

Data sheet

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Product version 00
Document revision 01

Order No.: 1043685

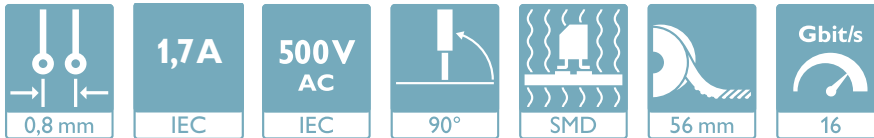
Type: FP 0,8/ 80-FV-SH 7,85

Shielded SMD female connector, Reflow soldering



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

1 Main features



- | | | | |
|----------------|--------------|------------------------|-----------------|
| • No. of pos. | 80 | • 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 | 56 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/1043685

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1043685 FP 0,8/ 80-FV-SH 7,85

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



1043685 FP 0,8/ 80-FV-SH 7,85**5 General Technical Data****5.1 item properties**

Order No.	1043685
Type	FP 0,8/ 80-FV-SH 7,85
Plug-in system	Fine Pitch 0,8 mm
Product type	Shielded SMD female connector
Type of contact	Female connector
Range of articles	FP 0,8/...-FV-SH 7,85
Pitch	0.8 mm
Range of positions	12...80
Number of positions	80
Number of levels	2
Number of potentials	80
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)

1043685 FP 0,8/ 80-FV-SH 7,85**6 Dimensions****6.1 Dimensions for the product**

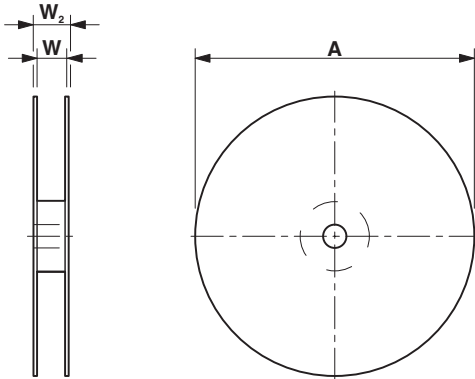
Length	7.1 mm
Width	36.78 mm
Total height	8.45 mm
Height	7.85 mm
Base height	7.85 mm
Positioning pin geometry	, Length of positioning pin: 0.6 mm
Coplanarity	≤ 0.1 mm

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-SH 1,15)
Stacking height	10.5 mm Tolerance: +1,5 mm (in combination with Range of articles:FP 0,8/...-MV-SH 2,65)

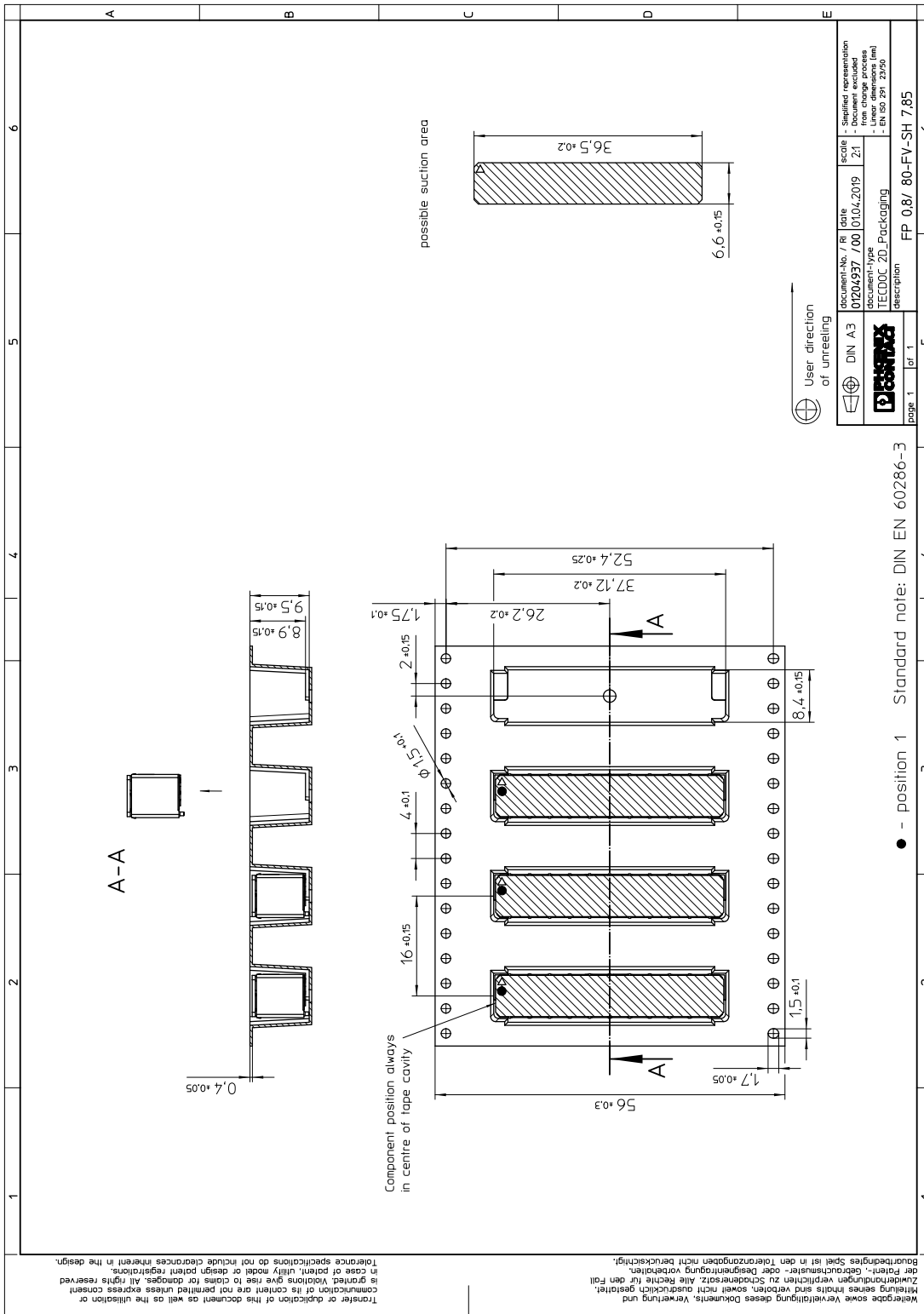
1043685 FP 0,8/ 80-FV-SH 7,85**8 Packaging information**

Type of packaging	56 mm wide tape
Pieces per package	250
Outer packaging type	Transparent-Bag
[W] tape width	56.4 mm
[A] coil diameter	330 mm
[W2] coil overall dimension	60.4 mm
Number of products per coil	250



1043685 FP 0,8/ 80-FV-SH 7,85

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

1043685 FP 0,8/ 80-FV-SH 7,85**12 Mechanical tests****12.1 Insertion and withdrawal force per contact**

Insertion and withdrawal force per contact ≤ 1.2 N

12.2 Service life

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

Service life 500 Insertion/withdrawal cycles, Performance level 1

1043685 FP 0,8/ 80-FV-SH 7,85**13 Electrical tests****13.1 Electrical data**

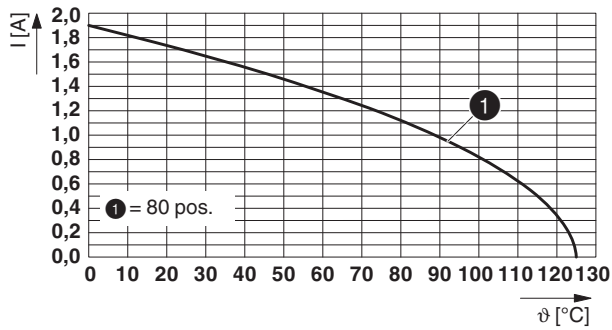
Nominal current at 20 °C	1.7 A (80-pos.)
Test voltage	500 V AC IEC 60512-4-1:2003

13.2 Air and creepage distances

Minimum value for clearance and creepage distance	0.25 mm
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1043685 FP 0,8/ 80-FV-SH 7,85**14 Current carrying capacity/derating curves**

Type: FP 0,8/...-MV-SH 2,65 with FP 0,8/...-FV-SH 7,85

**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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15 Data transmission

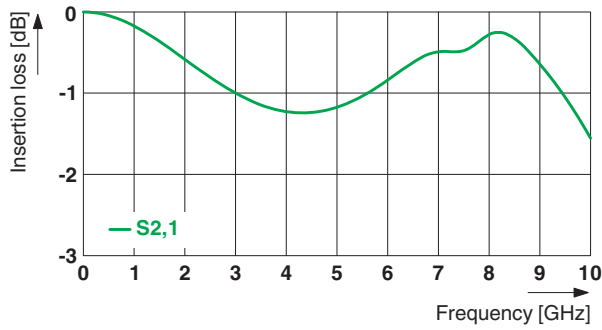
15.1 Data transmission rate

Data rate up to 16 Gbps

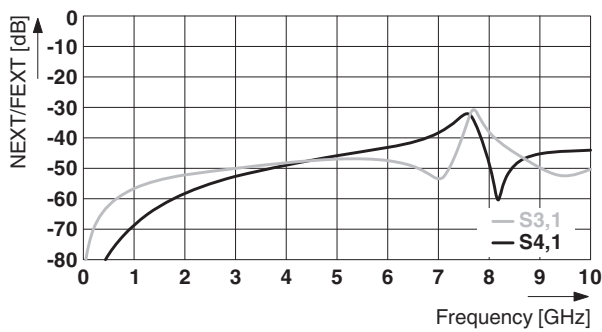
15.2 PIN assignment

Pin assignment G, S, S, G, S, S, G

Differential pair - 12 mm height



Differential pair - 12 mm height



16 Approvals

1043685 FP 0,8/ 80-FV-SH 7,85**17 Commercial Data**

Order No.	1043685
Type	FP 0,8/ 80-FV-SH 7,85
Pieces per package	250
Net weight	6.644 g
GTIN	4055626616391
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

18 Combination tests



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



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



FP 0,8/...-MV-SH 2,65

Mechanical tests				
Durability tests				
Contact resistance R_1	20 m Ω	15 m Ω		
Insertion/withdrawal cycles	500	500		
Contact resistance R_2	20 m Ω	15 m Ω		
Thermal tests				