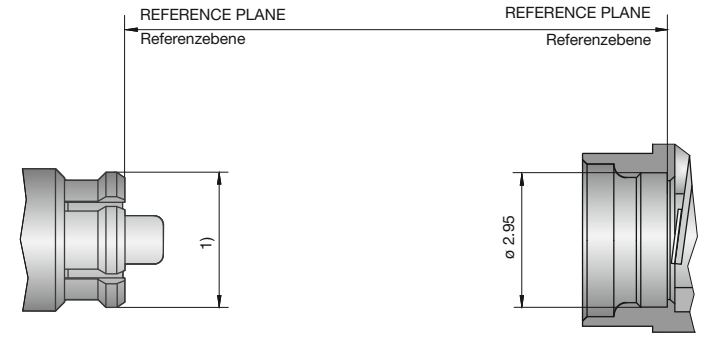
Interface Dimensions FMC

Code 16



1) resilient, dimension to meet electrical and mechanical requirements

MALE
Stecker

FEMALE
Kuppler

Features

Interface according to Rosenberger FMC
Frequency range DC to 10 GHz
Return loss (cable connector straight) ≥ 23 dB (typ.)
Impedance 50 Ω
Minimum board-to-board distance ≥ 6.05 mm
Snap-on coupling

Product Range

Cable connectors
PCB connectors (SMD versions)
Terminations
Adaptors

Further connectors are available on request

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Technical Data FMC

Code 16

Applicable standards | *Anwendbare Normen*	
Interface according to | *Interface gemäß*	Rosenberger FMC
Quality tested according to | *Qualitätsprüfung gemäß*	MIL-STD-202
Electrical data | *Elektrische Daten*	
Impedance | *Wellenwiderstand*	50 Ω
Frequency range | *Frequenzbereich*	DC to 10 GHz
Return loss (cable connector straight) | *Rückflussdämpfung (Kabelsteckverbinder gerade)*	≥ 23 dB (typ.)
Insertion loss | *Dämpfung*	≤ 0.1 x $\sqrt{f\ (GHz)}$ dB
Insulation resistance | *Isolationswiderstand*	≥ 5 GΩ
Center contact resistance | *Übergangswiderstand Innenleiter*	≤ 6 mΩ
Outer contact resistance | *Übergangswiderstand Außenleiter*	≤ 2 mΩ
Test voltage | *Prüfspannung*	500 V rms
Working voltage | *Betriebsspannung*	335 V rms
Contact current | *Kontaktstrombelastbarkeit*	≤ 1.2 A DC
RF-leakage | *Schirmdämpfung*	≥ 80 dB @ DC to 3 GHz ≥ 65 dB @ 3 GHz to 10 GHz valid for screened connection only
Mechanical data | *Mechanische Daten*	
Mating cycles | *Steckzyklen*	≥ 100
Engagement force | *Steckkraft*	Full detent: ≤ 68 N Limited detent: ≤ 45 N Smooth bore: ≤ 9 N
Disengagement force | *Ziehkraft*	Full detent: ≥ 22 N Limited detent: ≥ 9 N Smooth bore: ≥ 2.2 N
Board-to-board distance (min.) | *Board-to-Board Abstand (min.)*	6.05 mm
Environmental data | *Umweltdaten*	
Temperature range | *Temperaturbereich*	-40 °C to +105 °C
Rapid change of temperature | *Schneller Temperaturwechsel*	IEC 60169-1, Sub-clause 16.4
Damp heat | *Feuchte Wärme*	IEC 60169-1, Sub-clause 16.3
Mixed flowing gas | *Schadgas*	DIN EN 60068-2-60, Method 4
Vibration | *Vibration*	IEC 61169-1, Sub-clause 9.3.3
Shock | *Schock*	IEC 60169-1, Sub-clause 15.8
Max. soldering temperature (PCB connectors) | *Max. Löttemperatur (Leiterplattensteckverbinder)*	IEC 61760-1, +260 °C for 10 sec.
Materials | *Materialien*	
Spring loaded contact parts | *Federnde Kontaktteile*	CuBe, Au plating
Center contact | *Innenleiter*	CuBe / CuZn, Au plating
Outer contact | *Außenleiter*	CuZn / CuBe, Au plating
Dielectric | *Dielektrikum*	PTFE / LCP

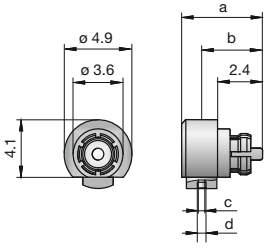
Rosenberger-connectors fulfill in principle the indicated data of the Technical Data. Individual values of connectors may deviate depending upon application, design, type of cable, assembly method and execution. Specific data sheets for particular products can be provided on request from your Rosenberger sales partner.

Rosenberger-Steckverbinder erfüllen grundsätzlich die in den Technischen Daten angegebenen Daten. Je nach Anwendung, Bauart, Kabeltyp, Montageart und -ausführung können einzelne Werte von Steckverbindern hiervon abweichen. Spezifische Datenblätter zu einzelnen Produkten erhalten Sie auf Anfrage von Ihrem Rosenberger-Ansprechpartner.

Cable Connectors - Semi-Rigid Cables

Right Angle Plug, solder

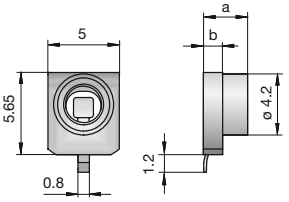
Semi-Rigid Cables

Ordering Number	Remarks	Cable Group	Assembly Instruction	Packing Unit	
16 S 201-270 L5	a = 4.85 mm; b = 3.65 mm, c = 0.95 mm, d = 1.25 mm	70	16 A	100	
16 S 201-271 L5	a = 5.5 mm; b = 4.05 mm, c = 1.7 mm, d = 2.25 mm	71	16 A	100	

PCB Connectors - SMD

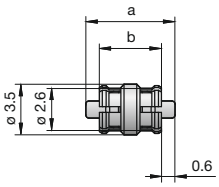
Straight Jack planar
with spring contact

SMD

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing	Packing Unit	
16 P 101-40M L4	Limited detent a = 2.9 mm; b = 1.55 mm	B 191	VG 55.2M500	2500 tape & reel	
16 P 141-40M L4	Smooth bore a = 2.9 mm; b = 1.55 mm	B 191	VG 55.2M500	2500 tape & reel	

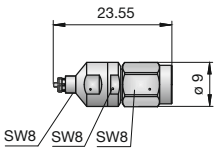
Adaptors

Bullet male-male

Ordering Number	Nominal Board-to-Board Distance[1)]	Bullet Length a[2)]	Bullet Length b[2)]	Minimum Board-to-Board Distance[3)]	Maximum Radial Tolerance[4) 5)]	Packing Unit	
16 S 101-S00 L5	6.35 mm	5.50 mm	3.89 mm	6.05 mm	0.24 mm	100	
16 S 102-S00 L5	10.35 mm	9.50 mm	7.89 mm	10.05 mm	0.49 mm	100	

1) When standard FMC-connectors are applied (e.g. 16 P 101-40M, 16 P 141-40M).
2) Bullets with special lengths on request.
3) Applying radial misalignment increases the minimum board-to-board distance in vertical direction by max. 0.2 mm. Please note: Solder paste thickness not included.
4) The maximum radial tolerance compensation is calculated by: sin(3.6°) x bullet length. Please note that the maximum possible misalignment of the axes to each other, as well as the maximum capture area of the PCB connectors (smooth bore types) have an impact on the quality and performance of the high frequency connection.
5) The maximum radial tolerance is limited to 0.55 mm because of the limited guide in range of the second PCB connector.

Adaptors (Inter Series)

Ordering Number	Version	Remarks	Packing Unit	
16 S 132-S00 L5	straight	FMC male - SMA male	1	
16 K 132-K00 S5	straight	FMC female - SMA female	1