

PVC DC 2I 10 4MPP RD SPD1R EVO 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 disconnecter, MC4-Evo 2
Order No.	8000110665
Type	PVC DC 2I 10 4MPP RD SPD1R EVO 11
GTIN (EAN)	4099986786530
Qty.	1 pc(s).
Replacement parts	2530600000 2534300000

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Technical data

Dimensions and weights

Depth	135 mm	Depth (inches)	5.315 inch
Height	340 mm	Height (inches)	13.386 inch
Width	400 mm	Width (inches)	15.748 inch
Net weight	7,756.168 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. 44 A

Rated DC voltage	1,100 V
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Rated short-term current resistance	Rated current	51.25 A
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Enclosure

Connection type string	Plug MC4-Evo 2	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	Fixing lugs

General data

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

Inputs

Amount of maximum power points (MPP)	4		
DC Input + & -	Wire connection	Type of connection	Stäubli MC4-Evo 2 connector
		Compatible cable cross-section	TÜV 2 Pfg1169/08.07
		Wire cross-section, min.	2.5 mm ²
		Wire cross-section, max.	16 mm ²
	Cable entry	Number of cable entries	8

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Functional earth connector	Cable entry	Number of cable entries	2
	Wire connection	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
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	3		
Number of string inputs per MPP	≤ 2		
Surge protection auxiliary contact	Cable entry	Number of cable entries	1
	Wire connection	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

DC Output + & -	Wire connection	Type of connection	Stäubli MC4-Evo 2 connector
		Compatible cable cross-section	TÜV 2 Pfg 1169/08.07
		Wire cross-section, min.	2.5 mm ²
		Wire cross-section, max.	16 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		

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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

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	
PV system voltage, max. U_{cpv}	1,100 V	DC UCPV mode +/-, -/PE, +/-PE	1,100 V
Protection level U_p (+/-)	≤ 3.8 kV	Protection level U_p (+/-, -/PE, +/-PE)	≤ 3.8 kV
Protection level U_p (-/PE)	≤ 3.8 kV	Protection level U_p (+/PE)	≤ 3.8 kV
Short-circuit current I_{SCPv}	11,000 A	Requirements class	Type I/II
Standby power consumption P_C	<0.2 W	Standards	EN 61643-31
Total discharge current I_{total} (8/20 μ s)	50 kA	Surge protection DC side	1000 V type I + II
		Total discharge current I_{total} (10/350 μ s)	12.5 kA

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 4 MPP tracker in the inverter. Suitable for remote disconnection of the DC side by the fire department. Max. string voltage Uoc: 1100V

Integrated surge protection with 4 class I+II combined arresters with signal contact. Suitable for protection against overvoltages in a photovoltaic system according to EN 51643-32.

MPP1:
2 inputs, connection via MC4-Evo 2 connector, compatible with cable type TÜV 2 Pfg1 169/08.07 / EN 50618:2063
1 output, connection via MC4-Evo 2 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.
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 glass fibre reinforced polyester housing. Dimensions HxWxD: 340x400x135mm.

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

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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

Approvals

Approvals



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

Downloads

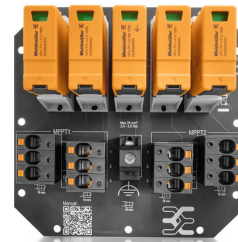
Approval/Certificate/Document of Conformity	Declaration of conformity for PV fireman switches
Engineering Data	Schematic diagram CAD data – STEP
Technical Documentation	8000110665 Customer drawing
User Documentation	Manual PV Next String Combiner Box MANUAL PV NEXT IT/ES/FR MANUAL PV NEXT RD DE/EN
White paper	Fact Sheet DE PV Feuerwehrscharter Fact Sheet EN PV Fireman switch
Catalogues	Catalogues in PDF-format

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Drawings



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Accessories

UV-resistant cable ties

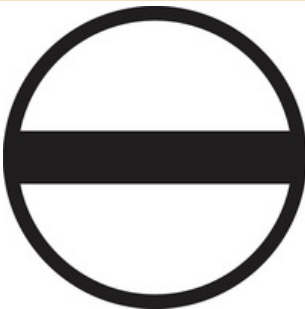


UV-resistant polyamide 6.6 ensures long durability of our special cable ties even with strong UV radiation. Ideal for continuous outdoor use.

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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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).	

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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www.weidmueller.com**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).	

Crosshead screwdriver Phillips

VDE insulated crosshead screwdriver, for Phillips screws, SDIK PH DIN 7438, ISO 8764/2-PH, output to ISO 8764-PH, SoftFinish grip

General ordering data

Type	SDIK PH3 X 150	Version
Order No.	2749910000	Screwdriver, Blade width (B): 3 mm, 150 mm, Blade thickness (A): 3
GTIN (EAN)	4050118897210	
Qty.	1 pc(s).	

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Accessories

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).	

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,
GTIN (EAN)	4064675666417	6mm², 1100 V
Qty.	1 pc(s).	
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).	

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www.weidmueller.com**Accessories****External fixing lugs**

External attachment lugs 4-part set

**General ordering data**

Type	MF FPC	Version
Order No.	9536040000	FPC (polycarbonate empty enclosure), Mounting foot, Fixing lugs,
GTIN (EAN)	4032248009442	Height: 40 mm, Width: 19 mm, Depth: 35.5 mm, Material: Polyamide,
Qty.	1 pc(s).	Light Grey

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Replacement parts**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 pc(s).	
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 pc(s).	