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Telegärtner

KARL GÄRTNER GMBH

NETWORKING COMPONENTS

COAXIAL CONNECTORS

CABLE ASSEMBLIES

PRECISION TURNED PARTS

PLASTIC INJECTION MOULD PARTS

INDUSTRIAL ELECTRONICS



Coax

Connectors for flexible Low Loss RF Cables

Low Loss 195 – Low Loss 240 – Low Loss 400

Connectors for flexible Low Loss RF Cables

Telegärtner offers a wide range of RF connectors for various applications. They are used in mobile communication, industrial applications, test and measurement, transportation and broadcast applications. Due to more than 70 years of experience, our customers can rely on the high quality of German engineering and the excellent performance of the products in their application fields.

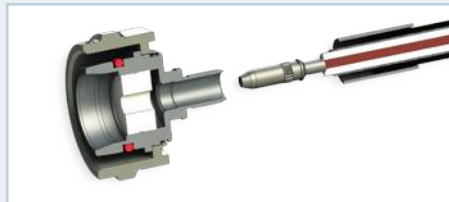
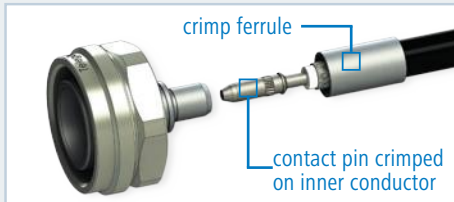
As during the last years, low loss cables gained more and more popularity compared to traditional RG-type cables due to their superior electrical characteristics, Telegärtner recognizes and acknowledges this tendency with providing connectors for low loss cables.

There are generally different ways of connecting connectors to cables: crimping, clamping, soldering or spring-loaded contacts. Telegärtner offers various solutions optimized for different applications.

Besides the wide range of RF connectors, Telegärtner also provides a considerable range of suitable coaxial low loss cables. Using this one-stop shopping option at Telegärtner makes your purchasing process even more efficient. The main use of low loss cables are all kinds of wireless applications, especially where RF-signals need to be transmitted between base stations and antennas with lowest loss. Applications may be for example Wireless Local Loop (WLL), (Industrial) WLAN or Professional/Land Mobile Radio (PMR/LMR).

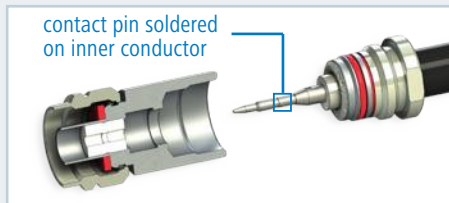
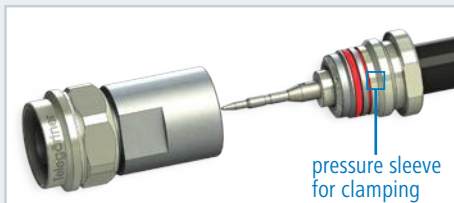
Connector Types for Low Loss Cables

Crimp Types



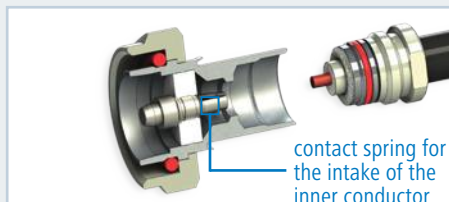
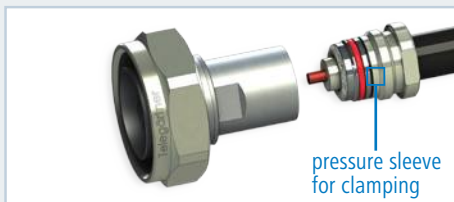
- cost-efficient
- fast assembly
- special tools available

Clamp Types



- watertight IP67
- suitable for outdoor usage
- MIL standard available
- soldered inner conductor
- no special tools needed

Field Mount Types



- fast assembly
- no special tooling
- no soldering
- watertight IP67
- suitable for outdoor usage
- detachable/reusable

Panel Mount Types



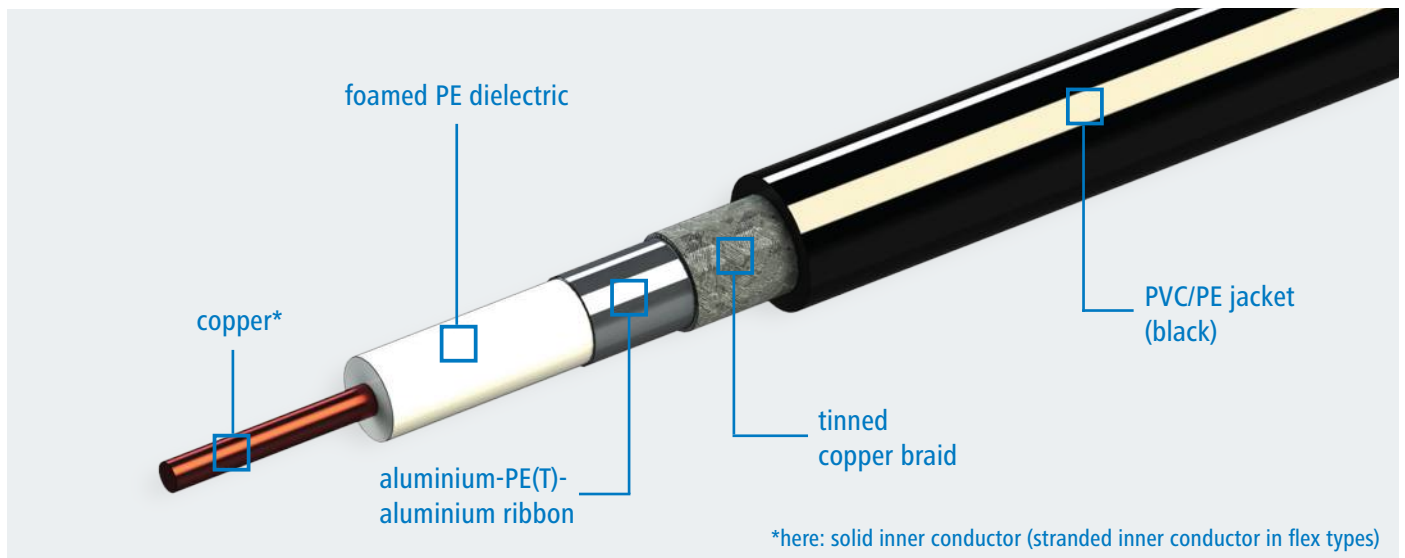
bulkhead mount



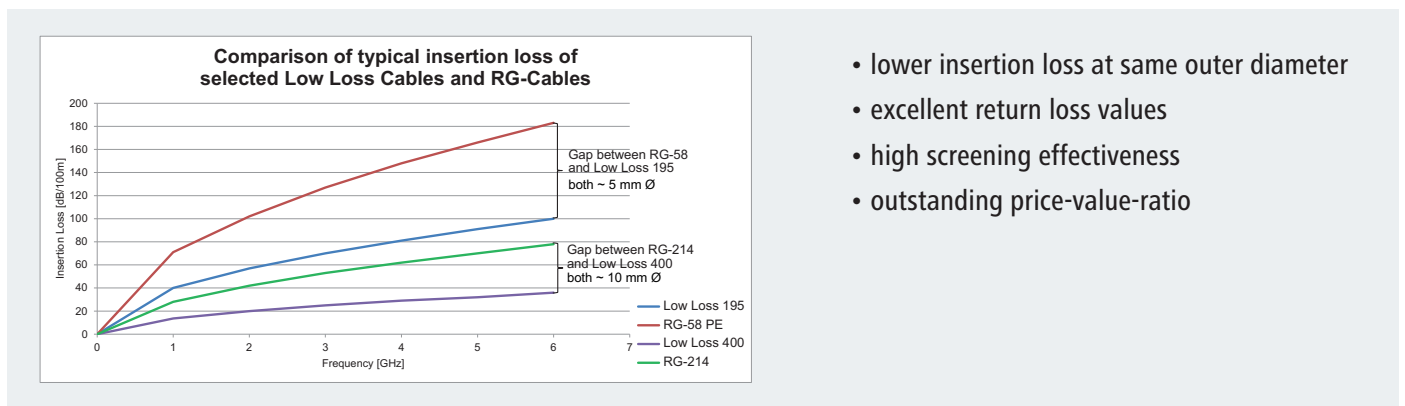
flange mount

- bulkhead and flange types available
- crimp and clamp types available
- bulkhead types with panel sealing

Typical Structure of Low Loss Cables



Benefits of Low Loss Cables compared to RG-Types



Popular Low Loss Cable Types

Cable Description	Ø Inner Conductor	Ø Dielectric	Ø Outer Conductor	Outer Ø	Insertion Loss (dB/100 m)				
					1 GHz	2 GHz	3 GHz	4 GHz	5 GHz
Low Loss 100	0.46 mm	1.52 mm	2.11 mm	2.79 mm	83	120	148	173	194
Low Loss 195	0.95 mm	2.8 mm	3.4 mm	5.0 mm	40	57	70	81	91
Low Loss 240	1.4 mm	3.8 mm	4.4 mm	6.1 mm	26	38	47	55	62
Low Loss 400	2.74 mm	7.24 mm	8.2 mm	10.3 mm	13.6	20	25	29	32

Further cable sizes on demand and in the catalogue.

Different Terms in Low Loss Cable Designation

Flex Types	Inner conductor stranded instead of solid	ZH	Jacket is free of halogens (zero halogens)
FR	Flame retardant jacket	NC	Non-corrosive gas formation
LS	Low formation of smoke	UL	Approved by Underwriters Laboratories

Compatible Cable Sizes from Different Manufacturers





Low Loss 195 (Cable Group G1)		Low Loss 240 (Cable Group G30)		Low Loss 400 (Cable Group G37)	
<ul style="list-style-type: none"> • LMR-195® • RG-58C/U • 7806A • 9907 	<ul style="list-style-type: none"> • CNT-195 • HPF 195 • KX15 • WCX195 	<ul style="list-style-type: none"> • LMR-240® • 02YS(ST)CY 1.4/3.7-50 • 1.4/3.8 AF • 7808A • CNT-240 • HPF 240 	<ul style="list-style-type: none"> • MRC 240 AFB • S 04172 D • SPEEDFOAM 240 HJF • TZC 500 25 • WCX240 • SX 04172 B-60 	<ul style="list-style-type: none"> • LMR-400® • 2.7/7.3 AF • 2.7/7.3 CF • 213CRT7 low loss • 7810A • 9913 • RF 400 TT • C2FCP • C2FP 	<ul style="list-style-type: none"> • Aircom Premium • CNT-400 • EC 400 • HPF 400 • MRC 400 AFB • SPEEDFOAM 400 HJF • TZC 500 32 • WBC-400 • WCX400

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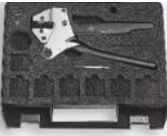



Connectors for Low Loss 195 Cables

Series	Order no.	Connector type	Design	Type of Connection inner	Connection outer	Crimp Tool*	Remarks
SMA / R-SMA 	J01150A0041	SMA Cable Plug	straight	solder	crimp	B, A+C	Gold finish
	J01150R0001	R-SMA Cable Plug	straight	solder	crimp	B, A+C	Gold finish
	J01150A0091	SMA Cable Plug	angle	solder	crimp	B, A+C	Gold finish
	J01150R0021	R-SMA Cable Plug	angle	solder	crimp	B, A+C	Gold finish
	J01151A0491	SMA Cable Jack	straight	solder	crimp	B, A+C	Gold finish
	J01151R0021	R-SMA Cable Jack	straight	solder	crimp	B, A+C	Gold finish
BNC 	J01000A0608	BNC Cable Plug	straight	solder	clamp		Pressure sleeve
	J01000B0608	BNC Cable Plug	straight	solder	clamp		MIL clamp
	J01000F1255	BNC Cable Plug	straight	crimp	crimp	B, A+C	
	J01000A0073	BNC Cable Plug	angle	solder	clamp		
	J01000A0007	BNC Cable Plug	angle	solder	clamp		MIL clamp
	J01000A0805	BNC Cable Plug	angle	solder	clamp		Pressure sleeve
	J01001A0804	BNC Cable Jack	straight	crimp	clamp	A+C	Pressure sleeve
	J01001A1265	BNC Cable Jack	straight	crimp	crimp	B, A+C	
TNC / R-TNC 	J01010A2608	TNC Cable Plug	straight	solder	clamp		MIL clamp, IP67
	J01010F2255	TNC Cable Plug	straight	crimp	crimp	B, A+C	
	J01010R0000	R-TNC Cable Plug	straight	crimp	crimp	B, A+C	
	J01010A0010	TNC Cable Plug	angle	solder	clamp		MIL clamp, IP67
	J01010A0005	TNC Cable Plug	angle	solder	crimp	B, A+C	
	J01010R0002	R-TNC Cable Plug	angle	crimp	crimp	B, A+C	
	J01011A0014	TNC Cable Jack	straight	crimp	clamp	A+C	Pressure sleeve, IP67
	J01011A2265	TNC Cable Jack	straight	crimp	crimp	B, A+C	
UHF 	J01040A0001	UHF Cable Plug	straight	crimp	crimp	B, A+C	
	J01040B1201	UHF Cable Plug	angle	solder	clamp		MIL clamp
N 	J01020C1276	N Cable Plug	straight	solder	clamp		MIL clamp, IP67
	J01020A0108	N Cable Plug	straight	crimp	crimp	B, A+C	
	J01020C0122	N Cable Plug	angle	solder	clamp		MIL clamp, IP67
	J01020A0035	N Cable Plug	angle	solder	crimp	B, A+C	
	J01021H0021	N Cable Jack	straight	solder	clamp		MIL clamp, IP67
	J01021A0063	N Cable Jack	straight	crimp	crimp	B, A+C	
4.3-10 	J01440A0028	4.3-10 Cable Plug	straight	crimp	crimp		Screw type
7-16 	J01120C0070	7-16 Cable Plug	straight	solder	clamp		Pressure sleeve, IP54
	J01120A0106	7-16 Cable Plug	straight	crimp	crimp	A+D	

Panel Mount Types

SMA 	J01151A0401	SMA Bulkhead Jack	straight	solder	crimp	B, A+C	
	J01151R0001	R-SMA Bulkhead Jack	straight	solder	crimp	B, A+C	
BNC 	J01001A1379	BNC Bulkhead Jack	straight	crimp	crimp	B, A+C	
	J01001A0079	BNC Panel Jack Flange	straight	crimp	crimp	B, A+C	
	J01001A0055	BNC Bulkhead Jack	angle	crimp	crimp	B, A+C	
TNC / R-TNC 	J01011A0015	TNC Bulkhead Jack	straight	crimp	crimp	B, A+C	
	J01011A0045	TNC Panel Jack Flange	straight	crimp	crimp	B, A+C	
	J01011R0000	R-TNC Bulkhead Jack	straight	crimp	crimp	B, A+C	
N 	J01021A0147	N Bulkhead Jack	straight	crimp	crimp	B, A+C	
	J01021A0152	N Panel Jack Flange	straight	crimp	crimp	B, A+C	

Tools



A		B		C		D	
N00000A0017	Crimp Tool without crimp die, with case						
N00000A0011	Crimp Tool with 3-way insert (SW 1.72/5.4/6.48)						
N01003A0005	Crimp Die Set, 3-way (HEX 1.46/1.69/5.41)						
N01003A0056	Crimp Die Set, 3-way (HEX 1.25/6.48/1.69)						

Further plugs and jacks on demand and in the catalogue. Further data and assembly instructions online www.telegaertner.com

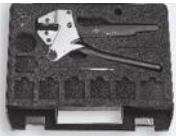

Connectors for Low Loss 240 Cables

Series	Order no.	Connector type	Design	Type of Connection inner	Connection outer	Crimp Tool*	Remarks
SMA / R-SMA 	J01150A0618	SMA Cable Plug	straight	crimp	crimp	A+B	Telealloy finish
	J01150A0611	SMA Cable Plug	straight	crimp	crimp	A+B	Gold finish
	J01150R0051	R-SMA Cable Plug	straight	solder	crimp	A+B	Gold finish
	J01150A0521	SMA Cable Plug	angle	crimp	crimp	A+B	Gold finish
	J01150R0061	R-SMA Cable Plug	angle	solder	crimp	A+B	Gold finish
	J01151A1061	SMA Cable Jack	straight	crimp	crimp	A+B	Gold finish
	J01151R0051	R-SMA Cable Jack	straight	solder	crimp	A+B	Gold finish
FME 	J01700A0009	FME Cable Plug	straight	crimp	crimp	A+B	
	J01701A0003	FME Cable Jack	straight	crimp	crimp	A+B	
BNC 	J01000A0071	BNC Cable Plug	straight	spring	clamp		IP67, field mount
	J01000A0049	BNC Cable Plug	straight	crimp	crimp	A+B	
	J01000A0074	BNC Cable Plug	angle	solder	clamp		IP67, pressure sleeve
	J01000A0054	BNC Cable Plug	angle	solder	crimp	A+B	
	J01001A0073	BNC Cable Jack	straight	crimp	crimp	A+B	
TNC / R-TNC 	J01010A0069	TNC Cable Plug	straight	spring	clamp		IP67, field mount
	J01010A0035	TNC Cable Plug	straight	crimp	crimp	A+B	
	J01010R0005	R-TNC Cable Plug	straight	crimp	crimp	A+B	
	J01010A0071	TNC Cable Plug	angle	solder	clamp		IP67, pressure sleeve
	J01010A0037	TNC Cable Plug	angle	solder	crimp	A+B	
	J01011A0044	TNC Cable Jack	straight	crimp	crimp	A+B	
N 	J01020A0167	N Cable Plug	straight	spring	clamp		IP67, field mount
	J01020A0119	N Cable Plug	straight	crimp	crimp	A+B	
	J01020A0179	N Cable Plug	angle	solder	clamp		IP67, pressure sleeve
	J01020A0097	N Cable Plug	angle	solder	crimp	A+B	
	J01021B0117	N Cable Jack	straight	crimp	crimp	A+B	
4.3-10 	J01440A0012	4.3-10 Cable Plug	straight	spring	clamp		IP67, screw type, field mount
	J01440A3012	4.3-10 Cable Plug	straight	spring	clamp		IP67, push-pull type, field mount
	J01440A0002	4.3-10 Cable Plug	straight	crimp	crimp	A+B	screw type
	J01440A2002	4.3-10 Cable Plug	straight	crimp	crimp	A+B	hand screw type
	J01440A3002	4.3-10 Cable Plug	straight	crimp	crimp	A+B	push-pull type
	J01440A0016	4.3-10 Cable Plug	angle	solder	crimp	A+B	screw type
	J01440A3016	4.3-10 Cable Plug	angle	solder	crimp	A+B	push-pull type
7-16 	J01120A0105	7-16 Cable Plug	straight	crimp	crimp	A+B	







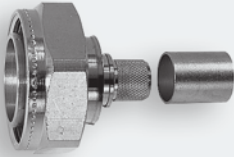

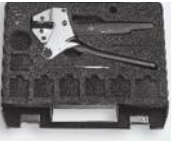


Panel Mount Types

SMA / R-SMA 	J01151A1111	SMA Bulkhead Jack	straight	solder	crimp	A+B	
	J01151R0181	R-SMA Bulkhead Jack	straight	crimp	crimp	A+B	Panel seal
N 	J01021B0050	N Panel Jack Flange	straight	solder	clamp		MIL clamp, IP67
	J01021B0180	N Bulkhead Jack	straight	crimp	crimp	A+B	

Tools

A 	N00000A0017	Crimp Tool without crimp die, with case		*Tool Type A
	B 	N01003A0056	Crimp Die Set, 3-way (HEX 1.25/6.48/1.69)	*Tool Type B





Connectors for Low Loss 400 Cables

Series	Order no.	Connector type	Design	Type of Connection inner	Connection outer	Crimp Tool*	Remarks
SMA 	J01150A0588	SMA Cable Plug	straight	crimp	crimp	A+B	
	J01000A0072	BNC Cable Plug	straight	spring	clamp		IP67, field mount
BNC 	J01000A0061	BNC Cable Plug	straight	crimp	crimp	A+B	
	J01000B1195	BNC Cable Plug	angle	solder	clamp		IP54
	J01000A0064	BNC Cable Plug	angle	crimp	crimp	A+C	
	J01010A0070	TNC Cable Plug	straight	spring	clamp		IP67, field mount
TNC / R-TNC 	J01010A0049	TNC Cable Plug	straight	crimp	crimp	A+B	
	J01010R0009	R-TNC Cable Plug	straight	crimp	crimp	A+B	
	J01010B0023	TNC Cable Plug	angle	solder	clamp		IP67
	J01010A0064	TNC Cable Plug	angle	solder	crimp	A+C	
	J01011A0055	TNC Cable Jack	straight	crimp	crimp	A+B	
	UHF 	J01040A0012	UHF Cable Plug	straight	crimp	crimp	A+B
J01040B1202		UHF Cable Plug	angle	solder	clamp		
N 	J01020A0156	N Cable Plug	straight	spring	clamp		IP67, field mount
	J01020A0149	N Cable Plug	straight	solder	clamp		IP67
	J01020A0127	N Cable Plug	straight	crimp	crimp	A+B	
	J01020C0161	N Cable Plug	angle	solder	clamp		IP67
	J01020B0081	N Cable Plug	angle	solder	crimp	A+C	
	J01021A0207	N Cable Jack	straight	spring	clamp		IP67, field mount
	J01021A0155	N Cable Jack	straight	crimp	crimp	A+B	
4.3-10 	J01440A0011	4.3-10 Cable Plug	spring	clamp	clamp		IP67, screw type, field mount
	J01440A3011	4.3-10 Cable Plug	spring	clamp	clamp		IP67, push-pull type, field mount
	J01440A0010	4.3-10 Cable Plug	straight	crimp	crimp	A+B	screw type
	J01440A2010	4.3-10 Cable Plug	straight	crimp	crimp	A+B	hand screw type
	J01440A3010	4.3-10 Cable Plug	straight	crimp	crimp	A+B	push-pull type
	J01440A0015	4.3-10 Cable Plug	angle	solder	crimp	A+C	screw type
	J01440A3015	4.3-10 Cable Plug	angle	solder	crimp	A+C	push-pull type
	7-16 	J01120A0101	7-16 Cable Plug	straight	solder	clamp	
J01120A0103		7-16 Cable Plug	straight	spring	clamp		IP67, field mount
J01120B0092		7-16 Cable Plug	straight	crimp	crimp	A+B	
J01120B1160		7-16 Cable Plug	angle	solder	clamp		IP67
J01121A0177		7-16 Cable Jack	straight	solder	clamp		IP67
J01121A0145		7-16 Cable Jack	straight	crimp	crimp	A+B	
Panel Mount Types							
N 	J01021A0197	N Bulkhead Jack	straight	crimp	crimp	A+B	
	Tools						
A 	N00000A0017	Crimp Tool without crimp die, with case		*Tool Type A			
	N01003A0030	Crimp Die Set, 2-way (HEX 3.25/10.90)		*Tool Type B			
	N01003D1274	Crimp Die Set, 2-way (HEX 2.54/10.90)		*Tool Type C			
B 							
C 							

Further plugs and jacks on demand and in the catalogue.
Further data and assembly instructions online www.telegaertner.com

Low Loss Cable Portfolio



Cable	Order no.	Cable type	Package option	Length	Remarks
Low Loss 100  Ø 2.8 mm	L01020B0026	Low Loss 100 Flex FR ZH	Ring	100 m	G7, stranded inner conductor*
Low Loss 195  Ø 5.0 mm	L01020C0023	Low Loss 195	Ring	100 m	G1
	L01020A0023	Low Loss 195	Reel	~ 500 m**	G1
	L01020D0023	Low Loss 195 FR LSZH-UL	Ring	100 m	G1
	L01020B0023	Low Loss 195 FR LSZH-UL	Reel	~ 500 m**	G1
Low Loss 240  Ø 6.1 mm	L01021B0017	Low Loss 240	Ring	100 m	G30
	L01021A0017	Low Loss 240	Reel	~ 500 m**	G30
	L01021B0018	Low Loss 240 FR ZH LS	Ring	100 m	G30
	L01021C0005	Low Loss 240 Flex	Ring	100 m	G30, stranded inner conductor*
	L01021A0005	Low Loss 240 Flex	Reel	~ 1000 m**	G30, stranded inner conductor*
Low Loss 400  Ø 10.3 mm	L01022B0010	Low Loss 400 ZH	Ring	100 m	G37
	L01022C0010	Low Loss 400 ZH	Reel	~ 500 m**	G37
	L01022D0003	Low Loss 400 FR LS ZH UL	Ring	100 m	G37
	L01022B0017	Low Loss 400 Flex	Ring	100 m	G37, stranded inner conductor*
	L01022A0017	Low Loss 400 Flex	Reel	~ 500 m**	G37, stranded inner conductor*

* Not suitable for Field Mount Connectors
 ** Length may vary due to production tolerances

Further cables on demand and in the catalogue. Further data and assembly instructions online www.telegaertner.com



More Customised: assembling RF cables online

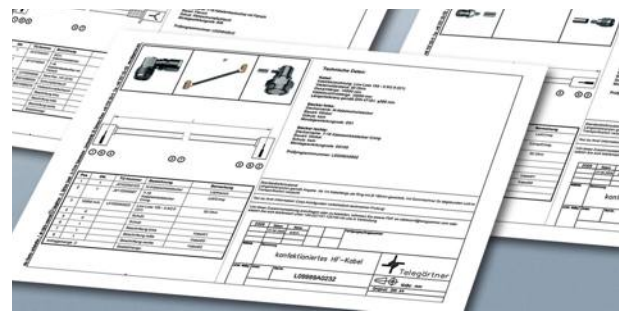
Do you want to assemble RF cables with coaxial connectors individually and add strain relief, labelling and cable length according to your requirements? Then the COAX configurator developed by Telegärtner is just what you need:

- ... **simple**, and is available to you around the clock
- ... **fast**, and allows you to configure your customised assembly with just a few clicks, thanks to a logical and easy-to-understand user-guidance
- ... **user-orientated**, and offers you exactly the information you require in order to configure your individual cable assembly

User-friendly input mask ...



... and creation of a clear specification (PDF)



⇒ for individually assembled RF cables



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