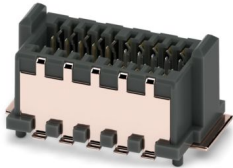


FP 0,8/ 20-MV-SH 1,15 - SMD male connector,
shielded

1053586
<https://www.phoenixcontact.com/us/products/1053586>

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shielded SMD male connector, nominal current: 1.7 A, test voltage: 500 V AC, number of positions: 20, pitch: 0.8 mm, color: black, contact surface: Au, contact connection type: Pin, mounting: SMD soldering

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

Commercial data

Item number	1053586
Packing unit	500 pc
Minimum order quantity	500 pc
Sales key	AA23
Product key	AAWJDB
GTIN	4055626685397
Weight per piece (including packing)	1.905 g
Weight per piece (excluding packing)	0.47 g
Customs tariff number	85366930
Country of origin	CN

FP 0,8/ 20-MV-SH 1,15 - SMD male connector, shielded



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Technical data

Product properties

Product type	shielded SMD male connector
Product family	FP 0,8/...-MV-SH 1,15
Number of positions	20
Pitch	0.8 mm
Number of rows	2
Pin layout	Linear pad geometry
Electrical characteristic	shielded

Electrical properties

Properties

Nominal current I_N	1.7 A IEC 60512-5-2:2002-02 (at 20°C 80-pos.)
Contact resistance	20 mΩ
Test voltage	500 V AC IEC 60512-4-1:2003-05
Electrical characteristic	shielded

Data transmission

Data transmission rate	16 Gbps
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Mounting

Mounting type	SMD soldering
Pin layout	Linear pad geometry

Processing notes

Process	Reflow soldering
Moisture Sensitive Level	MSL 1
Classification temperature T_c	260 °C
Solder cycles in the reflow	3

Material specifications

Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	Selective coating
Metal surface contact area (top layer)	Gold (Au)
Metal surface contact area (middle layer)	Nickel (Ni)
Metal surface soldering area (top layer)	Tin (Sn)
Metal surface soldering area (middle layer)	Nickel (Ni)

Material data - housing

Color (Housing)	black (9005)
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FP 0,8/ 20-MV-SH 1,15 - SMD male connector, shielded



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Insulating material	LCP
Insulating material group	IIIb
CTI according to IEC 60112	150
Flammability rating according to UL 94	V0

Notes

Notes on operation	The permissible voltage during operation depends on the application, taking into consideration the air clearances and creepage distances within the scope of insulation requirements in accordance with IEC 60664-1.
Details for soldering processes	The items are suitable for assembly on both sides and for overhead soldering.

Dimensions

Dimensional drawing	
Pitch	0.8 mm
Width [w]	11.9 mm
Height [h]	6.25 mm
Length [l]	6.1 mm
Installed height	5.65 mm

Application

Contact cover	0.8 mm
Center offset	± 0.7 mm in longitudinal and transverse direction
Stack height	6 mm Tolerance: +1,5 mm (in combination with Range of articles:FP 0,8/...-FV-SH 4,85) 9 mm Tolerance: +1,5 mm (in combination with Range of articles:FP 0,8/...-FV-SH 7,85) 12 mm Tolerance: +1,5 mm (in combination with Range of articles:FP 0,8/...-FV-SH 10,85)
Wipe length	1.5 mm
Angular tolerance	± 5 ° in longitudinal and transverse direction (when plugging in) ± 5 ° in longitudinal and transverse direction (when plugged in)
Axial offset in X direction (longitudinal)	± 0.3 mm (Tolerance compensation when plugged in)
Axial offset in Y direction (transversal)	± 0.3 mm (Tolerance compensation when plugged in)

PCB design

Pad geometry	0.5 x 1.1 mm
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Electrical tests

Thermal test | Test group C

Specification	IEC 60512-5-2:2002-02
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FP 0,8/ 20-MV-SH 1,15 - SMD male connector, shielded



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Tested number of positions	80
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Insulation resistance

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

Air clearances and creepage distances |

Insulating material group	IIIb
Minimum value for clearance and creepage distance	0.25 mm

Environmental and real-life conditions

Vibration test

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

Durability test

Specification	IEC 60512-9-1:2010-03 (following)
Contact resistance R_1	20 m Ω
Contact resistance R_2	20 m Ω
Insertion/withdrawal cycles	500
Insulation resistance, neighboring positions	$\geq 5 \text{ G}\Omega$

Climatic test

Specification	IEC 60512-11-7:2003-05
Corrosive stress	Method 1, 10 days
Power-frequency withstand voltage	500 V AC

Shocks

Specification	IEC 60068-2-27:2008-02
Pulse shape	Semi-sinusoidal
Acceleration	490 m/s ²
Shock duration	11 ms
Test directions	X-, Y- and Z-axis (pos. and neg.)

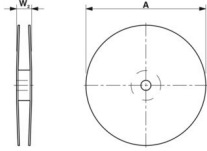
Ambient conditions

Ambient temperature (operation)	-55 °C ... 125 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Packaging specifications

FP 0,8/ 20-MV-SH 1,15 - SMD male connector,
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Dimensional drawing	
Type of packaging	16 mm wide tape
[W] tape width	16 mm
[W2] coil overall dimension	≤ 22.4 mm
[A] coil diameter	≤ 330 mm
Outer packaging type	Transparent-Bag

FP 0,8/ 20-MV-SH 1,15 - SMD male connector, shielded

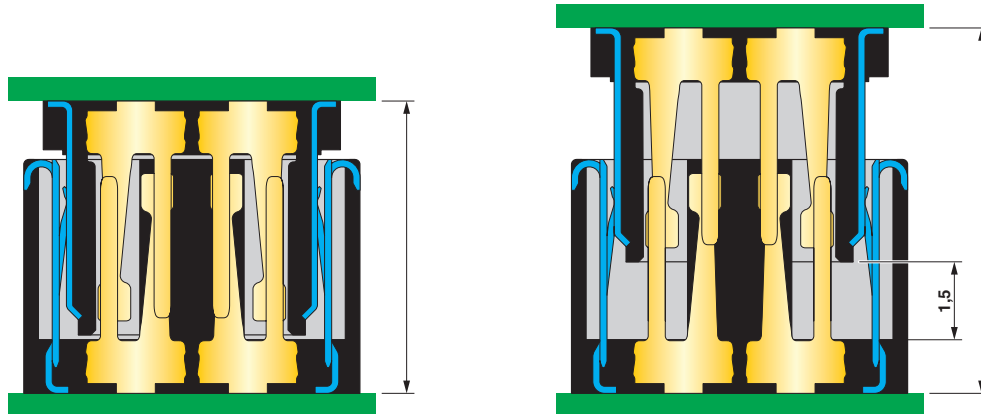


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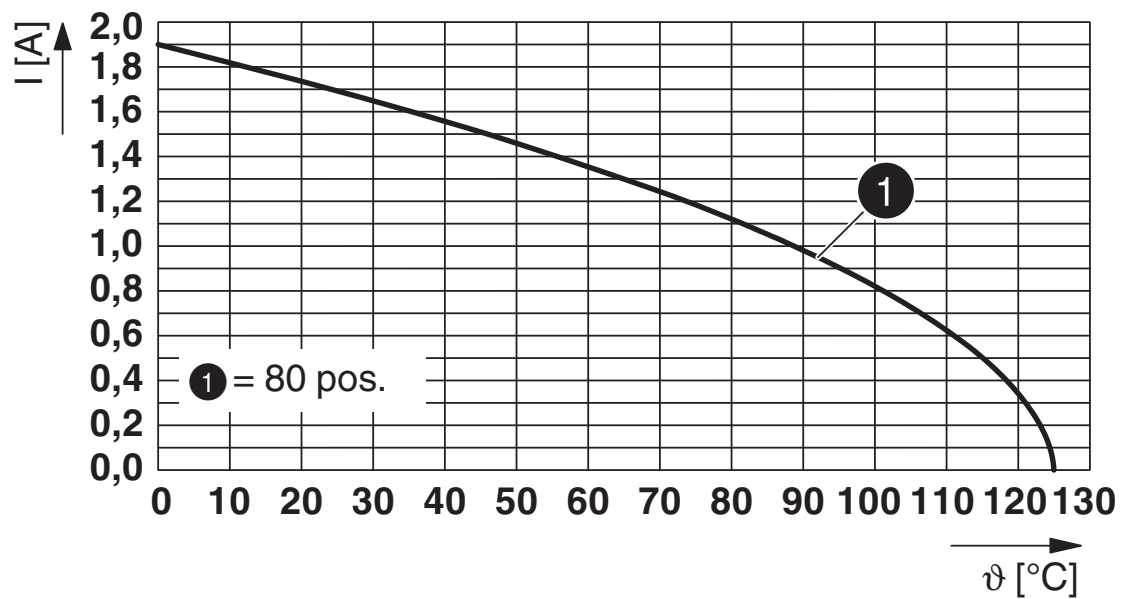
<https://www.phoenixcontact.com/us/products/1053586>

Drawings

Schematic diagram



Diagram



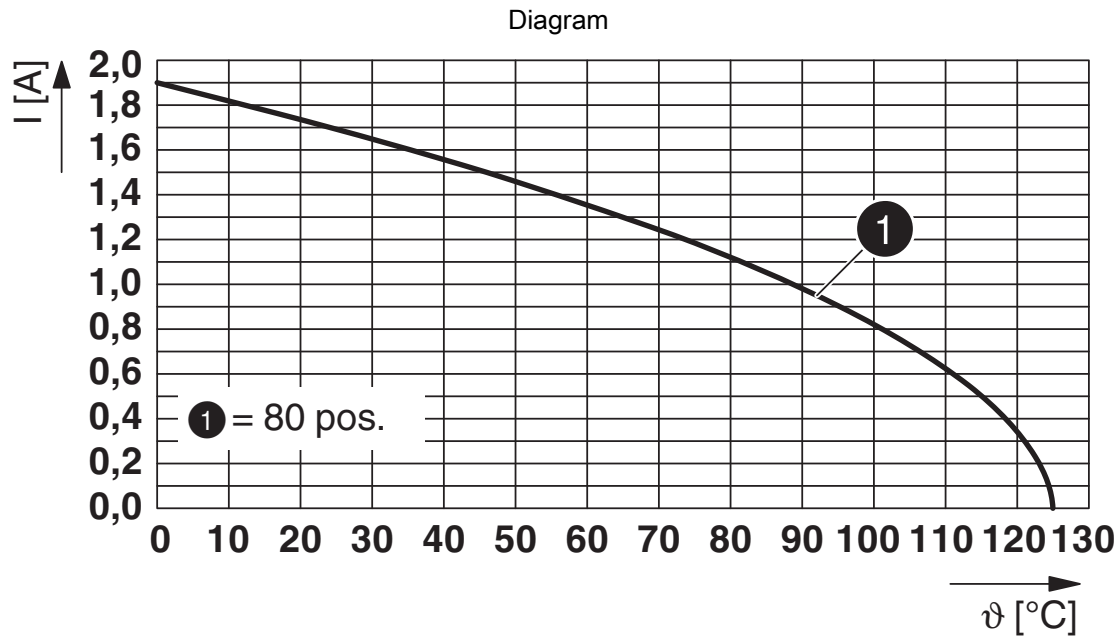
Type: FP 0,8/...-MV-SH 1,15 with FP 0,8/...-FV-SH 4,85

FP 0,8/ 20-MV-SH 1,15 - SMD male connector, shielded

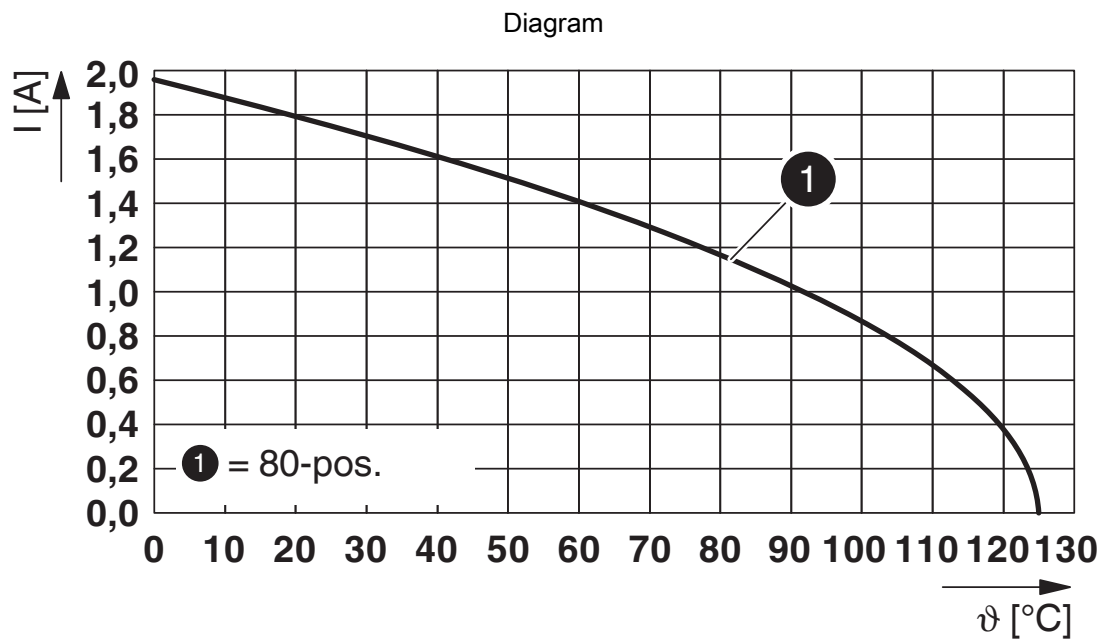


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Type: FP 0,8/...-MV-SH 1,15 with FP 0,8/...-FV-SH 7,85



Type: FP 0,8/...-MV-SH 1,15 with FP 0,8/...-FV-SH 10,85 - contacts

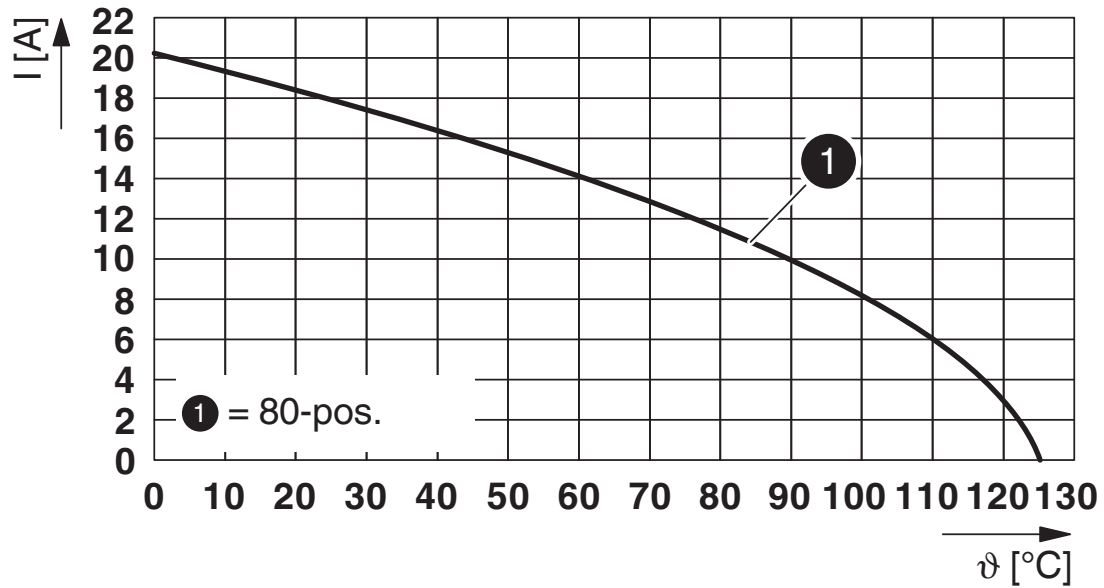
FP 0,8/ 20-MV-SH 1,15 - SMD male connector, shielded



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Diagram



Type: FP 0,8/...-MV-SH 1,15 with FP 0,8/...-FV-SH 10,85 - shroud

FP 0,8/ 20-MV-SH 1,15 - SMD male connector, shielded



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Approvals

 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1053586>



cULus Recognized

Approval ID: E118976-20190703

FP 0,8/ 20-MV-SH 1,15 - SMD male connector, shielded



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Classifications

ECLASS

ECLASS-13.0	27460201
ECLASS-15.0	27460201

ETIM

ETIM 9.0	EC002637
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UNSPSC

UNSPSC 21.0	39121400
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FP 0,8/ 20-MV-SH 1,15 - SMD male connector, shielded



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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com