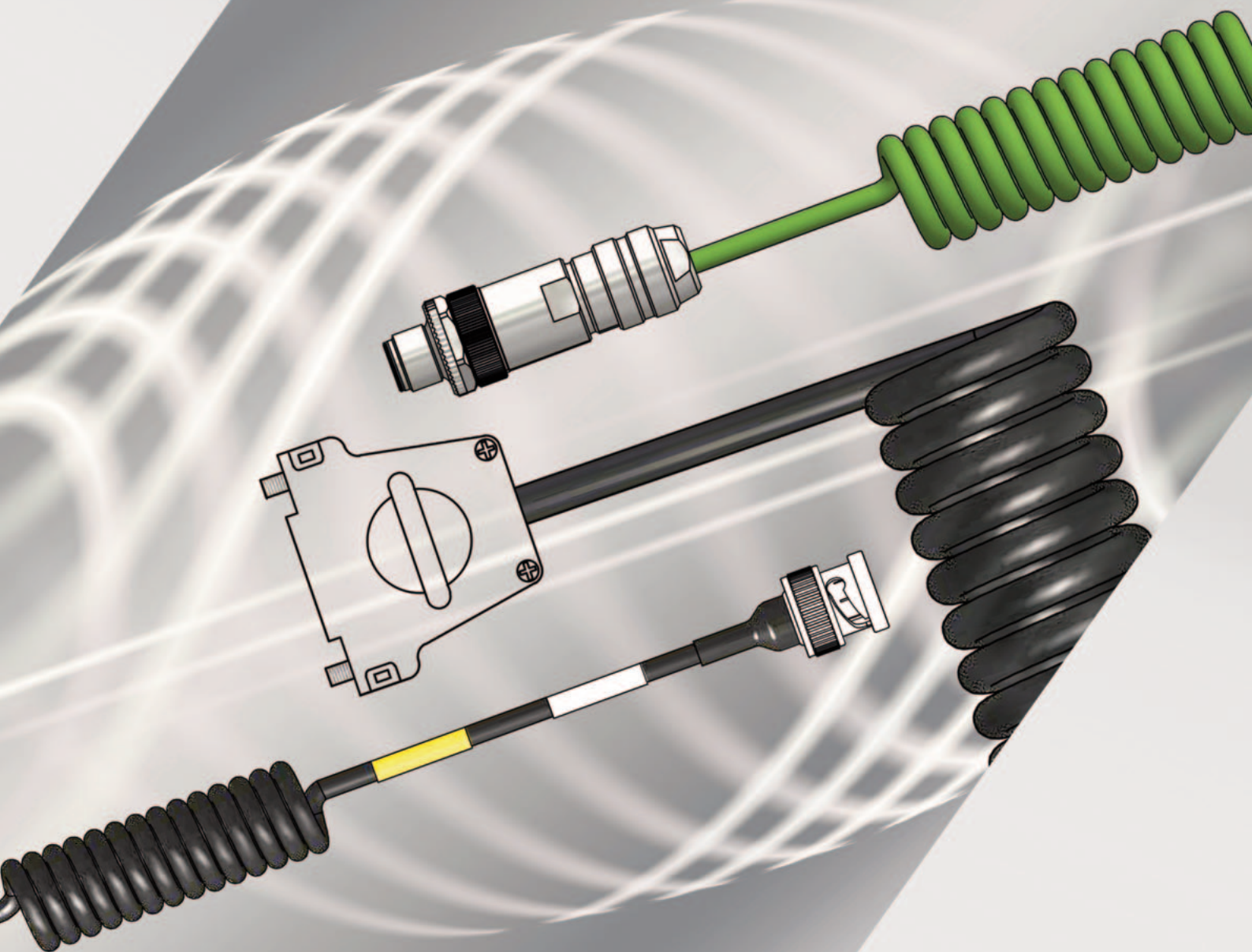


# HARNESSED HELIX CABLES



## FAMILY BUSINESS IN THE THIRD GENERATION

**75** years of experience in cable and wire manufacturing as well as in temperature measurement technology turned a one-man business into a company with more than 550 employees. We prove our strength every year with more than 1500 special products according to customers' requirements. Each product is a new challenge for our creative technical team. We at **SAB** see ourselves as a manufacturer and a service provider – in the sense of true partnership and the greatest possible customer orientation.

Today, the quality of our products is known and appreciated in more than 100 countries around the world. In all product ranges, we are certified according to DIN EN ISO 9001. Furthermore, we have implemented an environmental management system for our company according to DIN EN ISO 14001, an occupational health and safety management system according to NLF/ILO-OSH and DIN ISO 45001, and an energy management system according to DIN EN ISO 50001.

And also for the future, our slogan is: **"WE GO FORWARD!"**

FOUNDED:	1947 by Peter Bröckskes sen. an independent, medium-sized company.
CEO:	Peter Bröckskes and Sabine Bröckskes-Wetten
PLANT/LOCATION:	In Viersen (Lower Rhine) 110.000 m <sup>2</sup> company site.  Own manufacturing from copper conductor to outer sheath.  VDE approved burnchamber and laboratory within the company.
EMPLOYEES/WORKERS:	approx. 430 at the plant in Viersen, 550 worldwide
YEARLY SALES:	over 134 Mio. € worldwide
PRODUCTS:	Special Cables  Measurement Technology  Cable Harnessing
CERTIFICATES AND APPROVALS:	Quality management system acc. to DIN EN ISO 9001 for every manufacturing field  Environmental management system acc. to DIN EN ISO 14001  Occupational health and safety management acc. to NLF/ILO-OSH and DIN ISO 45001  Energy management system acc. to DIN EN ISO 50001





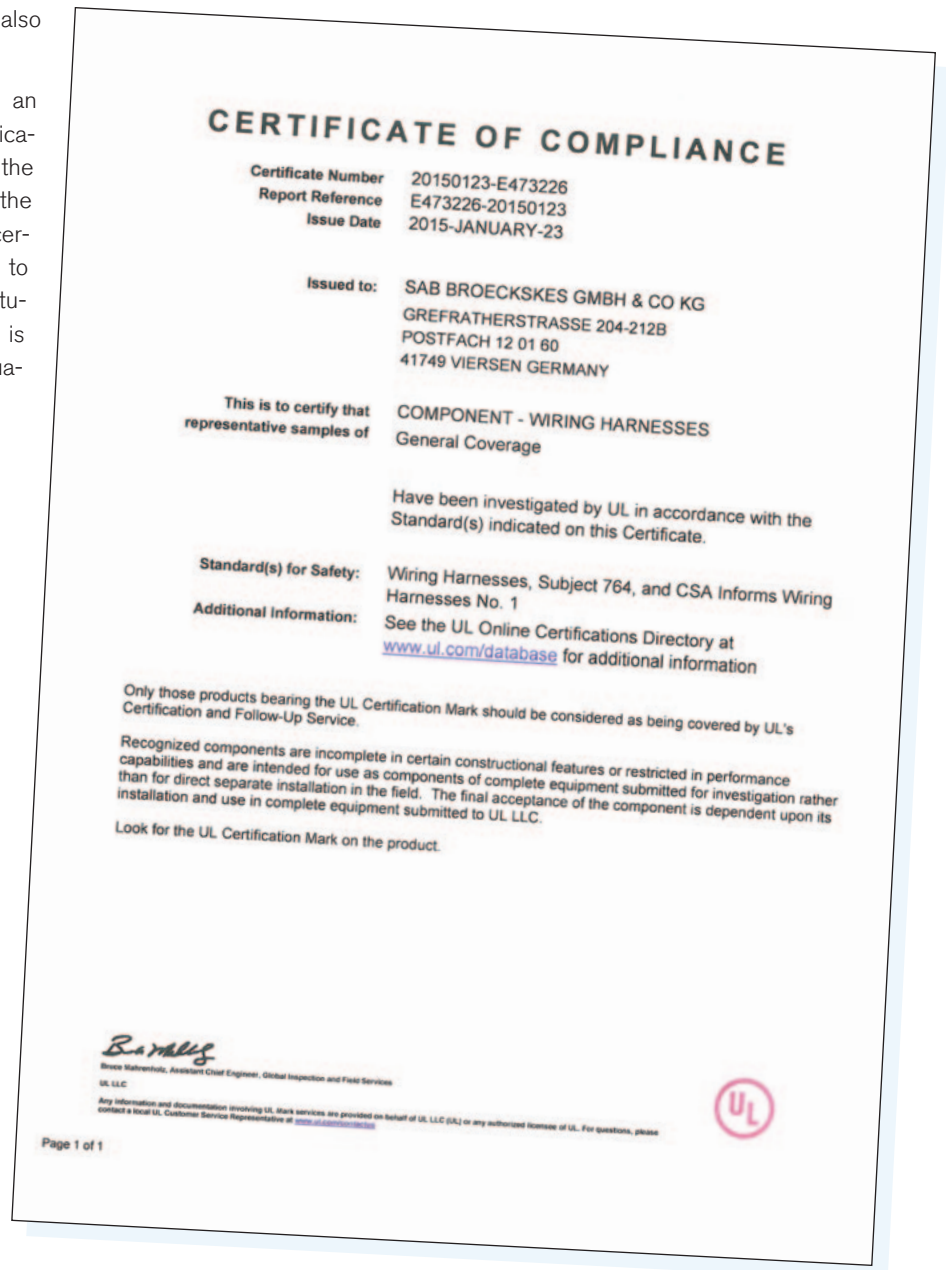
**SAB** Bröckskes has completed its range of harnessed cables with the certification acc. to UL Standard Wiring Harness „category ZPFW2 (UL)“ and „ZPFW8 (Canada)“ and herewith strengthens its position as cable specialist for cable harness acc. to customer's specification.

Whenever harnessed cables are produced as component part of a final product for the North American and Canadian market, an UL certified cable harness is necessary. With the UL certification **SAB** ensures the detailed traceability of individual components as for example cables, plugs or sleeves and offers highest planning reliability also with special harnessing products.

Underwriter Laboratories Inc. (UL), an independent American test and certification authority confirms the use of the materials and documents required by the final customer according to the UL certification for "Wiring Harness" acc. to ZPFW2 and ZPFW8. In the manufacturer's data base ([www.ul.com](http://www.ul.com)) **SAB** is listed under file no. E473226 as a qualified and reliable manufacturer.

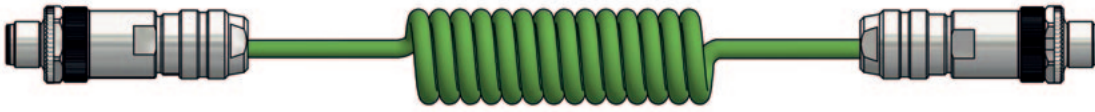
The requirements for UL certified cable harness are controlled by external audits every three months in order to guarantee the high requirements of the UL standards. Besides our cables, also harnessed versions, are tested in our own laboratory with regard to safety and reliability and are marked with the „Wiring Harness Label“.

On request **SAB** is able to manufacture cable harnessing products acc. to customer's specification acc. to UL Wiring Harnesses ZPFW2 and ZPFW8 from the cable to the harness and offers broad advice.



## ETHERNET CABLE

Helix cable with axial outlets and M12 D-coded male connectors



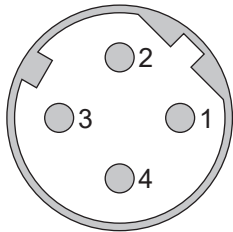
**Application:** Cat. 5 Profinet cable as helix cable for mobile use on machines and systems.

### Technical Data:

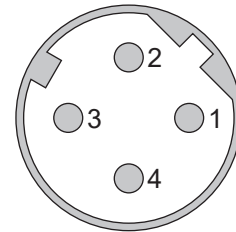
<b>Temperature range:</b>	-30 °C to +80 °C
<b>Voltage:</b>	max. 113 V
<b>Connection side 1:</b>	M12 D-coded
<b>Connection side 2:</b>	M12 D-coded
<b>Marking:</b>	yellow marking tube with marking: item number - order number - length - certification mark, with customer identification on request!

### Cable characteristics:

<b>SAB item no.:</b>	L0616-9066
<b>Dimension:</b>	2 x 2 x 26 AWG
<b>Conductor:</b>	bare copper strands, fine wires
<b>Insulation:</b>	SABIX®
<b>Screen:</b>	tinned copper braiding
<b>Outer sheath:</b>	PUR, green (similar RAL 6018)
<b>Outer diameter:</b>	approx. 6,1 mm



connection diagram/pin assignment					
side 1	1:1				side 2
M12 connector	core				M12 connector
pin 1		yellow			pin 1
pin 2		white			pin 2
pin 3		orange			pin 3
pin 4		blue			pin 4
housing	screen				housing



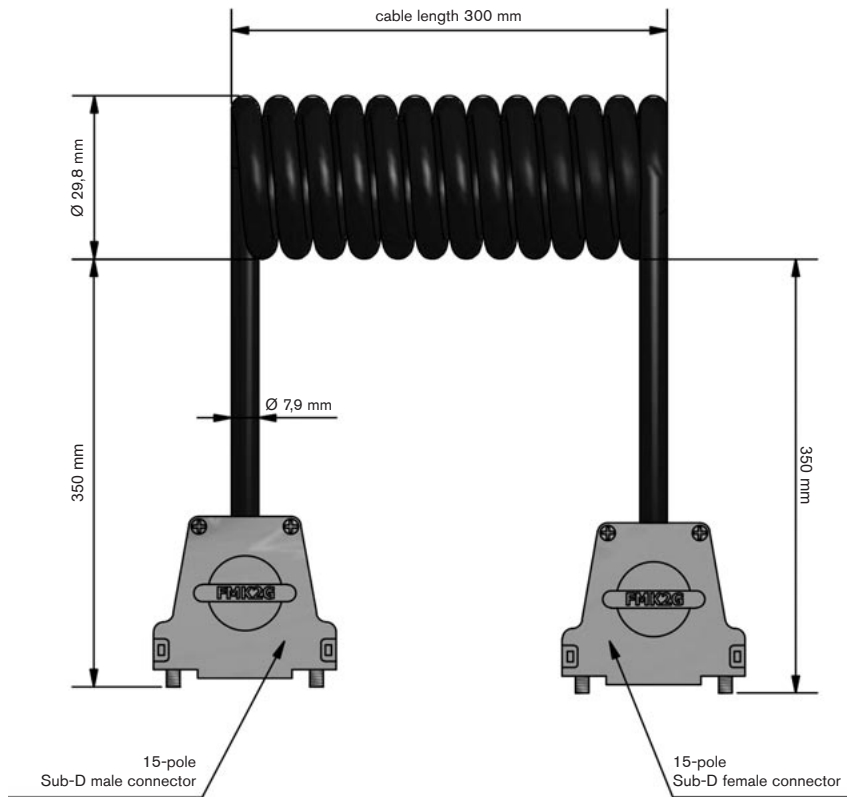
**Individual lengths and further plug combinations on request!**





## HELIX CABLE

with radial outlets and 15-pole Sub-D male connector and female connector



### Technical Data:

Temperature range:	-35 °C to +85 °C
Voltage range:	0 - 24 V
Connection side 1:	Sub-D connector
Connection side 2:	Sub-D connector

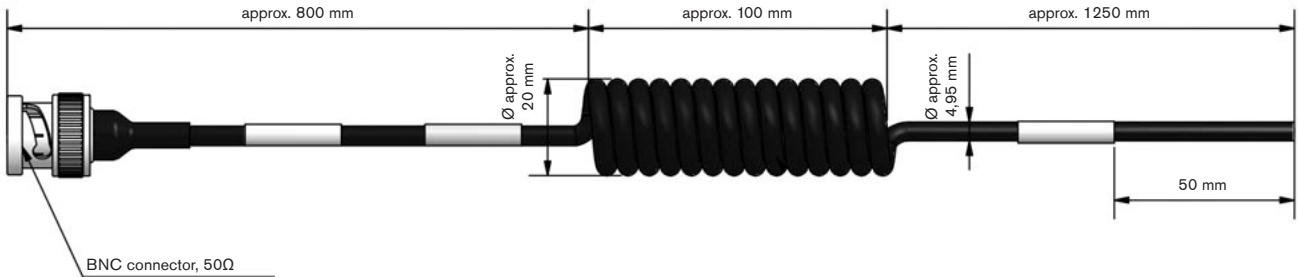
### Cable characteristics:

SAB item no.:	L0803-9209
Dimension:	(5x0,14 mm <sup>2</sup> +2x0,14mm <sup>2</sup> +4x(2x0,14mm <sup>2</sup> )D)D
Conductor:	bare copper strands, fine wires
Insulation:	TPE
Screen:	wrapped with tinned copper braiding
Outer sheath:	PUR, black (similar RAL 9005)
Outer diameter:	approx. 7,9 mm

item no. with length code	
length	item no.: S0803-4123-_____
0,3 m	00030
0,5 m	00050
1,0 m	00100
2,0 m	00200
3,0 m	00300
5,0 m	00500
7,5 m	00750
10,0 m	01000
15,0 m	01500
20,0 m	02000
25,0 m	02500

## HELIX CABLE

with axial outlets, BNC connector and smoothly cut end



### Technical Data:

Temperature range:	-40 °C to +90 °C (cable)
Voltage range:	max. 500 V ( cable)
Connection side 1:	HF plug connector
Connection side 2:	cut smoothly

### Cable characteristics:

SAB item no.:	L3600-9064 / KOAX 50 Ω
Dimension:	AWG 22/19
Conductor:	bare copper strands, fine wires
Insulation:	SABIX®
Screen:	wrapped with tinned copper braiding
Outer sheath:	PUR, black (similar RAL 9005)
Outer diameter:	approx. 5,0 mm

item no. with length code	
length	item no.: S3600-4103- _ _ _ _
0,5 m	00050
1,0 m	00100
2,0 m	00200
3,0 m	00300
5,0 m	00500
7,5 m	00750
10,0 m	01000
15,0 m	01500
20,0 m	02000
25,0 m	02500

#### Among others the following cable types belong to our delivery program:

- ✓ low-noise cable
- ✓ RG 316
- ✓ RG 58
- ✓ RG 179
- ✓ coax cables with 50 Ω or 75 Ω
- ✓ cables with heat resistant, flexible outer sheath up to +150°C

#### Please choose from the following plug connectors:

- UHF plug connector
- mini UHF plug connector
- MMCX plug connector
- SMB plug connector
- ...

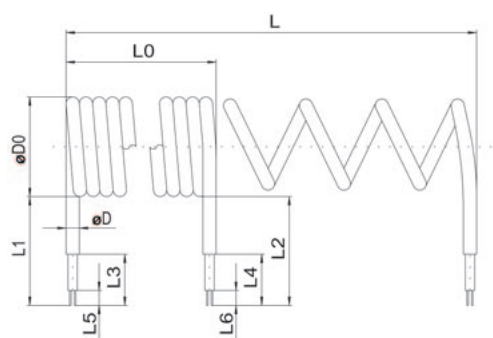
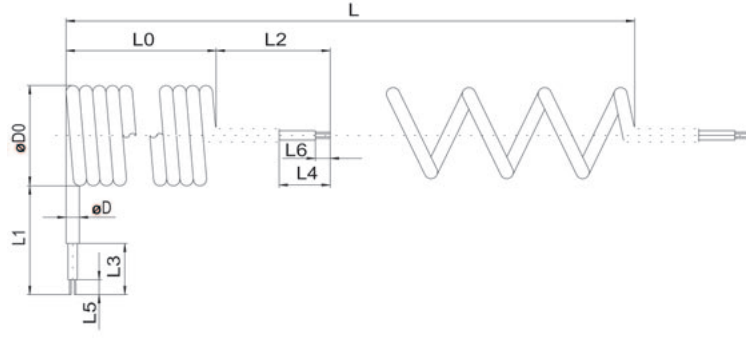
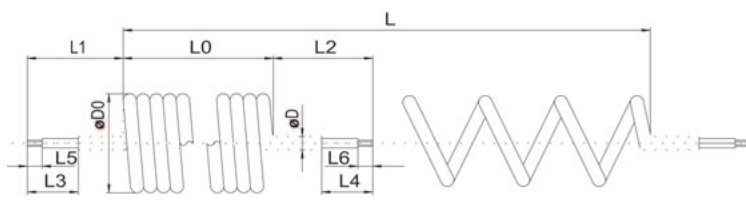
# WENDELLEITUNGEN

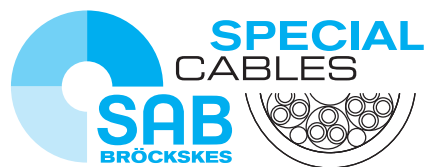
## CONSTRUCTION DETAILS FOR HELIX CABLES

to **SAB BRÖCKSKES GmbH & Co. KG**  
 Fax: +49 / 21 62 / 898 -101 · Phone: +49 / 21 62 / 898-0  
 info@sab-cable.com

Company/Name: \_\_\_\_\_

Please calculate a non-binding offer based on the following data:

 <p>■ Cable ends: radial</p>	<p>L = _____ mm                  L0 = _____ mm                  øD = _____ mm                  øD0 = _____ mm                  L1 = _____ mm                  L2 = _____ mm                  L3 = _____ mm                  L4 = _____ mm                  L5 = _____ mm                  L6 = _____ mm</p>
 <p>■ Cable ends: radial and axial</p>	<p>Quantity: _____                  Application (type of installation): _____                  _____                  Helical direction: _____                  Standard cable (item no.): _____</p>
 <p>■ Cable ends: axial</p>	<p>Insulation material (core): _____                  Screening: <input type="radio"/> yes <input type="radio"/> no                  Insulation material (sheath): _____                  No. of cores: _____                  Cross section: _____</p>
<p>Notes: _____                  _____                  _____                  _____</p>	



**SAB** Bröckskes GmbH & Co. KG

Grefrather Str. 204 - 212 b

41749 Viersen · GERMANY

Tel.: +49/2162/898-0

Fax: +49/2162/898-101

[www.sab-cable.com](http://www.sab-cable.com)

[info@sab-cable.com](mailto:info@sab-cable.com)