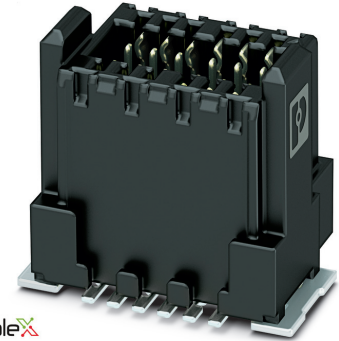


Order No.: 1061697

Type: FP 0,8/ 20-MV 2,65

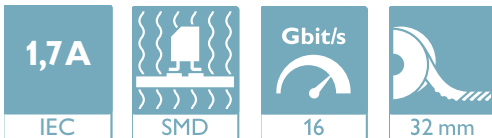
SMD male connector, Reflow soldering



ScaleX

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    | 32 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



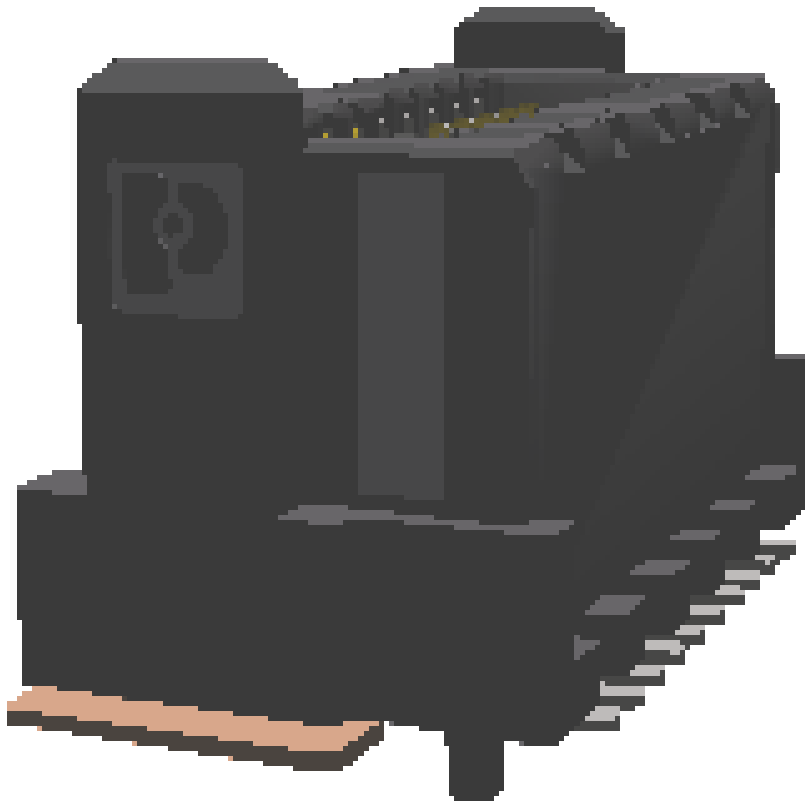
Make sure you always use the latest documentation.  
It can be downloaded at: [phoenixcontact.net/product/1061697](https://phoenixcontact.net/product/1061697)

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1061697 FP 0,8/ 20-MV 2,65

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



**1061697 FP 0,8/ 20-MV 2,65****5 General Technical Data****5.1 item properties**

Order No.	1061697
Type	FP 0,8/ 20-MV 2,65
Plug-in system	FINEPITCH 0,8 mm
Product type	SMD male connector
Type of contact	Male connector
Range of articles	FP 0,8/...-MV 2,65
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 °
Pin layout	Linear pad geometry

**5.2 Material data**

<b>Material of metal parts</b>	
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
<b>Insulating material data</b>	
Insulating material	LCP
Insulating material group	IIIa
CTI according to IEC 60112	150
Flammability rating according to UL 94	V0
Color	black (9005)

**1061697 FP 0,8/ 20-MV 2,65****6 Dimensions****6.1 Dimensions for the product**

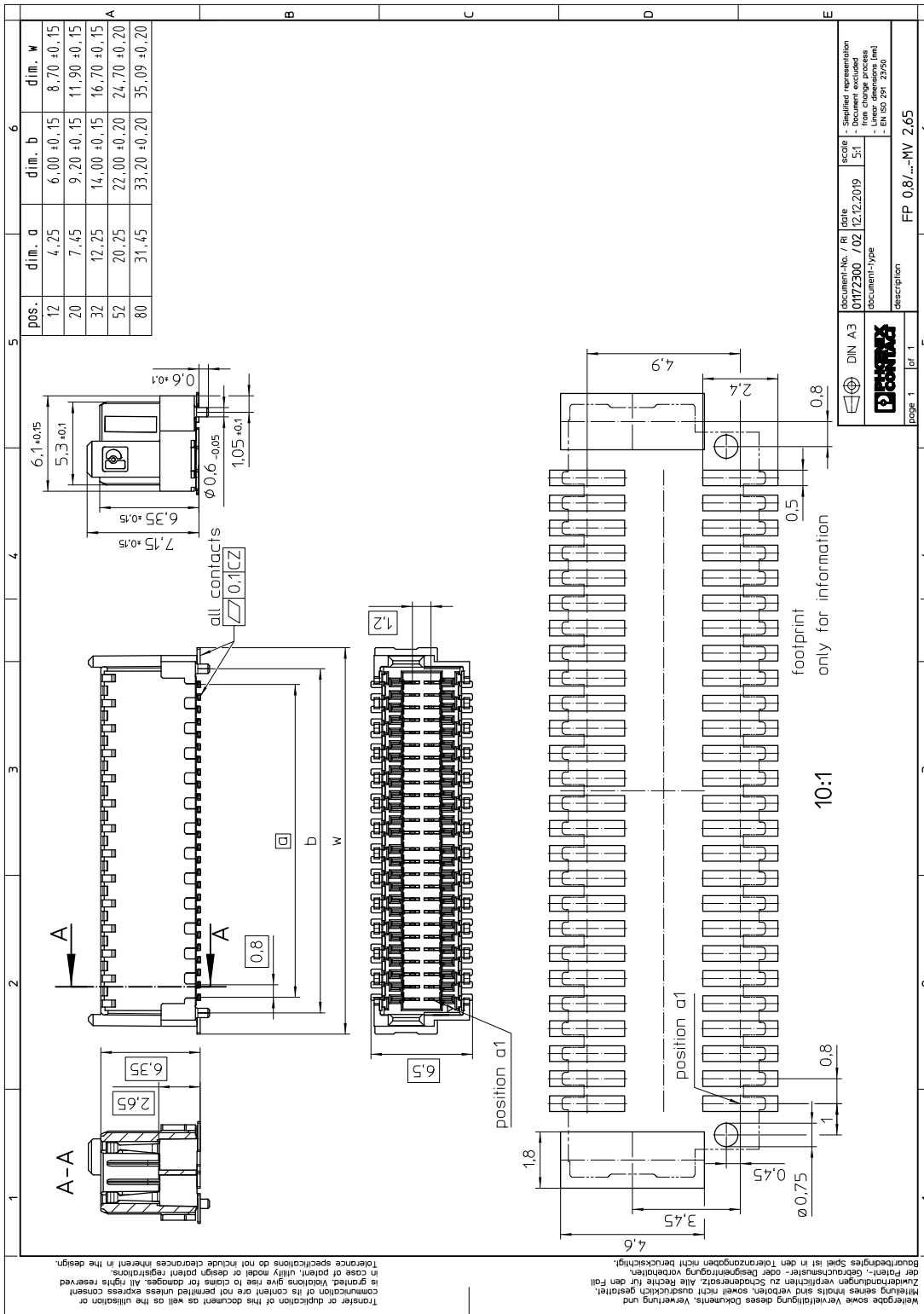
Length	6.1 mm
Width	11.9 mm
Total height	7.75 mm
Height	7.15 mm
Positioning pin geometry	, Length of positioning pin: 0.6 mm
Coplanarity	≤ 0.1 mm

**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	7.5 mm Tolerance: +1,5 mm (in combination with Range of articles:FP 0,8/...-FV 4,85)
Stacking height	10.5 mm Tolerance: +1,5 mm (in combination with Range of articles:FP 0,8/...-FV 7,85)

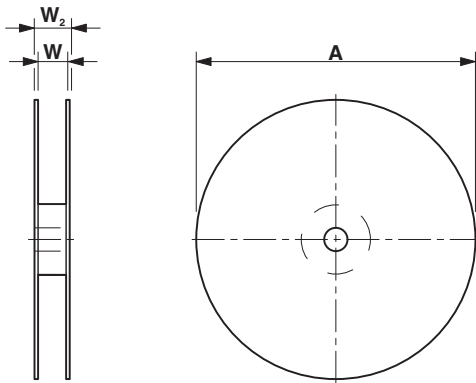
1061697 FP 0,8/ 20-MV 2,65

7 Series drawing



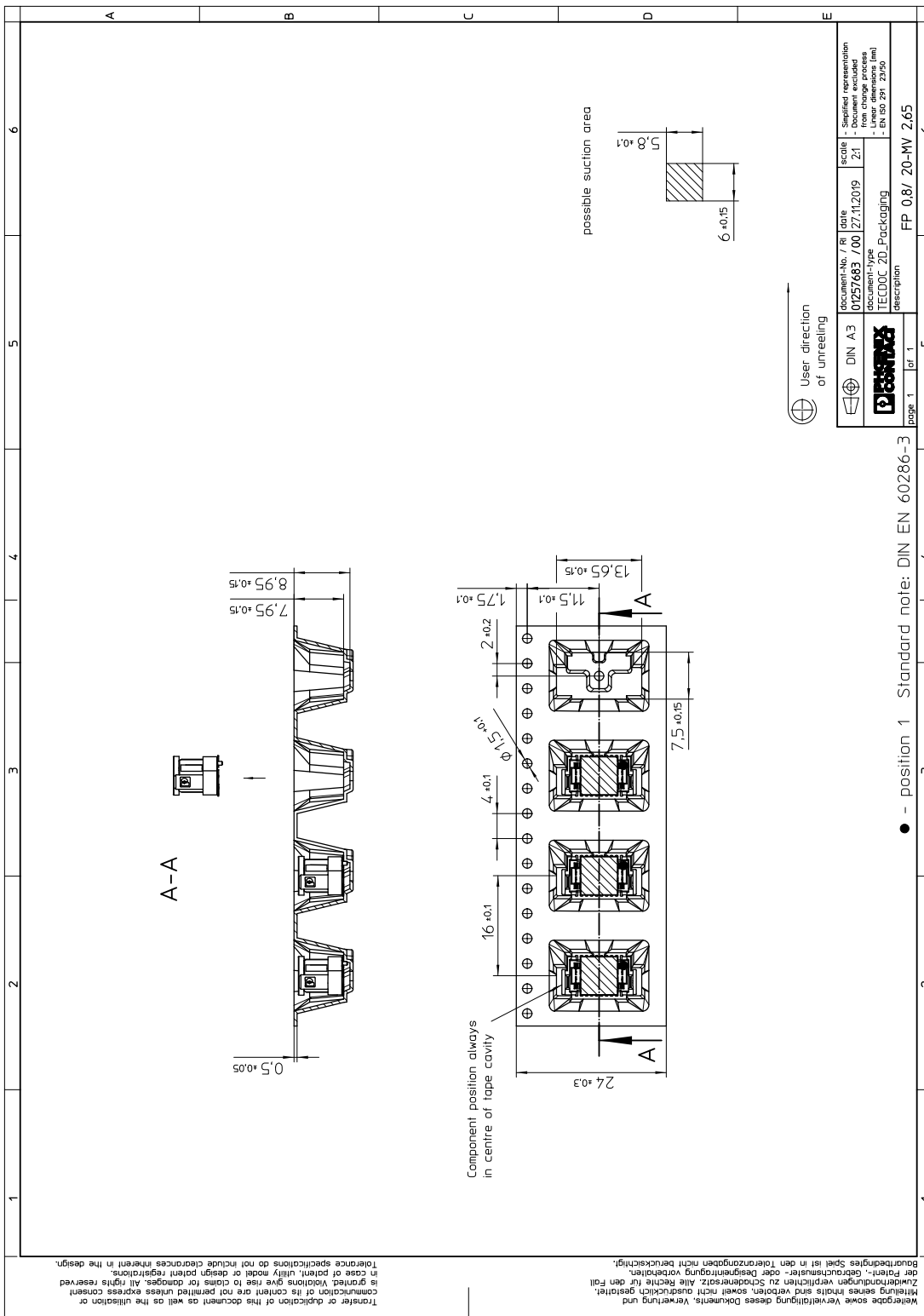
**1061697 FP 0,8/ 20-MV 2,65****8 Packaging information**

Type of packaging	32 mm wide tape
Note on packaging	Tape-on-reel packaging in accordance with standard DIN EN 60286-3 and EIA-481
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	32.4 mm
[A] coil diameter	330 mm
[W2] coil overall dimension	40.4 mm
Number of products per coil	250



1061697 FP 0,8/ 20-MV 2,65

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

## 11 General tests

### 11.1 Specification

Brief description

Board-to-board connectors

**1061697 FP 0,8/ 20-MV 2,65****12 Mechanical tests****12.1 Insertion and withdrawal force per contact**

Insertion and withdrawal force per contact  $\leq 0.6$  N

**12.2 Service life**

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

Service life 500 Insertion/withdrawal cycles, Performance level 1

**1061697 FP 0,8/ 20-MV 2,65****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
---	---------

**1061697 FP 0,8/ 20-MV 2,65****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 <sup>2</sup> (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 <sup>2</sup>
Shock duration	11 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)

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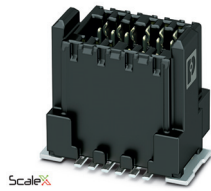
## 15 Approvals / Certificates

**1061697 FP 0,8/ 20-MV 2,65****16 Commercial Data**

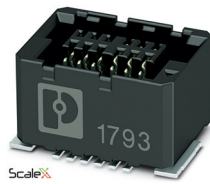
Order No.	1061697
Type	FP 0,8/ 20-MV 2,65
Pieces per package	250
Net weight	0 g
GTIN	4055626717005
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

1061697 FP 0,8/ 20-MV 2,65

17 Combination tests



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



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



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

Mechanical tests				
Durability tests				
Contact resistance R <sub>1</sub>	20 mΩ	20 mΩ		
Insertion/withdrawal cycles	500	500		
Contact resistance R <sub>2</sub>	20 mΩ	20 mΩ		
Thermal tests				