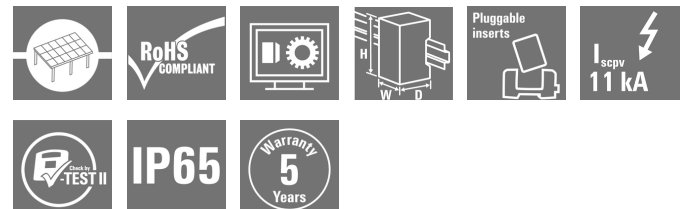


PVN1M3I9S0FXV101TXPX10

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

Product image



PV Next: PV-Next, PV generator junction box for combination of 1-6 strings (input and output side) and connection to the inverter. Intelligent innovative design individual for every customer application. Advanced overvoltage protection, optional fuses and switch-disconnectors for optimum operation and safety for the system. In addition, all PV generator junction boxes comply with IEC/EN 61439-2 for maximum reliability of each component.

General ordering data

Version	Photovoltaics, Combiner Box, 1000 V, 3 MPPT's, 3 Inputs / 3 Outputs per MPPT, Surge protection I / II, Switch disconnecter, WM4C
Order No.	2683220000
Type	PVN1M3I9S0FXV101TXPX10
GTIN (EAN)	4050118700084
Qty.	1 pc(s).
Replacement parts	2530600000 2534300000

Creation date January 17, 2023 11:42:23 AM CET

Catalogue status 09.01.2023 / We reserve the right to make technical changes.

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Technical data

Dimensions and weights

Depth	249 mm	Depth (inches)	9.803 inch
Depth with add-on components	250 mm	Height	334 mm
Height (inches)	13.15 inch	Width	558 mm
Width (inches)	21.968 inch	Net weight	6,900 g

Temperatures

Ambient temperature	-40 °C...+50 °C	Humidity	5 - 90 %, no condensation
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Guarantee

Time interval	5 years
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Electrical characteristics

Current per MPPT, max.	45 A		
Rated DC current per connection	Current per string, max.	35 A	
	Ambient temperature	-25 °C...+50 °C	
	Short-circuit at main output	Duration	10 h
Factor		1.25 * I _{nc}	
Rated short-term current resistance	Rated current	56.25 A	
Rated DC voltage	1,000 V DC		
Switching disconnecter capacity	DC-PV1, IEC 60947-3		

Enclosure

Connection type String	Plug WM4C	Cover	with cover, removeable
Enclosure attachment	Via the four holes under the cover screws	Insulating material	Polyester glass-fibre reinforced, Polycarbonate
Switch disconnecter execution	switch in cover	Type of mounting	Wall mounting, 4 screws

General data

Installation location	Protected outdoor area (>1 km from sea)	Protection degree	IP65
Standards	IEC 61439-2 ed 2.0, EN 61439-2:2011		

Inputs

Amount of Maximum Power Point Tracking	3 MPPT		
DC Input + & -	Wire connection	Type of connection	WM4C plug-in connector
		Compatible cable crossection	EN 50618:2015, TÜV 2 Pfg 1169/08.07
		Wire cross-section, min.	2.5 mm ²
		Wire cross-section, max.	6 mm ²

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Technical data

Functional earth connector	Cable entry	Number of cable entries	2
		Cable diameter, min.	5
		Cable diameter, max.	10
		Cable glands	M 16
	Wire connection	Type of connection	Screw connection
		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 Tracking 3 inputs connected in parallel		
Surge protection auxiliary contact	Cable entry	Number of cable entries	2
		Cable diameter, min.	5
		Cable diameter, max.	10
		Cable glands	M 16
	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	

Outputs

DC Output + & -	Wire connection	Type of connection	WM4C plug-in connector
		Compatible cable cross-section	TÜV 2 Pfg1169/08.07, EN 50618:2015
		Wire cross-section, min.	4 mm ²
		Wire cross-section, max.	6 mm ²

Max. number of DC outputs per Maximum Power Point Tracking 3 outputs connected in parallel

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 UCPV mode +/-, -/PE, +/-PE	1,100 V DC
PV system voltage, max. U_{cpv}	1,100 V	Protection level U_p (+/-, -/PE, +/-PE)	≤ 3.8 kV
Protection level U_p (+/-)	≤ 3.8 kV	Protection level U_p (+/PE)	≤ 3.8 kV
Protection level U_p (-/PE)	≤ 3.8 kV	Requirements class	Type I/II
Short-circuit current I_{SCPV}	11,000 A	Standards	IEC 61439-2 ed 2.0, EN 61439-2:2011
Standby power consumption P_C	< 0.2 W	Total discharge current I_{total} (8/20 μ s)	50 kA
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	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

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Technical data

Tender specification sheets

Long specification

Combiner box for inverters with 3 Mpp tracker, used to protect the DC side. Max. String voltage Uoc: 1000 V

MPPT1:
Up to 3 inputs, connection via WM4 C connector compatible with cable type TÜV 2 Pfg1169/08.07 / EN 50618:2034
Up to 3 outputs, connection via WM4 C connector compatible with cable type TÜV 2 Pfg1169/08.07 / EN 50618:2034

MPPT 2 and 3 are identical to MPPT 1

with DC switch
3 surge protection 1000 V type I + II with remote contact

Connection of the signal contact via cable glands (8-12mmØ) max. cable cross-section: 1.5mm²
Connection of functional earth via cable glands (8-12mmØ) cable cross-section: 16mm²
Protection class: IP65
Plastic enclosure
Dimensions HxWxD: 558x302x210 mm

According to standard, Low-voltage switchgear assemblies - Part 1: General specifications, (IEC 61439-1:2011), BS EN 61439-2:2030

Environmental Product Compliance

REACH SVHC

Lead 7439-92-1

SCIP

bdab5698-6a20-4370-8e28-8810d882d01a

Approvals

Approvals



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Technical data

Downloads

Approval/Certificate/Document of Conformity	EU Declaration of Conformity
Engineering Data	CAD data – PV Next Schematic Diagram CAD data – STEP
Technical Documentation	customer drawing
User Documentation	Manual PV Next String Combiner Box MANUAL PV NEXT IT/ES/FR
White paper	Application notes – Fact Sheet DE PV CB Wie man Gebäude gegen Blitzeinschläge schützt Application notes – Fact Sheet DE PV Wie man die Lebensdauer eines GAK verlängert Application notes – Fact Sheet DE PV CB Wann Sicherungen zu installieren sind Application notes – Fact Sheet DE CB PV NEXT Application notes – Fact Sheet EN PV CB When DC fuses are mandatory to install Application notes – Fact Sheet EN CB PV NEXT Application notes – Fact Sheet EN PV How to protect buildings against lightning strikes Application notes – Fact Sheet EN PV How to extend the life time of a Combiner Box
Catalogues	Catalogues in PDF-format

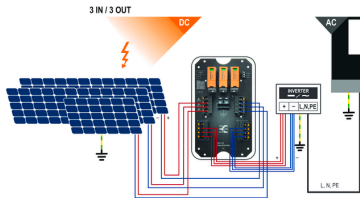
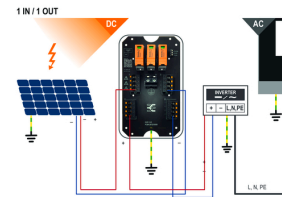
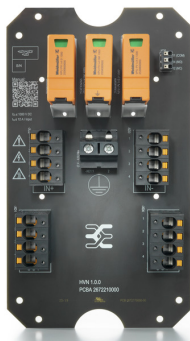
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Drawings

PCB design



PVN 1 M2 I6 S0 F3 V1 O1 TX PX 10	
Series PVN = PV Next VPU = PV Protect	Voltage 10 = 1kV 11 = 1.1kV 15 = 1.5kV
Level 1 = DC trunk box (L1)	Power supply x = n/a
Series 1 = 1 MPPT supported 2 = 2 MPPT supported 3 = 3 MPPT supported 4 = 4 MPPT supported 6 = 6 MPPT supported	Monitoring x = n/a
Inputs 1..12 inputs	Output Type 0 = EG 1 = VIMAC 2 = MCA-Exp 2
Switch x = n/a 0 = manual switch 1 = remote switch	SPD 0 = TYP II 1 = TYP I+II X = No SPD
	Fuses x = n/a 3 = only fuse holders

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Replacement parts

Spare Arrester



VPU PV

The VARITECTOR overvoltage protection series VPU PV I (Type I) and VPU PV II (Type II) protects Photovoltaic systems and their components effective against interference from lightning and surges. Even well below the limits that are specified through the insulation coordination according to EN 60664-3 / DIN VDE 0110-3.

The arresters are designed according to product standard IEC 50539-11 / DIN EN 50539-11 tested and can be used in systems according to the application standard IEC 50539-12 / DIN EN 50539-12 and according to IEC 60364-7-712 "Installation of photovoltaic supply systems" to be installed.

General ordering data

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).	
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).	

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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 "PUSH IN" technology enables safe connections with minimal effort – insert, turn: current!

- 1.500 V DC (DE) / 1,500 V DC (EN)
- PUSH 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.	1303450000	Photovoltaics, Plug-in connector, PUSH IN connection, Socket connector
GTIN (EAN)	4050118102468	
Qty.	10 pc(s).	
Type	PV-STICK- VPE10	Version
Order No.	1303490000	Photovoltaics, Plug-in connector, PUSH IN connection, Pin
GTIN (EAN)	4050118102529	
Qty.	10 pc(s).	

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, 4.8 x 290 mm, Polyamide 66, 220 N
GTIN (EAN)	4050118682816	
Qty.	100 pc(s).	

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Accessories

PV Sun Covers



General ordering data

Type	PV SUN COVER 56/30/21	Version
Order No.	8000087025	Photovoltaics
GTIN (EAN)	4064675845188	
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): 150 mm, Blade thickness (A):
GTIN (EAN)	4050118897210	
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).		

Accessories



General ordering data

Type	VSSO WM4 C	Version	
Order No.	1254870000	Photovoltaics, Flat design	
GTIN (EAN)	4050118047479		
Qty.	100 pc(s).		

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Accessories

Cutting tools

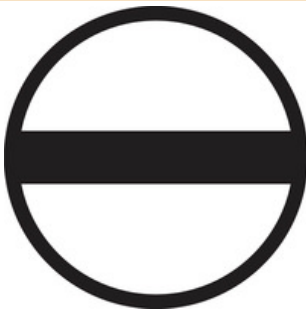


Cutting tools for conductors up to 8 mm, 12 mm, 14 mm and 22 mm outside diameter. The special blade geometry allows pinch-free cutting of copper and aluminium conductors with minimum physical effort. The cutting tools also come with VDE and GS-tested protective insulation up to 1,000 V in accordance 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).	

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 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).	
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).	

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Accessories

External fixing lugs



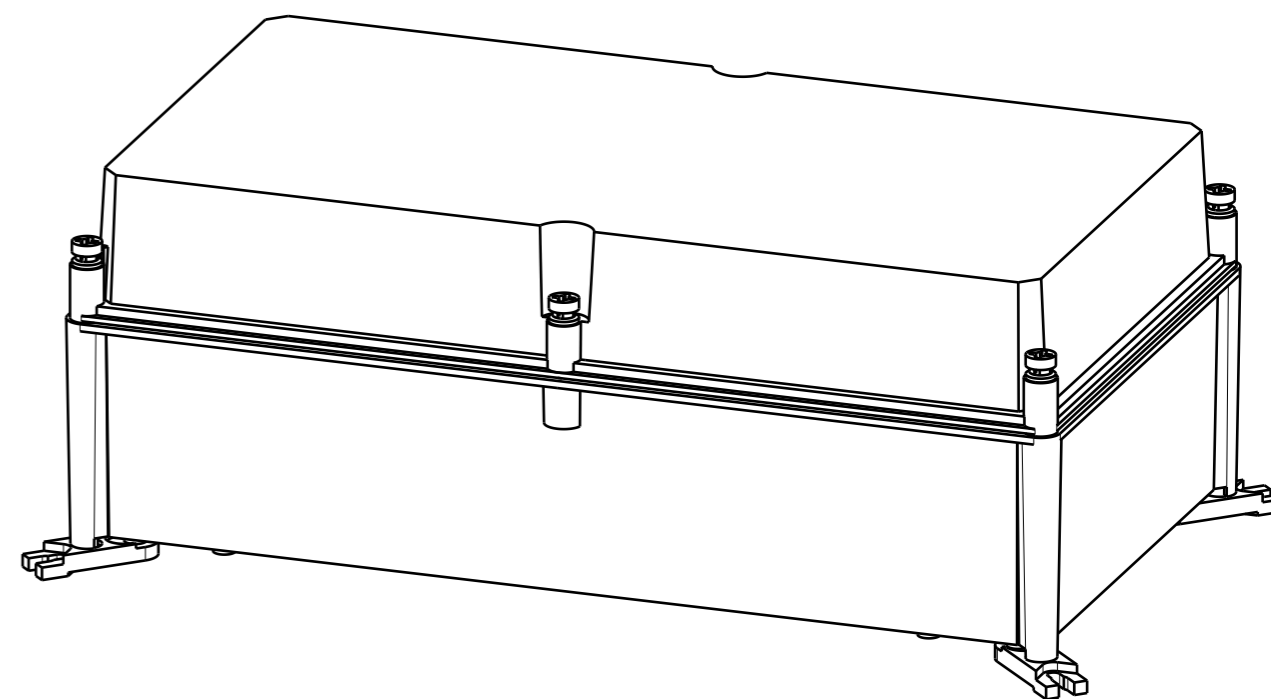
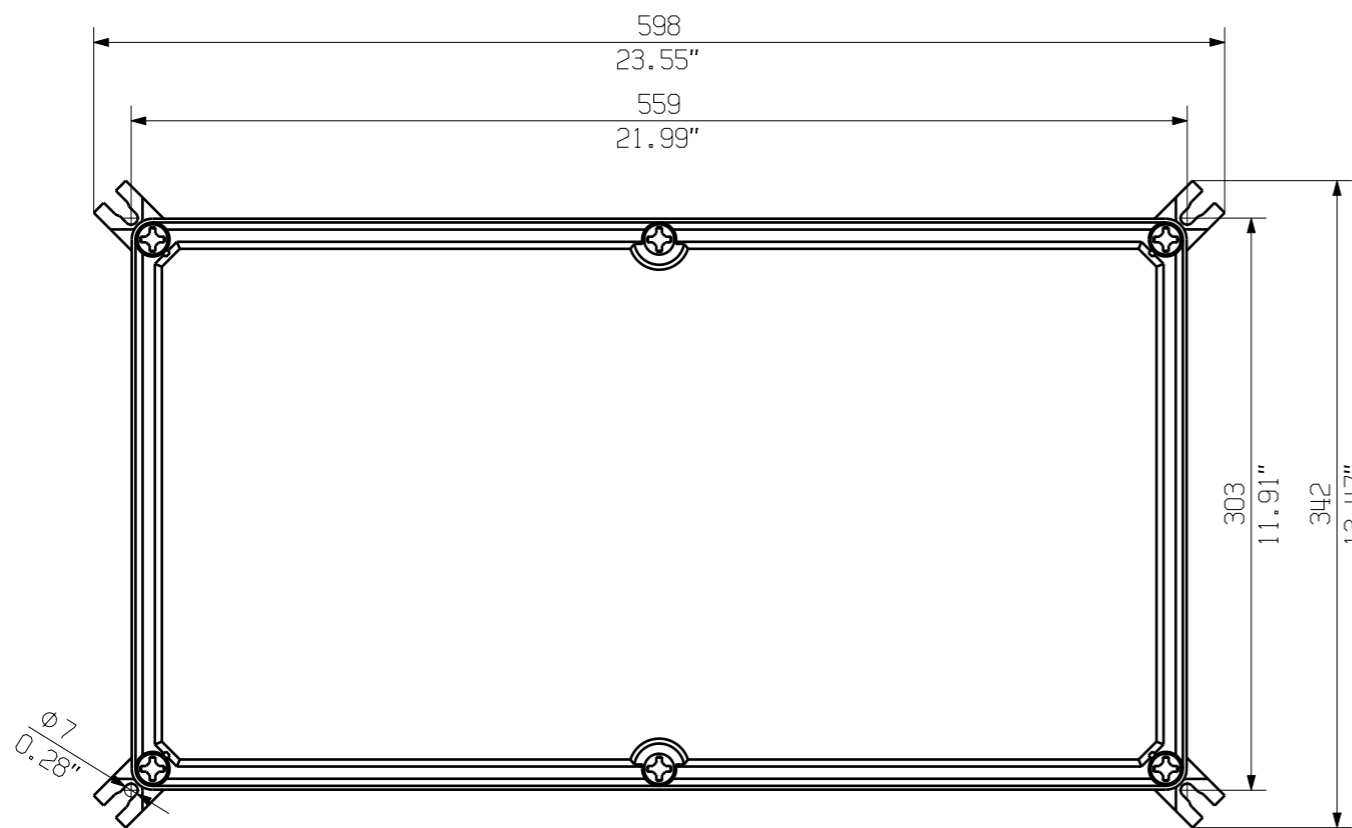
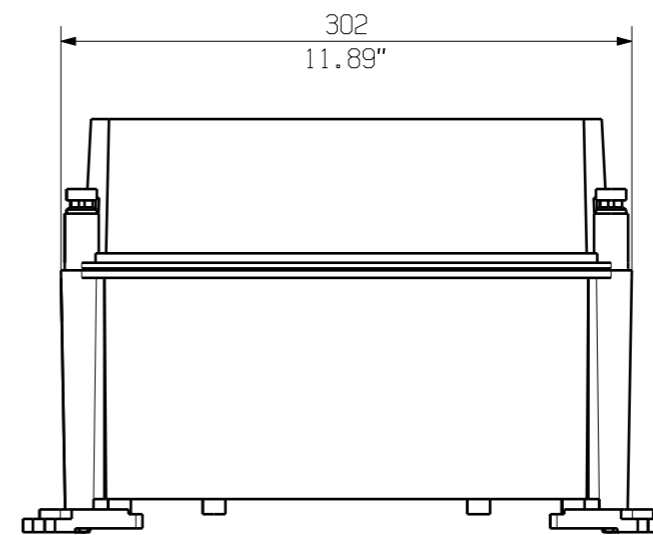
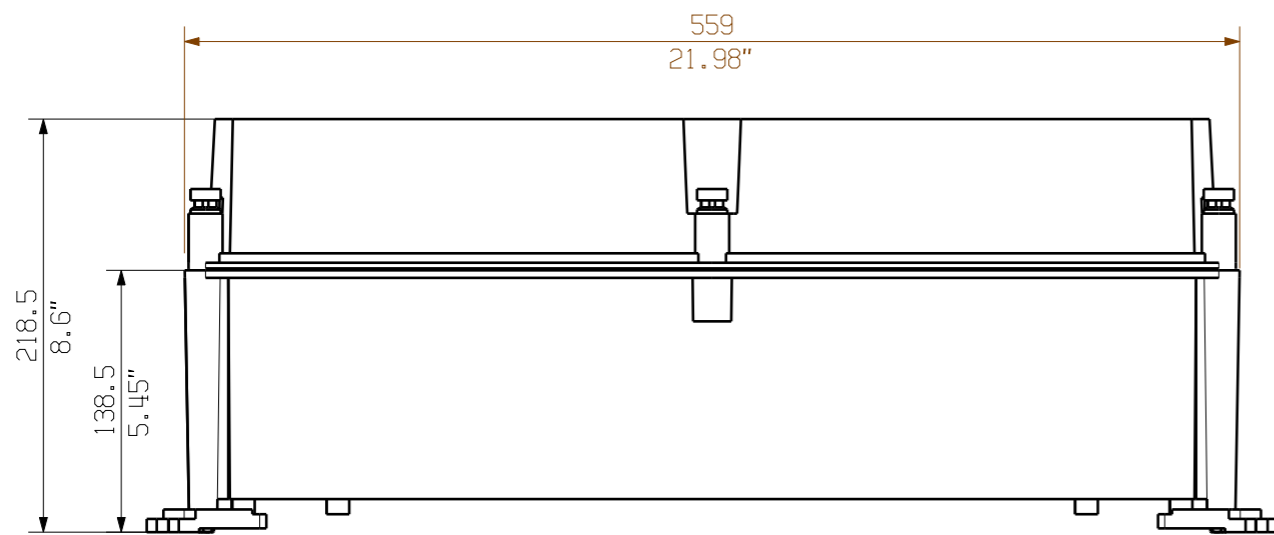
The enclosures of the TBF series are made of extremely tough glass fibre-reinforced polyester. These enclosures are ideal for applications that call for low weight coupled with high shock resistance. The weather-resistant TBF enclosures are designed for a wide range of applications. Together with their comprehensive range of accessories, they provide universal solutions for accommodating built-in items such as regulators, measuring instruments, valves and other equipment.

Features:

- 9 sizes in 2 versions, with grey and transparent lids
- Cover with nylon screws
- Fixing holes outside the sealed area
- Thread for fitting to terminal rails and mounting plates
- Comprehensive accessories
- Weidmüller can manufacture and supply this enclosure to match customer specifications, fitted with all necessary terminals and cable glands.

General ordering data

Type	MF TBF	Version
Order No.	0360800000	TBF (polyester empty enclosure), Mounting foot, Fixing lugs, Height:
GTIN (EAN)	4008190108595	72.5 mm, Width: 24 mm, Depth: 12 mm, Material: Polyamide, Deep
Qty.	1 pc(s).	black





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Darstellung mit Zubehoer
Shown with accessory 0360800000 MF TBF

Nicht im Lieferumfang enthalten!
Not included in delivery!

		Prim PLM Part No.: 1214838		Prim ERP Part No.:	
First Issue Date 28.01.2020		Max. nos. Modification		 71727 0 Drawing no. Issue no. Sheet 01 of 01 sheets	
		Date			
		Drawn		Responsible	
Scale: 1/4		Size: A3		Approved	
Drawings Customer		Date		Name	
		28.01.2020		Brüntrup, Anna	
		31.01.2020		Püschner, Klau	
				PVN TBF 563021 COMBINERBOX RESIDENTIAL/COMMERCIAL COMBINERBOX RESIDENTIAL/COMMERCIAL	
				Product file:	