HELUKABEL®

Cable Accessories

HELUTEC®

Signal and Power Connectors

Series overview

SPEEDTEC® | UP TO −20G− VIBRATION-RESISTANT | locktec | EMV/EMC | VDE | IP 66/67 | cULus

Series	Type	Special characteristics	Number of positions	Connector Style
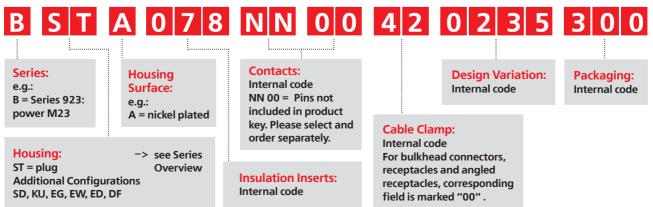
Signal power	Type	Special characteristics	Number of positions	Plug (ST)	Angled Plug (SD)	Extension (KV)	Angled Extension	Receptacle (EG)	Angled Receptacle (EW)	Rotatable, Angled Receptacle (ED)	Rotatable, Angled Twin Receptacle (ED)	Bulkhead Connector (DF)	Page
615			12, 15	■		■							
615		itec	12, 15							■			
615		ytec	15 + M12								■		4
615	minitec		7	■				■					
615		locktec	12, 15	■		■							
915			9	■		■							
915		itec	9							■			
915		ytec	9 + 12								■		5
915		locktec	9	■		■							
617	M17		12, 17	■		■		■		■			
617	M17	speedtec	12, 17	■		■		■		■			6
617	M17	locktec	12, 17	■		■							
917	M17		4, 7, 9	■		■		■		■			
917	M17	speedtec	4, 7, 9	■		■		■		■			8
917	M17	locktec	4, 7, 9	■		■							
917	M17	singletec	1	■		■		■					
623	M23	size 1	6, 7, 8 + 1, 9, 12, 17, 16 + 3	■	■	■	■	■	■	■		■	
623	M23	speedtec	6, 7, 8 + 1, 9, 12, 17, 16 + 3	■	■	■	■	■		■		■	10
623	M23	locktec	6, 7, 8 + 1, 9, 12, 17, 16 + 3	■		■							
623	M23	twintec B	15 + 4	■		■		■					
923	M23	size 1	6, 8, 9	■	■	■		■	■	■		■	
923	M23	speedtec	6, 8, 9	■	■	■		■	■	■		■	14
923	M23	locktec	6, 8, 9	■		■							
923	M23	singletec	1	■		■		■					
723	M23	h-tec	11, 10	■		■		■	■	■			16
627		26-pin	26	■		■							18
932		twintec	18, 23, 25	■	■	■		■	■			■	
932		twintec 2	19, 24, 26	■		■		■	■			■	–
940	M40	size 1.5	6, 8, 9	■	■	■	■	■	■	■		■	
940	M40	size 1.5 speedtec	6, 8, 9	■	■	■	■	■	■	■		■	20
958		size 3	6, 8	■		■		■	■				22

Crimping tools		24
Motor, Servo and Feedback Cables – the enhanced TOPSERV®family		26

Product Key

In this brochure you will find the corresponding key codes to construct and order your connector.

B S T A 0 7 8 N N 0 0 4 2 0 2 3 5 3 0 0

Series:
e.g.:
B = Series 923: power M23

Housing Surface:
e.g.:
A = nickel plated

Contacts:
Internal code
NN 00 = Pins not included in product key. Please select and order separately.

Design Variation:
Internal code

Packaging:
Internal code

Housing: —> see Series Overview
ST = plug
Additional Configurations
SD, KU, EG, EW, ED, DF

Insulation Inserts:
Internal code

Cable Clamp:
Internal code
For bulkhead connectors, receptacles and angled receptacles, corresponding field is marked "00" .

HELUKABEL®

HELUKABEL – YOUR ONE HAND SOLUTION SUPPLIER

RESEARCH & DEVELOPMENT

We offer optimal, customized solutions for our customers. The focus is on flexible cables for diverse applic-ations. We develop cables that are exceptionally durable and perform under conditions such as extreme chemical, electrical and mechanical stress combined with small bending radii and a high number of bending cycles.

TEST CENTRE

The HELUKABEL® test centre provides a variety of tests including drag chain (bending cycles), fire, durability, etc., to guarantee our high quality standards.

PRODUCTION

Made in Germany since 1988, HELUKABEL® produces cables & wires at our factory in Windsbach near Nuremberg. Currently 340,000 kilometers (212,500 miles) of cables are produced annually. The production and design facility provides expertise in automation, technology, structural engineering and renewable energy.
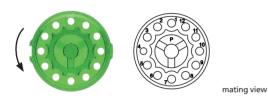
LOGISTICS

HELUKABEL® operates one of Europe's largest state-of-the-art distribution centre for cables and wires. The majority of our 33,000+ products are stocked at our Hemmingen warehouse near Stuttgart/ Germany. Employing a just-in-time strategy, cutting-edge material handling and control technology are used to process thousands of orders. In addition, our fully-automated, small-parts warehouse increases our ability to complete orders as fast as possible for our customers throughout the world.

IP 66/67 | UP TO **−20G−** VIBRATION-RESISTANT | **EMV/EMC** | VDE | c RU us

Plug

Plug

with lock fastener for automatic locking

Product key

| E | S T | | | | | | | | | 0 0 0 1 | 3 0 0 |

B plastic coated

Insulation Inserts and Contacts

mating view

12-pin female (12 x Ø 1 mm)

Product key

| | | | 0 0 2 | | | | | | | |

Not part of product key. Order separately.

Part no. 61.232.11

Female contact Ø 1 mm

slotted, crimping area
0.05 - 0.75 mm²

Product key

| | | | | | N N 0 0 | | | | |

Cable Clamps

Integrated seal, anti-twist protection and coaxial screen connection

Product key		Cable clamping range	
	3 9	no hole	0.0 mm
	3 1		4.5 - 6.5 mm
	3 2		6.5 - 8.5 mm
	3 3		8.5 - 10.5 mm
	3 4		10.5 - 12.0 mm

Extended clamping ranges can be found at: www.helutec.com

HELUKABEL®

IP 66/67 | UP TO **−20G−** VIBRATION-RESISTANT | **EMV/EMC** | VDE | c UL us

Plug

Plug
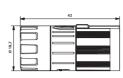
with lock fastener for automatic locking and insulation insert, 9-pin

Product key

E S T ▢ ▢▢▢ ▢▢ ▢▢ ▢▢ **0 5 0 0 3 0 0**

B plastic coated

Plug

with lock fastener for automatic locking and insulation insert, 15-pin

Product key

E S T ▢ ▢▢▢ ▢▢ ▢▢ ▢▢ **0 0 0 3 3 0 0**

B plastic coated

Insulation Inserts and Contacts

mating view

9-pin female 9 x Ø 1 mm (4 x bis 1.5 mm² (3+PE) + 5 x bis 0.75 mm²)

Product key

▢ ▢▢▢ **2 0 2** ▢▢ ▢▢ ▢▢ ▢▢▢▢ ▢▢▢

Not part of product key. Order separately.

Part no. 60.252.11

Part no. 60.251.11

Female contact Ø 1 mm

slotted, crimping area
0.05 - 0.75 mm²

slotted, crimping area
0.50 - 1.5 mm²

Product key

▢ ▢▢ ▢▢▢ **N N 0 0** ▢▢ ▢▢▢▢ ▢▢▢

mating view

15-pin female 15 x Ø 1 mm (12 x bis 0.75 mm² + 3 x bis 1.5 mm²)

Product key

▢ ▢▢▢ **2 0 5** ▢▢ ▢▢ ▢▢ ▢▢▢▢ ▢▢▢

Part no. 60.252.11

Part no. 60.251.11   or

Part no. 60.265.11

slotted, crimping area
0.05 - 0.75 mm²

slotted, crimping area
0.50 - 1.5 mm²

slotted, crimping area
0.05 - 0.75 mm²

Product key

▢ ▢▢ ▢▢▢ **N N 0 0** ▢▢ ▢▢▢▢ ▢▢▢

Cable Clamps

Integrated seal, anti-twist protection and coaxial screen connection

Product key					Cable clamping range	
▢ ▢▢ ▢▢▢ ▢▢ ▢▢	**3 9**	▢▢ ▢▢▢▢ ▢▢▢			no hole	0.0 mm
▢ ▢▢ ▢▢▢ ▢▢ ▢▢	**3 1**	▢▢ ▢▢▢▢ ▢▢▢				4.5 - 6.5 mm
▢ ▢▢ ▢▢▢ ▢▢ ▢▢	**3 2**	▢▢ ▢▢▢▢ ▢▢▢				6.5 - 8.5 mm
▢ ▢▢ ▢▢▢ ▢▢ ▢▢	**3 3**	▢▢ ▢▢▢▢ ▢▢▢				8.5 - 10.5 mm
▢ ▢▢ ▢▢▢ ▢▢ ▢▢	**3 4**	▢▢ ▢▢▢▢ ▢▢▢				10.5 - 12.0 mm

Extended clamping ranges can be found at: www.helutec.com

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IP 66/67 | UP TO −20G− VIBRATION-RESISTANT | EMV/EMC | VDE | c UL us | SPEEDEC®

Plug

Plug

with coupling nut M17 x 1

Product key

| A | S | T | | | | | | | | | | | | 2 | 0 | 0 | A | 3 | 0 | 0 |

A nickel plated

Insulation Inserts and Contacts

mating view

17-pin P (17 x Ø 0.6 mm)

Product key

| | | | | 8 | 7 | 6 | | | | | | | | | | | | | |
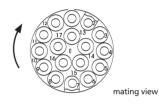
Not part of product key. Order separately.

Part no. 60.205.11

Female contact Ø 0.6 mm

crimping area
0.14 – 0.5 mm²

Product key

| | | | | | | | N | N | 0 | 0 | | | | | | | |

mating view

17-pin E (17 x Ø 0.6 mm)

Product key

| | | | | 8 | 7 | 4 | | | | | | | | | | | | | |

Not part of product key. Order separately.

Part no. 61.178.11

Contact pin Ø 0.6 mm

crimping area
0.14 – 0.5 mm²

Product key

| | | | | | | | N | N | 0 | 0 | | | | | | | |

Cable Clamps

Crown clamp

Integrated seal, anti-twist protection and coaxial screen connection
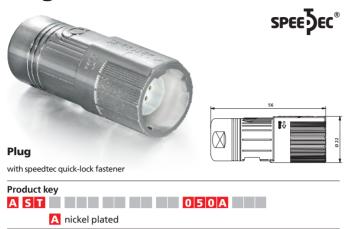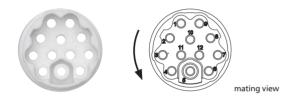
Product key													Cable clamping range		
									0	7				no hole	0.0 mm
									8	7					3.5 - 6.0 mm
									8	4					5.5 - 8.0 mm
									8	5					6.0 - 9.5 mm
									8	6					9.5 - 12.0 mm
									8	1					1x ø 3.5 / 1x ø 7.5 mm
									8	0					2x ø 4.5 mm

Additional cable clamps available on request!

HELUKABEL®

IP 66/67   UP TO **—20G—** VIBRATION-RESISTANT   **EMV/EMC**   VDE   c**UL**us   SPEE**T**EC®

Plug

SPEE**T**EC®

Plug

with speedtec quick-lock fastener

56

Ø 22

Product key

| A | S | T | | | | | | | | | 0 | 5 | 0 | A | | | |

A nickel plated

Insulation Inserts and Contacts

mating view

12-pin P (12 x Ø 1 mm)

Product key

| | | | | 0 | 4 | 6 | | | | | | | | | | |

Not part of product key. Order separately.

Part no. **60.001.11**	Part no. **60.011.11**	Part no. **60.172.11**	Part no. **61.004.11**	Part no. **61.083.11**
Female contact Ø 1 mm			**Contact pin Ø 1 mm**	
Wire spring, crimping area 0.14 - 1.0 mm²	slotted, crimping area 0.14 - 1.0 mm²	slotted, crimping area 0.03 - 0.34 mm²	crimping area 0.14 - 1.0 mm²	crimping area 0.03 - 0.34 mm²

Product key

| | | | | | | N | N | 0 | 0 | | | | | |

Product key

| | | | | | | N | N | 0 | 0 | | | | | |

You want to know more?
All motor, servo and feedback cables at www.helukabel.com/drivetechnology

Motor, Servo and Feedback Cables

Drive technology

HELUKABEL® has an extensive drive technology product range offering cables with the following properties:

· Optimised overall diameter
· Low capacitance (for cables used in fixed installations up to 6 mm²)
· Compatible with all drive manufacturers, uniform core marking
· Harmonised drag chain suitability

IP 66/67 | UP TO **−20G−** VIBRATION-RESISTANT | **EMV/EMC** | VDE | c UL us | **SPEEDEC**®

Plug

SPEEDEC®

Plug

with coupling nut M17 for insulation insert 4-pin

Product key

| B | ST | | | | | | | | | | | 2 | 0 | 2 | A | | | |

A nickel plated

Plug

with speedtec quick-lock fastener for insulation insert 4-pin

Product key

| B | ST | | | | | | | | | | | 0 | 5 | 6 | A | | | |

A nickel plated

Insulation Inserts and Contacts

mating view
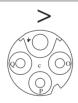
4-pin female P Code 1 4 x Ø 1.5 mm (3+PE)

max. connection cross section 2.5 mm²

Product key

| | | | 8 | 9 | 6 | | | | | | | | | | | |

Not part of product key. Order separately.

Part no. 60.197.11

Female contact Ø 1.5 mm

crimping area
0.35 – 2.5 mm²

Product key

| | | | | | | N | N | 0 | 0 | | | | | | |

mating view

4-pin male E Code 1 4 x Ø 1.5 mm (3+PE)

max. connection cross section 2.5 mm²

Product key

| | | | 8 | 9 | 4 | | | | | | | | | |

Not part of product key. Order separately.

Part no. 61.167.11

Contact pin Ø 1.5 mm

crimping area 0.35 – 2.5 mm²

Product key

| | | | | | | N | N | 0 | 0 | | | | | | |

Cable Clamps

Crown clamp

Integrated seal, anti-twist protection and coaxial screen connection

Product key															Cable clamping range
								8	7						3.5 - 6.0 mm
								8	5						6.0 - 9.5 mm
								8	6						9.5 - 12.0 mm

Extended clamping ranges can be found at: www.helutec.com

HELUKABEL®

IP 66/67 | UP TO **−20G−** VIBRATION-RESISTANT | EMV/EMC | VDE | c UL us | SPEE⫶EC®

Plug

SPEE⫶EC®

Plug

with coupling nut M17 for insulation insert 7/9-pin

Product key

B **ST** ▢ ▢▢▢ ▢▢ ▢▢ ▢▢ **2 0 1 A** ▢▢▢

A nickel plated

Plug

with speedtec quick-lock fastener for insulation insert 7/9-pin

Product key

B **ST** ▢ ▢▢▢ ▢▢ ▢▢ ▢▢ **0 5 5 A** ▢▢▢

A nickel plated

Insulation Inserts and Contacts

mating view

7-pin female P Code 3 4 x Ø 1.5 mm (3+PE)

max. connection cross section 1 mm²

Product key

▢ ▢ ▢ **8 6 1** ▢ ▢ ▢▢ ▢▢ ▢▢▢▢ ▢▢▢

Not part of product key. Order separately.

Part no. **60.001.11**

Part no. **60.172.11**

Part no. **60.011.11**

Female contact Ø 1 mm

wire spring, crimping area 0.14 – 1.0 mm²

slotted, crimping area 0.03 – 0.34 mm²

slotted, crimping area 0.14 – 1.0 mm²

Product key

▢ ▢ ▢ ▢▢▢ **N N 0 0** ▢▢ ▢▢▢▢ ▢▢▢

mating view

9-pin female P Code 3 4 x Ø 1 mm (3+PE) + 5 x Ø 0.6 mm

max. connection cross section 1.5 mm²

Product key

▢ ▢ ▢ **8 7 6** ▢▢ ▢▢ ▢▢ ▢▢▢▢ ▢▢▢

Not part of product key. Order separately.

Not part of product key. Order separately.

Part no. **60.159.11**

Part no. **60.205.11**

Female contact Ø 1 mm

wire spring, crimping area 0.5 – 1.5 mm²

Female contact Ø 0.6 mm

slotted, crimping area 0.03 – 0.34 mm²

Product key

▢ ▢ ▢ ▢▢▢ **N N 0 0** ▢▢ ▢▢▢▢ ▢▢▢

Cable Clamps

Crown clamp

Integrated seal, anti-twist protection and coaxial screen connection

Product key												Cable clamping range
▢ ▢ ▢	▢	▢▢▢	▢▢	▢▢	**8 7**	▢▢▢▢	▢▢▢					3.5 - 6.0 mm
▢ ▢ ▢	▢	▢▢▢	▢▢	▢▢	**8 5**	▢▢▢▢	▢▢▢					6.0 - 9.5 mm
▢ ▢ ▢	▢	▢▢▢	▢▢	▢▢	**8 6**	▢▢▢▢	▢▢▢					9.5 - 12.0 mm

Extended clamping ranges can be found at: www.helutec.com

Special codes: P+E- turning directions possible!

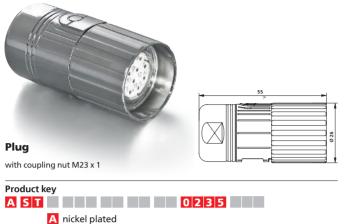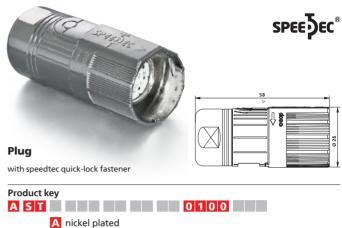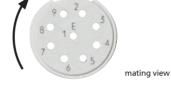**HELUKABEL®**

IP 66/67   UP TO **−20G−** VIBRATION-RESISTANT   EMV/EMC   VDE   c **UL** us   SPEE**T**EC®

Plug

Plug

with coupling nut M23 x 1

Product key

| A | ST | | | | | | | | | | | 0 | 2 | 3 | 5 | | | |

A nickel plated

SPEE**T**EC®

Plug

with speedtec quick-lock fastener

Product key

| A | ST | | | | | | | | | | | 0 | 1 | 0 | 0 | | | |

A nickel plated

Insulation Inserts and Contacts

mating view

9-pin P (9 x Ø 1 mm)

uncoded

Product key

| | | | | 0 | 5 | 5 | | | | | | | | | | | | |

mating view
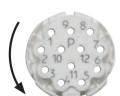
9-pin E (9 x Ø 1 mm)

uncoded

Product key

| | | | | 0 | 5 | 4 | | | | | | | | | | | | |

mating view

12-pin P (12 x Ø 1 mm)

uncoded

Product key

| | | | | 0 | 2 | 0 | | | | | | | | | | | | |

mating view

12-pin E (12 x Ø 1 mm)

uncoded

Product key

| | | | | 0 | 2 | 1 | | | | | | | | | | | | |

mating view
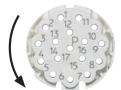
17-pin P (17 x Ø 1 mm)

uncoded

Product key

| | | | | 0 | 3 | 5 | | | | | | | | | | | | |

mating view

17-pin E (17 x Ø 1 mm)

uncoded

Product key

| | | | | 0 | 3 | 4 | | | | | | | | | | | | |

HELUKABEL®

IP 66/67 | UP TO **−20G−** VIBRATION-RESISTANT | EMV/EMC | VDE | c ᴿᴜ us | SPEEDEC®

Not part of product key. Order separately.

Part no. 60.001.11	Part no. 60.011.11	Part no. 60.004.11	Part no. 60.013.11	Part no. 60.172.11

Female contact Ø 1 mm

wire spring, crimping area 0.14 - 1.0 mm²	slotted, crimping area 0.14 - 1.0 mm²	wire spring, solder bucket 1.5 mm²	slotted, solder bucket 1.5 mm²	slotted, crimping area 0.03 - 0.34 mm²

Product key

◻ ◻◻ ◻ ◻◻◻ **N N** **0 0** ◻◻ ◻◻◻◻ ◻◻◻

Product key

◻ ◻◻ ◻ ◻◻◻ **N N** **0 0** ◻◻ ◻◻◻◻ ◻◻◻

Not part of product key. Order separately.

Part no. 61.004.11	Part no. 61.006.11	Part no. 61.083.11

Contact pin Ø 1 mm

crimping area 0.14 - 1.0 mm²	solder bucket 1.5 mm²	crimping area 0.03 - 0.34 mm²

Product key

◻ ◻◻ ◻ ◻◻◻ **N N** **0 0** ◻◻ ◻◻◻◻ ◻◻◻

Configure other designs online: www.helutec.com

HELUTEC® – the online configurator

Simply configure your plug online.

Our HELUTEC® online configurator provides access to our complete product range of signal, power and hybrid plug connectors.

Tip

Use our Quick-Order-System and send quote request for the products that you want by using the order key.

www.helutec.com

IP 66/67 | UP TO —20G— VIBRATION-RESISTANT | EMV/EMC | VDE | c UL us | SPEE-DEC®

Insulation Inserts and Contacts

mating view

mating view

16+3-pin P (16 x Ø 1 mm + 3 x Ø 1.5 mm)

coded

Product key

☐ ☐ ☐ ☐ **5 5 8** ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

16+3-pin E (16 x Ø 1 mm + 3 x Ø 1.5 mm)

coded

Product key

☐ ☐ ☐ ☐ **5 5 9** ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Not part of product key. Order separately.

| Part no. 60.001.11 | Part no. 60.011.11 | Part no. 60.004.11 | Part no. 60.013.11 | Part no. 60.172.11 |

Female contact Ø 1 mm

wire spring,crimping area
0.14 - 1.0 mm²

slotted, crimping area
0.14 - 1.0 mm²

wire spring, solder bucket
1.5 mm²

slotted, solder bucket
1.5 mm²

slotted, crimping area
0.03 - 0.34 mm²

Product key

☐ ☐ ☐ ☐ ☐ ☐ ☐ **N N 0 0** ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Product key

☐ ☐ ☐ ☐ ☐ ☐ ☐ **N N 0 0** ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Not part of product key. Order separately.

| Part no. 60.070.11 | Part no. 60.173.11 |

Female contact Ø 1.5 mm

slotted, crimping area
0.24 - 1.0 mm²

slotted, solder bucket
1.5 mm²

Product key

☐ ☐ ☐ ☐ ☐ ☐ ☐ **N N 0 0** ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Not part of product key. Order separately.

| Part no. 61.004.11 | Part no. 61.006.11 | Part no. 61.083.11 |

Not part of product key. Order separately.

| Part no. 61.072.11 | Part no. 61.152.11 |

Contact pin Ø 1 mm

crimping area
0.14 - 1.0 mm²

solder bucket
1.5 mm²

crimping area
0.03 - 0.34 mm²

Contact pin Ø 1.5 mm

crimping area
0.24 - 1.0 mm²

solder bucket
1.5 mm²

Product key

☐ ☐ ☐ ☐ ☐ ☐ ☐ **N N 0 0** ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Product key

☐ ☐ ☐ ☐ ☐ ☐ ☐ **N N 0 0** ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

HELUKABEL®

IP 66/67 | UP TO —20G— VIBRATION-RESISTANT | EMV/EMC | VDE | c UL us | SPEEDEC®

Cable Clamps

Crown clamp

Integrated sealing, anti-twist protection and coaxial screen connection.

Product key

											Cable clamping range
							3	**8**			3.5 - 5.6 mm
							3	**9**			4.5 - 8.5 mm
							4	**1**			6.0 - 10.0 mm
							4	**0**			9.0 - 13.2 mm
							7	**3**			9.0 - 14.7 mm

Lamella clamp

Integrated sealing, anti-twist protection and coaxial screen connection.

Product key

											Cable clamping range
							0	**9**			3.5 - 5.6 mm
							6	**0**			4.5 - 8.5 mm
							6	**2**			6.0 - 10.0 mm
							6	**1**			9.0 - 13.2 mm
							7	**6**			9.0 - 14.7 mm

Widely extended cable clamping assortment:
- no hole (blank)
- button seals
- 2-hole seals
- 3-hole seals
- 4-hole seals

Available on request!

... it couldn`t be easier!

ytec and the single-variant *itec* represents an ultra-compact, complete system with a self-locking quick fastener for easy and safe connections.

The mechanical housing codings combined with the color markings guarantee error-free connections.

IP 66/67 · UP TO −20G− VIBRATION-RESISTANT · EMV/EMC · VDE · c UL us · SPEEDTEC®

Plug

Plug
with coupling nut M23 x 1

Product key

| B | ST | | | | | | | | 0 2 3 5 | | |

A nickel plated

SPEEDTEC®

Plug
with speedtec quick-lock fastener

Product key

| B | ST | | | | | | | | 0 1 0 0 | | |

A nickel plated

Insulation Inserts and Contacts

mating view

6-pin P (6 x Ø 2 mm (5+PE))

coded

Product key

| | | | 0 8 5 | | | | | | | |

mating view

8-pin P (4 x Ø 2 mm (3+PE) + 4 x Ø 1 mm)

coded

Product key

| | | | 0 7 8 | | | | | | | |

mating view

9-pin P (4 x Ø 2 mm (3+PE) + 5 x Ø 1 mm)

coded

Product key

| | | | 0 8 2 | | | | | | | |

mating view

9-pin B P (4 x Ø 2 mm (3+PE) + 5 x Ø 1 mm)

coded

Product key

| | | | 2 0 0 | | | | | | | |

Not part of product key. Order separately.

Part no. **60.254.11**

Part no. **60.302.11**

Female contact Ø 2 mm

tension spring, crimping area
0.35 - 2.5 mm²

tension spring, crimping area
2.5 - 4.0 mm²

Product key

| | | | | | N N | 0 0 | | | | |

Part no. **60.003.11**

Part no. **60.023.11**
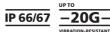
wire spring, crimping area
0.35 - 2.5 mm²

wire spring, crimping area
2.5 - 4.0 mm²

Product key

| | | | | | N N | 0 0 | | | | |

HELUKABEL®

IP 66/67 | UP TO −20G− VIBRATION-RESISTANT | EMV/EMC | VDE | c UL us | SPEEDEC®

Not part of product key. Order separately.

| Part no. 60.172.11 | Part no. 60.001.11 | | Part no. 60.011.11 | Part no. 60.216.11 |

Female contact Ø 1 mm

slotted, crimping area
0.03 - 0.34 mm²

wire spring, crimping area
0.14 - 1.0 mm²

slotted, crimping area
0.14 - 1.0 mm²

slotted, crimping area
0.5 - 1.5 mm²

Product key

◻ ◻◻ ◻ ◻◻◻ **N N** **0 0** ◻◻ ◻◻◻◻ ◻◻◻

Product key

◻ ◻◻ ◻ ◻◻◻ **N N** **0 0** ◻◻ ◻◻◻◻ ◻◻◻

Configuration connectors available online: www.helutec.com

Cable Clamps

Crown clamp

Integrated seal, anti-twist protection and coaxial screen connection

Product key														Cable clamping range
◻	◻◻	◻	◻◻◻	◻◻	◻◻	**4 3**	◻◻◻◻	◻◻◻						4.2 - 6.6 mm
◻	◻◻	◻	◻◻◻	◻◻	◻◻	**4 8**	◻◻◻◻	◻◻◻						7.5 - 12.0 mm
◻	◻◻	◻	◻◻◻	◻◻	◻◻	**4 2**	◻◻◻◻	◻◻◻						9.5 - 14.5 mm

Lamella clamp

Integrated seal, anti-twist protection and coaxial screen connection

Product key														Cable clamping range
◻	◻◻	◻	◻◻◻	◻◻	◻◻	**1 1**	◻◻◻◻	◻◻◻						4.2 - 6.6 mm
◻	◻◻	◻	◻◻◻	◻◻	◻◻	**5 5**	◻◻◻◻	◻◻◻						7.5 - 12.0 mm
◻	◻◻	◻	◻◻◻	◻◻	◻◻	**5 8**	◻◻◻◻	◻◻◻						9.5 - 14.5 mm
◻	◻◻	◻	◻◻◻	◻◻	◻◻	**5 9**	◻◻◻◻	◻◻◻						14.0 - 17.0 mm

Cable clamps in the form of:
• Button seals
• Crown clamps
• Lamella clamps

Each available on request as multi-hole or no-hole clamps!

IP 66/67 | UP TO **−20G−** VIBRATION-RESISTANT | **EMV/EMC** | VDE | c **UL** us | **SPEEDTEC**®

Plug

Plug

nickel plated, with speedtec quick-lock fastener

78

Ø 28

Product key

| H | 5 | 1 | A | ▢▢▢ | ▢▢ | ▢▢ | ▢▢ | 0 | 1 | 0 | 0 | ▢▢▢ |
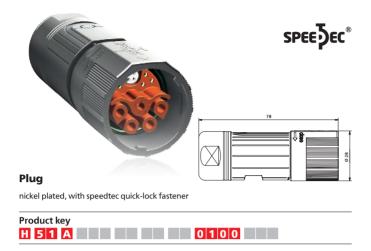
Insulation Inserts and Contacts

mating view

11-pin female P Code 1 (5 x Ø 2 mm (4 + PE) + 6 x Ø 1 mm)

Product key

| ▢ | ▢▢ | ▢ | 0 | 0 | 2 | ▢▢ | ▢▢ | ▢▢ | ▢▢▢▢ | ▢▢▢ |

mating view

11-pin male E Code 1 (5 x Ø 2 mm (4 + PE) + 6 x Ø 1 mm)

Product key

| ▢ | ▢▢ | ▢ | 0 | 0 | 8 | ▢▢ | ▢▢ | ▢▢ | ▢▢▢▢ | ▢▢▢ |

Not part of product key. Order separately.

Part no. **60.270.11**

Part no. **60.272.11**

Female contact Ø 2 mm

slotted, crimping area 0.35 - 2.5 mm²

slotted, crimping area 2.5 - 4.0 mm²

Product key

| ▢ | ▢▢ | ▢ | ▢▢▢ | N | N | 0 | 0 | ▢▢ | ▢▢▢▢ | ▢▢▢ |

Not part of product key. Order separately.

Part no. **61.242.11**

Part no. **61.243.11**

Contact pin Ø 2 mm

crimping area 0.35 - 2.5 mm²

crimping area 2.5 - 4.0 mm²

Product key

| ▢ | ▢▢ | ▢ | ▢▢▢ | N | N | 0 | 0 | ▢▢ | ▢▢▢▢ | ▢▢▢ |

Not part of product key. Order separately.

Part no. **60.279.11**

Female contact Ø 1 mm

slotted, crimping area 0.14 - 1.0 mm²

Product key

| ▢ | ▢▢ | ▢ | ▢▢▢ | N | N | 0 | 0 | ▢▢ | ▢▢▢▢ | ▢▢▢ |

Not part of product key. Order separately.

Part no. **61.253.11**

Contact pin Ø 1 mm

crimping area 0.14 - 1.0 mm²

Product key

| ▢ | ▢▢ | ▢ | ▢▢▢ | N | N | 0 | 0 | ▢▢ | ▢▢▢▢ | ▢▢▢ |

HELUKABEL®

IP 66/67 · **UP TO −20G− VIBRATION-RESISTANT** · **EMV/EMC** · VDE · cURus · SPEE℟EC®

11-pin option available:

Part no. 40.A487.00   mating view

Ethernet Element Cat-5, 4-pin, Female P 4 x Ø 0.6 mm

Insulation insert 4-pin in metal screening sleeve

Product key

| | | | | 0 | 0 | 2 | N | N | 0 | 0 | | | | | | | | | |

Part no. 40.A486.00   mating view

Ethernet Element Cat-5, 4-pin, Stift E 4 x Ø 0.6 mm

Insulation insert 4-pin in metal screening sleeve

Product key

| | | | | 0 | 0 | 8 | N | N | 0 | 0 | | | | | | | | | |

Part no. 60.278.11

Female contact Ø 0.6 mm for Ethernet Element Ø 0.6 mm

slotted, crimping area 0.03 - 0.34 mm²

Product key

Part no. 61.252.11

Contact pin Ø 0.6 mm for Ethernet Element Ø 0.6 mm

slotted, crimping area 0.03 - 0.34 mm²

Product key

Cable Clamps

Crown clamp

Integrated seal, anti-twist protection and coaxial screen connection

Product key

Product key														Cable clamping range
							4	8						7.5 - 12.0 mm
							4	2						9.5 - 14.5 mm

Lamella clamp

Integrated seal, anti-twist protection and coaxial screen connection

Product key

Product key														Cable clamping range
							5	5						7.5 - 12.0 mm
							5	8						9.5 - 14.5 mm
							5	9						14.0 - 17.0 mm
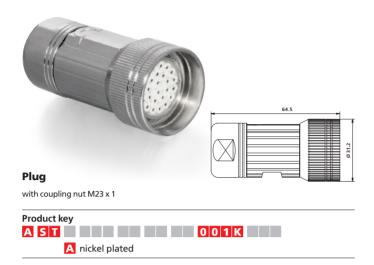
Cable clamps in the form of:
- Button seals
- Crown clamps
- Lamella clamps
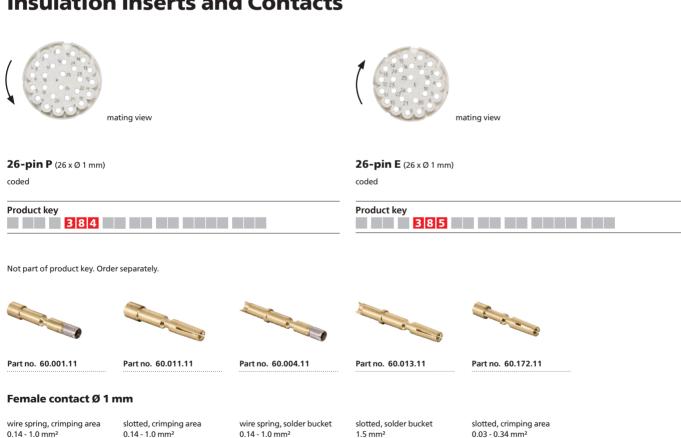
Each available on request as multi-hole or no-hole clamps!

IP 66/67 | UP TO −20G− VIBRATION-RESISTANT | EMV/EMC | VDE | cULus | SPEEDEC®

Plug

Plug

with coupling nut M23 x 1

64.5 | Ø 31,2

Product key

| A | S | T | | | | | | | | | | | | | 0 | 0 | 1 | K | | | |

A nickel plated

Insulation Inserts and Contacts

mating view

mating view

26-pin P (26 x Ø 1 mm)

coded

26-pin E (26 x Ø 1 mm)

coded

Product key

| | | | | 3 | 8 | 4 | | | | | | | | | | | | |

Product key

| | | | | 3 | 8 | 5 | | | | | | | | | | |

Not part of product key. Order separately.

Part no. 60.001.11	Part no. 60.011.11	Part no. 60.004.11	Part no. 60.013.11	Part no. 60.172.11

Female contact Ø 1 mm

wire spring, crimping area 0.14 - 1.0 mm²	slotted, crimping area 0.14 - 1.0 mm²	wire spring, solder bucket 0.14 - 1.0 mm²	slotted, solder bucket 1.5 mm²	slotted, crimping area 0.03 - 0.34 mm²

Product key

| | | | | | | N | N | 0 | 0 | | | | | | | | |

Product key

| | | | | | | N | N | 0 | 0 | | | | | | | |

HELUKABEL®

IP 66/67 | UP TO **—20G—** VIBRATION-RESISTANT | **EMV/EMC** | VDE | c **UL** us | SPEE**DEC**®

Not part of product key. Order separately.

Part no. 61.004.11	Part no. 61.006.11	Part no. 61.083.11

Contact pin Ø 1 mm

crimping area 0.14 - 1.0 mm²	solder bucket 1.5 mm²	crimping area 0.03 - 0.34 mm²

Product key

☐ ☐☐ ☐ ☐☐☐ ☐ **N N** **0 0** ☐☐ ☐☐☐☐ ☐☐☐

Cable clamps in the form of:
• **Crown clamps**
• **Lamella clamps**

Each available on request as multi-hole or no-hole clamps!

Cable Clamps

Crown clamp

Integrated seal, anti-twist protection and coaxial screen connection

Product key			Cable clamping range
☐ ☐☐ ☐ ☐☐☐ ☐☐ ☐☐	**4 3**	☐☐☐☐ ☐☐☐	4.2 - 6.6 mm
☐ ☐☐ ☐ ☐☐☐ ☐☐ ☐☐	**4 8**	☐☐☐☐ ☐☐☐	7.5 - 12.0 mm
☐ ☐☐ ☐ ☐☐☐ ☐☐ ☐☐	**4 2**	☐☐☐☐ ☐☐☐	9.5 - 14.5 mm

Lamella clamp

Integrated seal, anti-twist protection and coaxial screen connection

Product key			Cable clamping range
☐ ☐☐ ☐ ☐☐☐ ☐☐ ☐☐	**1 1**	☐☐☐☐ ☐☐☐	4.2 - 6.6 mm
☐ ☐☐ ☐ ☐☐☐ ☐☐ ☐☐	**5 5**	☐☐☐☐ ☐☐☐	7.5 - 12.0 mm
☐ ☐☐ ☐ ☐☐☐ ☐☐ ☐☐	**5 8**	☐☐☐☐ ☐☐☐	9.5 - 14.5 mm
☐ ☐☐ ☐ ☐☐☐ ☐☐ ☐☐	**5 9**	☐☐☐☐ ☐☐☐	14.0 - 17.0 mm

IP 66/67 | UP TO —20G— VIBRATION-RESISTANT | EMV/EMC | VDE | c ᴿᴿ us | SPEE⯈EC®

Plug

Plug

with coupling nut M40 x 1.5

Product key

| C | S | T | | | | | | | | | | | | 0 | 0 | 0 | 1 | | | |

A nickel plated

SPEE⯈EC®

Plug

with speedtec quick-lock fastener

Product key

| C | S | T | | | | | | | | | | | | 0 | 0 | 2 | 0 | | | |

A nickel plated

Insulation Inserts and Contacts

mating view
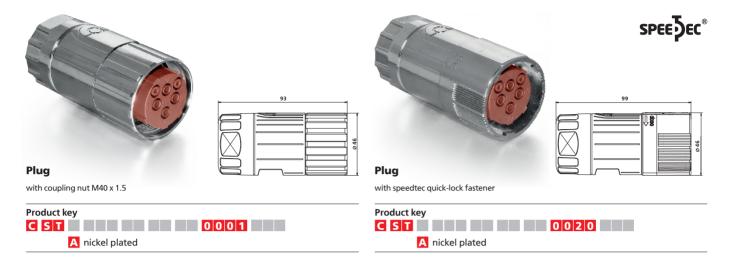
6-pin P 4 x Ø 3.6 mm (3+PE) + 2 x Ø 2 mm

Product key

| | | | | 2 | 6 | 3 | | | | | | | | | | | | |

mating view

8-pin P 4 x Ø 3.6 mm (3+PE) + 4 x Ø 2 mm

Product key

| | | | | 2 | 6 | 4 | | | | | | | | | | | | |

mating view

9-pin P 4 x Ø 3.6 mm (3+PE) + 5 x Ø 2 mm

Product key

| | | | | 2 | 6 | 5 | | | | | | | | | | | | |

HELUKABEL®

Not part of product key. Order separately.

Part no. 60.225.11

Female contact Ø 3.6 mm

slotted, crimping area
0.15 - 10 mm²

Product key

| | | | | | N | N | 0 | 0 | | | | | |

Not part of product key. Order separately.

Part no. 60.227.11

slotted, crimping area
6.0 - 16.0 mm²

Not part of product key. Order separately.

Part no. 60.003.11

Female contact Ø 2 mm

wire spring, crimping area
0.35 - 2.5 mm²

Product key

| | | | | | N | N | 0 | 0 | | | | | |

Not part of product key. Order separately.

Part no. 60.023.11

wire spring, crimping area
2.5 - 4.0 mm²

Not part of product key. Order separately.

Part no. 60.254.11

Female contact Ø 2 mm

tension spring, crimping area
0.35 - 2.5 mm²

Product key

| | | | | | N | N | 0 | 0 | | | | | |

Not part of product key. Order separately.

Part no. 60.302.11

tension spring, crimping area
2.5 - 4.0 mm²

Configuration connectors available online: www.helutec.com

Cable Clamps

Crown clamp

Integrated seal, anti-twist protection and coaxial screen connection

Product key														Cable clamping range
								0	3					7.0 - 9.0 mm
								4	4					9.0 - 16.0 mm
								4	5					16.5 - 25.5 mm

Cable clamps in the form of:
- Crown clamps
- Lamella clamps

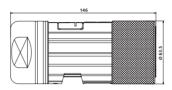**Each available on request as multi-hole or no-hole clamps!**

IP 66/67 — UP TO **−20G** — VIBRATION-RESISTANT — EMV/EMC — VDE — c UL us — SPEE**D**EC®

Plug

SPEE**D**EC®

146
Ø 63.5

Plug

with coupling nut M58 x 2 and integrated anti-vibration o-ring

Product key

| D | S | T | | 0 | 0 | 1 | N | N | 0 | 0 | 7 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |

A nickel plated

Insulation Inserts and Contacts

mating view

8-pin (4 x Ø 10 mm + 4 x Ø 1.6 mm)

coded

Product key

| | | | 0 | 0 | 1 | | | | | | | | | | | | |

Not part of product key. Order separately.

Part no. **60.101.23**	Part no. **60.102.23**	Part no. **60.103.23**	Part no. **60.104.23**	Part no. **60.105.23**

Female contact Ø 10 mm

crimp connection 10 mm²	crimp connection 16 mm²	crimp connection 25 mm²	crimp connection 35 mm²	crimp connection 50 mm²

Product key

| | | | | | | N | N | 0 | 0 | | | | | | | |

Product key

| | | | | | | N | N | 0 | 0 | | | | | | | |

Not part of product key. Order separately.

Part no. **60.106.11**

Female contact Ø 1.6 mm

slotted, crimping area 0.35 - 1.5 mm²

Product key

| | | | | | | N | N | 0 | 0 | | | | | | |

HELUKABEL®

IP 66/67 | UP TO **—20G—** VIBRATION-RESISTANT | **EMV/EMC** | VDE | c UL us | SPEE**D**EC®

Cable Clamps

Crown clamp

Integrated seal, anti-twist protection and coaxial screen connection

Product key										Cable clamping range
							7 **4**			17.0 - 36.0 mm

Cable clamps in the form of:
- **Crown clamps**
- **Lamella clamps**

Each available on request as multi-hole or no-hole clamps!

lock**tec** ... plastic-coated connectors

lock*tec* – plastic coated!
· Bend protection
· IP 66/67 protection
· Robust metal housing
· EMC-screening
· speedtec or screw fastener
· Individual labelling and colour
· Standard and special cables in different lengths
· UL 94/V0 certified plastics
· All standard pin layouts
· Individual cable lengths

Crimping Tools

Part no. **C0.101.00**

Crimp Tool, small

For Ø 1 mm contacts, max. wire gauge 1.5 mm², includes positioner. Complete with positioning insert.

Part no. **C0.231.00**

Crimp Tool, small
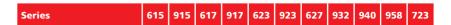
For Ø 0.6 mm contacts, max. wire gauge 1.0 mm², includes positioner. Complete with positioning insert.

Part no. **C0.201.00**

Crimp Tool, mid-size

For Ø 1 mm and Ø 2 mm contacts, max. wire gauge 4 mm², includes positioner.

Part no. **C0.008.00**

Crimp Tool, large

For Ø 3.6 mm contacts, max. wire gauge 16 mm², includes positioner.

Part no. **C0.207.00**

Rechargeable Battery - Crimp Tool B132

For Ø 10.0 mm contacts, max. wire gauge 50 mm².

Series	615	915	617	917	623	923	627	932	940	958	723
Crimp Tool, small											
C0.101.00 with Positioning Insert	■	®	■		■	■	■	■			
Crimp Tool, small											
C0.231.00 with Positioning Insert			■								
Crimp Tool, mid-size											
C0.201.00	■	■			■	■	■	■	■	■	■
Positioning Insert											
C0.258.00	■	■									
C0.003.00	■	■			■	■	■	■			
C0.121.00				■							
C0.229.00				■							
C0.048.00					■						
C0.012.00					■						
C0.004.00						■		■	■		
C0.252.00						■					
C0.009.00						■			■		
C0.124.00									■		
C0.094.00										■	
C0.093.00										■	
C0.092.00										■	
C0.138.00											■
Crimp Tool, large											
C0.008.00					■				■		
Positioning Insert											
C0.249.00					■						
C0.010.00									■		
C0.247.00									■		
Akku Crimp Tool											
C0.207.00										■	
Crimping Insert											
C0.211.00										■	
C0.210.00										■	
C0.209.00										■	
C0.208.00										■	

HELUKABEL®

Crimping Tools

Positioning Insert for C0.201.00
for Ø 1.0 mm Contacts

| Part no. C0.258.00 | Part no. C0.003.00 | Part no. C0.121.00 | Part no. C0.252.00 |

for Ø 1.5 mm Contacts | for Ø 1.6 mm Contacts

Part no. C0.229.00   Part no. C0.048.00   Part no. C0.094.00   Part no. C0.093.00   Part no. C0.092.00

for Ø 2 mm Contacts

Part no. C0.012.00   Part no. C0.004.00   Part no. C0.009.00   Part no. C0.138.00

for Ø 2.5 mm Contacts | Positioning Insert for C0.008.00
for Ø 3.6 mm Contacts

Part no. C0.124.00   Part no. C0.249.00   Part no. C0.247.00   Part no. C0.247.00

Crimping Inserts for C0.207.00

Part no. C0.211.00   Part no. C0.210.00   Part no. C0.209.00   Part no. C0.208.00

crimping area 10.0 mm² / 16.0 mm²   crimping area 25.0 mm²   crimping area 35.0 mm²   crimping area 50.0 mm²

Pliers	Positioning Inserts	Sockets	Pins
C0.101.00	with Positioning Insert	60.001.11	61.004.11
		60.011.11	61.083.11
		60.159.11	61.141.11
		60.172.11	
C0.231.00	with Positioning Insert	60.205.11	61.178.11
C0.201.00	C0.258.00	60.251.11	61.231.11
		60.252.11	61.232.11
		60.265.11	61.239.11
	C0.003.00	60.001.11	61.004.11
		60.011.11	61.009.11
			61.054.11
	C0.121.00	60.159.11	61.141.11
	C0.229.00	60.197.11	61.167.11
	C0.048.00	60.070.11	61.072.11
	C0.012.00	60.012.11	61.008.11
	C0.004.00	60.003.11	61.010.11
		60.023.11	61.021.11
		60.254.11	61.022.11
		60.302.11	61.023.11
			61.055.11
			61.193.11
			61.194.11
			61.216.11
	C0.252.00	60.216.11	61.189.11
	C0.009.00	60.012.11	61.020.11
		61.098.11	61.021.11
		61.107.11	61.027.11
		61.108.11	61.197.11
		61.109.11	61.198.11
			61.204.11
			61.205.11
	C0.124.00	60.204.11	61.176.11
	C0.094.00		61.142.11
	C0.093.00		61.117.11
	C0.092.00	60.106.11	
	C0.138.00	60.272.11	61.243.11
C0.008.00	C0.249.00	60.240.11	61.220.11
		60.232.11	61.215.11
	C0.010.00	60.225.11	61.039.11
		60.227.11	61.040.11
			61.073.11
			61.074.11
	C0.247.00	61.195.11	61.202.11
		61.196.11	61.203.11

Pliers	Crimping Inserts	Sockets	Pins
C0.207.00	C0.211.00	60.101.23	61.112.23
		60.102.23	61.113.23
	C0.210.00	60.103.23	61.114.23
	C0.209.00	60.104.23	61.115.23
	C0.208.00	60.105.23	61.116.23

- kink protection
- metal flange
- caps
- assembly tools
- pick and place

and other accessories available on request!

HELUKABEL®

The enhanced TOPSERV® family – new and improved!

What is new?
· **TOPSERV® 109 SINGLE:** screened, halogen-free, highly flexible single core; suitable for use in drag chains
· **TOPSERV® HYBRID PUR:** highly flexible servo cable; suitable for use in drag chains with an additional screened signal pair for transmission of feedback signals where single-cable solutions are required
· **TOPSERV® HYBRID PVC:** cost-effective alternative to TOPSERV® HYBRID PUR where flexibility and limited use in drag chains is required

What has been improved?
We have optimised our family of servo cables for use in drag chains in terms of both their design and performance:
· Optimised **overall diameter**
· **Low capacitance** (for cables used in fixed installations up to 6 mm²)
· Compatible with **all drive manufacturers,** uniform core marking
· **Harmonised drag chain suitability**

		Single core	4 cores (3+g /y) without additional signal pair	4 cores (3+g /y) + 1 additional signal pair	4 cores (3+g /y) + 2 additional signal pairs
HIGHLY FLEXIBLE **e.g, for use in drag chains**	**without UL / CSA**			**TOPSERV® 110** according to Siemens standard 6FX2008	**TOPSERV® 120**
	UL / CSA	**TOPSERV® 109 Single** screened single core for screw drives	**TOPSERV® 109** according to Siemens standard 6FX8008Plus	**TOPSERV® 113** according to Siemens standard 6FX8008Plus, Lenze standard etc.	**TOPSERV® 121** according to Bosch Rexroth standard
					TOPSERV® Hybrid PUR (for motors with single-cable solution)
FLEXIBLE **limited use in drag chains**	**UL / CSA**		**TOPSERV® 108** according to Siemens standard 6FX5008	**TOPSERV® 112** according to Siemens standard 6FX5008, Lenze standard	**TOPSERV® 119** similar to Bosch Rexroth standard
					TOPSERV® Hybrid PVC (for motors with single-cable solution)

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Note

Technical alternations
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Safety instructions
The cables, wires and cable accessories described in this brochure are manufactured in accordance with domestic and international standards as well as in-house standards. Adherence to valid safety guidelines, standards and legal regulations is provided for application safety. Product specific dangers can be excluded assuming a proper and professional installation and usage is guaranteed. For each product, this catalog describes general information for usage. Independent of the above, the specifications of the appropriate DIN VDE specifications are valid. However, the installation and processing can only be performed by professional electricians.

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helukabel.com

HELUKABEL® · **Headquarters** · Dieselstraße 8-12 · 71282 Hemmingen · Germany · Phone +49 7150 9209-0 · info@helukabel.de