

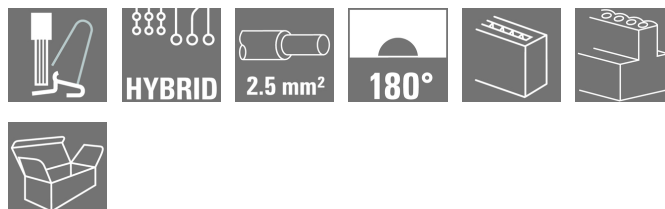
**MPS 7S/02-5/04 S TN B B****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image****SNAP IN** **OMNIMATE® 4.0 - the next evolution step**

OMNIMATE® 4.0 follows the trend of One Cable Technology (OCT). The modular concept enables the fast configuration of hybrid interfaces, which transmit data, signals and energy in a single connector. As a result, you can reduce the cabling effort in a wide variety of applications, simplify maintenance and accelerate automation processes. The unique SNAP IN connection is the backbone and speeds up the wiring process.

**The fastest connection yet**

- Fast, safe, and tool-free wiring due to unique SNAP IN connection
- Ready for Robot through "wire ready" delivery with open clamping point
- Optical and acoustic feedback indicates proper wiring

**Create your own configuration**

- Flexible configuration and ordering via the Weidmüller Configurator (WMC)
- Dispatch within three days – even for individually configured products
- Automatic offer preparation for the configured product

**Simply configuration of modular hybrid connectors**

- Flexible combination options for power, signal and data transmission
- Future-proof Single-Pair Ethernet technology

**General ordering data**

Version	PCB plug-in connector, female plug, Pitch in mm (P): 7.50 mm, Number of poles: 6, Box
Order No.	<a href="#">8000078350</a>
Type	MPS 7S/02-5/04 S TN B B
GTIN (EAN)	4064675622482
Qty.	48 pc(s).
Product data	IEC: 1000 V / 34.6 A / 0.5 - 4 mm <sup>2</sup> UL: / 18.5 A / AWG 20 - AWG 12
Packaging	Box

## MPS 7S/02-5/04 S TN B B

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## Technical data

## Dimensions and weights

Depth	34.95 mm	Depth (inches)	1.376 inch
Height	15.5 mm	Height (inches)	0.61 inch
Net weight	14.584 g		

## System Parameters

Product family	OMNIMATE 4.0
Type of connection	Field connection
Wire connection method	SNAP IN
Pitch in mm (P)	7.5 mm
Conductor outlet direction	180°
Number of poles	6
L1 in mm	7.5 mm
L1 in inches	0.295 "
L2 in mm	15 mm
L2 in inch	0.591 "
Number of rows	1
Pin series quantity	1
Rated cross-section	2.5 mm <sup>2</sup>
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch
Touch-safe protection acc. to DIN VDE 0470	IP 20
Stripping length	9 mm
Stripping length tolerance	min. 8 mm max. 10 mm
Plugging cycles	≥ 25
Plugging force/pole, max.	9 N
Pulling force/pole, max.	8 N

## Material data

Insulating material	PBT GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	I
Comparative Tracking Index (CTI)	≥ 600	UL 94 flammability rating	V-0
Contact material	Cu-alloy	Contact surface	tinned
Storage temperature, min.	-25 °C	Storage temperature, max.	55 °C
Operating temperature, min.	-50 °C	Operating temperature, max.	125 °C

## Conductors suitable for connection

Clamping range, min.	0.34 mm <sup>2</sup>
Clamping range, max.	4 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 20
Wire connection cross section AWG, max.	AWG 12
Solid, min. H05(07) V-U	0.5 mm <sup>2</sup>
Solid, max. H05(07) V-U	2.5 mm <sup>2</sup>
Flexible, min. H05(07) V-K	0.5 mm <sup>2</sup>
Flexible, max. H05(07) V-K	4 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, 0.34 mm <sup>2</sup> min.	
w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm <sup>2</sup> max.	

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w. wire end ferrule, DIN 46228 pt 1, min.	0.34 mm <sup>2</sup>		
w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm <sup>2</sup>		
Outer diameter of insulation, max.	4 mm		
Clampable conductor	Cross-section for conductor connection	nominal	0.34 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	<a href="#">H0.34/12 TK</a>
	Cross-section for conductor connection	nominal	0.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire-end ferrule	<a href="#">H0.5/16 OR</a>
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	<a href="#">H0.5/10</a>
	Cross-section for conductor connection	nominal	0.75 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire-end ferrule	<a href="#">H0.75/16 W</a>
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	<a href="#">H0.75/10</a>
	Cross-section for conductor connection	nominal	1 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire-end ferrule	<a href="#">H1.0/16 GE</a>
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	<a href="#">H1.0/10</a>
	Cross-section for conductor connection	nominal	1.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire-end ferrule	<a href="#">H1.5/16 R</a>
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	<a href="#">H1.5/10</a>
	Cross-section for conductor connection	nominal	2.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	<a href="#">H2.5/15D BL</a>
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	<a href="#">H2.5/10</a>

Reference text The outside diameter of the plastic collar should not be larger than the pitch (P)

## Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	34.6 A
Rated current, max. number of poles (Tu=20°C)	29.1 A	Rated current, min. number of poles (Tu=40°C)	30.7 A
Rated current, max. number of poles (Tu=40°C)	25.9 A	Rated voltage for surge voltage class / pollution degree II/2	1,000 V
Rated voltage for surge voltage class / pollution degree III/2	1,000 V	Rated impulse voltage for surge voltage class/ pollution degree II/2	6 kV
Rated impulse voltage for surge voltage class/ pollution degree III/2	8 kV		

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## Technical data

## Rated data acc. to UL 1059

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (Use group F / UL 1059) 1,000 V

Rated current (Use group C / UL 1059) 18.5 A

Rated current (Use group F / UL 1059) 18.5 A

Wire cross-section, AWG, max.

AWG 12

Rated current (Use group B / UL 1059) 18.5 A

Rated current (Use group D / UL 1059) 10 A

Wire cross-section, AWG, min. AWG 20

Reference to approval values Specifications are maximum values, details - see approval certificate.

## Technical data - hybrid (power)

Number of poles (Power)

2

Pitch in mm (Power)

7.5 mm

Contact material (Power)

CuSn

Clamping range, min. (Power)

0.5 mm<sup>2</sup>w. wire end ferrule, DIN 46228 pt 1,  
min. (Power)0.5 mm<sup>2</sup>

Wire cross-section, AWG, min. (Power) AWG 20

w. plastic collar ferrule, DIN 46228 pt 4,  
min. (Power)2.5 mm<sup>2</sup>

Flexible, min. H05(07) V-K (Power)

0.5 mm<sup>2</sup>

Solid, min. H05(07) V-U (Power)

0.5 mm<sup>2</sup>Outside diameter of the insulation, max.  
(Power)

4 mm

Rated current (Use group B / UL 1059)  
(Power)

18.5 A

Rated current (Use group D / UL 1059)  
(Power)

10 A

Rated current, max. number of poles  
(Tu=20°C) (Power)

29.1 A

Rated current, max. number of poles  
(Tu=40°C) (Power)

25.9 A

Rated impulse voltage for surge voltage  
class/ pollution degree III/2 (Power)

4 kV

Rated voltage (Use group C / UL 1059)  
(Power)

600 V

Rated voltage for surge voltage class /  
pollution degree II/2 (Power)

1,000 V

Rated voltage for surge voltage class /  
pollution degree III/3 (Power)

630 V

Number of rows (Power)

1

Pitch in inches (Power)

0.295 "

Contact surface (Power)

tinned

Clamping range, max. (Power)

4 mm<sup>2</sup>w. wire end ferrule, DIN 46228 pt 1,  
max. (Power)2.5 mm<sup>2</sup>

Wire cross-section, AWG, max. (Power) AWG 12

w. plastic collar ferrule, DIN 46228 pt 4,  
max. (Power)0.5 mm<sup>2</sup>

Flexible, max. H05(07) V-K (Power)

4 mm<sup>2</sup>

Solid, max. H05(07) V-U (Power)

2.5 mm<sup>2</sup>

Stripping length (Power)

9 mm

Rated current (Use group C / UL 1059)  
(Power)

18.5 A

Rated current, min. number of poles  
(Tu=20°C) (Power)

34.6 A

Rated current, min. number of poles  
(Tu=40°C) (Power)

30.7 A

Rated impulse voltage for surge voltage  
class/ pollution degree II/2 (Power)

4 kV

Rated voltage (Use group B / UL 1059)  
(Power)

600 V

Rated voltage (Use group D / UL 1059)  
(Power)

600 V

Rated voltage for surge voltage class /  
pollution degree III/2 (Power)

1,000 V

Clearance distance, min. (Power)

9.96 mm

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## Technical data

## Technical data - hybrid (signal)

Number of poles (Signal)	4	Pitch in mm (Signal)	5 mm
Pitch in inches (Signal)	0.197 "	Contact material (Signal)	CuSn
Contact surface (Signal)	tinned	Clamping range, min. (Signal)	0.5 mm <sup>2</sup>
Clamping range, max. (Signal)	4 mm <sup>2</sup>	Wire cross-section, AWG, min. (Signal)	AWG 20
Wire cross-section, AWG, max. (Signal)	AWG 12	w. plastic collar ferrule, DIN 46228 pt 4, min. (Signal)	0.5 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, max. (Signal)	2.5 mm <sup>2</sup>	w. wire end ferrule, DIN 46228 pt 1, min. (Signal)	0.5 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, max. (Signal)	2.5 mm <sup>2</sup>	Flexible, min. H05(07) V-K (Signal)	0.5 mm <sup>2</sup>
Flexible, max. H05(07) V-K (Signal)	4 mm <sup>2</sup>	Solid, min. H05(07) V-U (Signal)	0.5 mm <sup>2</sup>
Solid, max. H05(07) V-U (Signal)	2.5 mm <sup>2</sup>	Outside diameter of the insulation, max. (Signal)	4 mm
Stripping length (Signal)	9 mm	Rated current (Use group B / UL 1059) (Signal)	18.5 A
Rated current (Use group C / UL 1059) (Signal)	18.5 A	Rated current (Use group D / UL 1059) (Signal)	10 A
Rated current, min. number of poles (Tu=20°C) (Signal)	26.8 A	Rated current, max. number of poles (Tu=20°C) (Signal)	19.7 A
Rated current, min. number of poles (Tu=40°C) (Signal)	23.1 A	Rated current, max. number of poles (Tu=40°C) (Signal)	16.9 A
Rated impulse voltage for surge voltage class/ pollution degree II/2 (Signal)	4 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2 (Signal)	4 kV
Rated impulse voltage for surge voltage class/ pollution degree III/3 (Signal)	4 kV	Rated voltage (Use group B / UL 1059) (Signal)	600 V
Rated voltage (Use group C / UL 1059) (Signal)	600 V	Rated voltage (Use group D / UL 1059) (Signal)	600 V
Rated voltage for surge voltage class / pollution degree II/2 (Signal)	400 V	Rated voltage for surge voltage class / pollution degree III/2 (Signal)	320 V
Rated voltage for surge voltage class / pollution degree III/3 (Signal)	250 V	Clearance distance, min. (Signal)	7.5 mm
Creepage distance, min. (Signal)	7.5 mm		

## Classifications

ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	EC002638	ETIM 9.0	EC002638
ECLASS 9.0	27-44-03-09	ECLASS 9.1	27-44-03-09
ECLASS 10.0	27-44-03-09	ECLASS 11.0	27-46-02-02
ECLASS 12.0	27-46-03-02	ECLASS 13.0	27-46-03-02

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## Technical data

## Important note

IPC conformity	Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.
Notes	<ul style="list-style-type: none"> <li>Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>P on drawing = pitch</li> <li>Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.</li> <li>Wire end ferrule without plastic collar to DIN 46228/1</li> <li>In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load</li> <li>Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul>

## Approvals

Approvals



UL File Number Search	UL Website
Certificate No. (cURus)	E60693

## Downloads

Approval/Certificate/Document of Conformity	<a href="#">CoC_cURus_E60693_MPS_MHS_202207.pdf</a> <a href="#">Declaration of the Manufacturer</a>
Engineering Data	<a href="#">CAD data – STEP</a>
User Documentation	<a href="#">Assembly instructions MPS 7S/5 EN DE</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>

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# Drawings

## Product image



## Product benefits

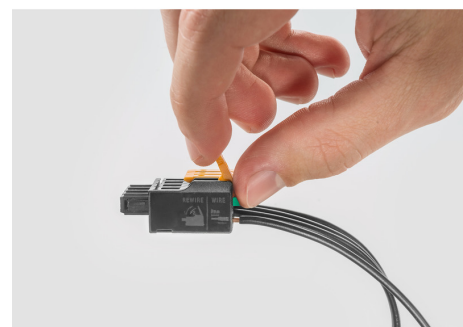


Fastest connection technology SNAP IN

## Product benefits



Acoustic and visual feedback





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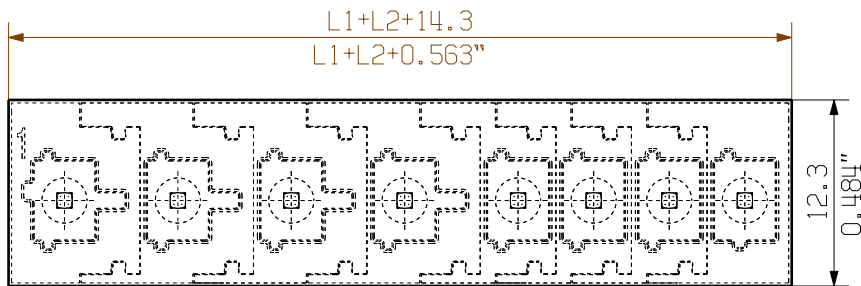
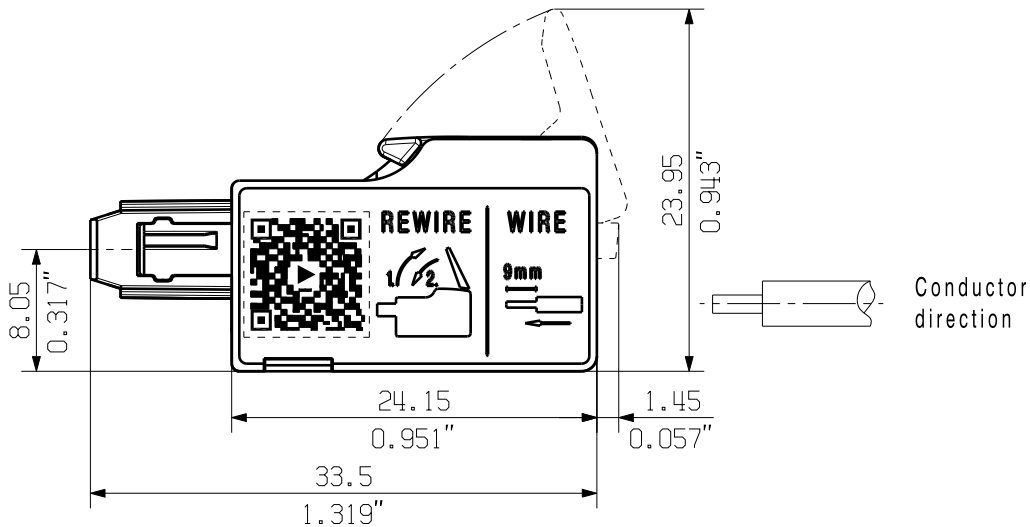
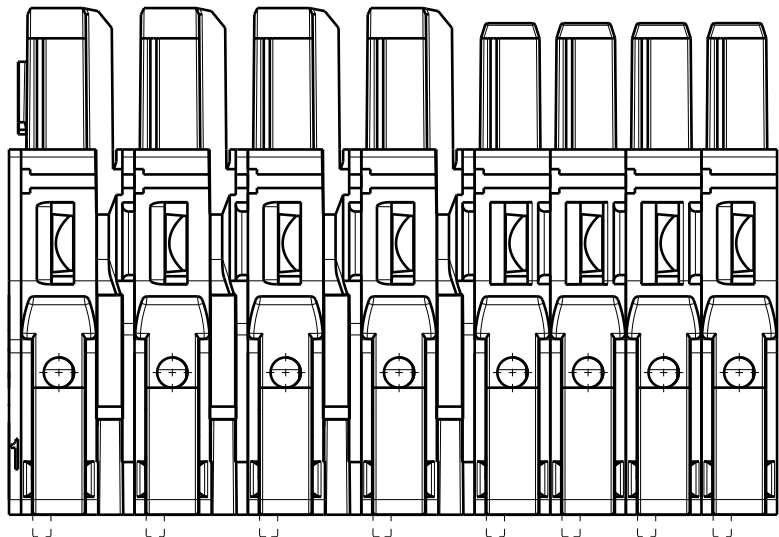
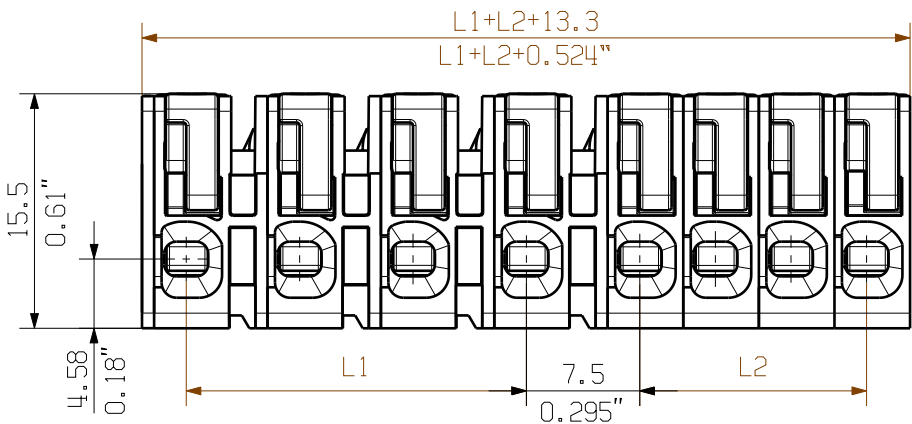
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Dimensions without tolerances are no check dimensions

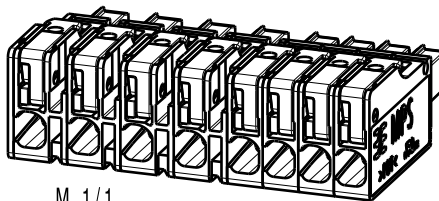
The English version is binding

Allgemeinguetlige Kundenzeichnung, aktueller Stand nur auf Anfrage  
General customer drawing, topical version only if required

Shown: MPS 7S/04-5/04 S



Min. front plate cut-out



M 1/1

Further dim. & info. see data sheet

MPS 7S/01-5/09	1	.	.	9	40.00	1.575
MPS 7S/02-5/08	2	7.50	0.295	8	35.00	1.378
MPS 7S/01-5/08	1	.	.	8	35.00	1.378
MPS 7S/02-5/07	2	7.50	0.295	7	30.00	1.181
MPS 7S/01-5/07	1	.	.	7	30.00	1.181
MPS 7S/03-5/06	3	15.00	0.591	6	25.00	0.984
MPS 7S/02-5/06	2	7.50	0.295	6	25.00	0.984
MPS 7S/01-5/06	1	.	.	6	25.00	0.787
MPS 7S/04-5/05	4	22.50	0.886	5	20.00	0.787
MPS 7S/03-5/05	3	15.00	0.591	5	20.00	0.787
MPS 7S/02-5/05	2	7.50	0.295	5	20.00	0.787
MPS 7S/01-5/05	1	.	.	5	20.00	0.787
MPS 7S/04-5/04	4	22.50	0.886	4	15.00	0.591
MPS 7S/03-5/04	3	15.00	0.591	4	15.00	0.591
MPS 7S/02-5/04	2	7.50	0.295	4	15.00	0.591
MPS 7S/01-5/04	1	.	.	4	15.00	0.591
MPS 7S/05-5/03	5	30.00	1.181	3	10.00	0.394
MPS 7S/04-5/03	4	22.50	0.886	3	10.00	0.394
MPS 7S/03-5/03	3	15.00	0.591	3	10.00	0.394
MPS 7S/02-5/03	2	7.50	0.295	3	10.00	0.394
MPS 7S/01-5/03	1	.	.	3	10.00	0.394
MPS 7S/06-5/02	6	37.50	1.476	2	5.00	0.197
MPS 7S/05-5/02	5	30.00	1.181	2	5.00	0.197
MPS 7S/04-5/02	4	22.50	0.886	2	5.00	0.197
MPS 7S/03-5/02	3	15.00	0.591	2	5.00	0.197
MPS 7S/02-5/02	2	7.50	0.295	2	5.00	0.197
MPS 7S/01-5/02	1	.	.	2	5.00	0.197
Name	n Poles P=7.5	L1 [mm]	L1 [inch]	n Poles P=5	L2 [mm]	L2 [inch]

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmueller connectors are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the connectors are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

	First Issue Date 19.04.2021	Max. nos.	Prim PLM Part No.: .		Prim ERP Part No.:	
		Modification				
	Drawn	Date 19.04.2021	Name Tauber-Reglin,			
	Responsible					
Scale: 2/1	Size: A3	Approved	Date 06.05.2021	Name Sapina, Svetos	MPS 7S/...-5/... S	
Drawings Assembly					Product file:	