFETY-CLIP PV-STICK VP ...	Version
Order No.	1328150000	Photovoltaics, Accessories, Locking clip
GTIN (EAN)	4050118238631	
Qty.	10 pc(s).	
Type	VSSO WM4 C	Version
Order No.	1254870000	Photovoltaics, Flat design
GTIN (EAN)	4050118047479	
Qty.	100 pc(s).	

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 PH2	Version
Order No.	9008490000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056484	
Qty.	1 pc(s).	

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Accessories

... for photovoltaic plug-in connectors



After stripping the insulation, a suitable contact or wire end ferrule can be crimped onto the end of the cable. Crimping forms a secure connection between conductor and contact and has largely replaced soldering. Crimping denotes the creation of a homogeneous, permanent connection between conductor and connecting element. The connection can be made only with high-quality precision tools. The result is a secure and reliable connection both in mechanical and electrical terms. Weidmüller offers a wide range of mechanical crimping tools. Integral ratchets with release mechanisms guarantee optimum crimping. Crimped connections made with Weidmüller tools comply with international standards and regulations.

General ordering data

Type	CTF PV WM4	Version
Order No.	1222870000	Photovoltaics, Crimping tool for photovoltaic contacts, Mechanical,
GTIN (EAN)	4050118006254	without interchangeable inserts
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 SET	Version
Order No.	1422030000	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118225723	
Qty.	1 pc(s).	

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

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Accessories

Type	PV-STICK- VPE 10	Version
Order No.	1303490000	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102529	
Qty.	10 pc(s).	

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	PVHYW+XXW-XX06W-15	Version
Order No.	2814190000	Photovoltaics, Y-Connector Cable, 1x WM4 C Female, 2x WM4 C
GTIN (EAN)	4064675298878	Male, 6mm², 1500 V
Qty.	1 pc(s).	
Type	PVHYW-XXW+XX06W+15	Version
Order No.	2814180000	Photovoltaics, Y-Connector Cable, 1x WM4 C Male, 2x WM4 C
GTIN (EAN)	4064675298861	Female, 6mm², 1500 V
Qty.	1 pc(s).	
Type	PVHYW-XXPXX06W+15	Version
Order No.	2814220000	Photovoltaics, Y-Connector Cable, 1x WM4 C Male, 1x Partly stripped
GTIN (EAN)	4064675298908	cable end, 1x WM4 C Female, 6mm², 1500 V
Qty.	1 pc(s).	

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Accessories

Type	PVHYM-XXW+XX06M+11	Version
Order No.	2814200000	Photovoltaics, Y-Connector Cable, 1x MC4 Male, 1x WM4 C Female,
GTIN (EAN)	4064675298885	1x MC4 Female, 6mm², 1100 V
Qty.	1 pc(s).	
Type	PVHYM+XXW+XX06M-11	Version
Order No.	2814210000	Photovoltaics, Y-Connector Cable, 1x MC4 Female, 1x WM4 C Male,
GTIN (EAN)	4064675298892	1x MC4 Male, 6mm², 1100 V
Qty.	1 pc(s).	

X-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

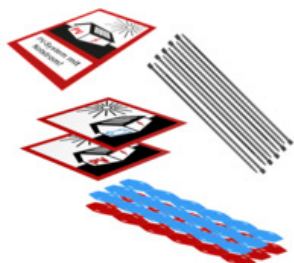
Type	PVHXW-W-W+XX06W+15	Version
Order No.	2814240000	Photovoltaics, X-Connector Cable, 2x WM4 C Male, 2x WM4 C
GTIN (EAN)	4064675298922	Female, 6mm², 1500 V
Qty.	1 pc(s).	
Type	PVHXW-W-PXXX06W+15	Version
Order No.	2814280000	Photovoltaics, X-Connector Cable, 2x WM4 C Male, 1x Partly stripped
GTIN (EAN)	4064675298960	cable end, 1x WM4 C Female, 6mm², 1500 V
Qty.	1 pc(s).	
Type	PVHXW+W+PXXX06M-15	Version
Order No.	2814290000	Photovoltaics, X-Connector Cable, 2x WM4 C Female, 1x Partly
GTIN (EAN)	4064675298977	stripped cable end, 1x WM4 C Male, 6mm², 1500 V
Qty.	1 pc(s).	
Type	PVHXM+M+W-XX06M-11	Version
Order No.	2814270000	Photovoltaics, X-Connector Cable, 2x MC4 Female, 1x WM4 C Male,
GTIN (EAN)	4064675298953	1x MC4 Male, 6mm², 1000 V
Qty.	1 pc(s).	
Type	PVHXM-M-W+XX06M+11	Version
Order No.	2814260000	Photovoltaics, X-Connector Cable, 2x MC4 Male, 1x WM4 C Female,
GTIN (EAN)	4064675298946	1x MC4 Female, 6mm², 1000 V
Qty.	1 pc(s).	
Type	PVHXW+W+W-XX06W-15	Version
Order No.	2814250000	Photovoltaics, X-Connector Cable, 2x WM4 C Female, 2x WM4 C
GTIN (EAN)	4064675298939	Male, 6mm², 1500 V
Qty.	1 pc(s).	

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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).		