

Data sheet

2020-01-06
Product version 00
Document revision 00

Order No.: 1061583

Type: FP 0,8/ 20-FV 7,85

SMD female connector, Reflow soldering



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/1061583

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



1061583 FP 0,8/ 20-FV 7,85**5 General Technical Data****5.1 item properties**

Order No.	1061583
Type	FP 0,8/ 20-FV 7,85
Plug-in system	FINEPITCH 0,8 mm
Product type	SMD female connector
Type of contact	Female connector
Range of articles	FP 0,8/...-FV 7,85
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	Housing
Insulating material	LCP
Insulating material group	IIIa
CTI according to IEC 60112	150
Flammability rating according to UL 94	V0
Color	black (9005)

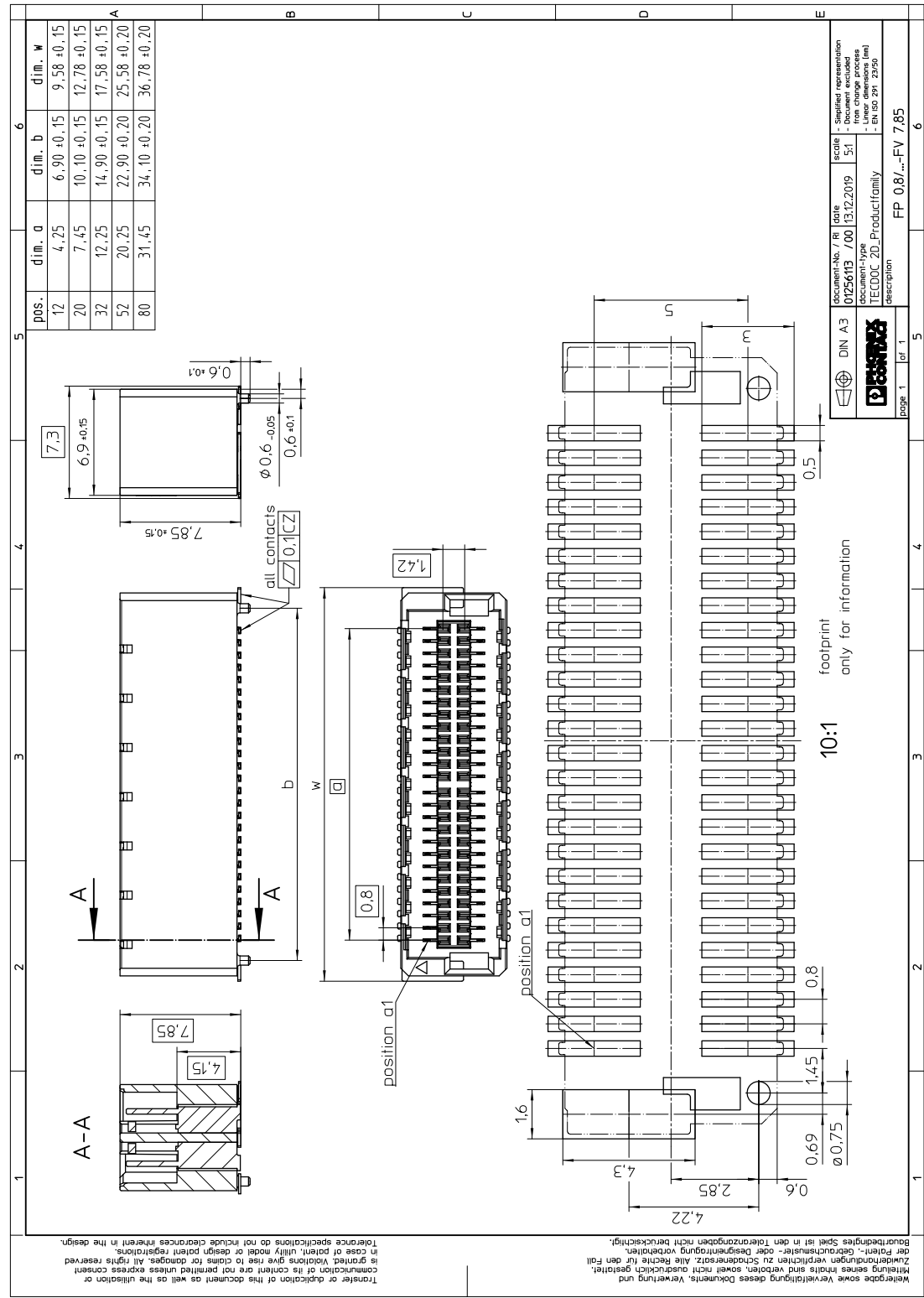
1061583 FP 0,8/ 20-FV 7,85**6 Dimensions****6.1 Dimensions for the product**

Length	6.9 mm
Width	12.78 mm
Total height	8.45 mm
Height	7.85 mm
Positioning pin geometry	, Length of positioning pin: 0.6 mm
Coplanarity	≤ 0.1 mm

6.2 Dimensions for the application

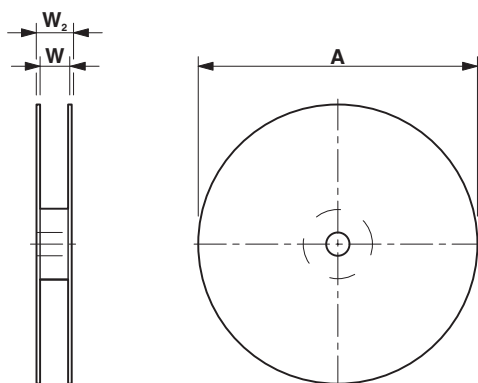
Contact cover	0.8 mm
Overlap length	1.5 mm
Medium offset	± 0.7 mm in longitudinal and transverse direction
Angular tolerance	± 2 ° in longitudinal direction
Angular tolerance	± 4 ° in transverse direction
Stacking height	9 mm Tolerance: +1,5 mm (in combination with Range of articles:FP 0,8/...-MV 1,15)
Stacking height	10.5 mm Tolerance: +1,5 mm (in combination with Range of articles:FP 0,8/...-MV 2,65)

7 Series drawing



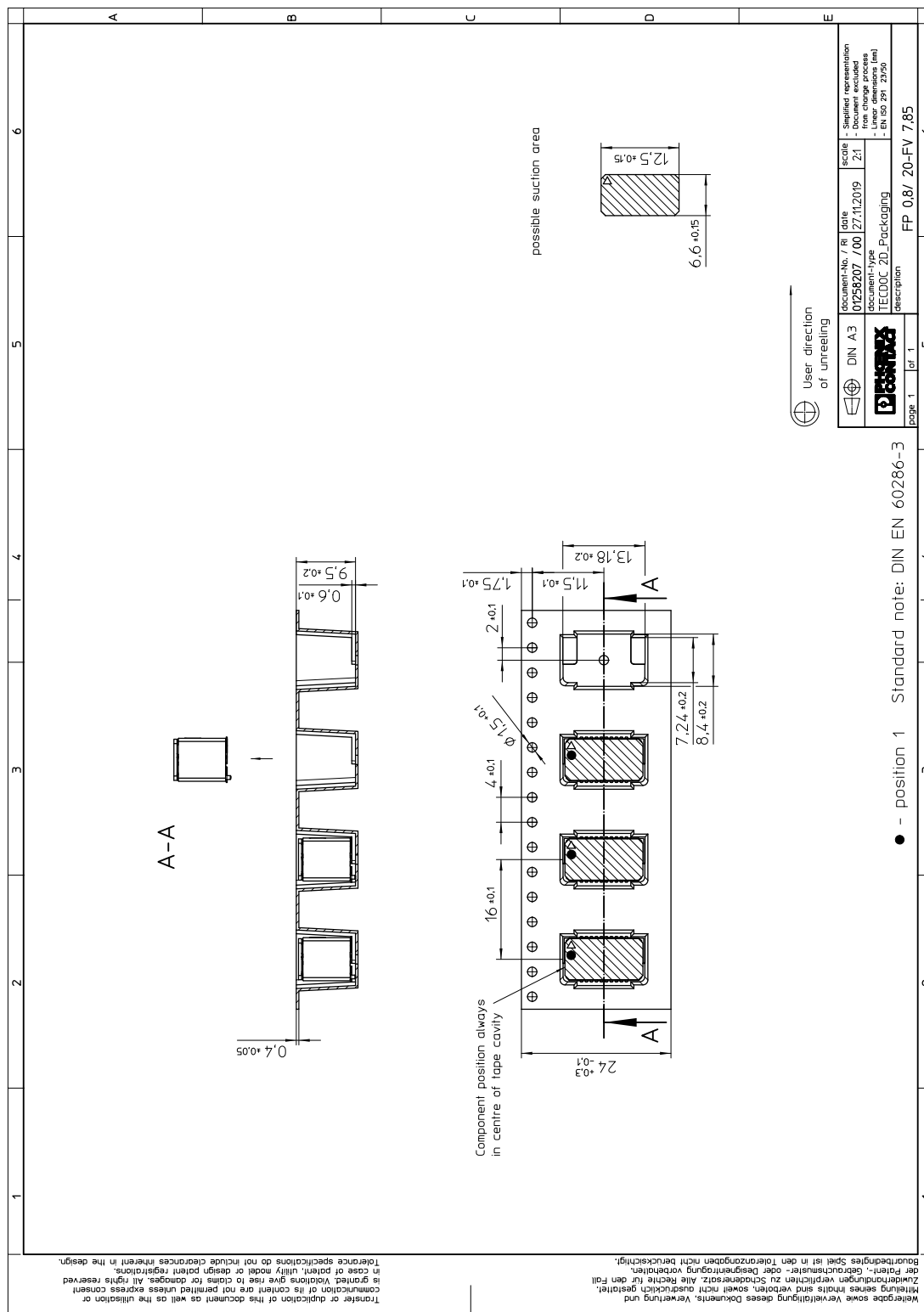
1061583 FP 0,8/ 20-FV 7,85**8 Packaging information**

Type of packaging	24 mm wide tape
Pieces per package	250
Outer packaging type	Transparent-Bag
ESD level	(D) electrostatically conductive
Specification	DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07
[W] tape width	24 mm
[A] coil diameter	330 mm
[W2] coil overall dimension	30.4 mm
Number of products per coil	250



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9 Blister drawing



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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

1061583 FP 0,8/ 20-FV 7,85**11 General tests****11.1 Specification**

Brief description

Board-to-board connectors

1061583 FP 0,8/ 20-FV 7,85**12 Mechanical tests****12.1 Insertion and withdrawal force per contact**

Insertion and withdrawal force per contact	$\leq 0.6 \text{ N}$
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12.2 Service life

Specification	IEC 60512-9-1:2010-03 (following)
Service life	500 Insertion/withdrawal cycles, Performance level 1

1061583 FP 0,8/ 20-FV 7,85**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

1061583 FP 0,8/ 20-FV 7,85**14 Current carrying capacity/derating curves****14.1 Insulation resistance**

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

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

Specification	IEC 60068-2-6:2007-12
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Result	Test passed
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Frequency	10 - 2000 - 10 Hz
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Sweep speed	1 octave/min
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Amplitude	1.5 mm (10 - 60.1 Hz)
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Acceleration	200 m/s^2 (58 - 2000 Hz)
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Test duration per axis	2.5 h
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Test directions	X-, Y- and Z-axis
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Note	
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14.4 Shock test

Specification	IEC 60068-2-27:2008-02
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Result	Test passed
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Pulse shape	Semi-sinusoidal
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Peak acceleration	490 m/s^2
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Shock duration	11 ms
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Number of shocks per direction	3
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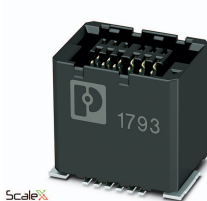
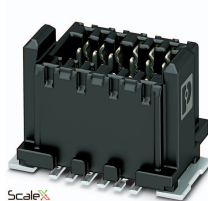
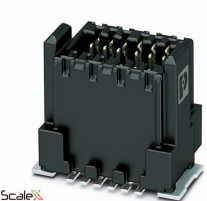
Test directions	X-, Y- and Z-axis (pos. and neg.)
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15 Approvals

1061583 FP 0,8/ 20-FV 7,85**16 Commercial Data**

Order No.	1061583
Type	FP 0,8/ 20-FV 7,85
Pieces per package	250
Net weight	2.22 g
GTIN	4055626715841
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

17 Combination tests

				
FP 0,8/...-FV 7,85	FP 0,8/...-MV 1,15	FP 0,8/...-MV 2,65		
Mechanical tests				
Durability tests				
Contact resistance R ₁	20 mΩ	20 mΩ		
Insertion/withdrawal cycles	500	500		
Contact resistance R ₂	20 mΩ	20 mΩ		
Thermal tests				