

1.0.-2.3. DIN 42297 coaxial connectors are characterized by high mechanical and electrical stability and have been developed for applications in communications engineering: connector types with 50 Ω impedance can be used up to 10 GHz, connector types with 75 Ω impedance up to 2 GHz.

50 Ω versions can also be applied up to 500 MHz with 75 Ω cables – with only insignificantly lower return loss. 50 Ω and 75 Ω versions are intermateable, male types (type A, C, E and F) can be connected with all female types.

Coupling mechanisms, male types:

Type A: Screw-on coupling

Type C: Slide-on coupling with centering sleeve

Type E: Slide-on coupling with retention clip

Type F: Quick-lock coupling mechanism

1.0-2.3 DIN 47297-Koaxial-Steckverbinder zeichnen sich durch hohe elektrische und mechanische Stabilität aus und sind für Anwendungen in der Nachrichtentechnik konzipiert: als 50 Ω -Ausführung für maximale Betriebsfrequenzen bis 10 GHz, als 75 Ω -Ausführung bis maximal 2 GHz.

Die 50 Ω -Ausführungen können – bei geringfügig niedrigerer Rückflussdämpfung – auch mit 75 Ω -Kabeln bis zu 500 MHz eingesetzt werden. 50 Ω - und 75 Ω -Ausführungen sind steckkompatibel, die Male-Typen (Typ A, C, E und F) sind mit den Female-Typen koppelbar.

Befestigungsarten Stecker:

Typ A: Steckschraubverbindung

Typ C: Einschub mit Zentrierhülse

Typ E: Einschub mit Gehäuse-Rastfeder

Typ F: Quick-Lock-Einrastmechanismus

1.0-2.3 DIN 47297

1.0-2.3
DIN 47297

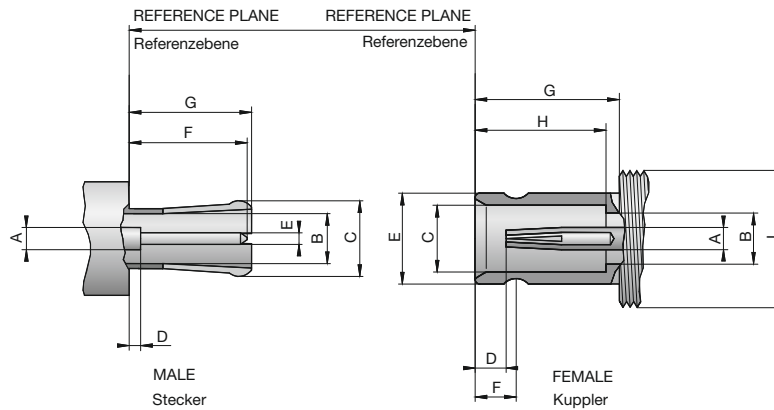
Contents

1.0-2.3 50 Ω

1.0-2.3 75 Ω

Interface Dimensions 1.0-2.3 DIN 47297, 50 Ω

Code 34



1.0-2.3 DIN 47297, 50 Ω

dimension [mm]	Male Stecker		Female Kuppler	
	min.	max.	min.	max.
A		1.00		1.00 1) 2)
B		2.30 1)		2.30
C		2)	3.00	3.06
D		1.15	1.15	1.75
E	0.475	0.52	4.03	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	

1) contact diameters refer 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 (max.), DC to 2.5 GHz (opt.)
 Return loss (cable connector straight) ≥ 23 dB @ 4 GHz
 Impedance 50 Ω
 40% size reduction compared to 1.6-5.6 connectors
 Type A: Screw-on
 Type C: Slide-on coupling
 Type E: Slide-on coupling with retention clip, available on request
 Type F: Quick-lock coupling

Product Range

Cable connectors
 PCB connectors (solder, press-fit versions)
 Panel connectors
 Adaptors
 Terminations

Further 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 <i>Interface gemäß</i>	CECC 22230, DIN 47297
Quality tested according to <i>Qualitätsprüfung gemäß</i>	IEC 60068
Electrical data Elektrische Daten	
Impedance <i>Wellenwiderstand</i>	50 Ω
Frequency range <i>Frequenzbereich</i>	DC to 10 GHz (max.) DC to 2.5 GHz (opt.)
Return loss (cable connector straight) <i>Rückflussdämpfung (Kabelsteckverbinder gerade)</i>	≥ 32 dB @ DC to 1 GHz ≥ 23 dB @ 1 GHz to 4 GHz ≥ 16 dB @ 4 GHz to 10 GHz
Insertion loss <i>Dämpfung</i>	≤ 0.1 x √f (GHz) dB
Insulation resistance <i>Isolationswiderstand</i>	≥ 1 GΩ
Center contact resistance <i>Übergangswiderstand Innenleiter</i>	≤ 4 mΩ
Outer contact resistance <i>Übergangswiderstand Außenleiter</i>	≤ 2.5 mΩ
Test voltage <i>Prüfspannung</i>	750 V rms
Working voltage <i>Betriebsspannung</i>	250 V rms
RF-leakage <i>Schirmdämpfung</i>	≥ 90 dB @ DC to 1 GHz
Mechanical data Mechanische Daten	
Mating cycles <i>Steckzyklen</i>	≥ 500
Center contact captivation <i>Innenleiter Haltekraft</i>	axial: ≥ 10 N
Engagement force <i>Steckkraft</i>	≤ 10 N
Disengagement force <i>Ziehkraft</i>	≤ 10 N
Environmental data Umweltdaten	
Temperature range <i>Temperaturbereich</i>	-40 °C to +85 °C
Dry heat <i>Trockene Wärme</i>	IEC 60068-2-2
Damp heat <i>Feuchte Wärme</i>	IEC 60068-2-78
Climatic category <i>Klimakategorie</i>	IEC 60068-2-1 40/85/21
Vibration <i>Vibration</i>	IEC 60068-2-6 (10 Hz to 2000 Hz, 100 m/s ²)
Max. soldering temperature (PCB connectors) <i>Max. Löttemperatur (Leiterplattensteckverbinder)</i>	IEC 61760-1, +260 °C for 10 sec.
Materials Materialien	
Spring loaded contact parts <i>Federnde Kontaktteile</i>	CuBe, Au plating
Center contact <i>Innenleiter</i>	CuZn, Au plating
Outer contact <i>Außenleiter</i>	CuZn, Au plating
Body <i>Gehäuse</i>	CuZn, Ag / Ni plating
Crimping ferrule <i>Crimphülse</i>	Soft copper, white bronze plating
Dielectric <i>Dielektrikum</i>	PTFE

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 - Flexible Cables

Straight Plug, crimp

Flexible Cables

Ordering Number	Version	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Crimp Inserts	Packing Unit	
34 S 101-302 L5	Type A	02	34 A		11 W 152-102	1	
34 S 101-340 L5	Type A	40	34 A		11 W 150-104	1	
34 S 101-341 L5	Type A	41	34 A		11 W 150-106	1	
34 S 110-302 L5	Type C	02	34 A	B 26	11 W 152-102	1	
34 S 110-341 L5	Type C	41	34 A	B 26	11 W 150-106	1	
34 S 160-102 L5	Type F	02	34 A4		11 W 152-402	100	
34 S 160-106 L5	Type F	06	34 A8		11 W 15A-506	100	

Right Angle Plug, solder crimp

Flexible Cables

Ordering Number	Version	Remarks	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Crimp Inserts	Packing Unit	
34 S 201-340 L5	Type A		40	34 D		11 W 150-104	1	
34 S 201-341 L5	Type A		41	34 D		11 W 150-106	1	
34 S 22A-302 L5	Type C		02	34 D	B 26	11 W 152-102	50	
34 S 22A-303 L5	Type C		02	34 D	B 26	11 W 150-103	50	
34 S 22A-340 L5	Type C		40	34 D	B 26	11 W 150-104	100	
34 S 260-302 L5	Type F	a = 12.5 mm	02	34 C3		11 W 150-102	100	
34 S 260-306 L5	Type F	a = 17.0 mm	06	34 C3		11 W 150-106	100	

Straight Jack, solder crimp

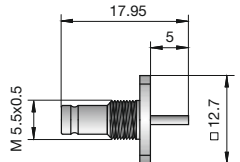
Flexible Cables

Ordering Number	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Crimp Inserts	Packing Unit	
34 K 101-302 L5	02	34 B	B 25	11 W 152-102	1	
34 K 101-340 L5	40	34 B	B 25	11 W 150-104	1	
34 K 101-341 L5	41	34 B	B 25	11 W 150-106	1	

Panel Connectors - Coaxial End

Panel Jack, 4-hole flange

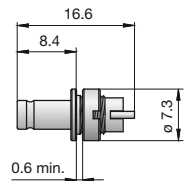
Coaxial End

Ordering Number	Panel Piercing / PCB Layout	Packing Unit	
34 K 403-500 L5	B 55	100 blister	

Panel Connectors - Solder End

Panel Jack, round flange

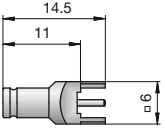
Solder End

Ordering Number	Version	Panel Piercing / PCB Layout	Packing Unit	
34 K 501-200 L5	front mount	B 24	100	

PCB Connectors - Solder Pin

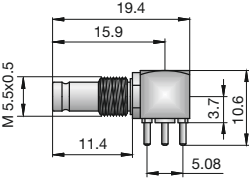
Straight Jack, PCB

Solder Pin

Ordering Number	Panel Piercing / PCB Layout	Packing Unit	
34 K 101-400 L5	B 30a	100 blister	

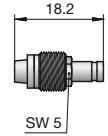
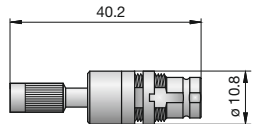
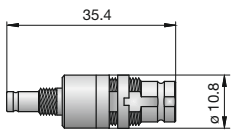
Right Angle Jack, PCB

Solder Pin

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit	
34 K 201-400 L5	round pins	B 39	100 blister	

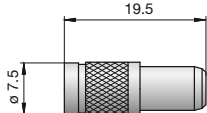
Adaptors

Adaptors (Inter Series)

Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit	
26 K 134-K00 A1	straight	FME female - 1.0-2.3 female		1	
34 S 188-K00 L5	straight panel III. Generation	1.0-2.3 DIN 47297 male, Type A - 1.6-5.6 female round flange	B 27	1	
34 K 188-K00 L5	straight panel III. Generation	1.0-2.3 DIN 47297 female - 1.6-5.6 female round flange	B 27	1	


Terminations

Termination Plug

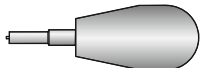
Ordering Number	Remarks	Return Loss	Packing Unit	
34 S 1ER-001 H3	1 Watt Frequency: DC to 2 GHz	≥ 23.1 dB @ DC to 1 GHz ≥ 20.8 dB @ 1 GHz to 2 GHz	1	

Special Tools

Extraction Tools

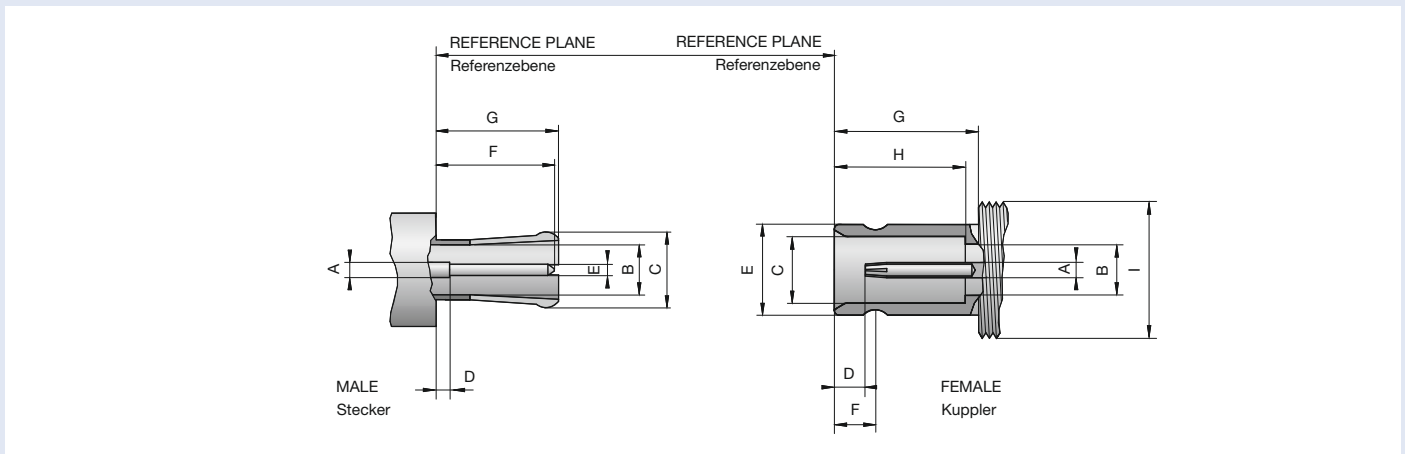
Ordering Number	Remarks	Packing Unit	
34 W 005-000	for Series 1.0-2.3	1	

Socket Wrench

Ordering Number	Remarks	Packing Unit	
34 W 003-000	for Series 1.0-2.3, slot 1.1 mm	1	
34 W 004-000	for Series 1.0-2.3, slot 1.5 mm	1	

Interface Dimensions 1.0-2.3 DIN 47297, 75 Ω

Code 734



1.0-2.3 DIN 47297, 75 Ω

dimension [mm]	Male Stecker		Female Kuppler	
	min.	max.	min.	max.
A		0.70		0.70 1) 2)
B		2.30 1)		2.30
C		2)	3.00	3.06
D		1.15	1.15	1.75
E	0.475	0.52	4.03	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	

1) contact diameters refer 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
- Type A: Screw-on coupling, available on request
- Type C: Slide-on coupling
- Type E: Slide-on coupling with retention clip, available on request
- Type F: Quick-lock coupling

Product Range

- Cable connectors
- PCB connectors (press-fit versions)
- Terminations
- Further 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 <i>Interface gemäß</i>	CECC 22230, DIN 47297
Quality tested according to <i>Qualitätsprüfung gemäß</i>	IEC 60068
Electrical data Elektrische Daten	
Impedance <i>Wellenwiderstand</i>	75 Ω
Frequency range <i>Frequenzbereich</i>	DC to 2 GHz
Return loss (cable connector straight) <i>Rückflussdämpfung (Kabelsteckverbinder gerade)</i>	≥ 20 dB (typ.)
Insertion loss <i>Dämpfung</i>	≤ 0.1 x √f (GHz) dB
Insulation resistance <i>Isolationswiderstand</i>	≥ 2 GΩ
Center contact resistance <i>Übergangswiderstand Innenleiter</i>	≤ 4 mΩ
Outer contact resistance <i>Übergangswiderstand Außenleiter</i>	≤ 2.5 mΩ
Test voltage <i>Prüfspannung</i>	750 V rms
Working voltage <i>Betriebsspannung</i>	250 V rms
RF-leakage <i>Schirmdämpfung</i>	≥ 90 dB @ DC to 1 GHz
Mechanical data Mechanische Daten	
Mating cycles <i>Steckzyklen</i>	≥ 500
Center contact captivation <i>Innenleiter Haltekraft</i>	axial: ≥ 10 N
Engagement force <i>Steckkraft</i>	≤ 10 N
Disengagement force <i>Ziehkraft</i>	≤ 10 N
Environmental data Umweltdaten	
Temperature range <i>Temperaturbereich</i>	-40 °C to +85 °C
Dry heat <i>Trockene Wärme</i>	IEC 60068-2-2
Damp heat <i>Feuchte Wärme</i>	IEC 60068-2-78
Climatic category <i>Klimakategorie</i>	IEC 60068-2-1 40/85/21
Vibration <i>Vibration</i>	IEC 60068-2-6 (10 Hz to 2000 Hz, 100 m/s ²)
Max. soldering temperature (PCB connectors) <i>Max. Löttemperatur (Leiterplattensteckverbinder)</i>	IEC 61760-1, +260 °C for 10 sec.
Materials Materialien	
Spring loaded contact parts <i>Federnde Kontaktteile</i>	CuBe, Au plating
Center contact <i>Innenleiter</i>	CuZn, Au plating
Outer contact <i>Außenleiter</i>	CuZn, Au plating
Body <i>Gehäuse</i>	CuZn, Ag / Ni plating
Crimping ferrule <i>Crimphülse</i>	Soft copper, white bronze plating
Dielectric <i>Dielektrikum</i>	PTFE

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 - Flexible Cables

Straight Plug, crimp

Flexible Cables

Ordering Number	Version	Cable Group	Assembly Instruction	Crimp Inserts	Packing Unit	
734 S 101-1V2 L5	Type A	V2	34 A4	11 W 150-450	1	
734 S 161-102 L5	Type F	02	34 A12	11 W 150-402	1	
734 S 161-1V2 L5	Type F	V2	34 A4	11 W 150-450	1	
734 S 161-1V6 L5	Type F	V6	34 A4	11 W 150-404	1	

Right Angle Plug, solder crimp

Flexible Cables

Ordering Number	Version	Cable Group	Assembly Instruction	Crimp Inserts	Packing Unit	
734 S 260-3V6 L5	Type F	V6	34 C1	11 W 150-104	1	

Panel Jack, round flange, solder crimp

Flexible Cables

Ordering Number	Version	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Crimp Inserts	Packing Unit	
734 K 502-1V6 L5	rear mount	V6	88 O2	B 25	11 W 150-404	1	

Right Angle Jack, solder crimp

Flexible Cables

Ordering Number	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Crimp Inserts	Packing Unit	
734 K 203-3V2 L5	V2	34 C1	B 26	11 W 150-150	1	

PCB Connectors - Press-fit

Straight Jack, PCB

Press-fit

Ordering Number	Panel Piercing / PCB Layout	Packing Unit	
734 K 101-40P L5	B 26 / 79	100 blister	

Terminations

Termination Plug

Ordering Number	Version	Remarks	Return Loss	Packing Unit	
734 S 1ER-001 H3	Type F	1 Watt Frequency: DC to 2 GHz	≥ 20.8 dB @ DC to 1 GHz ≥ 15.5 dB @ 1 GHz to 2 GHz	1	