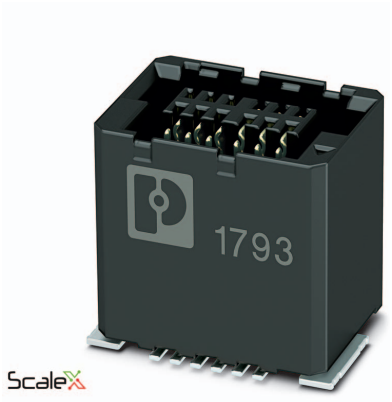
2020-01-06
Product version 00
Document revision 00

Data sheet

Order No.: 1061583

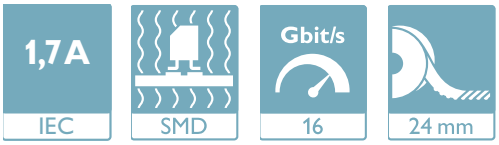
Type: FP 0,8/ 20-FV 7,85

SMD female connector, Reflow soldering



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

1 Main features



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



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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)

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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

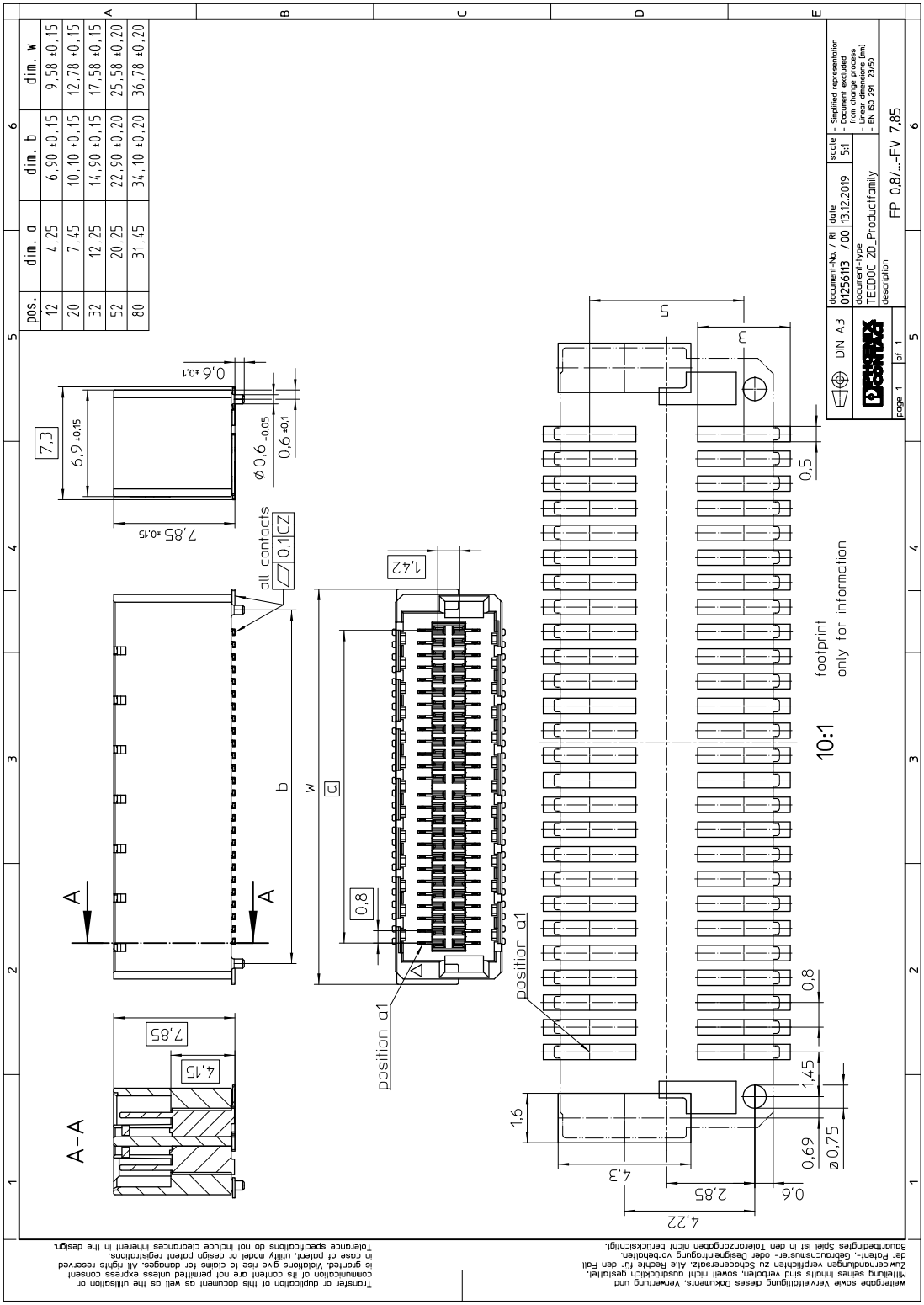
6.2 Dimensions for the application

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)

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

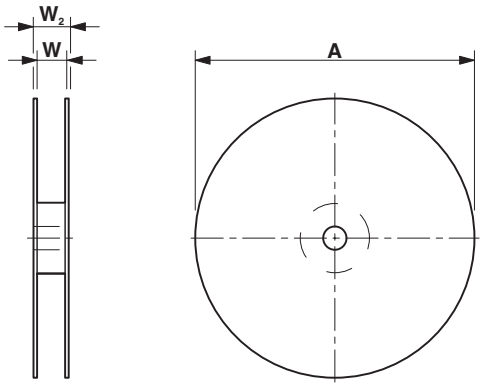
7 Series drawing



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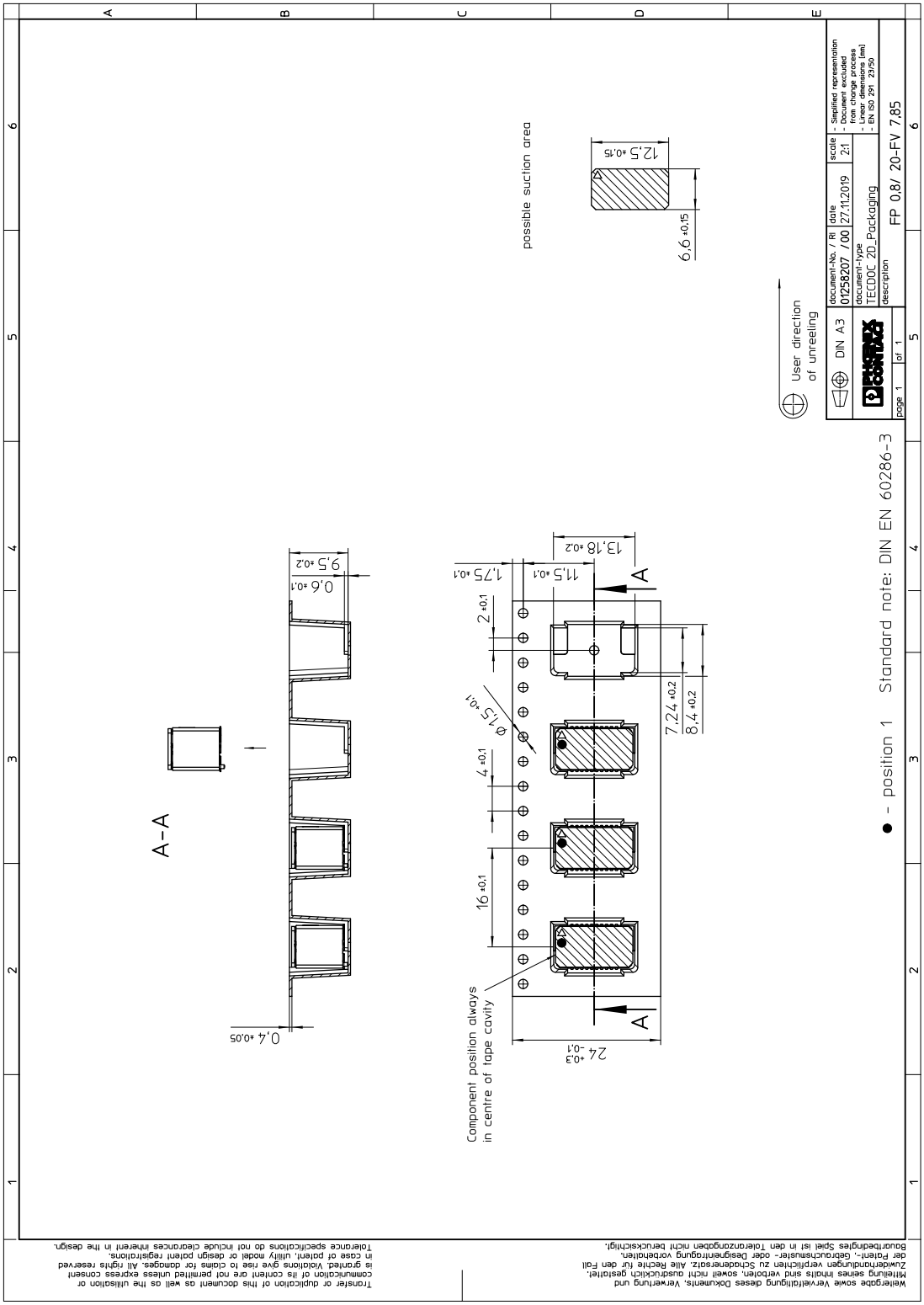
8 Packaging information

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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Tolerance specifications do not include clearances inherent in the design.

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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

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11 General tests

11.1 Specification

Brief description	Board-to-board connectors

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12 Mechanical tests

12.1 Insertion and withdrawal force per contact

Insertion and withdrawal force per contact	≤ 0.6 N

12.2 Service life

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

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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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14 Current carrying capacity/derating curves

14.1 Insulation resistance

Insulation resistance	≥ 5 GΩ, (IEC 60512-3-1:2002-02)

14.2 forward resistance

Contact resistance	≤20 mΩ, (IEC 60512-2-1:2002-02)

14.3 Vibration test

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

14.4 Shock test

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

15 Approvals

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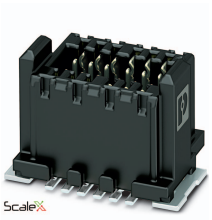
16 Commercial Data

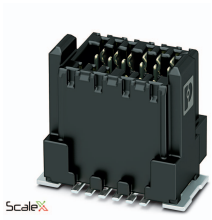
Order No.	1061583
Type	FP 0,8/ 20-FV 7,85
Pieces per package	250
Net weight	2.22 g
GTIN	4055626715841
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

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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				

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