

## VPUM111SXFV201TXPX10

**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, 1 MPP, Surge protection II, WM4C, 1000 V
Order No.	<a href="#">2764110000</a>
Type	VPUM111SXFV201TXPX10
GTIN (EAN)	4064675014195
Qty.	1 items

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**Technical data**

**Approvals**

Approvals



ROHS Conform

**Dimensions and weights**

Depth	91 mm	Depth (inches)	3.5827 inch
Height	160 mm	Height (inches)	6.2992 inch
Width	168 mm	Width (inches)	6.6142 inch
Net weight	678 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

**Environmental Product Compliance**

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

**Approvals and norms**

Approvals EN 50539-11

**Enclosure**

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

Standards	EN 50539-11	Protection degree	IP67
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**Inputs**

Amount of maximum power points (MPP)	1 MPP		
Functional earth connector	Cable entry	Number of cable entries	1
	Wire connection	Type of connection	PUSH IN
DC Input + & -	Wire connection	Type of connection	WM4C plug-in connector
	Cable entry	Number of cable entries	1
Fuse type	Neither fuse cartridge nor holder		
Number of string inputs per MPP	1		

**Surge protection DC side**

Standards	EN 50539-11	Discharge current, max. (8/20 µs)	40 kA
Protection level Up (+/- , -/PE , +/PE)	≤4,2 kV	Conditions and requirements	EN 50539-11

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**Technical data**

Operating height in ungrounded PV system	≤ 4000 m	Short-circuit current ISCPV	11 kA
Total discharge current I <sub>total</sub> (8/20µs)	50 kA	Discharge current I <sub>n</sub> (8/20 µs)	20 kA
Requirements class	Type II	Operating height in the grounded PV system	≤ 4000 m
PV system voltage, max. U <sub>cpv</sub>	1100 V	Maximum continuous operating voltage DC UCPV mode +/-, -/PE, +/-PE	1100 V

**Important note**

Product information                      The SPD in the box cannot be replaced.

**Classifications**

ETIM 7.0	EC001457	ETIM 8.0	EC001457
ETIM 9.0	EC001457	ETIM 10.0	EC001457
ECLASS 12.0	27-17-14-03	ECLASS 13.0	27-17-14-03
ECLASS 14.0	27-17-14-03	ECLASS 15.0	27-17-14-03

**Tender specification sheets**

Long specification                      Designation 2: VPU PV BOX WM4 II 3 1000 1M  
 Over voltage protection box for inverters with 1 Mpp tracker, used to protect the DC side.  
 Max. String voltage U<sub>oc</sub>: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  
 Connection of the box in stitch without DC switch 1 surge protection type II Connection of functional earth via cable glands (8-12mmØ)  
 cable cross-section: 16mm<sup>2</sup> Protection class: IP65 and IP67 Plastic enclosure Dimensions HxWxD:168x160x91 mm According to standard, EN 50539-11: 2013+A1:2014 IEC 61643-31: 2018

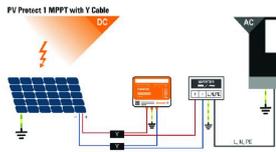
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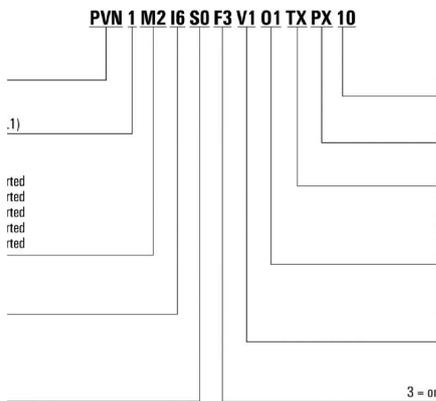
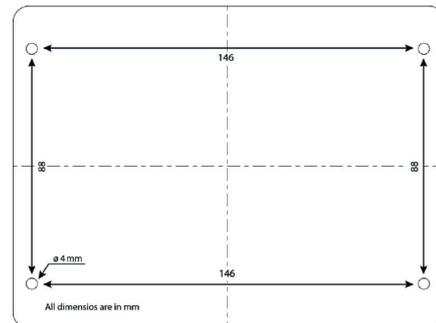
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Drawings

Connection diagram



Connection diagram



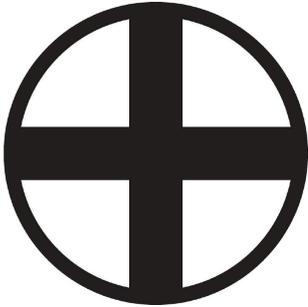
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## Accessories

## 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 PH2	Version	
Order No.	<a href="#">9008490000</a>	Screwdriver, Screwdriver	
GTIN (EAN)	4032248056484		
Qty.	1 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.	<a href="#">1254870000</a>	Photovoltaics, Flat design	
GTIN (EAN)	4050118047479		
Qty.	100 ST		

## ... 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.

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## Accessories

### General ordering data

Type	CTF PV WM4	Version	
Order No.	<a href="#">1222870000</a>	Photovoltaics, Crimping tool for photovoltaic contacts, Mechanical,	
GTIN (EAN)	4050118006254	without interchangeable inserts	
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.	<a href="#">1190490000</a>	Photovoltaics, Plug-in connector	
GTIN (EAN)	4032248973262		
Qty.	1 ST		

### Accessories



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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.	<a href="#">1328150000</a>	Photovoltaics, Accessories, Locking clip	
GTIN (EAN)	4050118238631		
Qty.	10 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 SET	Version
Order No.	<a href="#">1422030000</a>	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118225723	
Qty.	1 ST	
Type	PV-STICK+ VPE10	Version
Order No.	<a href="#">1303450000</a>	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102468	
Qty.	10 ST	
Type	PV-STICK- VPE10	Version
Order No.	<a href="#">1303490000</a>	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102529	
Qty.	10 ST	

### 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	PVHXM+M+W-XX06M-11	Version
Order No.	<a href="#">2814270000</a>	Photovoltaics, X-Connector Cable, 2x MC4 Female, 1x WM4 C Male,
GTIN (EAN)	4064675298953	1x MC4 Male, 6mm <sup>2</sup> , 1000 V
Qty.	1 ST	

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### Accessories

Type	PVHXM-M-W+XX06M+11	Version
Order No.	<a href="#">2814260000</a>	Photovoltaics, X-Connector Cable, 2x MC4 Male, 1x WM4 C Female,
GTIN (EAN)	4064675298946	1x MC4 Female, 6mm <sup>2</sup> , 1000 V
Qty.	1 ST	
Type	PVHXW+W+W-XX06W-15	Version
Order No.	<a href="#">2814250000</a>	Photovoltaics, X-Connector Cable, 2x WM4 C Female, 2x WM4 C
GTIN (EAN)	4064675298939	Male, 6mm <sup>2</sup> , 1500 V
Qty.	1 ST	
Type	PVHXW-W-W+XX06W+15	Version
Order No.	<a href="#">2814240000</a>	Photovoltaics, X-Connector Cable, 2x WM4 C Male, 2x WM4 C
GTIN (EAN)	4064675298922	Female, 6mm <sup>2</sup> , 1500 V
Qty.	1 ST	
Type	PVHXW-W-PXXX06W+15	Version
Order No.	<a href="#">2814280000</a>	Photovoltaics, X-Connector Cable, 2x WM4 C Male, 1x Partly stripped
GTIN (EAN)	4064675298960	1x cable end, 1x WM4 C Female, 6mm <sup>2</sup> , 1500 V
Qty.	1 ST	
Type	PVHXW+W-PXXX06M-15	Version
Order No.	<a href="#">2814290000</a>	Photovoltaics, X-Connector Cable, 2x WM4 C Female, 1x Partly
GTIN (EAN)	4064675298977	stripped cable end, 1x WM4 C Male, 6mm <sup>2</sup> , 1500 V
Qty.	1 ST	

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The cables are available in different connection variants.

### General ordering data

Type	PVHYM+XXW-XX06M-11	Version
Order No.	<a href="#">2814210000</a>	Photovoltaics, Y-Connector Cable, 1x MC4 Female, 1x WM4 C Male,
GTIN (EAN)	4064675298892	1x MC4 Male, 6mm <sup>2</sup> , 1100 V
Qty.	1 ST	
Type	PVHYM-XXW+XX06M+11	Version
Order No.	<a href="#">2814200000</a>	Photovoltaics, Y-Connector Cable, 1x MC4 Male, 1x WM4 C Female,
GTIN (EAN)	4064675298885	1x MC4 Female, 6mm <sup>2</sup> , 1100 V
Qty.	1 ST	
Type	PVHYW+XXW-XX06W-15	Version
Order No.	<a href="#">2814190000</a>	Photovoltaics, Y-Connector Cable, 1x WM4 C Female, 2x WM4 C
GTIN (EAN)	4064675298878	Male, 6mm <sup>2</sup> , 1500 V
Qty.	1 ST	
Type	PVHYW-XXW+XX06W+15	Version
Order No.	<a href="#">2814180000</a>	Photovoltaics, Y-Connector Cable, 1x WM4 C Male, 2x WM4 C
GTIN (EAN)	4064675298861	Female, 6mm <sup>2</sup> , 1500 V
Qty.	1 ST	

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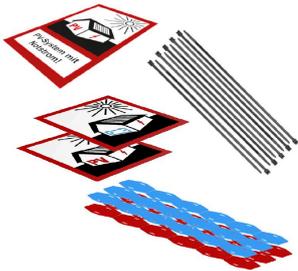
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## Accessories

Type	PVHYW-XXPXXX06W+ 15	Version	
Order No.	<a href="#">2814220000</a>		Photovoltaics, Y-Connector Cable, 1x WM4 C Male, 1x Partly stripped
GTIN (EAN)	4064675298908		cable end, 1x WM4 C Female, 6mm <sup>2</sup> , 1500 V
Qty.	1 ST		

## PV marking sets



## General ordering data

Type	PV MARKER 1-3 MPP	Version	
Order No.	<a href="#">8000149520</a>		Photovoltaics, Device markers, Accessories, Conductor and cable
GTIN (EAN)	4099987229197		markers, Cable ties, Marking set, Warning label, Cable marker, Self-
Qty.	1 ST		adhesive

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### General ordering data

Type	PV-STICK SET	Version
Order No.	<a href="#">1422030000</a>	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118225723	
Qty.	1 ST	
Type	PV-STICK+ VPE10	Version
Order No.	<a href="#">1303450000</a>	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102468	
Qty.	10 ST	
Type	PV-STICK+ VPE200	Version
Order No.	<a href="#">1303470000</a>	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102543	
Qty.	200 ST	
Type	PV-STICK+ VPE50	Version
Order No.	<a href="#">1303460000</a>	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102383	
Qty.	50 ST	
Type	PV-STICK- VPE10	Version
Order No.	<a href="#">1303490000</a>	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102529	
Qty.	10 ST	
Type	PV-STICK- VPE200	Version
Order No.	<a href="#">1303510000</a>	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102390	
Qty.	200 ST	
Type	PV-STICK- VPE50	Version
Order No.	<a href="#">1303500000</a>	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102536	
Qty.	50 ST	

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The cables are available in different connection variants.

### General ordering data

Type	PVHXM-M+W-XX06M-11	Version
Order No.	<a href="#">2814270000</a>	Photovoltaics, X-Connector Cable, 2x MC4 Female, 1x WM4 C Male,
GTIN (EAN)	4064675298953	1x MC4 Male, 6mm <sup>2</sup> , 1000 V
Qty.	1 ST	
Type	PVHXM-M-W+XX06M+11	Version
Order No.	<a href="#">2814260000</a>	Photovoltaics, X-Connector Cable, 2x MC4 Male, 1x WM4 C Female,
GTIN (EAN)	4064675298946	1x MC4 Female, 6mm <sup>2</sup> , 1000 V
Qty.	1 ST	
Type	PVHXW+W+PXXX06M-15	Version
Order No.	<a href="#">2814290000</a>	Photovoltaics, X-Connector Cable, 2x WM4 C Female, 1x Partly
GTIN (EAN)	4064675298977	stripped cable end, 1x WM4 C Male, 6mm <sup>2</sup> , 1500 V
Qty.	1 ST	
Type	PVHXW+W+W-XX06W-15	Version
Order No.	<a href="#">2814250000</a>	Photovoltaics, X-Connector Cable, 2x WM4 C Female, 2x WM4 C
GTIN (EAN)	4064675298939	Male, 6mm <sup>2</sup> , 1500 V
Qty.	1 ST	
Type	PVHXW-W-PXXX06W+15	Version
Order No.	<a href="#">2814280000</a>	Photovoltaics, X-Connector Cable, 2x WM4 C Male, 1x Partly stripped
GTIN (EAN)	4064675298960	cable end, 1x WM4 C Female, 6mm <sup>2</sup> , 1500 V
Qty.	1 ST	

### Y-Connector Cables



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Type	PVHYM+XXW-XX06M-11	Version
Order No.	<a href="#">2814210000</a>	Photovoltaics, Y-Connector Cable, 1x MC4 Female, 1x WM4 C Male,
GTIN (EAN)	4064675298892	1x MC4 Male, 6mm <sup>2</sup> , 1100 V
Qty.	1 ST	

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Order No.	<a href="#">2814240000</a>	Photovoltaics, X-Connector Cable, 2x WM4 C Male, 2x WM4 C	
GTIN (EAN)	4064675298922	Female, 6mm <sup>2</sup> , 1500 V	
Qty.	1 ST		

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### General ordering data

Type	PVHYM-XXW+XX06M+11	Version	
Order No.	<a href="#">2814200000</a>	Photovoltaics, Y-Connector Cable, 1x MC4 Male, 1x WM4 C Female,	
GTIN (EAN)	4064675298885	1x MC4 Female, 6mm <sup>2</sup> , 1100 V	
Qty.	1 ST		
Type	PVHYW+XXW-XX06W-15	Version	
Order No.	<a href="#">2814190000</a>	Photovoltaics, Y-Connector Cable, 1x WM4 C Female, 2x WM4 C	
GTIN (EAN)	4064675298878	Male, 6mm <sup>2</sup> , 1500 V	
Qty.	1 ST		
Type	PVHYW-XXPXX06W+15	Version	
Order No.	<a href="#">2814220000</a>	Photovoltaics, Y-Connector Cable, 1x WM4 C Male, 1x Partly stripped	
GTIN (EAN)	4064675298908	1x WM4 C Female, 6mm <sup>2</sup> , 1500 V	
Qty.	1 ST		
Type	PVHYW-XXW+XX06W+15	Version	
Order No.	<a href="#">2814180000</a>	Photovoltaics, Y-Connector Cable, 1x WM4 C Male, 2x WM4 C	
GTIN (EAN)	4064675298861	Female, 6mm <sup>2</sup> , 1500 V	
Qty.	1 ST		