

1.6-5.6 1.0-2.3 DIN 47297



1.6.-5.6 and 1.0-2.3 (DIN 47297) connectors are characterized by high mechanical and electrical stability, they are mainly used for reliable transmission of high bit-rates. 1.6.-5.6. connectors, IIrd and IIIrd generations are intermateable, male types can be connected with all female types.

1.6-5.6 und 1.0-2-3 (DIN 47297)-Steckverbinder zeichnen sich durch gute elektrische und mechanische Stabilität aus, Hauptanwendungsgebiet ist die Übertragung hoher Bit-Raten. Steckverbinder der II. und III. Generation sind steckkompatibel, die Stecker-Typen sind mit den Kuppler-Typen koppelbar.

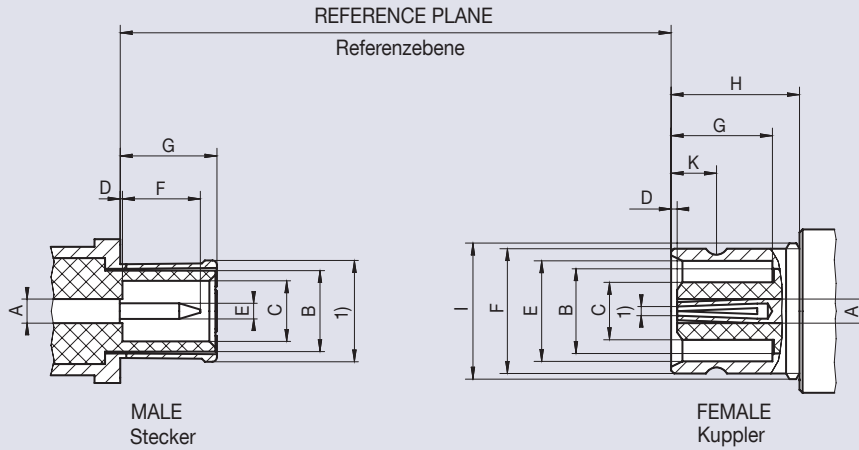
1.6-5.6
1.0-2.3 DIN 47297



1.6-5.6

Interface Dimensions 1.6-5.6

Code 78 / 88



	Male Stecker		Female Kuppler	
	min.	max.	min.	max.
A	Ø 1.60 nom.		Ø 1.60 nom.	
B	Ø 5.60 nom.		Ø 5.60 nom.	
C	Ø 4.00	–	–	Ø 3.80
D	–	0.15	0.25	–
E	Ø 0.97	Ø 1.03	Ø 6.60	Ø 6.69
F	–	5.50	Ø 8.10	Ø 8.25
G	6.40	6.60	6.70	–
H	–	–	9.70	–
I	–	–	M 9 x 0.5	
K	–	–	2.90	3.10

Dimensions in mm

Features

- ▶ Interface according to CECC 22240
- ▶ Frequency range DC to 4 GHz (II. Gen.), DC to 12 GHz (III. Gen.)
- ▶ Return loss (cable connector straight) ≥ 27 dB @ 1 GHz to 2 GHz
- ▶ Impedance 75 Ω

Product Range

- ▶ Cable connectors
- ▶ PCB connectors
- ▶ Adaptors

Coupling mechanisms, male types:

- ▶ Type A: Screw-on coupling
Screwing plug and jack by hand using a coupling nut
- ▶ Type B: Snap-on coupling
Male connector with spring mechanism, snaps into slot on female connector body
- ▶ Type C: Slide-on coupling with centering sleeve
Conical insertion guide of floating male connector facilitates connection to fixed female connectors. The interconnection is a slide fit.
- ▶ Type F: Quick-lock coupling mechanism
Quick-lock coupling mechanism for fast, easy and reliable connections in tightest spaces, assembly tools not necessary.

Technical Data 1.6-5.6

Code 78 / 88

Applicable standards Anwendbare Normen	
Interface according to Interface gemäß	CECC 22240
Electrical data Elektrische Daten	
Impedance Wellenwiderstand	75 Ω
Frequency range Frequenzbereich	DC to 4 GHz (II. generation) DC to 12 GHz (III. generation)
Return loss (cable connector straight) Rückflussdämpfung (Kabelsteckverbinder gerade)	≥ 33 dB @ DC to 1 GHz (III. generation) ≥ 27 dB @ 1 GHz to 2 GHz (III. generation) ≥ 20 dB @ 2 GHz to 4 GHz (III. generation)
Insertion loss Dämpfung	≤ 0.1 x √f (GHz) dB
Insulation resistance Isolationswiderstand	≥ 10 GΩ
Center contact resistance Übergangswiderstand Innenleiter	≤ 4 mΩ
Outer contact resistance Übergangswiderstand Außenleiter	≤ 2 mΩ
Test voltage Prüfspannung	1000 V rms
Working voltage Betriebsspannung	330 V rms
RF leakage - Interface Schirmdämpfung	≥ 100 dB @ DC to 1 GHz (Type A)
Mechanical data Mechanische Daten	
Mating cycles Steckzyklen	≥ 500
Center contact captivation Innenleiter Haltekraft	axial: ≥ 30 N
Engagement force Steckkraft	2.2 N to 12 N (Type A) 18 N to 50 N (Type F)
Disengagement force Ziehkraft	2.2 N to 12 N (Type A) 18 N to 50 N (Type F)
Environmental data Umweltdaten	
Temperature range Temperaturbereich	-40 °C to +85 °C
Dry heat Trockene Wärme	IEC 60068-2-2
Damp heat Feuchte Wärme	IEC 60068-2-78
Climatic category Klimakategorie	IEC 60068-2-1 40/85/21
Vibration Vibration	IEC 60068-2-6 (10 Hz to 2000 Hz, 100 m/s ²)
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 / CuSn, Au plating
Center contact Innenleiter	CuZn, Au plating
Outer contact Außenleiter	CuZn, Au plating
Body Gehäuse	CuZn, Ni plating
Crimping ferrule Crimphülse	Cu, white bronze plating
Dielectric Dielektrikum	PTFE (II. generation) LCP or equivalent (III. generation)


Rosenberger connectors generally fulfill the indicated technical data. Individual values of connectors may deviate depending upon application, design, type of cable, assembly method and workmanship. Data sheets for particular products can be downloaded on our website or can be provided on request from your Rosenberger sales partner.

Rosenberger-Steckverbinder erfüllen grundsätzlich die hier angegebenen technischen Daten. Je nach Anwendung, Bauart, Kabeltyp, Montageart und -ausführung können einzelne Werte der Steckverbinder hiervon abweichen. Datenblätter zu einzelnen Produkten können Sie von unserer Website herunterladen oder auf Anfrage von Ihrem Rosenberger-Ansprechpartner erhalten.

Cable Connectors - Flexible Cables


Straight Plug, crimp

Flexible Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	Cable Group	
88 S 105-1V2 L5	183742	25	standard	III. generation type A	V2	


Right Angle Plug, solder crimp

Flexible Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	Cable Group	
88 S 203-3V2 L5	183750	25	standard	III. generation type A	V2	


Panel Jack, crimp, round flange

Flexible Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	Cable Group	
88 K 505-1V2 L5	162067	25	standard	round flange rear mount III. generation	V2	

Right Angle Panel Jack, solder crimp round flange


Flexible Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	Cable Group	
88 K 203-302 L5	103557	25	standard	round flange rear mount III. generation	02	
88 K 203-3V2 L5	153451	25	standard	round flange rear mount III. generation	V2	

PCB Connectors - Solder Pin



Straight Jack, PCB

Solder Pin

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks		
78 K 104-400 L5	103671	50	blister	II. generation		

Adaptors

Adaptors 1.6-5.6 - 1.6-5.6

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
78 K 102-K00 L5	108617	10	standard	1.6-5.6 female - female II. generation round flange	
78 S 301-K00 L5	140268	1	standard	1.6-5.6 male - female - male II. generation type A Y-adaptor	

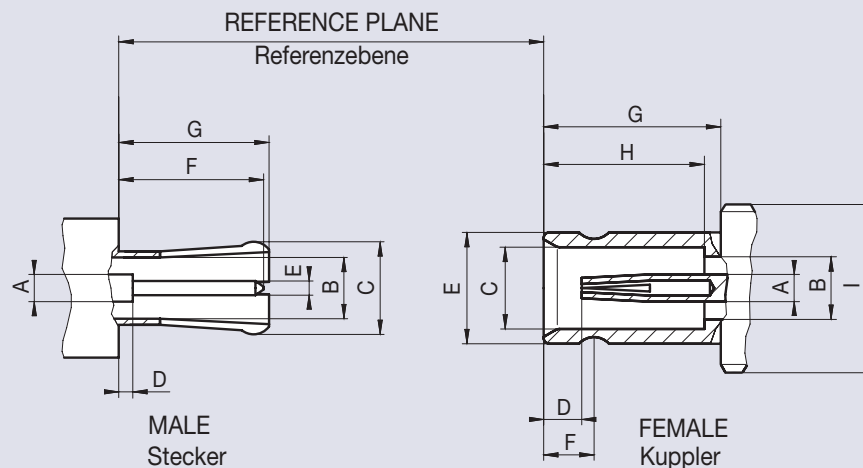
Adaptors 1.6-5.6 - BNC 75 Ω

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
88 S 171-S00 L5	100625	1	standard	1.6-5.6 male III. generation type A - BNC 75 Ω male	
88 S 171-K00 L5	182694	1	standard	1.6-5.6 male III. generation type A - BNC 75 Ω female	
88 K 171-K00 L5	103048	1	standard	1.6-5.6 female III. generation - BNC 75 Ω female round flange	
71 S 188-K00 L5	107786	1	standard	BNC 75 Ω male - 1.6-5.6 female III. generation	

1.0-2.3 DIN 47297 50 Ω

Interface Dimensions 1.0-2.3 DIN 47297 50 Ω

Code 34



	Male Stecker		Female Kuppler	
	min.	max.	min.	max.
A	Ø 1.00 nom.		Ø 1.00 nom. ^{1) 2)}	
B	–	Ø 2.30 nom. ¹⁾	–	Ø 2.30 nom.
C	²⁾		Ø 3.00	Ø 3.06
D	–	1.15	1.15	1.75
E	Ø 0.475	Ø 0.52	Ø 4.03	Ø 4.15
F	–	5.50	1.80	1.90
G	5.40	5.70	6.40	6.50
H	–	–	5.80	5.90
I	–	–	M 5.5 x 0.5	

Dimensions in mm

¹⁾ Contact diameter refers to 50 Ω

²⁾ Resilient, dimension to meet electrical and mechanical requirements

Features

- ▶ Interface according to CECC 22230, DIN 47297
- ▶ Frequency range DC to 10 GHz
- ▶ Return loss (cable connector straight) ≥ 23 dB @ 1 GHz to 4 GHz
- ▶ Impedance 50 Ω
- ▶ 40% size reduction compared to 1.6-5.6 connectors

Product Range

Connectors are available on request

Coupling mechanisms, male types:

- ▶ Type A: Screw-on coupling
Screwing plug and jack by hand with a coupling nut.
- ▶ Type C: Slide-on coupling with centering sleeve
Conical insertion guide of floating male connector facilitates connection to fixed female connectors. The interconnection is a slide fit.
- ▶ Type E: Slide-on coupling with retention clip
For use in multiple or mixed connector housings. In contrast to type C, additional retention clip. The interconnection is a slide fit.
- ▶ Type F: Quick-lock coupling mechanism
Quick-lock coupling mechanism for fast, easy and reliable connections in tightest spaces, assembly tools are not necessary.

Technical Data 1.0-2.3 DIN 47297 50 Ω

Code 34

Applicable standards Anwendbare Normen	
Interface according to Interface gemäß	CECC 22230, DIN 47297
Electrical data Elektrische Daten	
Impedance Wellenwiderstand	50 Ω
Frequency range Frequenzbereich	DC to 10 GHz (max.) DC to 2.5 GHz (opt.)
Return loss (cable connector straight) Rückflussdämpfung (Kabelsteckverbinder gerade)	≥ 32 dB @ DC to 1 GHz ≥ 23 dB @ 1 GHz to 4 GHz ≥ 16 dB @ 4 GHz to 10 GHz
Insertion loss Dämpfung	≤ 0.1 x √f (GHz) dB
Insulation resistance Isolationswiderstand	≥ 1 GΩ
Center contact resistance Übergangswiderstand Innenleiter	≤ 4 mΩ
Outer contact resistance Übergangswiderstand Außenleiter	≤ 2.5 mΩ
Test voltage Prüfspannung	750 V rms
Working voltage Betriebsspannung	250 V rms
RF leakage - Interface Schirmdämpfung	≥ 90 dB @ DC to 1 GHz
Mechanical data Mechanische Daten	
Mating cycles Steckzyklen	≥ 500
Center contact captivation Innenleiter Haltekraft	axial: ≥ 10 N
Engagement force Steckkraft	≤ 10 N
Disengagement force Ziehkraft	≤ 10 N
Environmental data Umweltdaten	
Temperature range Temperaturbereich	-40 °C to +85 °C
Dry heat Trockene Wärme	IEC 60068-2-2
Damp heat Feuchte Wärme	IEC 60068-2-78
Climatic category Klimakategorie	IEC 60068-2-1 40/85/21
Vibration Vibration	IEC 60068-2-6 (10 Hz to 2000 Hz, 100 m/s ²)
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	CuZn, Au plating
Outer contact Außenleiter	CuZn, Au plating
Body Gehäuse	CuZn, Ag / Ni plating
Crimping ferrule Crimphülse	Cu, white bronze plating
Dielectric Dielektrikum	PTFE

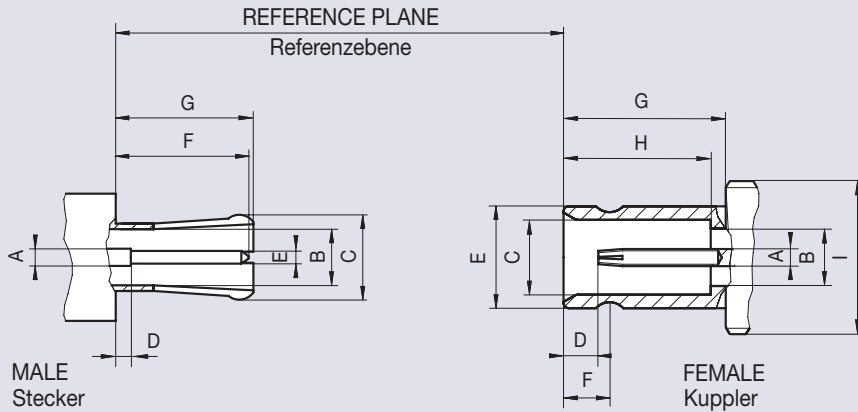
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1.0-2.3 DIN 47297 75 Ω

Interface Dimensions 1.0-2.3 DIN 47297 75 Ω

Code 734



	Male Stecker		Female Kuppler	
	min.	max.	min.	max.
A	Ø 0.70 nom.		Ø 0.70 nom. ^{1) 2)}	
B	-	Ø 2.30 nom. ¹⁾	-	Ø 2.30 nom.
C	²⁾		Ø 3.00	Ø 3.06
D	-	1.15	1.15	1.75
E	Ø 0.475	Ø 0.52	Ø 4.03	Ø 4.15
F	-	5.50	1.80	1.90
G	5.40	5.70	6.40	6.50
H	-	-	5.80	5.90
I	-	-	M 5.5 x 0.5	

Dimensions in mm

¹⁾ Contact diameter refers to 50 Ω

²⁾ Resilient, dimension to meet electrical and mechanical requirements

Features

- ▶ Interface according to CECC 22230, DIN 47297
- ▶ Frequency range DC to 2 GHz
- ▶ Return loss (cable connector straight) ≥ 20 dB (typ.)
- ▶ Impedance 75 Ω
- ▶ 40% size reduction compared to 1.6-5.6 connectors

Product Range

Connectors are available on request

Coupling mechanisms, male types:

- ▶ Type A: Screw-on coupling
Screwing plug and jack by hand with a coupling nut.
- ▶ Type C: Slide-on coupling with centering sleeve
Conical insertion guide of floating male connector facilitates connection to fixed female connectors. The interconnection is a slide fit.
- ▶ Type E: Slide-on coupling with retention clip
For use in multiple or mixed connector housings. In contrast to type C, additional retention clip. The interconnection is a slide fit.
- ▶ Type F: Quick-lock coupling mechanism
Quick-lock coupling mechanism for fast, easy and reliable connections in tightest spaces, assembly tools are not necessary.

Technical Data 1.0-2.3 DIN 47297 75 Ω

Code 734

Applicable standards Anwendbare Normen	
Interface according to Interface gemäß	CECC 22230, DIN 47297
Electrical data Elektrische Daten	
Impedance Wellenwiderstand	75 Ω
Frequency range Frequenzbereich	DC to 2 GHz (max.)
Return loss (cable connector straight) Rückflussdämpfung (Kabelsteckverbinder gerade)	≥ 20 dB (typ.)
Insertion loss Dämpfung	≤ 0.1 × √f (GHz) dB
Insulation resistance Isolationswiderstand	≥ 2 GΩ
Center contact resistance Übergangswiderstand Innenleiter	≤ 4 mΩ
Outer contact resistance Übergangswiderstand Außenleiter	≤ 2.5 mΩ
Test voltage Prüfspannung	750 V rms
Working voltage Betriebsspannung	250 V rms
RF leakage - Interface Schirmdämpfung	≥ 90 dB @ DC to 1 GHz
Mechanical data Mechanische Daten	
Mating cycles Steckzyklen	≥ 500
Center contact captivation Innenleiter Haltekraft	axial: ≥ 10 N
Engagement force Steckkraft	≤ 10 N
Disengagement force Ziehkraft	≤ 10 N
Environmental data Umweltdaten	
Temperature range Temperaturbereich	-40 °C to +85 °C
Dry heat Trockene Wärme	IEC 60068-2-2
Damp heat Feuchte Wärme	IEC 60068-2-78
Climatic category Klimakategorie	IEC 60068-2-1 40/85/21
Vibration Vibration	IEC 60068-2-6 (10 Hz to 2000 Hz, 100 m/s ²)
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	CuZn, Au plating
Outer contact Außenleiter	CuZn, Au plating
Body Gehäuse	CuZn, Ag / Ni plating
Crimping ferrule Crimphülse	Cu, white bronze plating
Dielectric Dielektrikum	PTFE

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