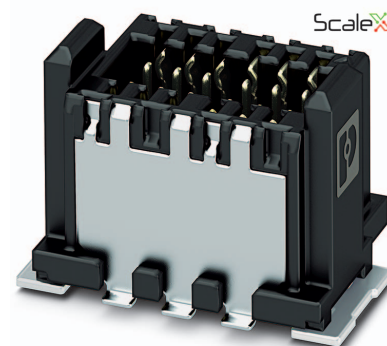


Data sheet

Order No.: 1053586

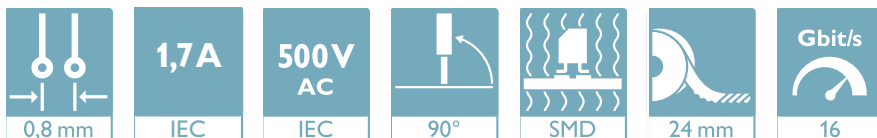
Type: FP 0,8/ 20-MV-SH 1,15

shielded SMD male connector, Reflow soldering



The figure shows a 12-pos. version with 12 contacts

1 Main features



• No. of pos.	20	• Nominal current	1.7 A
• Test voltage	500 V AC	• Mounting type	SMD soldering
• Color	black (9005)	• Connection direction	90 °
• Pitch	0.8 mm	• Type of packaging	24 mm wide tape

2 Your advantages

- ✓ Gold-plated contacts ensure transfer quality remains stable over the long term
- ✓ Reliable mechanical and electrical connections, thanks to the double-sided ScaleX contact system
- ✓ Robustness: ScaleX technology for high tolerance compensation and protection of contacts
- ✓ Flexible device design: various numbers of positions, designs, and stack heights with high wipe lengths



Make sure you always use the latest documentation.

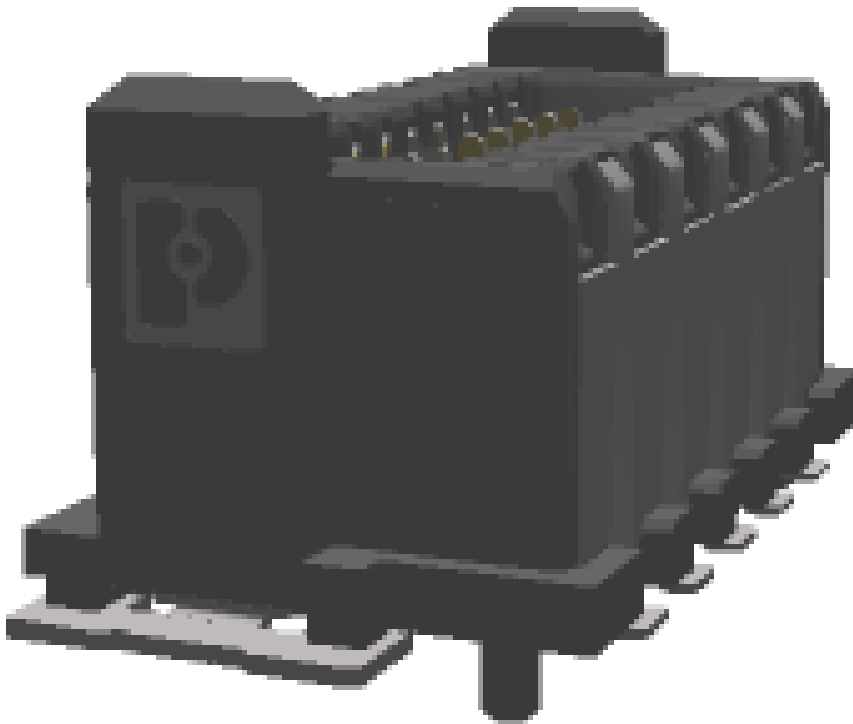
It can be downloaded at: phoenixcontact.net/product/1053586

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1053586 FP 0,8/ 20-MV-SH 1,15

4 3D model in PDF can be activated (Acrobat Reader only)



1053586 FP 0,8/ 20-MV-SH 1,15**5 General Technical Data****5.1 item properties**

Order No.	1053586
Type	FP 0,8/ 20-MV-SH 1,15
Plug-in system	Fine Pitch 0,8 mm
Product type	shielded SMD male connector
Type of contact	Male connector
Range of articles	FP 0,8/...-MV-SH 1,15
Pitch	0.8 mm
Range of positions	12...80
Number of positions	20
Number of levels	2
Number of potentials	20
Mounting type	SMD soldering
Connection direction of the connector to the PCB	90 °

5.2 Material data

Material of metal parts	
Note	WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface contact area	Nickel (Ni), , Gold (Au)
Soldering area surface	Nickel (Ni) , Tin (Sn)
Surface characteristics	Selective coating
Insulating material data	
Insulating material	LCP
Insulating material group	IIIa
CTI according to IEC 60112	150
Flammability rating according to UL 94	V0
Color	black (9005)

1053586 FP 0,8/ 20-MV-SH 1,15**6 Dimensions****6.1 Dimensions for the product**

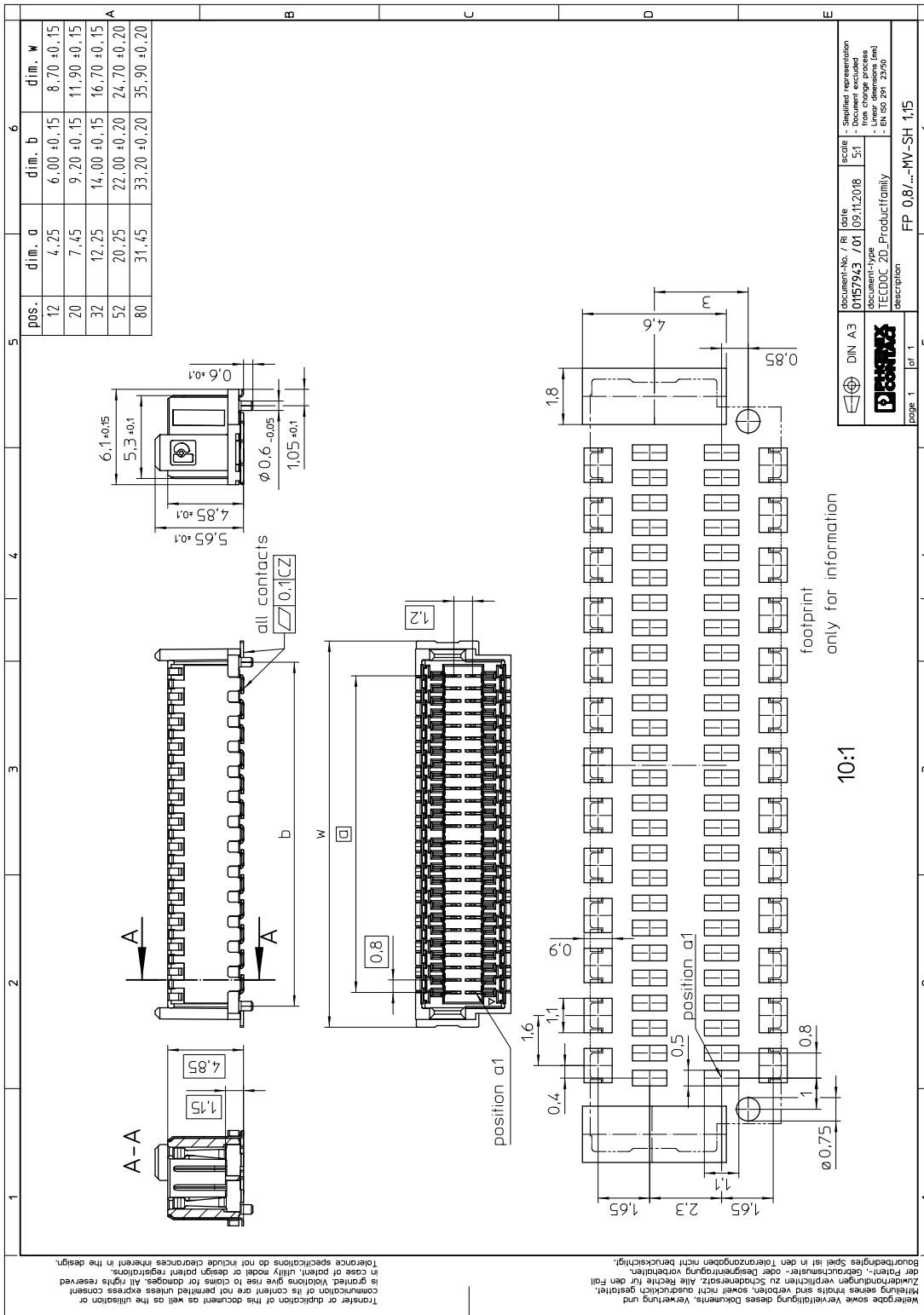
Length	6.1 mm
Width	11.9 mm
Total height	6.25 mm
Height	5.65 mm
Base height	1.15 mm
Positioning pin geometry	, Length of positioning pin: 0.6 mm
Coplanarity	≤ 0.1 mm

6.2 Dimensions for the application

Contact cover	0.8 mm
Overlap length	1.5 mm
Medium offset	± 0.7 mm in longitudinal and transverse direction
Angular tolerance	± 2 ° in longitudinal direction
Angular tolerance	± 4 ° in transverse direction
Stacking height	6 mm Tolerance: +1,5 mm (in combination with Range of articles:FP 0,8/...-FV-SH 4,85)
Stacking height	9 mm Tolerance: +1,5 mm (in combination with Range of articles:FP 0,8/...-FV-SH 7,85)

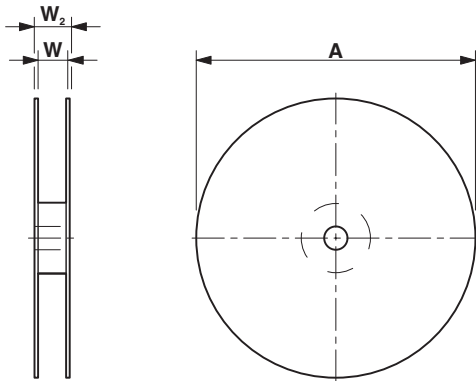
1053586 FP 0,8/ 20-MV-SH 1,15

7 Series drawing



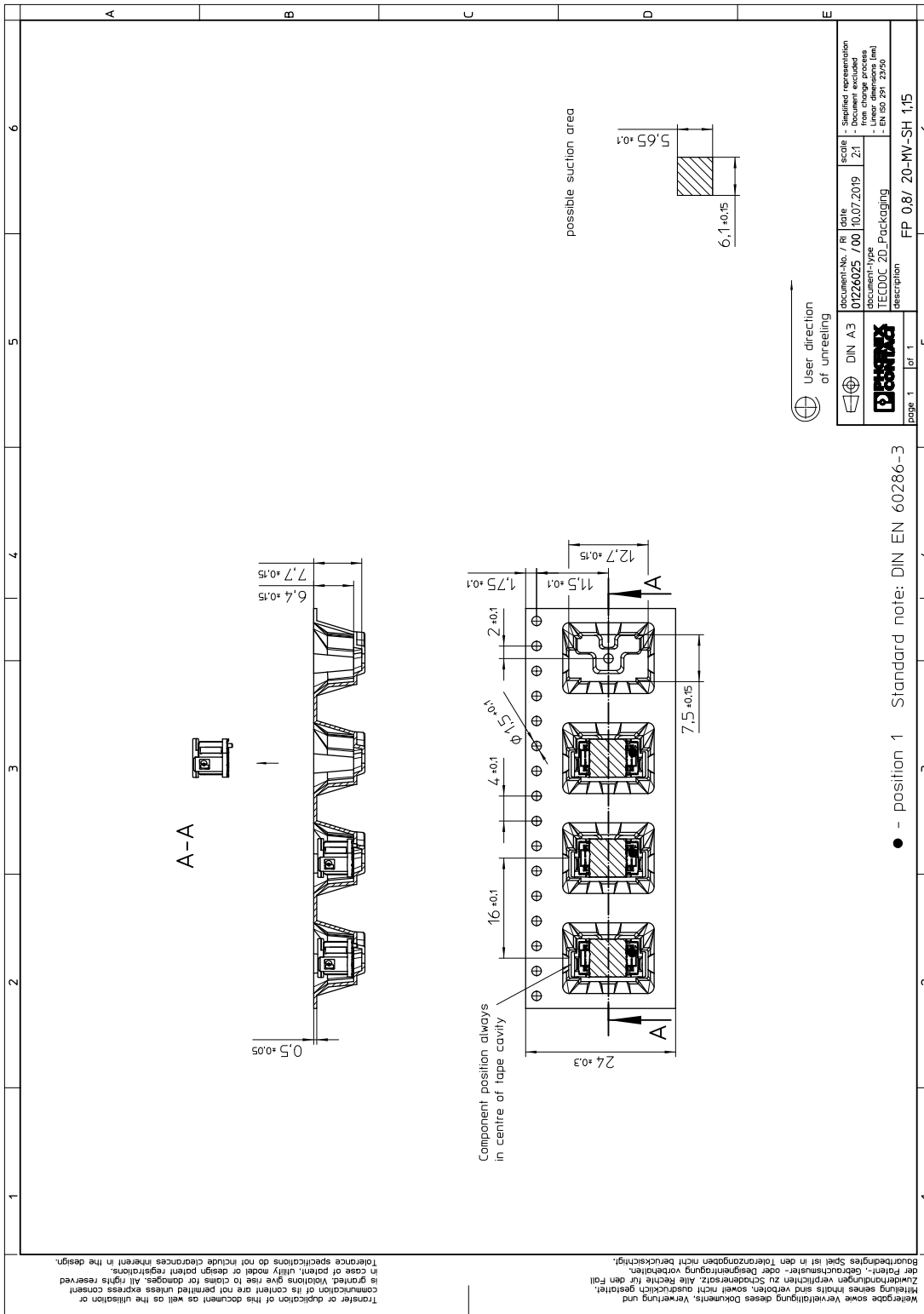
1053586 FP 0,8/ 20-MV-SH 1,15**8 Packaging information**

Type of packaging	24 mm wide tape
Pieces per package	500
Outer packaging type	Transparent-Bag
[W] tape width	24.4 mm
[A] coil diameter	330 mm
[W2] coil overall dimension	30.4 mm
Number of products per coil	500



1053586 FP 0,8/ 20-MV-SH 1,15

9 Blister drawing



10 Application

10.1 Temperature limit values

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-55 °C ... 125 °C

11 General tests

11.1 Specification

Brief description

Board-to-board connectors

1053586 FP 0,8/ 20-MV-SH 1,15**12 Mechanical tests****12.1 Insertion and withdrawal force per contact**

Insertion and withdrawal force per contact $\leq 1.2 \text{ N}$

12.2 Service life

Specification IEC 60512-9-1:2010-03 (following)

Service life 500 Insertion/withdrawal cycles, Performance level 1

1053586 FP 0,8/ 20-MV-SH 1,15**13 Electrical tests****13.1 Electrical data**

Nominal current at 20 °C	1.7 A (52-pos.)
Test voltage	500 V AC IEC 60512-4-1:2003

13.2 Air and creepage distances

Minimum value for clearance and creepage distance	0.25 mm
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1053586 FP 0,8/ 20-MV-SH 1,15

14 Current carrying capacity/derating curves**14.1 Insulation resistance**

Insulation resistance $\geq 5 \text{ G}\Omega$, (IEC 60512-3-1:2002-02)

14.2 forward resistance

Contact resistance $\leq 20 \text{ m}\Omega$, (IEC 60512-2-1:2002-02)

1053586 FP 0,8/ 20-MV-SH 1,15

15 Data transmission

15.1 Data transmission rate

Data rate

up to 16 Gbps

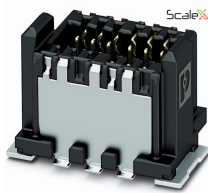
16 Approvals

1053586 FP 0,8/ 20-MV-SH 1,15**17 Commercial Data**

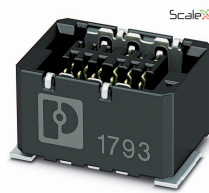
Order No.	1053586
Type	FP 0,8/ 20-MV-SH 1,15
Pieces per package	500
Net weight	1.78 g
GTIN	4055626685397
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

1053586 FP 0,8/ 20-MV-SH 1,15

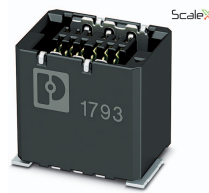
18 Combination tests



FP 0,8/...-MV-SH 1,15



FP 0,8/...-FV 4,85



FP 0,8/...-FV-SH 7,85

Mechanical tests				
Durability tests				
Contact resistance R_1	20 m Ω	20 m Ω		
Insertion/withdrawal cycles	500	500		
Contact resistance R_2	20 m Ω	20 m Ω		
Thermal tests				