

Photovoltaics

Solutions for rooftop photovoltaic systems

Products for efficient system installation in commercial and residential buildings

*easy.
fast.
safe.*





Weidmüller 

Recommended solutions found quickly

- 
 Surge Protection
- 
 Combining of PV strings
- 
 Commercial
- 
 Private

01 PV Next Combiner Box




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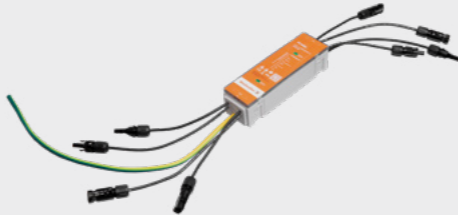
02 PV Next Fireman Switch






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01 PV Next Combiner Box

Easy, fast, and safe wiring of photovoltaic systems

With PV Next, Weidmüller offers the world's first combiner box concept based on a standardised printed circuit board design. This concept is not only very robust, but also reduces the use of materials such as copper and plastic by 25%. At the same time, the design enables an easy, fast and safe installation. The integrated PUSH IN technology, for example, reduces installation times and minimises the risk of errors and the resulting consequences.

Many different variants for commercial and residential buildings from stock

PV Next is protecting the PV system against over-voltages and reverse currents and also offers the possibility to combine strings. The various designs are done to protect all string inverters available in the European market.



PV Next protects and combines PV strings



For more information, visit our website:
www.weidmueller.com/pvnext

Suitable for commercial and residential buildings.

Standardised printed circuit board design – one design for all applications

Feedback contact provides continuous information about the status of the surge arrester

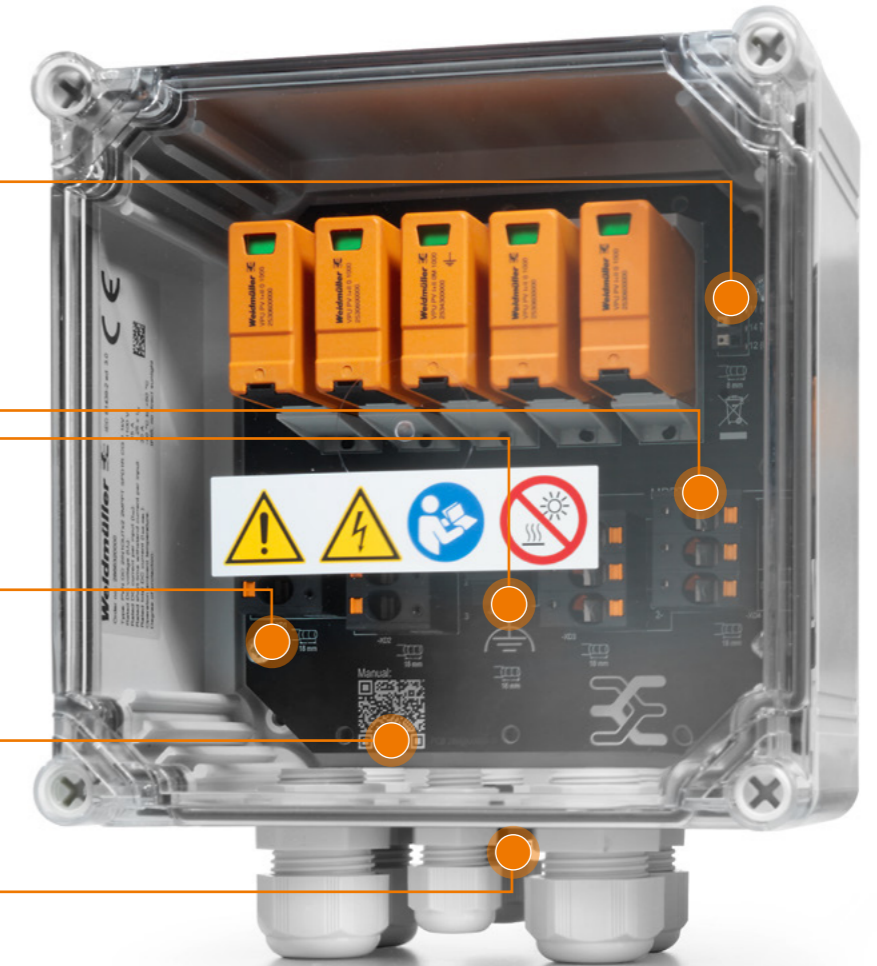
String lines can be connected without fire risk with the safe PUSH IN connection

Two earth conductors easy to connect


Recurring string marking according to standard


Manual can be accessed anytime and anywhere via QR code

Equalizing valve protects against condensation in the housing




The most innovative concept for string inverters


 Tested according to IEC-61439-2 standard in accredited laboratory

 High input current even at 50°C ambient temperature

 3D data available online

 Certified according to protection class IP65

 Combination of strings saves time and wiring

 Suitable variants for every installation type

The right combiner box for your inverter type in just three steps

1. Select your inverter type

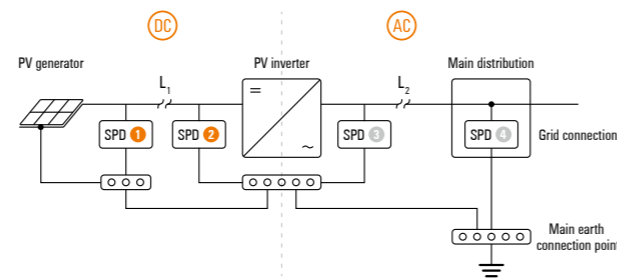
Open our online selector via the QR code or short link to the right. Select the manufacturer and type of your inverter here. You will then receive a pre-selection of suitable products for your PV installation.



Here you can access the online selector, which provides the basis for your selection: www.weidmueller.com/pvselector

2. Determine the standard-compliant surge protection

Answer the questions in the table below from left to right to determine what surge protection is needed on both the DC and AC sides for your installation. The diagram maps: (1) at the entry point of the PV cables into the building (inside or outside), (2) at or in the inverter (DC side), (3) at or in the inverter (AC side), (4) in the main distribution. If the cable length is more than 10 m, you need an additional overvoltage protection according to the standard EN 51643-32. Our PV Next combiner boxes protect the DC side of the installation. That's why they are highlighted here.



Question 1: External lightning protection system present?	Question 2: Separation distance maintained?*	Question 3: Cable length L_1 larger than 10 m?	Question 4: Cable length L_2 larger than 10 m?	DC		AC	
				SPD 1	SPD 2	SPD 3	SPD 4
no	-	yes	yes	Type II DC	Type II DC	Type II AC	Type II AC
no	-	no	yes	-	Type II DC	Type II AC	Type II AC
no	-	yes	no	Type II DC	Type II DC	-	Type II AC
no	-	no	no	-	Type II DC	-	Type II AC
yes	yes	yes	yes	Type II DC	Type II DC	Type II AC	Type I AC
yes	yes	no	yes	-	Type II DC	Type II AC	Type I AC
yes	yes	yes	no	Type II DC	Type II DC	-	Type I AC
yes	yes	no	no	-	Type II DC	-	Type I AC
yes	no	yes	yes	Type I DC	Type I DC	Type I AC**	Type I AC
yes	no	no	yes	-	Type I DC	Type I AC**	Type I AC
yes	no	yes	no	Type I DC	Type I DC	-	Type I AC
yes	no	no	no	-	Type I DC	-	Type I AC

*Between PV installation and external lightning protection, according to standard EN 51643-32.

**If the inverter and the main distribution board are connected to the same grounding busbar via a grounding cable whose length does not exceed 0.5 m, no SPD is required at installation location "3".

3. Select your preferred connection type

All PV Next variants are available with WM4 C ("Weidmüller connector"), MC4 EVO2 ("Stäubli connector") or CG ("classic cable gland") connection types. The housing interior has practical 16 mm² PUSH IN connections. Select the product variant with your preferred connection type in the selector.

Now that you have found the right product, you can send us your product request directly from the selector or order the part number from your trusted dealer.

Examples of the perfect combination*

Here you will find common combinations for inverters from SMA, Fronius, SolarEdge and Huawei. You will find many other inverter manufacturers and types in our online selector.



SMA Sunny Tripower CORE1
6MPP, 2IN



PV Next
Order No. 2737620000



Fronius Symo GEN24 Plus
2MPP, 2IN/1IN



PV Next
Order No. 2866340000



SE3K
1MPP, 2IN



PV Next
Order No. 2890560000



Huawei SUN2000-30/36/40KTL-M3
4MPP, 2IN



PV Next
Order No. 2737610000

*Variants for type I/II and WM4C connector; for further variants, go to our homepage at www.weidmueller.com/pv-perfect-match.



PV Next combiner boxes for commercial PV systems

Type	MPP	Inputs per MPP	Outputs per MPP	Surge protection requirement class	Connection	Qty.	Order No.	
No fuse holder, no switch disconnecter								
PVN DC 3I 30 3MPP SPD1R WM4 11	3 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, WM4C	1	2890460000	
PVN DC 3I 30 3MPP SPD1R CG 11	3 MPPT	3 Inputs	3 Outputs	Type: I / II	Cable gland, PUSH-IN connection	1	2890580000	
PVN DC 3I 30 3MPP SPD1R EVO 11	3 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, MC4-Evo 2	1	2890340000	
PVN DC 2I 10 4MPP SPD1R WM4 11	4 MPPT	2 Inputs	1 Output	Type: I / II	Connector, WM4C	1	2737600000	
PVN DC 2I 10 4MPP SPD1R CG 11	4 MPPT	2 Inputs	1 Output	Type: I / II	Cable gland, PUSH-IN connection	1	2737610000	
PVN DC 2I 10 4MPP SPD1R EVO 11	4 MPPT	2 Inputs	1 Output	Type: I / II	Connector, MC4-Evo 2	1	2975590000	
PVN1M6I4SXFV101TXPX10	6 MPPT	2 Inputs	1 Output	Type: I / II	Connector, WM4C	1	2737620000	
PVN1M6I4SXFV100TXPX10	6 MPPT	2 Inputs	1 Output	Type: I / II	Cable gland, PUSH-IN connection	1	2737630000	
PVC DC 2I 10 10MPP SPD1R WM4 11	10 MPPT	2 Inputs	2 Outputs	Type: I / II	Connector, WM4C	1	8000112516	
PVC DC 2I 10 10MPP SPD1R EVO 11	10 MPPT	2 Inputs	1 Output	Type: I / II	Connector, MC4-Evo 2	1	8000106274	
PVC DC 2I 20 10MPP SPD1R EVO 11	10 MPPT	2 Inputs	2 Outputs	Type: I / II	Connector, MC4-Evo 2	1	8000107559	
PVC DC 2I 10 12MPP SPD1R WM4 11	12 MPPT	2 Inputs	2 Outputs	Type: I / II	Connector, WM4C	1	8000115469	
PVC DC 2I 10 12MPP SPD1R EVO 11	12 MPPT	2 Inputs	2 Outputs	Type: I / II	Connector, MC4-Evo 2	1	8000107558	
No fuse holder, with switch disconnecter								
PVN DC 3I 30 2MPP SW SPD1R WM4 11	2 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, WM4C	1	2890480000	
PVN DC 3I 30 2MPP SW SPD1R CG 11	2 MPPT	3 Inputs	3 Outputs	Type: I / II	Cable gland, PUSH-IN connection	1	2890600000	
PVN DC 3I 30 2MPP SW SPD1R EVO 11	2 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, MC4-Evo 2	1	2890360000	
PVN DC 3I 30 3MPP SW SPD1R WM4 11	3 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, WM4C	1	2890490000	
PVN DC 3I 30 3MPP SW SPD1R CG 11	3 MPPT	3 Inputs	3 Outputs	Type: I / II	Cable gland, PUSH-IN connection	1	2890610000	
PVN DC 3I 30 3MPP SW SPD1R EVO 11	3 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, MC4-Evo 2	1	2890370000	
With fuse holder, no switch disconnecter								
PVN DC 3IF 30 2MPP SPD1R WM4 10	2 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, WM4C	1	2683080000	
PVN DC 3IF 30 2MPP SPD1R CG 10	2 MPPT	3 Inputs	3 Outputs	Type: I / II	Cable gland, PUSH-IN connection	1	2683040000	
PVN DC 3IF 30 2MPP SPD1R EVO 10	2 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, MC4-Evo 2	1	2925840000	
PVN1M16SXF3V101TXPX10	1 MPPT	6 Inputs	6 Outputs	Type: I / II	Connector, WM4C	1	2737440000	
PVN1M16SXF3V100TXPX10	1 MPPT	6 Inputs	6 Outputs	Type: I / II	Cable gland, PUSH-IN connection	1	2737520000	
With fuse holder, with switch disconnecter								
PVN DC 3IF 30 2MPP SW SPD1R WM4 10	2 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, WM4C	1	2683100000	
PVN DC 3IF 30 2MPP SW SPD1R CG 10	2 MPPT	3 Inputs	3 Outputs	Type: I / II	Cable gland, PUSH-IN connection	1	2683060000	
PVN DC 3IF 30 2MPP SW SPD1R EVO 10	2 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, MC4-Evo 2	1	2925860000	
PVN1M16S0F3V101TXPX10	1 MPPT	6 Inputs	6 Outputs	Type: I / II	Connector, WM4C	1	2737480000	
PVN1M16S0F3V100TXPX10	1 MPPT	6 Inputs	6 Outputs	Type: I / II	Cable gland, PUSH-IN connection	1	2737530000	
Monitoring								
With fuse holder, with switch disconnecter for Fronius Tauro Eco								
PV 210S0F3CXXV100TXPX10PWW	1 MPPT	10 Inputs	1 Output	Type: I / II	Cable gland, Gland connection	Without	1	8000111135
PV 210S0F3CXXV100TA1PA10PWW	1 MPPT	10 Inputs	1 Output	Type: I / II	Cable gland, Gland connection	With	1	8000111136
PV 210S5F3CXXV100TXPX10PWW	2 MPPT	10 Inputs	1 Output	Type: I / II	Cable gland, Gland connection	Without	1	8000111137
PV 210S5F3CXXV100TA1PA10PWW	2 MPPT	10 Inputs	1 Output	Type: I / II	Cable gland, Gland connection	With	1	8000111138



PV Next combiner boxes for PV systems in residential buildings

Type	MPP	Inputs per MPP	Outputs per MPP	Surge protection requirement class	Connection	Qty.	Order No.
No fuse holder, no switch-disconnector							
PVN DC 2I 10 1MPP SPD1R WM4 11	1 MPPT	2 Inputs	1 Output	Typw: I / II	Connector, WM4C	1	2791920000
PVN DC 2I 10 1MPP SPD1R CG 11	1 MPPT	2 Inputs	1 Output	Type: I / II	Cable gland, PUSH-IN connection	1	2791930000
PVN DC 2I 10 1MPP SPD1R EVO 11	1 MPPT	2 Inputs	1 Output	Type: I / II	Connector, MC4-Evo 2	1	2866300000
PVN DC 2I 10 1MPP SPD2R WM4 11	1 MPPT	2 Inputs	1 Output	Type: II	Connector, WM4C	1	2791940000
PVN DC 2I 10 1MPP SPD2R CG 11	1 MPPT	2 Inputs	1 Output	Type: II	Cable gland, PUSH-IN connection	1	2791950000
PVN DC 2I 10 1MPP SPD2R EVO 11	1 MPPT	2 Inputs	1 Output	Type: II	Connector, MC4-Evo 2	1	2866310000
PVN DC 3I 30 1MPP SPD1R WM4 11	1 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, WM4C	1	2890440000
PVN DC 3I 30 1MPP SPD1R CG 11	1 MPPT	3 Inputs	3 Outputs	Type: I / II	Cable gland, PUSH-IN connection	1	2890560000
PVN DC 3I 30 1MPP SPD1R EVO 11	1 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, MC4-Evo 2	1	2890320000
PVN DC 2I 10 2MPP SPD1R WM4 11	2 MPPT	2 Inputs	1 Output	Type: I / II	Connector, WM4C	1	2866340000
PVN DC 2I 10 2MPP SPD1R CG 11	2 MPPT	2 Inputs	1 Output	Type: I / II	Cable gland, PUSH-IN connection	1	2866320000
PVN DC 2I 10 2MPP SPD1R EVO 11	2 MPPT	2 Inputs	1 Output	Type: I / II	Connector, MC4-Evo 2	1	2866360000
PVN DC 2I 10 2MPP SPD2R WM4 11	2 MPPT	2 Inputs	1 Output	Type: II	Connector, WM4C	1	2866350000
PVN DC 2I 10 2MPP SPD2R CG 11	2 MPPT	2 Inputs	1 Output	Type: II	Cable gland, PUSH-IN connection	1	2866330000
PVN DC 2I 10 2MPP SPD2R EVO 11	2 MPPT	2 Inputs	1 Output	Type: II	Connector, MC4-Evo 2	1	2866370000
PVN DC 3I 30 2MPP SPD1R WM4 11	2 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, WM4C	1	2890450000
PVN DC 3I 30 2MPP SPD1R CG 11	2 MPPT	3 Inputs	3 Outputs	Type: I / II	Cable gland, PUSH-IN connection	1	2890570000
PVN DC 3I 30 2MPP SPD1R EVO 11	2 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, MC4-Evo 2	1	2890330000
PVN DC 2I 10 3MPP SPD1R WM4 11	3 MPPT	2 Inputs	1 Output	Type: I / II	Connector, WM4C	1	2975520000
PVN DC 2I 20 3MPP SPD1R CG 11	3 MPPT	2 Inputs	1 Output	Type: I / II	Cable gland, PUSH-IN connection	1	2975540000
PVN DC 2I 10 3MPP SPD1R EVO 11	3 MPPT	2 Inputs	1 Output	Type: I / II	Connector, MC4-Evo 2	1	2975530000
PVN DC 2I 10 3MPP SPD2R WM4 11	3 MPPT	2 Inputs	1 Output	Type: II	Connector, WM4C	1	2975550000
PVN DC 2I 10 3MPP SPD2R CG 11	3 MPPT	2 Inputs	1 Output	Type: II	Cable gland, PUSH-IN connection	1	2975570000
PVN DC 2I 10 3MPP SPD2R EVO 11	3 MPPT	2 Inputs	1 Output	Type: II	Connector, MC4-Evo 2	1	2975560000
No fuse holder, with switch-disconnector							
PVN DC 3I 30 1MPP SW SPD1R WM4 11	1 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, WM4C	1	2890470000
PVN DC 3I 30 1MPP SW SPD1R CG 11	1 MPPT	3 Inputs	3 Outputs	Type: I / II	Cable gland, PUSH-IN connection	1	2890590000
PVN DC 3I 30 1MPP SW SPD1R EVO 11	1 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, MC4-Evo 2	1	2890350000
With fuse holder, no switch-disconnector							
PVN DC 3IF 30 1MPP SPD1R CG 10	1 MPPT	3 Inputs	3 Outputs	Type: I / II	Cable gland, PUSH-IN connection	1	2683030000
PVN DC 3IF 30 1MPP SPD1R WM4 10	1 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, WM4C	1	2683070000
PVN DC 3IF 30 1MPP SPD1R EVO 10	1 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, MC4-Evo 2	1	2925830000
With fuse holder, with switch-disconnector							
PVN DC 3IF 30 1MPP SW SPD1R CG 10	1 MPPT	3 Inputs	3 Outputs	Type: I / II	Cable gland, PUSH-IN connection	1	2683050000
PVN DC 3IF 30 1MPP SW SPD1R WM4 10	1 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, WM4C	1	2683090000
PVN DC 3IF 30 1MPP SW SPD1R EVO 10	1 MPPT	3 Inputs	3 Outputs	Type: I / II	Connector, MC4-Evo 2	1	2925850000



More designs on request

Our portfolio protects a variety of string inverters available on the market. However, new variants come on the market regularly and sometimes you need a very special design for your application. Therefore, we have set up an efficient process that allows us to always offer the right solution in the usual quality.



Just send us your use case and requirements. We will create a custom-fit design and offer for you.

Click here to get to the contact form:
www.weidmueller.com/contact-pv

02 PV Next Fireman Switch

Switch off systems in case of fire

Building insurers and local fire brigades are increasingly demanding that rooftop photovoltaic systems switch off automatically in the event of a fire. This switch-off device must be placed when the string cables enter the building. Automatic switch-off occurs when the fire brigade switches off the building's power supply. This allows the fire brigade to carry out extinguishing work in an emergency without being unnecessarily endangered. When the power supply is restored, the PV Next Fireman Switch automatically reconnects the PV strings.

The PV Next Fireman Switch is also available in combination with overvoltage protection on the DC side.



For more information, visit our website:
www.weidmueller.com/pvnextfireman

2 PV Next fireman switch switches off the current flow automatically

1 Fire brigade disconnects AC power supply

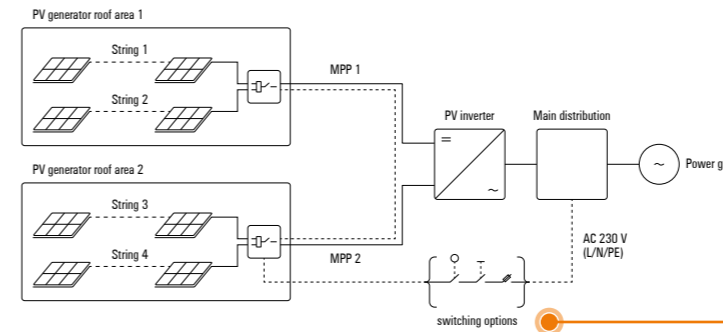


Watch our video to find out more about how the PV Next fireman switch works.

Your special advantages

- Fully automatic switch-on and switch-off
- Efficient combination of strings with cable savings of up to 50 %
- Simple and space-saving installation
- Short-term energy consumption only when switching on and off
- Standard variants available from stock
- Automatic shutdown at temperatures over 100 °C
- Two functions, one compact design: variants with integrated surge protection

Possible installation scheme*



Accessories

Type	Order
AC SB E 5A 1POL PO 06KV	3077660000



*For further installation examples and questions about standard-compliant installation, please contact us: www.weidmueller.com/contact-pv

PV Next Fireman Switch

Type	MPP	Inputs per MPP	Outputs per MPP	Current per box	Connection	Qty.	Order No.
PVN DC 21 10 1MPP RD CG 11	1 MPP	2 inputs	1 output	50A	Cable gland, PUSH IN connection	1	2778850000
PVN DC 21 10 1MPP RD WM4 11	1 MPP	2 inputs	1 output	34A	Connector, WM4C	1	2778860000
PVN DC 21 10 1MPP RD EVO 11	1 MPP	2 inputs	1 output	34A	Connector, MC4-Evo 2	1	2888520000
PVN DC 21 10 2MPP RD CG 11	2 MPP	2 inputs	1 output	2x 50A	Cable gland, PUSH IN connection	1	2778870000
PVN DC 21 10 2MPP RD WM4 11	2 MPP	2 inputs	1 output	2x 34A	Connector, WM4C	1	2778880000
PVN DC 21 10 2MPP RD EVO 11	2 MPP	2 inputs	1 output	2x 34A	Connector, MC4-Evo 2	1	2888530000
PVC DC 21 10 4MPP RD WM4 11	4 MPP	2 inputs	1 output	4x 34A	Connector, WM4C	1	8000115472
PVC DC 21 10 4MPP RD EVO 11	4 MPP	2 inputs	1 output	4x 34A	Connector, MC4-Evo 2	1	800011429
PVC DC 21 10 6MPP RD WM4 11	6 MPP	2 inputs	1 output	6x 34A	Connector, WM4C	1	8000115473
PVC DC 21 10 6MPP RD EVO 11	6 MPP	2 inputs	1 output	6x 34A	Connector, MC4-Evo 2	1	800011430
PVC DC 21 20 10MPP RD EVO 11	10 MPPT	2 inputs	2 output	10x 35A	Connector, MC4-Evo 2	1	8000130051
PVC DC 21 20 10MPP RD WM4 11	10 MPPT	2 inputs	2 output	10x 35A	Connector, WM4C	1	8000130052
PVC DC 21 20 12MPP RD EVO 11	12 MPPT	2 inputs	2 output	12x 35A	Connector, MC4-Evo 2	1	8000130054
PVC DC 21 20 12MPP RD WM4 11	12 MPPT	2 inputs	2 output	12x 35A	Connector, WM4C	1	8000130055

1100V DC
230V AC

PV Next Fireman Switch with SPD

Type	MPP	Inputs per MPP	Outputs per MPP	Surge protection requirement class	Connection	Qty.	Order No.
PVC DC 21 10 2MPP RD SPD1R WM4 11	2 MPP	2 inputs	1 output	Type: I / II	Connector, WM4C	1	8000114374
PVC DC 21 10 2MPP RD SPD1R EVO 11	2 MPP	2 inputs	1 output	Type: I / II	Connector, MC4-Evo 2	1	800098970
PVC DC 21 10 4MPP RD SPD1R WM4 11	4 MPP	2 inputs	1 output	Type: I / II	Connector, WM4C	1	8000115470
PVC DC 21 10 4MPP RD SPD1R EVO 11	4 MPP	2 inputs	1 output	Type: I / II	Connector, MC4-Evo 2	1	8000110665
PVC DC 21 10 6MPP RD SPD1R WM4 11	6 MPP	2 inputs	1 output	Type: I / II	Connector, WM4C	1	8000115471
PVC DC 21 10 6MPP RD SPD1R EVO 11	6 MPP	2 inputs	1 output	Type: I / II	Connector, MC4-Evo 2	1	8000111274
PVC DC 21 20 10MPP SPD 1R EVO 11	10 MPPT	2 inputs	2 outputs	Type: I / II	Connector, MC4-Evo 2	1	8000130058
PVC DC 21 20 10MPP SPD 1R WM4 11	10 MPPT	2 inputs	2 outputs	Type: I / II	Connector, WM4C	1	8000130053
PVC DC 21 20 12MPP SPD 1R EVO 11	12 MPPT	2 inputs	2 outputs	Type: I / II	Connector, MC4-Evo 2	1	8000130056
PVC DC 21 20 12MPP SPD 1R WM4 11	12 MPPT	2 inputs	2 outputs	Type: I / II	Connector, WM4C	1	8000130057



03 PV Inline

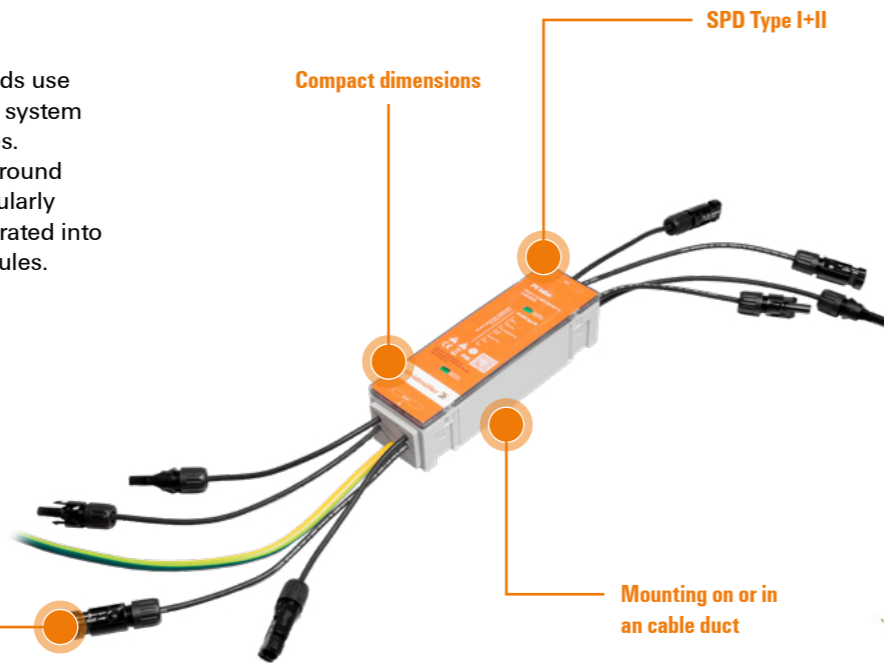
PV surge protection for small installation environments

Compact combiner box for installation on a wall, cable duct or PV modules

The compact PV combiner box PV Inline finds use in PV rooftop installations. It protects the PV system from overvoltages, including lightning strikes. In the event of an overvoltage, it creates a ground connection. The space-saving SPD is particularly suitable for confined spaces. It can be integrated into cable channels or mounted behind PV modules.



More information on our website:
www.weidmueller.com/pvinline



Original Stäubli MC4-Connector



Your benefits:

- Most compact dimension on the market
- Optical integration in or on a standard cable duct (60-40mm)
- Universal mounting feet for mounting on wall or cable duct included
- Mounting behind the PV panel for large systems with more than 10m cable length
- Plug & Play: PV Inline does not need to be opened for wiring

PV Inline – simple installation with many options

PV Inline does not require the housing to be opened, which speeds up wiring. For mounting on the wall or on a cable duct, two brackets are included, into which the PV combiner box can be hooked into. With only quarter size of comparable products, PV Inline is easy to hold with one hand during installation.

Mounting variants:



Mounting on cable channels

PV Inline can be easily mounted on a standard 60 x 40 mm cable duct using special mounting aids, so the compact PV combiner box becomes visually part of the channel.

Suitable cable channel systems:
 Hager TEHALIT LF4006009016 and LF4006007035, Würth PLF 4060



Mounting on the wall

Whether between two cable channels or where cables enter the house in the attic: Simply attach the mounting feet to the wall and snap PV Inline into place.



Mounting behind PV modules

Due to its compact dimensions, PV Inline can also be attached to the mounting structure of the PV system. This is also advantageous for large systems with a distance of more than 10 metres between the inverter and PV modules.

Earth connection

The earth connection can be quickly realised using the space-saving potential distribution terminal with 3 screw connections.

PV Inline

MPP	Surge protection	Inputs per MPP	Outputs per MPP	Max. current	Connection	Order No.
1 MPP	Type I+II	1 Input	1 Output	1x39 A	Stäubli MC4	3108220000
2 MPP	Type I+II	1 Input	1 Output	2x39 A	Stäubli MC4	3108230000

Earth connection potential distribution terminal for cable duct

Conductor cross-sections	Screw connections	Order No.
6 to 50mm ²	3	1547490000



04 AC Installation Boxes

Protect charging stations and PV systems against overvoltage

Protect your string inverter or your wallbox from overvoltages on the AC side of your installation. Especially for cable lengths over 10 metres, a compact and flexible solution is required by standards.

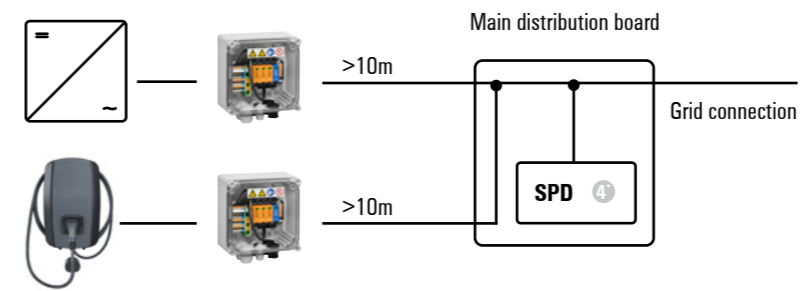
Weidmüller offers a quick and easy to install solution to protect the system components. In addition to protection against overvoltages on the AC side, data lines are also protected against harmful voltages.



For more information, visit our website:
www.weidmueller.com/ac-spd-box

Ready-to-install AC surge protection

The AC SPD box is a ready-to-install solution to reliably protect both charging stations from 11-22kW and PV systems against surges. The solution is equipped with Type II AC surge protection and additional surge protection for data cables (RJ45 connection). The compact design with IP65 and a temperature range of -25 to 50 °C is very suitable for outdoor use.



*see selection table on page 6

Your advantages

- Quick installation thanks to Push-In technology
- Use for both charging stations and PV systems
- Protection of the data lines against overvoltages

AC SPD-Box

Type	Inputs	Outputs	Max. cable diameter	Overvoltage protection	Connection	Order No.
PVC AC 11 10 SPD2R + RJ45 04	1	1	6mm ²	Type II	Cable glands	8000104168



The AC SPD-Box protects the wallbox against overvoltages

The AC SPD-Box protects the AC side of the inverter against overvoltages



Emergency power box for Fronius GEN24

Increasingly, homeowners want to be supplied with electricity from their own PV system even in the event of a power cut. The inverter manufacturer Fronius therefore offers the option of supplying consumers in the event of a power cut in its Fronius GEN24 product range. Weidmüller has developed the appropriate emergency power box to connect the necessary loads quickly and safely if required.

Products of the series Fronius GEN24 are connected to the emergency power box from Weidmüller. If there is a failure in the grid, this hybrid inverter recognises this condition and activates the connection to the emergency power box. Now residents can use various consumers such as a refrigerator or charging cables for mobile phones to this box.

It is possible to use the PV electricity from the roof directly or feed it into a battery. At the same time, the electricity from the battery can be used if no solar power is generated. This simple solution does not require a separate disconnection device after the grid connection point to be installed.



^(A) 1 phase cable ^(B) Emergency power box ^(C) 1 phase cable with plug

Your advantages

- Suitable solution for models in the Fronius Hybrid GEN24 and GEN24 Plus series
- Quick and easy installation
- Accessories already included

Emergency power box

Type	Connection cable	Electrical socket	Order No.
PVC AC NOTSTROMBOX TYPE F CEE 7/3	1 phase cable to connect to the string inverter	Type F CEE 7/3 Electrical socket, Schuko	8000108185
PVC AC NOTSTROMBOX TYPE 23	1 phase cable to connect to the string inverter	Type 23 Electrical socket	8000101331



AC surge arresters

AC protection Type I/II for 400 V applications

Type	Continuous current / lightning impulse current (I_{imp})	Version	Network	Qty.	Order No.
Type I arrester - pre-counter range - 275 V AC / 25 kA - S-line					
VPU AC I 3 275/25 LCF S	275 V AC / 25 kA	without remote signalling contact, leakage current free	TN-C	1	2726740000
VPU AC I 3 R 275/25 LCF S	275 V AC / 25 kA	with remote signalling contact, leakage current free	TN-C	1	2726750000
VPU AC I 3+1 275/25 LCF S 2PE	275 V AC / 25 kA	without remote signalling contact, leakage current free	TN-C-S, TN-S, TT	1	2726760000
VPU AC I 3+1 R 275/25 LCF S 2PE	275 V AC / 25 kA	with remote signalling contact, leakage current free	TN-C-S, TN-S, TT	1	2726770000
VPU AC I 4 275/25 LCF S	275 V AC / 25 kA	without remote signalling contact, leakage current free	TN-C-S, TN-S	1	2726780000
VPU AC I 4 R 275/25 LCF S	275 V AC / 25 kA	with remote signalling contact, leakage current free	TN-C-S, TN-S	1	2726790000
Type I arrester - pre-counter range - 300 V AC / 12.5 kA					
VPU AC I 3 300/12.5 LCF	300 V AC / 12.5 kA	without remote signalling contact, leakage current free	TN-C	1	2636970000
VPU AC I 3 R 300/12.5 LCF	300 V AC / 12.5 kA	with remote signalling contact, leakage current free	TN-C	1	2636980000
VPU AC I 3+1 300/12.5 LCF	300 V AC / 12.5 kA	without remote signalling contact, leakage current free	TN-C-S, TN-S, TT	1	2636910000
VPU AC I 3+1 R 300/12.5 LCF	300 V AC / 12.5 kA	with remote signalling contact, leakage current free	TN-C-S, TN-S, TT	1	2636920000
Type I arrester - post-counter range - 300 V AC / 12.5 kA					
VPU AC I 3 300/12.5	300 V AC / 12.5 kA	without remote signalling contact	TN-C	1	2591440000
VPU AC I 3 R 300/12.5	300 V AC / 12.5 kA	with remote signalling contact	TN-C	1	2591450000
VPU AC I 3+1 300/12.5	300 V AC / 12.5 kA	without remote signalling contact	TN-C-S, TT, IT with N, IT without N	1	2591460000
VPU AC I 3+1 R 300/12.5	300 V AC / 12.5 kA	with remote signalling contact	TN-C-S, TT, IT with N, IT without N	1	2591470000
VPU AC I 4 300/12.5	300 V AC / 12.5 kA	without remote signalling contact	TN-C-S, TN-S	1	2591420000
VPU AC I 4 R 300/12.5	300 V AC / 12.5 kA	with remote signalling contact	TN-C-S, TN-S	1	2591430000



AC protection Type I/II for 400 V / 40 mm busbar

Type	Continuous current / lightning impulse current (I_{imp})	Version	Network	Qty.	Order No.
12.5 kA - without phase tap					
VPU ZPA S I 3 300/12.5	300 V AC / 12.5 kA	without remote signalling contact, leakage current free	TN-C	1	2830870000
VPU ZPA S I 3+1 300/12.5	300 V AC / 12.5 kA	without remote signalling contact, leakage current free	TN-S, TT, IT	1	2830900000
12.5 kA - with phase tap for L1					
VPU ZPA S I 3+1 RA 300/12.5	300 V AC / 12.5 kA	with remote signalling contact, leakage current free	TN-S, TT, IT	1	2830920000
7.5 kA - without phase tap					
VPU ZPA S I 3 300/7.5	300 V AC / 7.5 kA	without remote signalling contact, leakage current free	TN-C	1	2830930000
VPU ZPA S I 3+1 300/7.5	300 V AC / 7.5 kA	without remote signalling contact, leakage current free	TN-S, TT, IT	1	2830960000
7.5 kA - with phase tap for L1					
VPU ZPA S I 3+1 RA 300/7.5	300 V AC / 7.5 kA	with remote signalling contact, leakage current free	TN-S, TT, IT	1	2830980000



AC protection Type II for 400 V applications

Type	Continuous current / discharge current (I_{max})	Version	Network	Qty.	Order No.
Type I arrester - post-counter range - 300 V AC / 12.5 kA					
VPU AC II 3 300/50	300 V AC / 50 kA	without remote signalling contact	TN-C	1	2591160000
VPU AC II 3 R 300/50	300 V AC / 50 kA	with remote signalling contact	TN-C	1	2591170000
VPU AC II 3+1 300/50	300 V AC / 50 kA	without remote signalling contact	TN-C-S, TN-S, TT, IT	1	2591080000
VPU AC II 3+1 R 300/50	300 V AC / 50 kA	with remote signalling contact	TN-C-S, TN-S, TT, IT	1	2591090000
VPU AC II 4 300/50	300 V AC / 50 kA	without remote signalling contact	TN-C-S, TN-S	1	2591140000
VPU AC II 4 R 300/50	300 V AC / 50 kA	with remote signalling contact	TN-C-S, TN-S	1	2591150000
Type II arrester with integrated fuse - post-counter range - 300 V AC / 50 kA					
VPU AC II F 3 300/40	300 V AC / 50 kA	without remote signalling contact	TN-C	1	2827600000
VPU AC II F 3 R 300/40	300 V AC / 50 kA	with remote signalling contact	TN-C	1	2807410000
VPU AC II F 3+1 300/40	300 V AC / 50 kA	without remote signalling contact	TN-C-S, TN-S, TT, IT	1	2827630000
VPU AC II F 3+1 R 300/40	300 V AC / 50 kA	with remote signalling contact	TN-C-S, TN-S, TT, IT	1	2807440000
VPU AC II F 4 300/40	300 V AC / 50 kA	without remote signalling contact	TN-C-S, TN-S	1	2827610000
VPU AC II F 4 R 300/40	300 V AC / 50 kA	with remote signalling contact	TN-C-S, TN-S	1	2807420000



AC protection Type I/II for 800 V applications

Type	Continuous current / discharge current (I_{max})	Version	Network	Qty.	Order No.
VPU AC I 3+MOV R 950/12.5	950 V AC / 50 kA	with remote signalling contact	TN-C, IT without N	1	2845570000



V-DATA - Data protection arrester

Type	Suitable for:	Connection	Qty.	Order No.
VDATA CAT6	Cat. 5 (up to 100 MHz) and Cat. 6 to 250 MHz (Class E), PoE (according to IEEE 802.3af) and PoE+ (according to IEEE 802.3at)	RJ45	1	1348590000



05 PV Accessories

For the easy system installation



PV Tools

When installing a photovoltaic system, the installer depends on reliable and smooth-running tools. Weidmüller offers a range of professional tools for this purpose.

Stripping tools

Type	Cutting	Stripping	Qty.	Order No.
MULTI-STRIPAX PV	2,5, 4,0 and 6 mm ²	2,5, 4,0 and 6 mm ²	1	1190490000

Crimping tools

Type	Crimping	Description	Qty.	Order No.
CTF PV WM4	2,5...6 mm ²	Crimping tool for Weidmüller photovoltaic connector WM4 C and identical connectors	1	1222870000

Cutting tools

Type	Maximum cutting performance	Copper finely stranded	Aluminium stranded	Qty.	Order No.
KT 12	25 mm ²	35 mm ²	16 mm ²	1	9002660000

Multitool

Type	Description	Qty.	Order No.
MULTITOOL PV SET	Screw PV-Stick; Check cable diameter for PV-Stick; Put on smart lock for PV Next; Open cover for PV Next; Replace SPD cartridge for PV Next; Operate PUSH IN connection; Open control cabinet	1	2771530000

PV tool bag

Type	Description	Qty.	Order No.
PV TOOL STICK SET	Tool bag with belt; 30 pcs. PV-Stick + (crimpless PV connector); 30 pcs. PV-Stick - (crimpless PV connector); KT 8 cutting tool; SLICER cable knife; multi-stripax® PV; Multitool for PV sticks; 2 Mammut bags for carrying your PV sticks	1	2936970000



PV Labels and Markers

PV Cable marker

Type	Design	Colour	Kabelbinder Loch	Qty	Order No.
SFX-VT 9/24 MM GE	9 x 24 mm cable marker, with 1 cable tie punch hole, UV-resistant	●	6 x 1.9 mm	1000	2621460000
SFX-VT 9/24 MM WS	9 x 24 mm cable marker, with 1 cable tie punch hole, UV-resistant	○	6 x 1.9 mm	1000	2621470000
SFX-VT 9/24 MM RT	9 x 24 mm cable marker, with 1 cable tie punch hole, UV-resistant	●	6 x 1.9 mm	1000	2799310000
SFX-VT 9/24 MM BL	9 x 24 mm cable marker, with 1 cable tie punch hole, UV-resistant	●	6 x 1.9 mm	1000	2799320000
SFX-VT 11/60 MM GE	11 x 60 mm cable marker, with 2 cable tie punch hole, UV-resistant	●	5.5 x 2mm	1000	2621440000
SFX-VT 11/60 MM WS	11 x 60 mm cable marker, with 2 cable tie punch hole, UV-resistant	○	5.5 x 2 mm	1000	2621450000
SFX-VT 11/60 MM RT	11 x 60 mm cable marker, with 2 cable tie punch hole, UV-resistant	●	5.5 x 2 mm	1000	2900960000
SFX-VT 11/60 MM BL	11 x 60 mm cable marker, with 2 cable tie punch hole, UV-resistant	●	5.5 x 2 mm	1000	2900970000

Ribbon: 2448880000 black



PV Device marker

Type	Design	Colour	Qty	Order No.
THM PV 89/60 B/DR RT	Device marker, 60 x 89 mm	●	450	2817450000
THM PV 90/140 WBC	Battery warning, pre-printed warning label	●	200	2986860000
THM PV 90/140 WFF	Fire brigade warning, pre-printed warning label	●	200	2986850000

Ribbon: 2005070000 black, 2918800000 white



Device markers endless

Type	Design	Colour	Qty	Order No.
THM PV EL 30 SI 30M	Device markers, 30 mm	●	1 roll, 30 m	2969100000
THM PV EL 30 WS 30M	Device markers, 30 mm	○	1 roll, 30 m	2969070000
THM PV EL 60 SI 30M	Device markers, 60 mm	●	1 roll, 30 m	2969090000
THM PV EL 60 WS 30M	Device markers, 60 mm	○	1 roll, 30 m	2969060000
THM PV EL 90 GE 30M	Device markers, 90 mm	●	1 roll, 30 m	2817440000
THM PV EL 90 RT 30M	Device markers, 90 mm	●	1 roll, 30 m	2817430000
THM PV EL 90 SI 30M	Device markers, 90 mm	●	1 roll, 30 m	2969080000
THM PV EL 90 WS 30M	Device markers, 90 mm	○	1 roll, 30 m	2969050000

Ribbon: 2005070000 black, 2918800000 white



Transparent labels

Type	Design	Colour	Qty	Order No.
THM PV 85/54 TR	PV-Device markers, 84.6 x 53.6 mm	transparent	450	2969120000

Ribbon: 2005070000 black



THM MultiMark -Thermal transfer printer

Type	Design	Qty	Order No.
THM MULTIMARK	Marking systems, thermal transfer printer, thermal transfer, 300 DPI, MultiMark, shrink sleeves, label rolls	1	2599430000
THM MMP CUTTER	Cutting kit - for automatic cutting of continuous markers	1	1331600000

For printing MultiMark markers, shrink sleeves, label rolls, etc.



PV marker set

Type	Design	Qty	Order No.
PV MARKER 1-3 MPP	Pre-printed cable markers 1-3 MPP, warning labels, cable ties	1	8000149520



PV warning label

Type	Design	Qty	Order No.
TABPACK PV 90/100 WFF	Fire brigade warning, pre-printed warning label, bag	20	2817460000
TABPACK PV 90/100 WBC	Battery warning, pre-printed warning label, bag	20	2817470000
PV MARKER EMERGENCY POWER	Emergency power warning, pre-printed warning label	10	8000151275



Cable tie

Type	Design	Strength in mm	Qty	Order No.
CB-UVR 98/2,5 BK	Cable tie, 2.5 x 98 mm, polyamide 66, 80 N	1	100	2659310000
CB-UVR 140/3,5 BK	Cable tie, 3.5 x 140 mm, polyamide 66, 130 N	1.1	100	2659320000
CB-UVR 200/3,5 BK	Cable tie, 3.5 x 200 mm, polyamide 66, 130 N	1.2	100	2659330000
CB-UVR 200/4,8 BK	Cable tie, 4.8 x 200 mm, polyamide 66, 220 N	1.35	100	2659340000
CB-UVR 290/4,5 BK	Cable tie, 4.5 x 290 mm, polyamide 66, 220 N	1.4	100	2659350000
CB-UVR 365/7,5 BK	Cable tie, 7.5 x 365 mm, polyamide 66, 540 N	1.8	100	2659360000





PV Connectors

PV-Stick with SNAP IN connection

No crimping tool, no lost time, no extra effort - the unique PV-Stick uses tried-and-tested SNAP IN technology. The fastest, easiest and safest way to wire up photovoltaic plants - literally in no time.

WM4 C with crimp connection

Outstanding quality and ease of handling due to modern crimp connection. The WM4 C is suitable for automated assembly as well as for manual installation in the field.

PV-Stick - Photovoltaic connectors - SNAP IN connection

Type	Rated voltage (IEC) Rated current	Connection cross-section min. / max.	Continuous operating temperature min. / max.	Qty.	Order No.
Socket					
PV-STICK+ Qty.10	1500 V DC / 30 A	4 / 6 mm ²	-40 °C...+85 °C	10	1303450000
PV-STICK+ Qty.50	1500 V DC / 30 A	4 / 6 mm ²	-40 °C...+85 °C	50	1303460000
PV-STICK+ Qty.200	1500 V DC / 30 A	4 / 6 mm ²	-40 °C...+85 °C	200	1303470000
Pin					
PV-STICK- Qty.10	1500 V DC / 30 A	4 / 6 mm ²	-40 °C...+85 °C	10	1303490000
PV-STICK- Qty.50	1500 V DC / 30 A	4 / 6 mm ²	-40 °C...+85 °C	50	1303500000
PV-STICK- Qty.200	1500 V DC / 30 A	4 / 6 mm ²	-40 °C...+85 °C	200	1303510000
PV-Stick Set					
PV-STICK SET	1500 V DC / 30 A	4 / 6 mm ²	-40 °C...+85 °C	1	1422030000



WM4 C - Crimp connectors

Type	Rated voltage / current	Conductor cross-section	Connection	Qty.	Order No.
Box connectors - housing					
SFGH BOX WM4 C BT	1500 V DC (IEC) / 35 A	4 / 6 mm ²	M 12 housing cable gland	100	1530640000
BUGH BOX WM4 C BT	1500 V DC (IEC) / 35 A	4 / 6 mm ²	M 12 housing cable gland	100	1530630000
Field connector housing					
SFGH WM4 C BT	1500 V DC (IEC) / 35 A	4 / 6 mm ²	M 16 housing cable gland	100	1530700000
BUGH WM4 C BT	1500 V DC (IEC) / 35 A	4 / 6 mm ²	M 16 housing cable gland	100	1530690000
Crimp contacts					
BUKO WM4 C BT	Socket contact	4 and 6 mm ² cables	Loose goods for crimping tools	100	1530670000
BUKO WM4 C RL	Socket contact	4 and 6 mm ² cables	Reel packaged goods for automated crimping	1500	1530770000
SFKO WM4 C BT	Pin contact	4 and 6 mm ² cables	Loose goods for crimping tools	100	1530680000
SFKO WM4 C RL	Pin contact	4 and 6 mm ² cables	Reel packaged goods for automated crimping	1500	1530780000



Accessories

Type	Description	Qty.	Order No.
SAFETY-CLIP WM4 Qty.10	Locking clip for PV-Stick prevents opening without tools	10	1328150000
VSSO WM4 C	Sealing cap for protecting PV connectors that are not mated (all connectors)	100	1254870000



PV AC output connectors (suitable for Huawei / Sungrow / SMA)

Type	Description	Rated voltage / current	Clamping range min. / max.	Qty.	Order No.
PV BSS VAPM 5P M	Box coupling 5 pole	600 V AC / 60 A	0.2mm ² - 16mm ²	1	2920100000
PV PS VAPM 5P F	Field connector 5 pole	600 V AC / 60 A	0.2mm ² - 16mm ²	1	2920110000
PV BSS DL	Cover	-	-	1	2920120000
PV PS ULTA	Lock	-	-	1	2920130000



PV Fuses

The gPV cylindrical fuse cartridges are designed to provide compact, safe and economical protection of photovoltaic modules. They protect against both overloads and short circuits.

When are fuses required?

According to IEC 62548, fuses are required if the reverse current of the module is exceeded. This is calculated as follows:

String current x 1.25 x (number of strings - 1) = Larger max. reverse current, then fuse holder for + and -.

Which size should I use?

Multiply the ISC value of the module by 1.5.

Example:

8.99 A x 1.5 = 13.485 rounded up to 15 A fuse cartridges

10x38 gPV fuse cartridges with silver-plated contacts for PV applications

Type	Voltage / Current	Power loss	Switching capacity	Qty.	Order No.
FUSE 10X38 1A 1000 VDC GPV	1000 V DC / 1 A	2.2 W	30 kA	10	2783160000
FUSE 10X38 2A 1000 VDC GPV	1000 V DC / 2 A	2.4 W	30 kA	10	2783170000
FUSE 10X38 3A 1000 VDC GPV	1000 V DC / 3 A	2.65 W	30 kA	10	2783180000
FUSE 10X38 4A 1000 VDC GPV	1000 V DC / 4 A	2.7 W	30 kA	10	2783190000
FUSE 10X38 5A 1000 VDC GPV	1000 V DC / 5 A	0.76 W	30 kA	10	2783200000
FUSE 10X38 6A 1000 VDC GPV	1000 V DC / 6 A	3.2 W	30 kA	10	2783210000
FUSE 10X38 8A 1000 VDC GPV	1000 V DC / 8 A	1.45 W	30 kA	10	2783220000
FUSE 10X38 10A 1000 VDC GPV	1000 V DC / 10 A	1.66 W	30 kA	10	2783230000
FUSE 10X38 12A 1000 VDC GPV	1000 V DC / 12 A	1.57 W	30 kA	10	2783240000
FUSE 10X38 15A 1000 VDC GPV S	1000 V DC / 15 A	1.65 W	33 kA	10	2827970000
FUSE 10X38 16A 1000 VDC GPV S	1000 V DC / 16 A	1.84 W	10 kA	10	2837520000
FUSE 10X38 20A 1000 VDC GPV S	1000 V DC / 20 A	2 W	10 kA	10	2827980000
FUSE 10X38 25A 1000 VDC GPV S	1000 V DC / 25 A	3.5 W	10 kA	10	2827990000
FUSE 10X38 30A 1000 VDC GPV S	1000 V DC / 30 A	3.8 W	10 kA	10	2828000000



Cables

Y cable

Type	Power input 1 / input 2	Power output	Stich connection	Qty.	Order No.
PVHYW-XXW+XX06W+15	WM4C -	WM4C +	WM4C +	1	2814180000
PVHYW+XXW-XX06W-15	WM4C +	WM4C -	WM4C -	1	2814190000
PVHYW-XXW+XX06M+15	MC4 -	MC4 +	WM4C +	1	2814200000
PVHYM+XXW-XX06M-15	MC4 +	MC4 -	WM4C -	1	2814210000
PVHYW-XXPXX06W+15	WM4C -	WM4C +	Teil abisoliert	1	2814220000
PVHYM-M+XXX6W+15	MC4 -	WM4C+	MC4 -	1	2877850000
PVHYM+M+XXX6W-15	MC4 +	WM4C-	MC4 +	1	2877860000
PVHYM-XXM+XX06M+15	MC4+	MC4-	MC4-	1	3032100000
PVHYM-XXM-XX06M-15	MC4-	MC4+	MC4+	1	3032110000



Pre-assembled cables


Type	Voltage	Cable end version	Type of plug contact	Plug connector design	Cable length	Order No.
PV XSTU06 BUOWM4C-C250	1500 V DC	1x Steckverbinder, 1x offen	1x Buchse	1x WM4C	2500 mm	3010170250
PV XSTU06 STOWM4C-C250	1500 V DC	1x Steckverbinder, 1x offen	1x Stift	1x WM4C	2500 mm	3018430250
PV XSTU04 BUOWM4C-C250	1500 V DC	1x Steckverbinder, 1x offen	1x Buchse	1x WM4C	2500 mm	3018440250
PV XSTU04 STOWM4C-C250	1500 V DC	1x Steckverbinder, 1x offen	1x Stift	1x WM4C	2500 mm	3018450250
PV XSTU06 BUDEVO2-C250	1500 V DC	1x Steckverbinder, 1x offen	1x Buchse	1x MC4-Evo 2	2500 mm	3018460250
PV XSTU06 STOEVO2-C250	1500 V DC	1x Steckverbinder, 1x offen	1x Stift	1x MC4-Evo 2	2500 mm	3018470250
PV XSTU04 BUDEVO2-C250	1500 V DC	1x Steckverbinder, 1x offen	1x Buchse	1x MC4-Evo 2	2500 mm	3018480250
PV XSTU04 STOEVO2-C250	1500 V DC	1x Steckverbinder, 1x offen	1x Stift	1x MC4-Evo 2	2500 mm	3018490250





PV Lightning and Surge Protection

PV systems are directly exposed to environmental influences because they are always installed in locations unprotected from the weather. For this reason, the probability of lightning strikes and resulting overvoltage is high. The components of unprotected PV systems repeatedly suffer major damage.

 The right combiner box for your inverter type in just three steps. Find out more on p. 6.

DC surge arrester

DC protection for 600 V applications

Type	Type	Version	MPP	Discharge current I_{imp} / I_{max}	Qty.	Order No.
VPU PV I+II 3 600 E	I + II	without remote signalling contact	1 MPP	6,25 kA / 40 kA	1	2857030000
VPU PV I+II 3 R 600 E	I + II	with remote signalling contact	1 MPP	6,25 kA / 40 kA	1	2857040000
VPU PV II 3 600	II	without remote signalling contact	1 MPP	- / 50 kA	1	2857060000
VPU PV II 3 R 600	II	with remote signalling contact	1 MPP	- / 50 kA	1	2857070000



DC protection for 1000 V applications

Type	Type	Version	MPP	Discharge current I_{imp} / I_{max}	Qty.	Order No.
VPU PV I+II 3 1000	I + II	without remote signalling contact	1 MPP	6,25 kA / 40 kA	1	2530610000
VPU PV I+II 3 R 1000	I + II	with remote signalling contact	1 MPP	6,25 kA / 40 kA	1	2530620000
VPU PV I+II 5 1000	I + II	without remote signalling contact	2 MPP	5 kA / 40 kA	1	2856440000
VPU PV I+II 5 R 1000	I + II	with remote signalling contact	2 MPP	5 kA / 40 kA	1	2856490000
VPU PV II 3 1000	II	without remote signalling contact	1 MPP	- / 40 kA	1	2530550000
VPU PV II 3 R 1000	II	with remote signalling contact	1 MPP	- / 40 kA	1	2530180000
VPU PV II 5 1000	II	without remote signalling contact	2 MPP	- / 40 kA	1	2856500000
VPU PV II 5 R 1000	II	with remote signalling contact	2 MPP	- / 40 kA	1	2857020000



DC protection for 1500 V applications

Type	Type	Version	MPP	Discharge current I_{imp} / I_{max}	Qty.	Order No.
VPU PV I+II 3 1500	I + II	without remote signalling contact	1 MPP	5 kA / 30 kA	1	2530580000
VPU PV I+II 3 R 1500	I + II	with remote signalling contact	1 MPP	5 kA / 30 kA	1	2530590000
VPU PV II 3 1500	II	without remote signalling contact	1 MPP	- / 30 kA	1	2530640000
VPU PV II 3 R 1500	II	with remote signalling contact	1 MPP	- / 30 kA	1	2530650000



Arresters for printed circuit boards

Type	Type	Version	Rated voltage U_c	Discharge current I_{imp} / I_{max}	Qty.	Order No.
VPCB PV I+II R 600 E	I + II	with remote signalling contact	600 V	6,25 kA / 40 kA	1	2857100000
VPCB PV I+II 1000	I + II	without remote signalling contact	1100 V	6,25 kA / 40 kA	1	2665740000
VPCB PV I+II M 1000	I + II	without remote signalling contact	1100 V	6,25 kA / 40 kA	1	2665750000
VPCB PV I+II R 1000	I + II	with remote signalling contact	1100 V	6,25 kA / 40 kA	1	2665760000
VPCB PV I+II R M 1000	I + II	with remote signalling contact	1100 V	6,25 kA / 40 kA	1	2665770000
VPCB PV II R 600	II	with remote signalling contact	600 V	- / 40 kA	1	2857090000
VPCB PV II 1000	II	without remote signalling contact	1100 V	- / 40 kA	1	2665680000
VPCB PV II R 1000	II	with remote signalling contact	1100 V	- / 40 kA	1	2665690000



You can find more information about our accessories and other articles on our website:
www.weidmueller.com/pv-accessories

FAQs – Frequently Asked Questions about the Installation

What are the special features of PV Next combiner boxes and how do I find the right variant?

For a PV system on the roof, a GAK approved in accordance with IEC 61439-2 is required to protect the system against overvoltage. The GAK PV Next also offers additional functions, such as the bundling of strings for reduced cabling effort. Depending on the inverter of your PV system, a suitable variant of the GAK is required. You can easily find the right variant using the selection guide on our website.

How do you protect PV installations against lightning strikes?

The overvoltage protection inside a PV combiner box (DC side of the installation) is one part of the lightning protection system (LPS) of a building and is mandatory according to EN 51643-32 in the EU and beyond since 2019. It is used to protect your PV system and the electronic inside the house against overvoltages.

When are DC fuses mandatory to install?

Depending on the kind of photovoltaic installation, a combiner box with fuses is required. According to the IEC 62548:2016, fuses are mandatory if the maximum return current is higher than the return current of the module.



All technical details, our fact sheets and other frequently asked questions can be found on our website:
www.weidmueller.com/pv-FAQ

More tips for an easy PV installation:

Selection guide – PV Combiner Box:

Select inverter

Manufacturer

Inverter type

Output of matching combiner box



Scan now and find your matching combiner box:
www.weidmueller.com/pvselector

YouTube-Playlist:



Take a look at our YouTube Playlist Photovoltaics to find out more

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