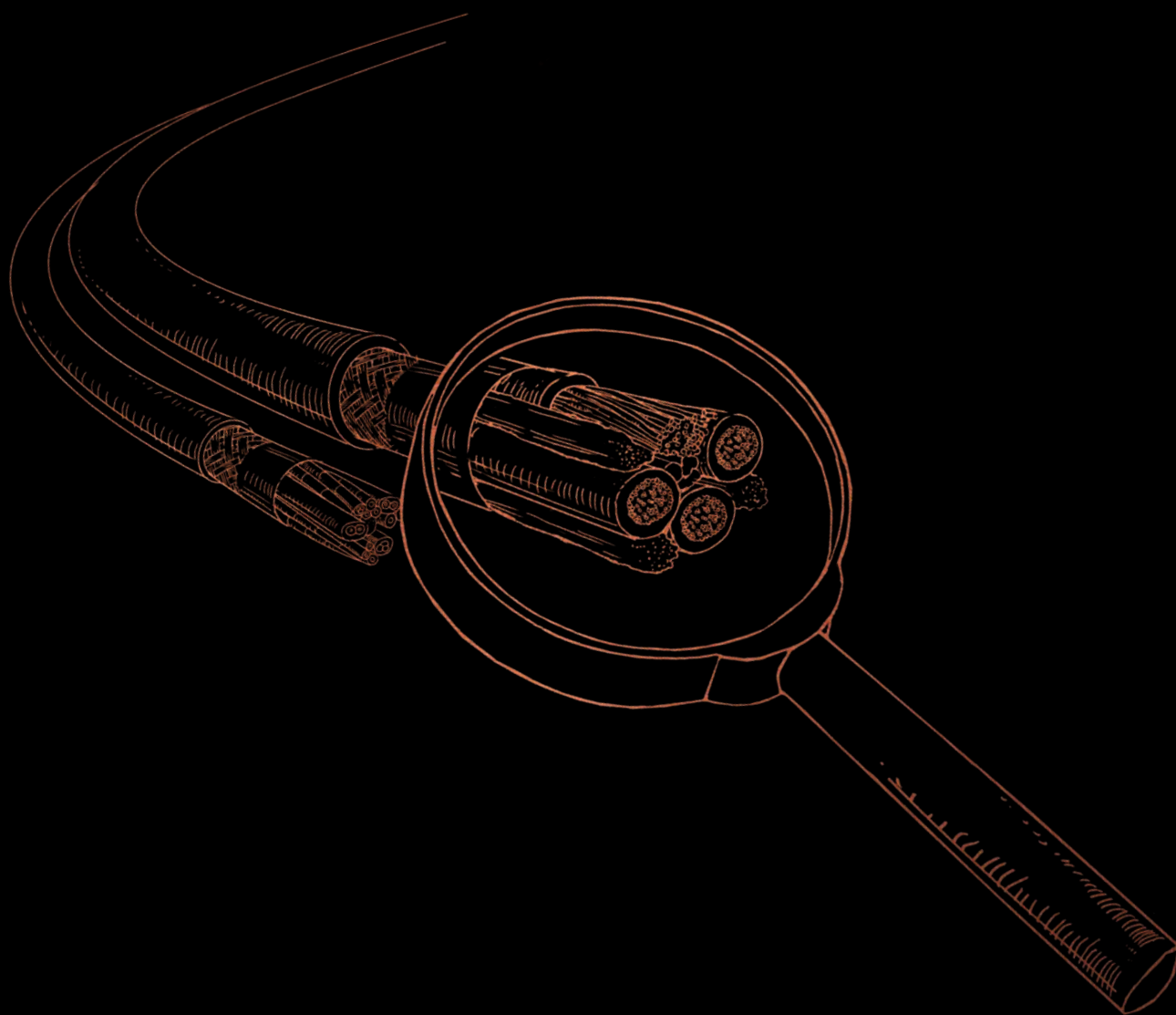


Cables, Wires & Accessories

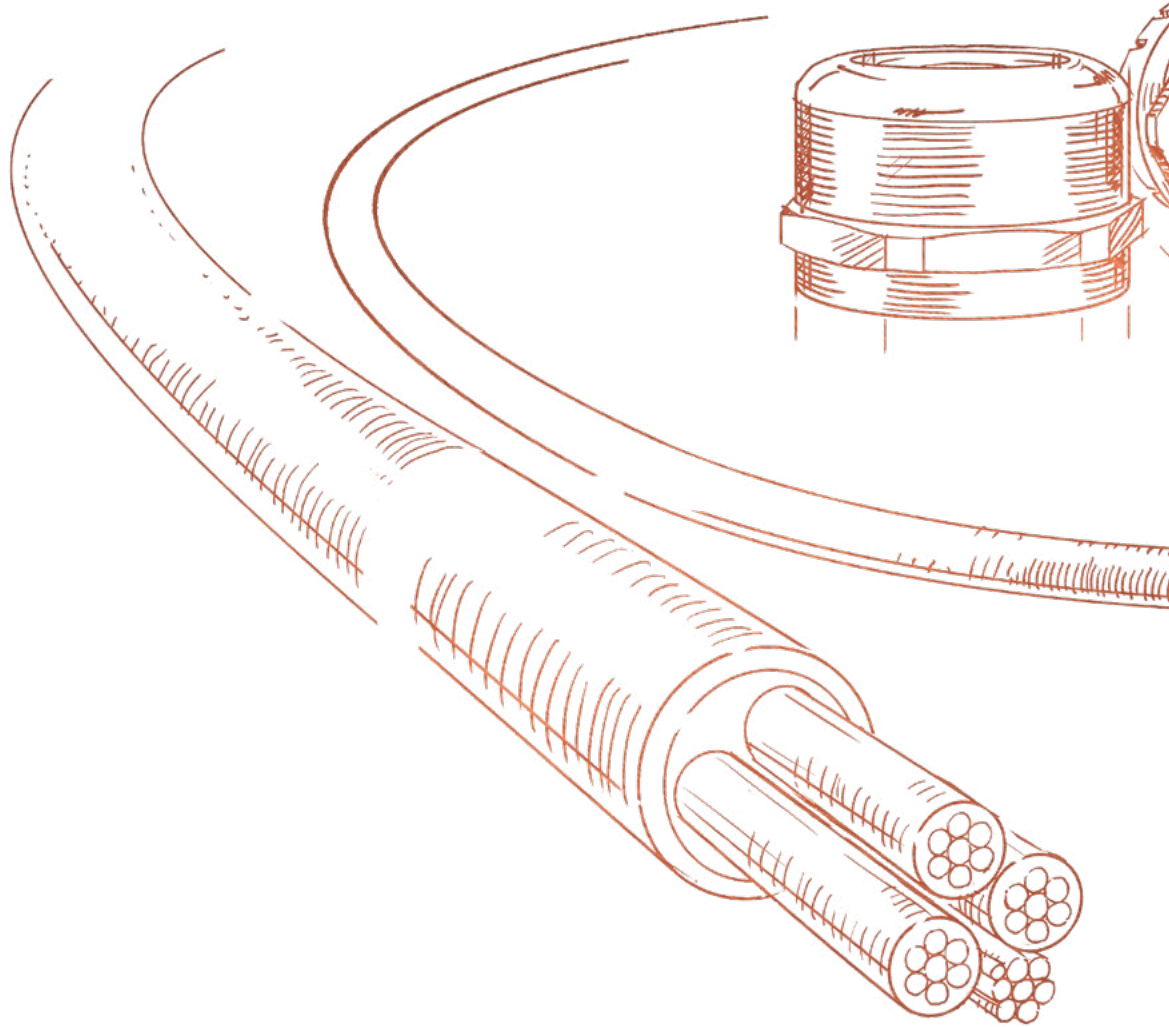
CABLE SELECTION GUIDE

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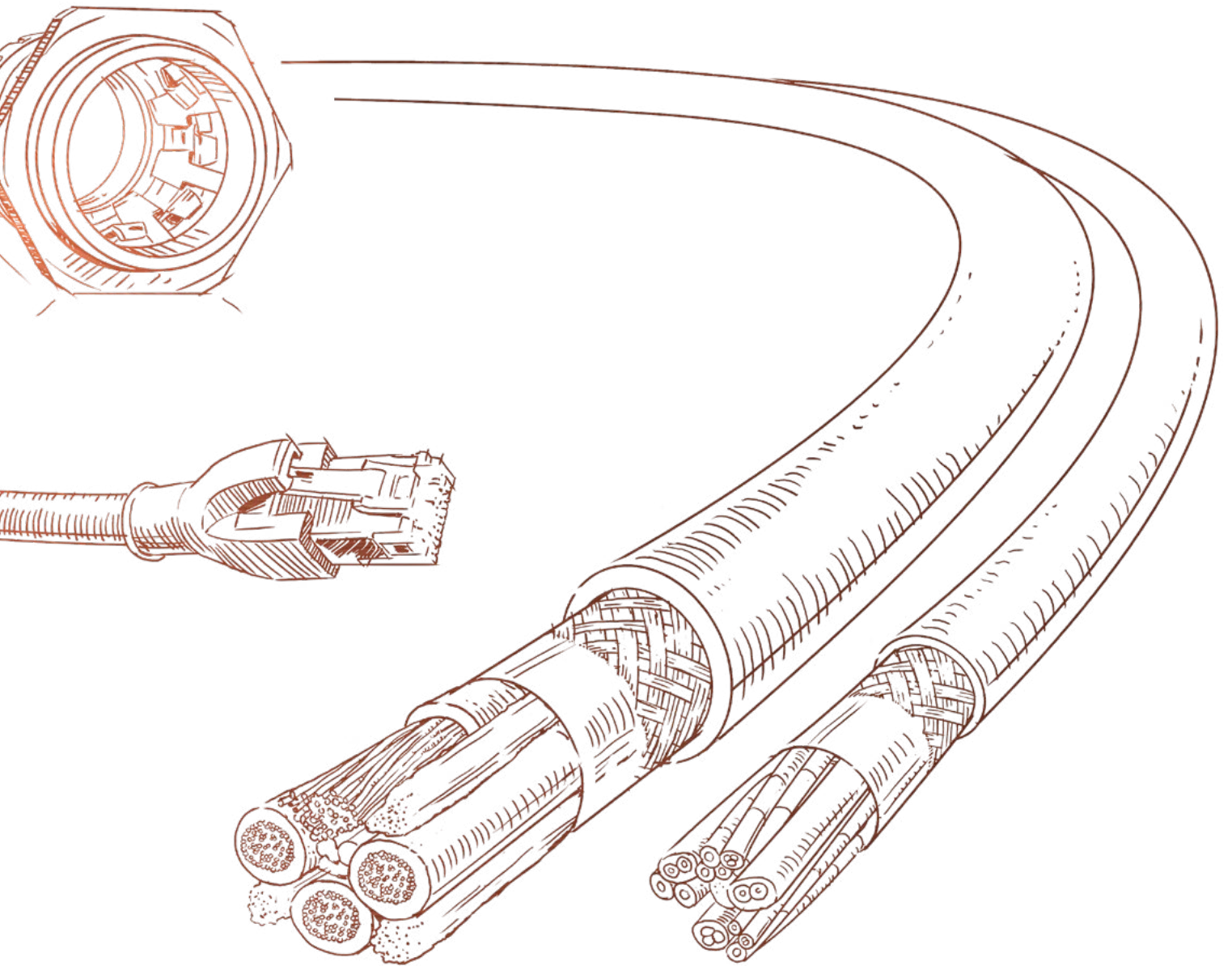
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Always stay electrified.

Electrical connections are the vital supply lines of complex machines, plants, and systems. From the outside, they are barely visible, but every day, they must withstand the highest mechanical loads and extreme operating conditions, sometimes around the clock or for decades without rest. At HELU, it is our mission to provide our customers and their applications with custom, ready-to-use solutions for power and data transmission, including cables, wires, drag chains, assemblies, pre-

installed modules, and complete systems. Over 2,500 employees at 76 locations in 43 countries do their best to achieve this. Our aim is to gain a precise understanding of your individual requirements and to provide you with exactly the solution that delivers the greatest added value for you—reliable, flexible, and from a single source. Creating connections that electrify both you and your application—this is what our claim "Always stay electrified." stands for.

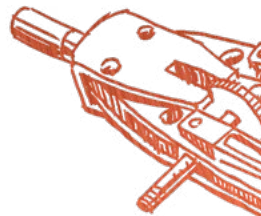
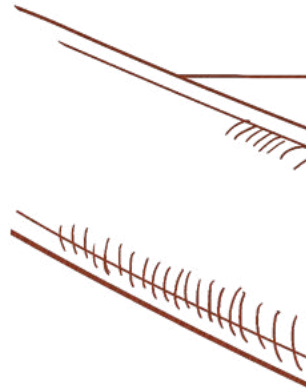


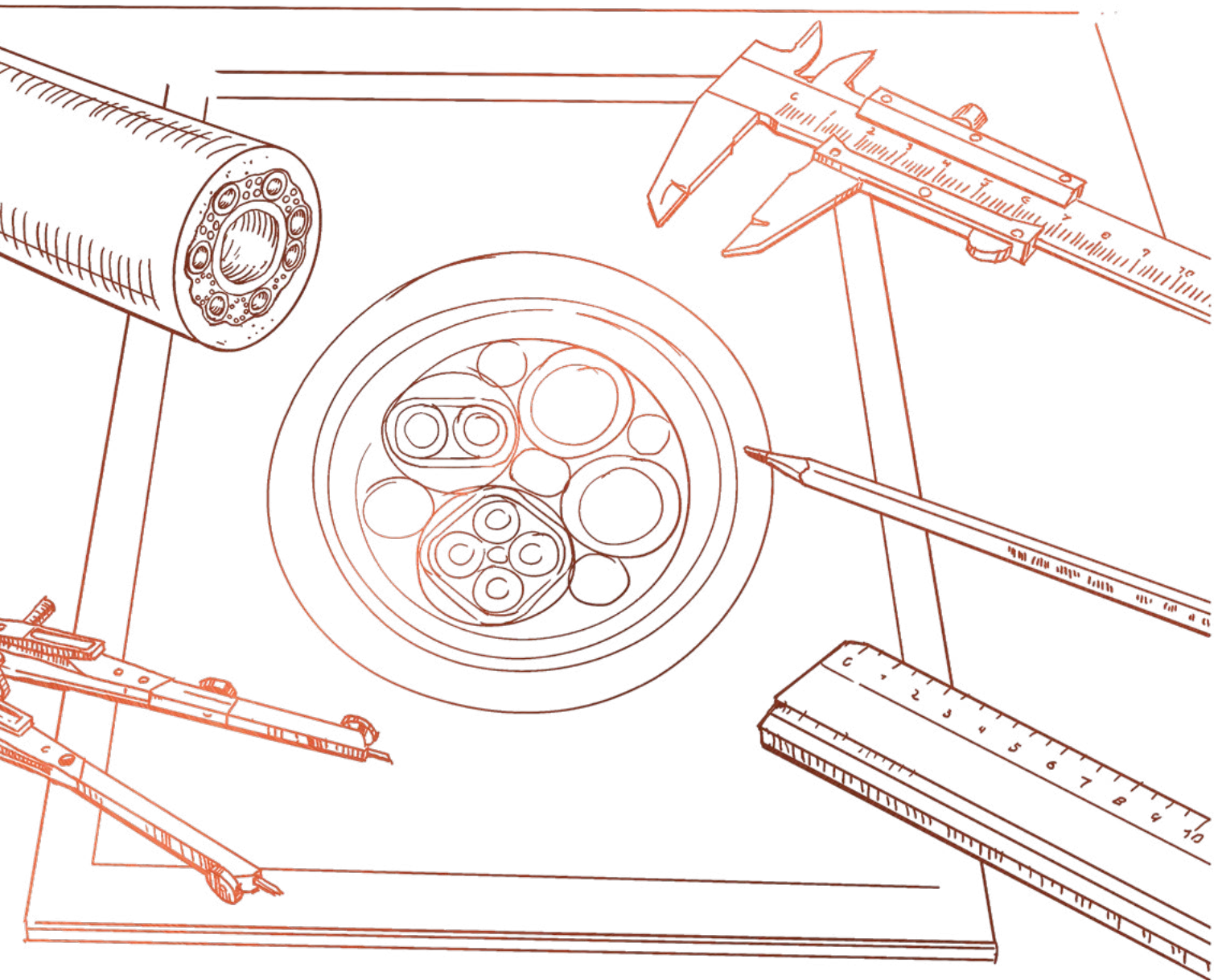
As Unique as Your Application

From technical intricacies to custom colouring, there are certain cases that are still not able to be completely covered by our comprehensive standard assortment. But this is what we specialise in. Our experienced specialists are happy to develop and manufacture the optimum connection solution for your exact requirements. We start by understanding the electrical, chemical, and mechanical demands your cable must meet in real-world conditions, then carefully define every detail including the construction of the individual cable, the selection of plugs, and the design & construction of drag chains. Only when

our solution meets all of your requirements are our engineers satisfied—and we hope you will be too. This is how we master even the most complex and unique jobs together with our customers.

The results of this collaboration range from the small and inconspicuous to the enormous and spectacular. HELU specialty solutions are found, for example, in the aerial ladders of fire engines, sewer robots, tunnel drilling machines, on oil platforms, or in wind-power & biogas plants. Because when it comes to electrical connection technology, there is almost nothing we cannot do.





Control Cables

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PVC		10001	JZ-500 / OZ-500	flexible, numbered, VDE compliant	300/500 V
		10340	JZ-500-BLACK / OZ-500-BLACK	flexible, numbered, VDE compliant	300/500 V
		11001	JB-500 / OB-500	flexible, coloured cores	300/500 V
		13122	H05VV5-F	flexible, numbered	300/500 V
		10537	JZ-500-ORANGE / OZ-500-ORANGE	flexible, numbered, VDE compliant, for warning indication	300/500 V
		29450	H05VV-F / 05VV-F	flexible, coloured cores	300/500 V
		14001	OZ-BL	flexible, numbered, VDE compliant, intrinsically safe	300/500 V
		11161	JB-750 / OB-750	flexible, coloured cores	450/750 V
		10334	JB-750-GELB	flexible, for warning indication	450/750 V
	●	10550	JZ-600 / OZ-600	flexible, numbered	600/1000 V
		11003798	HELUPOWER® 1000 RV-K	direct burial	600/1000 V
		16320	F-CY-JZ / F-CY-OZ / F-DY-OZ	flexible, numbered, VDE compliant	300/500 V
		10934	JZ-500-C-BLACK / OZ-500-C-BLACK	flexible, numbered	300/500 V
		13951	H05VVC4V5-K	flexible, numbered	300/500 V
		16200	Y-CY-JZ / Y-CY-OZ	flexible, numbered	300/500 V
		16121	Y-CY-JB / Y-CY-OB	flexible, coloured cores	300/500 V
		12001	SY-JZ / SY-OZ	flexible, numbered, VDE compliant, steel braid	300/500 V
		12200	SY-JB	flexible, coloured cores, steel braid	300/500 V
		14028	OZ-BL-CY	flexible, numbered, VDE compliant, intrinsically safe	300/500 V
14077	OB-BL-PAAR-CY	flexible, numbered, intrinsically safe	900 V		
11464	JZ-600-Y-CY / OZ-600-Y-CY	flexible, numbered	600/1000 V		
PUR		23314	JZ-500 PUR / OZ-500 PUR	numbered, abrasion resistant, robust, low adhesion	300/500 V
		22100	PURö-JZ / PURö-OZ	numbered, abrasion resistant, robust, low adhesion	300/500 V
		22001	HELUCONTROL® PUR-ORANGE-JZ / -OZ	numbered, abrasion resistant, robust, inner sheath	300/500 V
		22200	PUR-YELLOW-JB / PUR-YELLOW-OB	coloured cores, abrasion resistant, robust, inner sheath	300/500 V
		22050	H05BQ-F	coloured cores, abrasion resistant, robust	300/500 V
		22058	H07BQ-F / 07BQ-F	abrasion resistant, robust	450/750 V
	●	18120	UNIPUR®	abrasion resistant, robust, low adhesion	300/500 V
		21200	F-C-PURö-JZ / F-C-PURö-OZ	numbered, abrasion resistant, robust, low adhesion	300/500 V
		21400	Yö-C-PURö-JZ / Yö-C-PURö-OZ	numbered, abrasion resistant, robust, low adhesion, inner sheath	300/500 V
		19150	UNIPUR®-CP	colour coded, abrasion resistant, robust, low adhesion	300/500 V
FRNC		11201	JZ-500 HMH / OZ-500 HMH	flexible, numbered	300/500 V
		11965	JB-750 HMH	flexible, coloured cores	450/750 V
		12723	JZ-600 HMH / OZ-600 HMH	flexible, numbered	600/1000 V
		52630	HELUTHERM® 145 MULTI	flexible, coloured cores, temperature resistant	300/500 V
	●	11656	JZ-500 HMH-C / OZ-500 HMH-C	flexible, numbered	300/500 V
		11942	JB-750 HMH-C	flexible, coloured cores	450/750 V
		12850	JZ-600 HMH-C	flexible, numbered	600/1000 V
52194	HELUTHERM® 145 MULTI-C	flexible, coloured cores, temperature resistant	300/500 V		
TPE-O	●	26125	KOMPOFLEX® JZ-500 / OZ-500	numbered, low adhesion	300/500 V
		26217	KOMPOFLEX® JZ-500-C / OZ-500-C	numbered, low adhesion	300/500 V

HIGHLY FLEXIBLE

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PVC	●	15001	JZ-HF / OZ-HF	numbered	300/500 V
		15930	JZ-HF-CY / OZ-HF-CY	numbered	300/500 V
PUR	●	15520	PURö-JZ-HF / PURö-J-HF / PURö-OZ-HF	numbered, abrasion resistant, robust, low adhesion	300/500 V
		22501	MULTIFLEX 512®-PUR	numbered, abrasion resistant, robust, low adhesion	300/500 V
		22400	PURö-JZ-HF-YCP / PURö-OZ-HF-YCP	numbered, abrasion resistant, robust, low adhesion	300/500 V
		22571	MULTIFLEX 512®-C-PUR	numbered, abrasion resistant, robust, low adhesion	300/500 V

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Cables for permanent installation or applications with occasional movement

	Temperature range		Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
	Flexible	Static										
	-15°C to +80°C	-40°C to +80°C	2-100	0.5-185	grey	Eca	●				●	
	-15°C to +80°C	-40°C to +80°C	2-34	0.5-35	black	Eca	●		●	●	●	
	-15°C to +80°C	-40°C to +80°C	2-30	0.5-2.5	grey		●				●	
	-5°C to +70°C	-40°C to +70°C	22-50-50	0.5-2.5	grey		●				●	
	-15°C to +80°C	-40°C to +80°C	2-5	1-2.5	orange	Eca					●	
	-5°C to +70°C	-40°C to +70°C	2-7	0.75-4	various	Eca	●		●	●	●	
	-15°C to +80°C	-40°C to +80°C	2-41	0.75-2.5	blue	Eca	●				●	
	-15°C to +80°C	-40°C to +80°C	2-11	2.5-185	grey		●				●	
	-15°C to +80°C	-40°C to +80°C	3-5	1.5-2.5	yellow	Eca	●		●	●	●	
	-15°C to +80°C	-40°C to +80°C	2-100	0.5-185	black	Eca			●	●	●	
	-	-40°C to +80°C	1-24	1.5-630	black	Eca					●	
	-10°C to +80°C	-40°C to +80°C	1-100	0.5-35	grey	Eca	●				●	
	-10°C to +80°C	-40°C to +80°C	2-42	0.5-35	black	Eca	●		●	●	●	
	-5°C to +70°C	-40°C to +70°C	22-50-50	0.5-2.5	grey	Eca	●				●	
	-15°C to +80°C	-40°C to +80°C	2-100	0.5-150	transparent	Eca	●				●	
	-15°C to +80°C	-40°C to +80°C	2-5	0.5-185	transparent	Eca	●				●	
	-15°C to +80°C	-40°C to +80°C	2-100	0.5-150	transparent	Eca	●				●	
	-15°C to +80°C	-40°C to +80°C	2-12	0.5-150	transparent	Eca	●				●	
	-15°C to +80°C	-40°C to +80°C	2-41	0.75-2.5	blue	Eca	●		●	●	●	
	-10°C to +80°C	-30°C to +80°C	2-25	0.5-0.75	blue		●				●	
	-15°C to +80°C	-40°C to +80°C	2-25	0.5-185	black	Eca	●		●	●	●	
	-15°C to +80°C	-40°C to +80°C	22-50-50	0.5-16	grey		●		●	●		
	-20°C to +80°C	-40°C to +80°C	22-50-50	0.5-95	grey		●		●	●		
	-15°C to +80°C	-40°C to +80°C	2-7	0.75-16	orange		●		●	●		
	-15°C to +80°C	-40°C to +80°C	2-5	0.75-35	yellow		●		●	●		
	-40°C to +80°C	-50°C to +90°C	2-5	0.75-1	orange		●	●	●	●		
	-40°C to +80°C	-50°C to +90°C	2-12	1.5-240	orange		●	●	●	●		
	-40°C to +90°C	-	2-41	0.5-16	various		●	●	●	●		
	-20°C to +80°C	-40°C to +80°C	22-50-50	0.5-6	grey		●		●	●		
	-20°C to +80°C	-40°C to +80°C	22-50-50	0.5-120	grey		●		●	●		
	-40°C to +90°C	-	2-41	0.5-16	various		●	●	●	●		
	-25°C to +70°C	-40°C to +70°C	2-100	0.5-120	grey	Dca	●	●			●	
	-15°C to +70°C	-40°C to +70°C	3-5	1.5-120	grey		●	●			●	
	-25°C to +70°C	-40°C to +70°C	2-37	0.5-120	black	Dca	●	●	●	●	●	
	-35°C to +120°C	-55°C to +145°C	1-37	0.25-95	black		●	●	●	●	●	
	-25°C to +70°C	-40°C to +70°C	2-25	0.5-185	grey	Dca	●	●			●	
	-15°C to +70°C	-40°C to +70°C	3-5	1.5-120	grey		●	●			●	
	-25°C to +70°C	-40°C to +70°C	3-36	0.5-150	black	Dca	●	●	●	●	●	
	-35°C to +120°C	-55°C to +145°C	1-21	0.25-10	black		●	●	●	●	●	
	-30°C to +90°C	-40°C to +100°C	2-61	0.5-50	black		●	●	●	●		
	-30°C to +90°C	-40°C to +100°C	2-61	0.5-50	black		●	●	●	●		

Highly flexible cables for flexible installation in, e.g., drag chains

	Temperature range		Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
	Flexible	Static										
	-10°C to +80°C	-40°C to +80°C	2-65	0.5-16	grey		●				●	
	-10°C to +80°C	-40°C to +80°C	2-61	0.5-16	grey		●				●	
	-20°C to +80°C	-40°C to +80°C	2-65	0.5-95	grey		●		●	●		
	-30°C to +80°C	-40°C to +80°C	2-65	0.5-16	grey		●	●	●	●		
	-20°C to +80°C	-40°C to +80°C	2-65	0.5-16	grey		●		●	●		
	-30°C to +80°C	-40°C to +80°C	2-61	0.5-16	grey		●	●	●	●		

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Control Cables

ACC. TO UL/CSA

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PVC		83090	JZ-602 / OZ-602	numbered	UL: 600 V
		11022607	JZ-602 / OZ-602 XTREME COLD UL/CSA BLACK	numbered	UL: 600 V
		83704	JZ-603 / OZ-603	numbered	UL: 600 V
		11815	JZ-600 / OZ-600 UL/CSA	numbered	UL: 1000 V
		63079	TRAYCONTROL® 500	numbered, for outdoor installation TC-ER, PLTC-ER, ITC-ER	UL: 600 V
		69661	JZ-604 TC TRAY CABLE / OZ-604 TC TRAY CABLE	numbered, for outdoor installation TC-ER	UL: 600 V
		62020	TRAYCONTROL® 600	numbered, for outdoor installation TC-ER	UL: 600 V
		28034	H05VV-F/SJT	coloured cores	UL: 300 V
		83233	HELUCONTROL® 2516 / 600	coloured cores	UL: 600 V
		82990	JZ-602-CY / OZ-602-CY	numbered, inner sheath	UL: 600 V
		11024884	JZ-602-CY / OZ-602-CY XTREME COLD UL/CSA BLACK	numbered, inner sheath	UL: 600 V
		83709	JZ-603-CY / OZ-603-CY	numbered, inner sheath	UL: 600 V
		12345	JZ-600-Y-CY / OZ-600-Y-CY UL/CSA	numbered, inner sheath	UL: 1000 V
	62813	TRAYCONTROL® 500-C	numbered, for outdoor installation TC-ER, PLTC-ER, ITC-ER	UL: 600 V	
	69750	JZ-604-FCY TC TRAY CABLE / OZ-604-FCY TC	numbered, for outdoor installation TC-ER	UL: 600 V	
	69804	JZ 604-YCY TC TRAY CABLE	numbered, for outdoor installation, inner sheath, TC-ER	UL: 600 V	
	63049	TRAYCONTROL® 600-C	numbered, for outdoor installation TC-ER, PLTC-ER, ITC-ER	UL: 600 V	
83350	HELUCONTROL® 2516 / 600-C	coloured cores	UL: 600 V		
PUR		12471	JZ-602-PUR / OZ-602-PUR	numbered	UL: 600 V
	●	12550	JZ-602-C-PUR / OZ-602-C-PUR	numbered, inner sheath	UL: 600 V
FRNC	●	13344	MEGAFLEX® 500	flexible, numbered, abrasion resistant	UL: 600 V
		13200	MEGAFLEX® 600	flexible, numbered, abrasion resistant	600/1000 V
		13500	MEGAFLEX® 500-C	flexible, numbered, abrasion resistant	UL: 600 V
		15217	MEGAFLEX® 600-C	flexible, numbered, abrasion resistant	600/1000 V
TPE-O		66820	TRAYCONTROL® 670 HDP	numbered, for TC-ER, WTTC	UL: 600/1000 V
	●	66820	TRAYCONTROL® 670-C HDP	numbered, for TC-ER, WTTC	UL: 600/1000 V

ACC. TO UL/CSA – HIGHLY FLEXIBLE

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PVC		89900	HELUCHAIN® JZ-602-HF PVC UL/CSA	numbered, low adhesion	UL: 1000 V
		62502	MULTIFLEX 600	numbered, for TC-ER, PLTC-ER, ITC-ER, WTTC	UL: 600/1000 V
		11001528	HELUCHAIN® MULTISPEED® 520-PVC UL/CSA	numbered, low adhesion, ripcord, 7 or more cores bundled stranding	600/1000 V
	●	89950	HELUCHAIN® JZ-602-HF-C PVC UL/CSA	numbered, low adhesion	UL: 1000 V
	62556	MULTIFLEX 600-C	numbered, for TC-ER, PLTC-ER, ITC-ER, WTTC	UL: 600/1000 V	
PUR	●	11001602	HELUCHAIN® MULTISPEED® 520-C-PVC UL/CSA	Numbered, low adhesion, inner sheath, ripcord, 7 or more cores bundled stranding	600/1000 V
		11022017	HELUCONTROL® ROBOFLEX® PUR UL/CSA	numbered, for torsional/bending loads	UL: 600 V
		11022537	ROBOFLEX® HYBRID PUR UL/CSA	numbered, abrasion resistant, low adhesion, for torsional/bending loads	UL: 1000 V
		21559	HELUCHAIN® MULTIFLEX 512®-PUR UL/CSA	numbered, abrasion resistant, robust, low adhesion	UL: 1000 V
		11001676	HELUCHAIN® MULTISPEED® 521-PUR UL/CSA	numbered, abrasion resistant, robust, low adhesion, 7 or more cores bundled	600/1000 V
		11022437	HELUCONTROL® ROBOFLEX®-D PUR UL/CSA	numbered, for torsional/bending loads	UL: 600 V
TPE-O	●	21630	HELUCHAIN® MULTIFLEX 512®-C-PUR UL/CSA	numbered, abrasion resistant, robust, low adhesion	UL: 1000 V
		11001750	HELUCHAIN® MULTISPEED® 521-C-PUR UL/CSA	numbered, inner sheath, ripcord, 7 or more cores bundled stranding	600/1000 V
		11001824	HELUCHAIN® MULTISPEED® 522-TPE UL/CSA	numbered, abrasion resistant, robust, low adhesion, ripcord, 7 or more cores bundled	600/1000 V
		11001898	HELUCHAIN® MULTISPEED® 522-C-TPE UL/CSA	numbered, inner sheath, ripcord, 7 or more cores bundled stranding	600/1000 V

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Cables for permanent installation or applications with occasional movement

Temperature range		Core count	Cross-section mm ² /AWG	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
Flexible	Static										
-10°C to +90°C	-40°C to +90°C	2-41	0.5-120	grey		●				●	
-30°C to +90°C	-55°C to +90°C	2-41	0.5-120	black		●		●		●	
-5°C to +90°C	-40°C to +90°C	2-61	0.5-2.5	grey		●				●	
-5°C to +80°C	-40°C to +80°C	2-25	0.5-25	black & grey		●		● black	● black	●	
+5°C to +90°C	-25°C to +105°C	2-61	AWG 20-500 kcmil	grey		●		●	●	●	●
-5°C to +90°C	-40°C to +90°C	2-61	1-185	black		●		●	●	●	●
+5°C to +90°C	-25°C to +105°C	2-61	AWG 20-500 kcmil	black		●		●	●	●	●
-5°C to +70°C	-40°C to +70°C	2-5	AWG 17-11	various						●	
-10°C to +105°C	-40°C to +105°C	2-36	AWG 14-12	black & grey		●				●	
-10°C to +90°C	-40°C to +90°C	2-41	0.5-120	grey		●				●	
-30°C to +90°C	-55°C to +90°C	2-41	0.5-120	black		●		●		●	
-5°C to +90°C	-40°C to +90°C	2-61	0.5-2.5	grey		●				●	
-5°C to +80°C	-40°C to +80°C	2-25	0.5-25	black & grey	Eca	●		● black	● black	●	
+5°C to +90°C	-25°C to +90°C	2-61	AWG 20-500 kcmil	grey		●				●	●
-5°C to +90°C	-40°C to +90°C	2-61	AWG 18-8	black		●		●	●	●	●
-5°C to +90°C	-40°C to +90°C	3-7	AWG 6-4/0	black		●		●	●	●	●
+5°C to +50°C	-25°C to +105°C	2-61	AWG 18-500 kcmil	black		●		●	●	●	●
-10°C to +105°C	-40°C to +105°C	2-30	AWG 14-12	black & grey		●				●	
-5°C to +80°C	-40°C to +80°C	2-41	0.5-70	grey		●		●	●	●	
-5°C to +80°C	-40°C to +80°C	2-41	0.5-50	grey		●		●	●	●	
-30°C to +80°C	-40°C to +80°C	2-65	0.5-120	grey		●	●	●	●	●	
-30°C to +80°C	-40°C to +80°C	2-65	0.5-150	black		●	●	●	●	●	
-30°C to +80°C	-40°C to +80°C	2-25	0.5-70	grey		●	●	●	●	●	
-30°C to +80°C	-40°C to +80°C	2-25	0.5-10	black		●	●	●	●	●	
+5°C to +50°C	-40°C to +105°C	4	AWG 18-500 kcmil	orange		●		●	●	●	●
+5°C to +50°C	-40°C to +105°C	4	AWG 18-500 kcmil	orange		●		●	●	●	●

Highly flexible cables for flexible installation in, e.g., drag chains

Temperature range		Core count	Cross-section mm ² /AWG	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
Flexible	Static										
-5°C to +80°C	-40°C to +80°C	3-34	0.5-35	black		●		●	●	●	●
+5°C to +50°C	-40°C to +105°C	2-60	AWG 20-2	black		●		●	●	●	●
-5°C to +80°C	-30°C to +80°C	2-42	0.5-6	grey		●		●	●	●	
-5°C to +80°C	-40°C to +80°C	3-34	0.5-35	black		●		●	●	●	
+5°C to +50°C	-40°C to +105°C	2-34	AWG 20-2	black		●		●	●	●	●
-5°C to +80°C	-30°C to +80°C	2-42	0.5-6	grey		●		●	●	●	●
-30°C to +90°C	-40°C to +90°C	2-41	0.5-1.5	black		●	●	●	●		
-30°C to +90°C	-40°C to +90°C	4-25	0.5-2.5	black		●	●	●	●		
-30°C to +90°C	-40°C to +90°C	2-65	0.5-16	grey		●	●	●	●		●
-30°C to +80°C	-40°C to +80°C	2-42	0.5-6	grey		●		●	●	●	●
-30°C to +90°C	-40°C to +90°C	4-25	0.5-1.5	black		●	●	●	●	●	
-30°C to +90°C	-40°C to +90°C	2-65	0.5-16	grey		●	●	●	●	●	●
-30°C to +80°C	-40°C to +80°C	2-42	0.5-6	grey		●		●	●	●	●
-40°C to +90°C	-40°C to +90°C	2-42	0.5-6	black		●		●	●	●	●
-40°C to +90°C	-40°C to +90°C	2-42	0.5-6	black		●		●	●	●	●

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Motor & Servo Cables

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PVC	●	22860	TOPFLEX® 600-PVC	flexible, numbered	600/1000 V
		22960	TOPFLEX® 600-C-PVC	flexible, numbered, inner sheath	600/1000 V
		22084	TOPFLEX®-EMV-2YSLCY-J	double screened, EMC optimised	600/1000 V
		22368	TOPFLEX®-EMV-3-PLUS-2YSLCY-J	double screened, split protective conductor, EMC optimised	600/1000 V
		22234	TOPFLEX®-EMV-UV-2YSLCYK-J	double screened, EMC optimised	600/1000 V
		22673	TOPFLEX®-EMV-UV-3-PLUS-2YSLCYK-J	double screened, split protective conductor, EMC optimised	600/1000 V
		24489	TOPFLEX®-EMV-UV-2XSLCYK-J	double screened, EMC optimised, enhanced current capacity	600/1000 V
TPE-O	●	24508	TOPFLEX®-EMV-UV-3-PLUS-2XSLCYK-J	double screened, split protective conductor, EMC optimised, enhanced current capacity	600/1000 V
		24522	TOPFLEX®-EMV-UV-2XSLCHK-J	double screened, EMC optimised, enhanced current capacity	600/1000 V
		24536	TOPFLEX®-EMV-UV-3PLUS-2XSLCHK-J	double screened, split protective conductor, EMC optimised, enhanced current capacity	600/1000 V

HIGHLY FLEXIBLE

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PUR	●	22870	TOPFLEX® 611-PUR	numbered, abrasion resistant, robust, low adhesion	600/1000 V
		22970	TOPFLEX® 611-C-PUR	numbered, abrasion resistant, robust, low adhesion, inner sheath, EMC optimised	600/1000 V
		71491	TOPSERV® 110	numbered, low adhesion, with 1 pair, EMC optimised	600/1000 V
		71990	TOPSERV® 120	numbered, low adhesion, with 2 pairs, EMC optimised	600/1000 V

ACC. TO UL/CSA

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PVC	●	707250	TOPSERV® 108 PVC	flexible, numbered, acc. to Siemens OEM standard etc.	600/1000 V
		707221	TOPSERV® 112 PVC	flexible, numbered, with 1 pair, acc. to Siemens, Lenze OEM standards etc.	600/1000 V
		707290	TOPSERV® 119 PVC	approval Bosch Rexroth etc.	600/1000 V
		709930	TOPSERV® Hybrid PVC	flexible, 1-cable tech., acc. to Siemens, Hyperface DLS OEM standards etc.	600/1000 V
		63139	TOPFLEX® 600 VFD	flexible, numbered, double screened, for TC-ER, WTTC	UL: 600/1000 V
		22320	TOPFLEX®-EMV-UV-2YSLCYK-J UL/CSA	double screened, EMC optimised	UL: 1000 V
		22193	TOPFLEX®-EMV-UV-3PLUS-2YSLCYK-J UL/CSA	double screened, split protective conductor, EMC optimised	UL: 1000 V
PUR	●	22804	TOPFLEX®-EMV-UV-3PLUS-2XSLCYK-J UL/CSA	double screened, split protective conductor, EMC optimised, enhanced current capacity	UL: 1000 V
		22389	TOPFLEX®-EMV-UV-2YSLC11Y-J UL/CSA	double screened, abrasion resistant, low adhesion, EMC optimised	UL: 1000 V
		78377	TOPFLEX®-MOTOR-EMV 1/1	flexible, triple screened, abrasion resistant, low adhesion	600/1000 V
TPE-O	●	78614	TOPFLEX®-MOTOR-EMV 3/3	flexible, double screened, split protective conductor, abrasion resistant, low adhesion, EMC optimised	600/1000 V
		63156	TOPFLEX® 650 VFD	flexible, double screened, with 1 pair, TC-ER, EMC optimised	UL: 600/1000 V
		59398	TOPFLEX® 1000 VFD	flexible, double screened, split protective conductor, TC-ER, EMC optimised	UL: 600/1000 V

ACC. TO UL/CSA-HIGHLY FLEXIBLE

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PVC	●	11001592	HELUCHAIN® MULTISPEED® PWR 520-PVC UL/CSA	numbered, low adhesion, ripcord	600/1000 V
		11001666	HELUCHAIN® MULTISPEED® PWR 520-C-PVC UL/CSA	numbered, low adhesion, inner sheath, ripcord	600/1000 V
		11029600	HELUCHAIN® TOPSERV® 201-PVC UL/CSA	low adhesion, with 1 pair, EMC optimised, TPE inner sheath, ripcord	600/1000 V
PUR	●	11022415	HELUPOWER® ROBOFLEX® PUR UL/CSA	numbered, abrasion resistant, robust, low adhesion, for torsion applications	600/1000 V
		11001740	HELUCHAIN® MULTISPEED® PWR 521-PUR UL/CSA	numbered, abrasion resistant, robust, low adhesion	600/1000 V
		11022484	HELUPOWER® ROBOFLEX® HYBRID-D PUR UL/CSA	numbered, abrasion resistant, robust, low adhesion, for torsion applications	600/1000 V
		11022453	HELUPOWER® ROBOFLEX®-D PUR UL/CSA	numbered, abrasion resistant, robust, low adhesion, for torsion applications	600/1000 V
		75943	TOPSERV® 109 PUR	numbered, abrasion resistant, low adhesion, Siemens OEM standard etc.	600/1000 V
		706003	TOPSERV® 113 PUR	numbered, abrasion resistant, low adhesion, 1 pair, OEM stds. Siemens, Lenze	600/1000 V
		708499	TOPSERV® 121 PUR	numbered, abrasion resistant, low adhesion, 2 pairs, Bosch Rexroth OEM std.	600/1000 V
		709703	TOPSERV® Hybrid PUR	Single-cable tech., abrasion res., low adhesion, Siemens, Hyperface DSL, EnDat OEM stds.	600/1000 V
TPE-O	●	11029601	HELUCHAIN® TOPSERV® 211-PUR UL/CSA	abrasion res., robust, low adhesion, with 1 pair, EMC optimised, inner sheath, ripcord	600/1000 V
		11001814	HELUCHAIN® MULTISPEED® PWR 521-C-PUR UL/CSA	numbered, abrasion resistant, robust, low adhesion, TPE inner sheath, ripcord	600/1000 V
		11001888	HELUCHAIN® MULTISPEED® PWR 522-TPE UL/CSA	numbered, abrasion resistant, robust, low adhesion, ripcord	600/1000 V
		62607	TOPSERV® 600 VFD	numbered, PLTC-ER, EMC optimised	600/1000 V
		59837	TOPSERV® 650 VFD	numbered, with 1 pair, with 2 pairs PLTC-ER, EMC optimised	600/1000 V
		11001962	HELUCHAIN® MULTISPEED® PWR 522-C-TPE UL/CSA	numbered, abrasion resistant, robust, low adhesion, inner sheath, ripcord	600/1000 V

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Cables for permanent installation or applications with occasional movement

Temperature range		Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
Flexible	Static										
-15°C to +80°C	-40°C to +80°C	4	1.5–120	grey		●				●	
-15°C to +80°C	-40°C to +80°C	4	1.5–120	grey	Eca	●				●	
-5°C to +70°C	-40°C to +70°C	4	1.5–185	transparent	Eca					●	
-5°C to +70°C	-40°C to +70°C	3+3	1.5–240	transparent	Eca					●	
-5°C to +70°C	-40°C to +70°C	4	1.5–185	black				●	●	●	
-5°C to +70°C	-40°C to +70°C	3+3	1.5–240	black				●	●	●	
-5°C to +90°C	-40°C to +90°C	4	1.5–185	black				●	●	●	
-5°C to +90°C	-40°C to +90°C	3+3	1.5–240	black				●	●	●	
-15°C to +90°C	-40°C to +90°C	4	1.5–185	black			●	●	●	●	
-15°C to +90°C	-40°C to +90°C	3+3	1.5–240	black	Eca		●	●	●	●	

Highly flexible cables for flexible installation in, e.g., drag chains

Temperature range		Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
Flexible	Static										
-30°C to +80°C	-40°C to +80°C	4	1.5–120	grey		●	●	●	●		
-30°C to +80°C	-40°C to +80°C	4	1.5–120	grey		●	●	●	●		
-30°C to +80°C	-40°C to +80°C	6	1.5–50	turquoise		●	●	●	●		
-30°C to +80°C	-40°C to +80°C	8	1.5–50	turquoise		●	●	●	●		

Cables for permanent installation or applications with occasional movement

Temperature range		Core count	Cross-section mm ² /AWG	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
Flexible	Static										
0°C to +90°C	-20°C to +90°C	4	1.5–50	orange		●				●	
0°C to +90°C	-20°C to +90°C	6	1.0–50	orange		●				●	
0°C to +90°C	-20°C to +90°C	8	1.0–16	orange		●				●	
0°C to +90°C	-20°C to +90°C	8–10	0.5–4	orange		●				●	
+5°C to +50°C	-25°C to +105°C	4	AWG 18–2	orange & black		●		●	●	●	●
-5°C to +80°C	-40°C to +80°C	4	1.5–185	black				●	●	●	
-5°C to +80°C	-40°C to +80°C	3+3	1.5–240	black				●	●	●	
-5°C to +90°C	-40°C to +90°C	3+3	1.5–120	black				●	●	●	
-5°C to +80°C	-40°C to +80°C	4	1.5–185	black		●	●	●	●	●	
-30°C to +80°C	-40°C to +80°C	4	1.5–120	orange		●	●	●	●	●	
-30°C to +80°C	-40°C to +80°C	3+3	1.5–150	orange		●	●	●	●	●	
+5°C to +50°C	-40°C to +105°C	4+2 or 4	AWG 16–4	orange & black		●		●	●	●	●
+5°C to +50°C	-40°C to +105°C	3+3	AWG 8–500 kcmil	black		●		●	●	●	●

Highly flexible cables for flexible installation in, e.g., drag chains

Temperature range		Core count	Cross-section mm ² /AWG	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
Flexible	Static										
-5°C to +80°C	-30°C to +80°C	4–5	10–35	black		●		●	●	●	●
-5°C to +80°C	-30°C to +80°C	4–5	10–35	black							
0°C to +90°C	-20°C to +90°C	6	1.5–6	orange							
-30°C to +90°C	-40°C to +90°C	3–4	2.5–50	black		●	●	●		●	●
-30°C to +80°C	-40°C to +80°C	4–5	10–35	black		●		●	●	●	●
-30°C to +90°C	-40°C to +90°C	6–8	1.5–6	black		●	●	●		●	●
-30°C to +90°C	-40°C to +90°C	3–4	1.5–6	black		●	●	●		●	●
-30°C to +90°C	-40°C to +90°C	4	1.5–95	orange		●	●	●		●	
-30°C to +90°C	-40°C to +90°C	6	0.75–50	orange		●	●	●	●	●	
-30°C to +90°C	-40°C to +90°C	8	0.75–50	orange		●	●	●	●	●	
-30°C to +90°C	-40°C to +90°C	8–12	0.5–10	orange		●	●	●	●	●	
-30°C to +90°C	-50°C to +90°C	6	1.5–6	orange		●	●			●	
-30°C to +80°C	-40°C to +80°C	4–5	10–35	black		●		●	●	●	●
-40°C to +90°C	-40°C to +90°C	4–5	10–35	black		●		●	●	●	●
5°C to +50°C	-40°C to +105°C	4	AWG 18–2	orange & black		●		●	●	●	●
5°C to +50°C	-40°C to +105°C	6–8	AWG 16–4	orange & black		●		●	●	●	●
-40°C to +90°C	-40°C to +90°C	4–5	10–35	black		●		●	●	●	●

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Feedback Cables

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PVC	●	22800	TOPFLEX®-PVC	coloured cores	350 V
		22825	Incremental Feedback Cable	coloured cores	350 V

HIGHLY FLEXIBLE

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PUR	●	22847	TOPFLEX®-PUR	coloured cores, abrasion resistant, low adhesion	350 V
		22818	Incremental Feedback Cable C PUR	coloured cores, abrasion resistant, low adhesion	250 V
		22823	Tachofeedback cable C PUR	coloured cores, abrasion resistant, low adhesion	450 V

ACCORDING TO UL/CSA

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PVC	●	707417	TOPGEBER 511 PVC	flexible, acc. to Siemens, Bosch, Lenze OEM stds.	30/300 V

ACC. TO UL/CSA – HIGHLY FLEXIBLE

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PUR	●	700655	TOPGEBER 512 PUR	abrasion resistant, low adhesion, acc. to Bosch Rexroth OEM std.	30/300 V

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Cables for permanent installation or applications with occasional movement

Temperature range		Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
Flexible	Static										
-5°C to +70°C	-30°C to +80°C	8–14	0.14–0.5	grey		●				●	
-5°C to +70°C	-30°C to +80°C	10	0.25–1.0	grey		●				●	

Highly flexible cables for flexible installation in, e.g., drag chains

Temperature range		Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
Flexible	Static										
-30°C to +80°C	-40°C to +80°C	8–12	0.14–0.5	grey		●	●	●	●		
-30°C to +80°C	-40°C to +80°C	10	0.25–1.0	orange		●	●	●	●		
-30°C to +80°C	-40°C to +80°C	9	0.5	orange		●	●	●	●		

Cables for permanent installation or applications with occasional movement

Temperature range		Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
Flexible	Static										
0°C to +90°C	-20°C to +90°C	4–16	0.14–1.0	green		●				●	

Highly flexible cables for flexible installation in, e.g., drag chains

Temperature range		Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
Flexible	Static										
-30°C to +90°C	-40°C to +90°C	4–16	0.14–1.0	green, orange, black		●	●	●	●	●	

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Data Cables

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PVC	●	18001	TRONIC (LiYY)	flexible, coloured cores acc. to DIN 47100	300/500 V
		19001	PAAR-TRONIC	flexible, coloured cores acc. to DIN 47100	350 V
		21129	PAAR-TRONIC-Li-2YCYv	coloured cores, low capacitance, reinforced outer sheath	250 V
		21111	PAAR-TRONIC-Li-2YCY	coloured cores, low capacitance	250 V
		15987	LiFYCY	highly flexible, coloured cores acc. to DIN 47100	350 V
		20139	TRONIC-CY (LiY-CY) / TRONIC-DY (LiY-DY)	flexible, coloured cores acc. to DIN 47100, drain wire	350/500 V
		21001	PAAR-TRONIC-CY	flexible, coloured cores acc. to DIN 47100, drain wire	350 V
		17023	PAAR-CY-OZ	flexible, numbered	300/500 V
PUR	●	21065	PAAR-TRONIC-CY-CY	flexible, coloured cores acc. to DIN 47100	300/500 V
		52490	DATAPUR-C®	flexible, coloured cores acc. to DIN 47100	350/500 V
FRNC	●	52300	DATAFLAMM®	coloured cores acc. to DIN 47100, low capacitance	300/500 V
		52365	DATAFLAMM®-C	coloured cores acc. to DIN 47100, low capacitance, drain wire	300/500 V
		52435	DATAFLAMM®-C-PAAR	coloured cores acc. to DIN 47100, low capacitance, drain wire	300/500 V

HIGHLY FLEXIBLE

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PVC	●	49550	SUPERTRONIC®-PVC	coloured cores acc. to DIN 47100, low adhesion	350 V
		49620	SUPERTRONIC®-C-PVC	coloured cores acc. to DIN 47100, low adhesion	350 V
PUR	●	49583	SUPERTRONIC®-PURö	coloured cores acc. to DIN 47100, abrasion res., robust, low adhesion	350 V
		49653	SUPERTRONIC®-C-PURö	coloured cores acc. to DIN 47100, abrasion res., robust, low adhesion	350-500 V
		19101	SUPER-PAAR-TRONIC-C-PUR®	coloured cores acc. to DIN 47100, abrasion res., robust, low adhesion, twisted pairs	350 V

ACC. TO UL/CSA

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PVC		83137	HELUDATA® TRONIC 2464 / 300 GREY	flexible, coloured cores	UL: 300 V
		83045	HELUDATA® TRONIC 2464 / 300 BLACK	flexible, coloured cores	UL: 300 V
		83904	HELUDATA® PAAR-TRONIC 2464 / 300 GREY	coloured cores	UL: 300 V
		65214	HELUDATA® PAAR-TRONIC 2464 / 300 BLACK	coloured cores	UL: 300 V
		62625	TRAYCONTROL® 300	flexible, coloured cores, PLTC-ER, ITC-ER	UL: 300 V
		62794	TRAYCONTROL® 300 TP	flexible, coloured cores, PLTC-ER, ITC-ER	UL: 300 V
	●	83254	HELUDATA® TRONIC-CY 2464 / 300 GREY	coloured cores acc. to DIN 47100, drain wire	UL: 300 V
		83976	HELUDATA® TRONIC-CY 2464 / 300 BLACK	coloured cores acc. to DIN 47100, drain wire	UL: 300 V
		83774	HELUDATA® PAAR-TRONIC-CY 2464 / 300 GREY	coloured cores acc. to DIN 47100, drain wire	UL: 300 V
		65314	HELUDATA® PAAR-TRONIC-CY 2464 / 300 BLACK	coloured cores acc. to DIN 47100, drain wire	UL: 300 V
		62710	TRAYCONTROL® 300-C	flexible, coloured cores, for PLTC-ER, ITC-ER	UL: 300 V
		61999	TRAYCONTROL® 300-C TP	flexible, coloured cores, PLTC-ER, ITC-ER	UL: 300 V

ACC. TO UL/CSA-HIGHLY FLEXIBLE

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PVC	●	49885	SUPERTRONIC®-310-PVC	coloured cores acc. to DIN 47100, low adhesion	UL: 300 V
		49920	SUPERTRONIC®-310-C-PVC	coloured cores acc. to DIN 47100, low adhesion	UL: 300 V
		11020964	HELUCHAIN® TRONIC 320-HF-TP-C-PVC UL/CSA	coloured cores acc. to DIN 47100, low adhesion, EMC optimised, stranded pairs	UL: 300 V
PUR	●	11022475	HELUDATA® ROBOFLEX®-recycle PUR UL/CSA	colour coded, abrasion resistant, robust, low adhesion	UL: 300 V
		11022005	HELUDATA® ROBOFLEX® PUR UL/CSA	coloured cores acc. to DIN 47100, for torsional/bending loads	UL: 300 V
		25459	HELUDATA® ROBOFLEX® 2001	coloured cores acc. to DIN 47100, for torsional/bending loads	350 V
		49764	SUPERTRONIC®-330-PURö	coloured cores acc. to DIN 47100, abrasion res., robust, low adhesion	UL: 300 V
		11022463	HELUDATA® ROBOFLEX®-PAIR-D PUR UL/CSA	coloured cores acc. to DIN 47100, for torsional/bending loads, twisted pairs	UL: 300 V
		11022427	HELUDATA® ROBOFLEX®-D PUR UL/CSA	coloured cores acc. to DIN 47100, for torsional/bending loads	UL: 300 V
		49797	SUPERTRONIC®-330-C-PURö	coloured cores acc. to DIN 47100, abrasion res., robust, low adhesion	UL: 300 V
		25539	HELUDATA® ROBOFLEX® 2001 - D	coloured cores acc. to DIN 47100, for torsional/bending loads	350 V
TPE-O	●	49536	SUPER-PAAR-TRONIC-340-C-PUR	coloured cores DIN 47100, abrasion res., robust, low adhesion, twisted pairs	UL: 300 V
		24614	MULTISPEED®-TRONIC-C-PUR	coloured cores acc. to DIN 47100, abrasion res., robust, low adhesion, extruded filler	UL: 300 V
		11026369	HELUCHAIN® MULTISPEED® TRONIC-TPE UL/CSA	coloured cores DIN 47100, ripcord, 7 or more cores bundled stranding	600/1000 V
		11026409	HELUCHAIN® MULTISPEED® TRONIC-TP-C-TPE UL/CSA	coloured cores acc. to DIN 47100, inner sheath, ripcord, stranded pairs	600/1000 V

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Cables for permanent installation or applications with occasional movement

Temperature range		Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
Flexible	Static										
-5°C to +80°C	-40°C to +80°C	2-61	0.14-1.5	grey	Eca	●				●	
-5°C to +80°C	-30°C to +80°C	1x2-55x2	0.14-0.75	grey	Eca	●				●	
-5°C to +70°C	-30°C to +80°C	2x2-10x2	0.22-1	black				●	●	●	
-5°C to +70°C	-30°C to +80°C	2x2-10x2	0.22-0.5	grey						●	
-5°C to +70°C	-40°C to +70°C	2x2-32x2	0.2	grey		●				●	
-5°C to +80°C	-40°C to +80°C	1-61	0.14-1.5	grey	Eca					●	
-5°C to +80°C	-30°C to +80°C	1x2-61x2	0.14-1.5	grey	Eca	●				●	
-15°C to +80°C	-40°C to +80°C	2x2-25x2	1-1.5	grey		●				●	
-5°C to +80°C	-40°C to +80°C	2x2-48x2	0.14-0.5	grey		●				●	
-15°C to +80°C	-40°C to +80°C	2-25	0.14-0.5	grey		●		●	●		
+5°C to +70°C	-40°C to +70°C	22-50-50	0.14-0.75	grey	Fca-Eca		●			●	
+5°C to +70°C	-40°C to +70°C	2-40	0.14-0.75	grey	Fca-Eca		●			●	
+5°C to +70°C	-40°C to +70°C	4-36	0.14-0.75	grey	Eca		●			●	

Highly flexible cables for flexible installation in, e.g., drag chains

Temperature range		Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
Flexible	Static										
-5°C to +70°C	-40°C to +70°C	2-25	0.14-0.34	grey		●				●	
-5°C to +70°C	-40°C to +70°C	2-25	0.14-0.34	grey		●				●	
-5°C to +70°C	-40°C to +70°C	2-25	0.14-0.34	grey		●		●	●		
-30°C to +90°C	-40°C to +90°C	2-25	0.14-0.34	grey		●	●	●	●		
-30°C to +70°C	-40°C to +70°C	2-28	0.14-1	grey		●	●	●	●		

Cables for permanent installation or applications with occasional movement

Temperature range		Core count	Cross-section mm ² /AWG	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
Flexible	Static										
-10°C to +80°C	-40°C to +80°C	2-30	AWG 26-16	grey		●				●	
-10°C to +80°C	-40°C to +80°C	2-30	AWG 26-16	black		●				●	
-10°C to +80°C	-40°C to +80°C	1x2-25x2	AWG 26-20	grey		●				●	
-10°C to +80°C	-40°C to +80°C	1x2-25x2	AWG 26-20	black		●				●	
+5°C to +50°C	-25°C to +105°C	22-50-50	AWG 28-16	grey		●			●	●	●
+5°C to +50°C	-25°C to +105°C	1x2-25x2	AWG 26-18	grey		●			●	●	●
-10°C to +80°C	-40°C to +80°C	2-30	AWG 26-16	grey		●				●	
-10°C to +80°C	-40°C to +80°C	2-30	AWG 26-16	black		●				●	
-10°C to +80°C	-40°C to +80°C	1x2-25x2	AWG 26-20	grey		●				●	
-10°C to +80°C	-40°C to +80°C	1x2-25x2	AWG 26-20	black		●				●	
+5°C to +50°C	-25°C to +105°C	22-50-50	AWG 28-16	grey		●			●	●	●
	-25°C to +105°C	1x2-25x2	AWG 26-18	grey		●				●	●

Highly flexible cables for flexible installation in, e.g., drag chains

Temperature range		Core count	Cross-section mm ² /AWG	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
Flexible	Static										
-5°C to +80°C	-40°C to +80°C	2-25	0.14-0.34	grey		●				●	●
-15°C to +80°C	-40°C to +80°C	4	1.5-120	grey	Eca	●				●	●
-5°C to +80°C	-40°C to +80°C	2-28	0.14-1	grey		●		●	●	●	●
-30°C to +105°C	-40°C to +105°C	3-5	0.34	black		●	●	●	●	●	●
-30°C to +90°C	-40°C to +90°C	3-25	0.25-0.34	black		●	●	●	●	●	●
-30°C to +90°C	-40°C to +90°C	2-25	0.25-0.34	black		●		●	●	●	
-30°C to +80°C	-40°C to +80°C	2-25	0.14-0.34	grey		●	●	●	●	●	●
-30°C to +90°C	-40°C to +90°C	6-20	0.14-0.5	black		●	●	●	●	●	●
-30°C to +90°C	-40°C to +90°C	10-25	0.14-0.34	black		●	●	●	●	●	●
-30°C to +80°C	-40°C to +80°C	2-25	0.14-0.34	grey		●	●	●	●	●	●
-30°C to +90°C	-40°C to +90°C	10-25	0.14-0.34	black		●		●	●	●	
-30°C to +80°C	-40°C to +80°C	2-28	0.14-1	grey		●	●	●	●	●	●
-30°C to +80°C	-40°C to +80°C	2-25	0.25-0.34	black		●	●	●	●	●	●
-40°C to +90°C	-40°C to +90°C	3-25	0.14-0.34	black		●		●	●	●	●
-40°C to +90°C	-40°C to +90°C	4-28	0.25-0.50	black		●		●	●	●	●

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Single-Core Cables

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PVC		29081	H05V-K / 05V-K	finely stranded, coil, spool, barrel	300/500 V
		29129	H07V-K / 07V-K	finely stranded, coil, spool, barrel, drum	450/750 V
		28761	H05V-U	solid, coil, spool, barrel	300/500 V
		28785	H07V-U	solid, coil, drum	450/750 V
		28825	H07V-R	stranded, coil, drum	450/750 V
FRNC		52872	H05Z-K	finely stranded	300/500 V
		51768	H07Z-K / 07Z-K	finely stranded	450/750 V
		50999	HELUTHERM® 145	finely stranded, tinned wire, cross-linked	300–750 V
Rubber		55001	H05G-K	finely stranded, tinned wire	300/500 V
		55301	H07G-K / 07G-K	finely stranded, tinned wire	450/750 V

HIGHLY FLEXIBLE

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PVC		15100	LifY	highly flexible	300–750 V
		79623	TOPFLEX® 300		600/1000 V
		72946	TOPFLEX® 302	flex. at low temps., double insulated	600/1000 V
		28930	ESUY	earthing cable	–
TPE-O		60288	KOMPOSPEED® 600	abrasion res., tinned, stranded, double insulated	600/1000 V
	●	60216	KOMPOSPEED® 600-C	abrasion res., tinned, stranded, double insulated	600/1000 V
Silicone		45101	SiFF		300/500 V

ACC. TO UL/CSA

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PVC		63500	HELUKABEL® SINGLE CORE UL Style 1007	finely stranded, tinned wire	UL: 300 V
		60100	HELUKABEL® SINGLE CORE UL Style 1015	finely stranded, tinned wire	UL: 600 V
		66000	HELUKABEL® SINGLE CORE UL Style 1569	finely stranded, tinned wire	UL: 300 V
		64075	FIVENORM H05V2-K / 05V2-K	finely stranded, coil, barrel, HAR, UL AWM, UL MTW, CSA AWM, CSA TEW	300/500 V
		64123	FIVENORM H07V2-K / 07V2-K / H07V-K / 07V-K	finely stranded, coil, barrel, HAR, UL AWM, UL MTW, CSA AWM, CSA TEW	450/750 V
FRNC		61817	HELUTHERM® 145 UL/CSA 300V	finely stranded, tinned wire, cross-linked	UL: 300 V
		59473	HELUTHERM® 145 UL/CSA 600V	finely stranded, tinned wire, cross-linked	UL: 600 V
Silicone		47021	HELUKABEL® SINGLE CORE UL Style 3135	finely stranded, tinned wire, high flash point	UL: 600 V
		11023478	HELUTHERM® SINGLE CORE UL Style 3512	finely stranded, tinned wire, temperature resistant	UL: 600 V
Single-Core Cable		10881	Single 600-J / Single 600-O	finely stranded, double insulated	UL: 600 V
	●	10910	Single 600-CY-J / Single 600-CY-O	finely stranded, double insulated	UL: 600 V

ACC. TO UL/CSA–HIGHLY FLEXIBLE

Sheath material	Screen	Part no.	Product name	Additional information, characteristics	Voltage class
PVC		700231	TOPFLEX® 302-UL	flex. at low temps., double insulated	UL: 600 V
		79639	TOPFLEX® 304	double insulated	UL: 1000 V
		69601	HELUCHAIN® SINGLE 602-HF-J/O PVC UL/CSA		UL: 600 V
	●	69631	HELUCHAIN® SINGLE 602-HF-CY-J/O PVC UL/CSA		UL: 600 V
PUR		75399	TOPFLEX® 301-C	abrasion resistant, double insulated	UL: 1000 V
		25901	MULTISPEED-600-C-PUR-J/O	abrasion resistant, double insulated	UL: 1000 V
		25888	MULTISPEED-600-PUR-J/O	abrasion resistant, double insulated	UL: 1000 V
TPE-O		11026287	HELUCHAIN® MULTISPEED® 600-TPE-J/O	abrasion resistant, double insulated	UL: 1000 V
	●	11026311	HELUCHAIN® MULTISPEED® 600-C-TPE-J/O	abrasion resistant, double insulated	UL: 1000 V

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Cables for permanent installation or applications with occasional movement

Temperature range		Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
Flexible	Static										
-5°C to +70°C	-30°C to +80°C	1	0.5–1	various	Eca					●	
+5°C to +70°C	-30°C to +80°C	1	1.5–240	various	Eca					●	
+5°C to +70°C	-30°C to +80°C	1	0.5–1	various	Eca					●	
+5°C to +70°C	-30°C to +80°C	1	1.5–10	various	Eca					●	
+5°C to +70°C	-30°C to +80°C	1	10–240	various	Eca					●	
-5°C to +90°C	-40°C to +90°C	1	0.5–1	various	Eca		●			●	
-5°C to +90°C	-40°C to +90°C	1	1.5–240	various	Eca		●			●	
-35°C to +120°C	-55°C to +145°C	1	0.25–240	various	Dca	●	●	●	●	●	
-5°C to +110°C	-40°C to +110°C	1	0.5–1	various							
-5°C to +110°C	-40°C to +110°C	1	1.5–120	various							

Highly flexible cables for flexible installation in, e.g., drag chains

Temperature range		Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
Flexible	Static										
-15°C to +80°C	-15°C to +80°C	1	0.1–70	various						●	
-5°C to +80°C	-40°C to +80°C	1	2.5–240	black/green-yellow		●		● black	● black	●	
-15°C to +80°C	-40°C to +80°C	1	1.5–240	black				●		●	
–	-5°C to +70°C	1	16–240	transparent							
-30°C to +90°C	-40°C to +100°C	1	6–185	black		●	●	●	●		
-30°C to +90°C	-40°C to +100°C	1	6–240	black		●	●	●	●		
-25°C to +180°C	-60°C to +180°C	1	0.25–10	various		●	●			●	

Cables for permanent installation or applications with occasional movement

Temperature range		Core count	Cross-section mm ² /AWG	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
Flexible	Static										
-5°C to +80°C	-30°C to +80°C	1	AWG 26–16	various		●				●	
-5°C to +105°C	-40°C to +105°C	1	AWG 24–500 kcmil	various		●				●	
-5°C to +105°C	-30°C to +105°C	1	AWG 26–10	various		●				●	
+5°C to +90°C	-40°C to +90°C	1	0.5–1	various	Eca					●	
+5°C to +90°C	-40°C to +90°C	1	1.5–150	various	Eca					●	
-35°C to +120°C	-55°C to +145°C	1	AWG 24–10	various	Dca	●	●	●		●	
-35°C to +120°C	-55°C to +145°C	1	0.25–50	various	Dca	●	●	●		●	
–	-60°C to +200°C	1	AWG 24–12	various		●	●			●	
-25°C to +200°C	-40°C to +200°C	1	0.5–240	various			●			●	
-5°C to +90°C	-40°C to +90°C	1	6–240	black		●		●	●	●	
-5°C to +90°C	-40°C to +90°C	1	6–240	black		●		●	●	●	

Highly flexible cables for flexible installation in, e.g., drag chains

Temperature range		Core count	Cross-section mm ² /AWG	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
Flexible	Static										
-5°C to +70°C	-30°C to +80°C	1	0.5–1	various				●		●	
-5°C to +90°C	-40°C to +90°C	1	2.5–300	grey						●	●
-5°C to +70°C	-30°C to +80°C	1	16–240	various		●		●	●	●	●
-5°C to +90°C	-40°C to +90°C	1	10–300	orange		●		●	●	●	●
-15°C to +80°C	-15°C to +80°C	1	6–240	black		●	●	●		●	●
-30°C to +80°C	-40°C to +80°C	1	2.5–300	black		●	●	●	●	●	●
-30°C to +80°C	-40°C to +80°C	1	2.5–300	black		●	●	●	●	●	●
-40°C to +90°C	-40°C to +90°C	1	6–185	black		●		●	●	●	●
-40°C to +90°C	-40°C to +90°C	1	6–185	black		●		●	●	●	●

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Industrial Ethernet

Sheath material	Category	Part no.	Product name	Further information, properties	Frequency range (MHz)
FRNC	Cat 5e	805699	HELUKAT® 100IND SF/UTP 2x2xAWG 24/1 FRNC		100
		805701	HELUKAT® 100IND SF/UTP 2x2xAWG 26/7 FRNC		100
		805445	AT-V(ZN)H(ZN)BH 2 G50/125 bk OM2		fibre optic
		805687	AT-V(ZN)H(ZN)BH 4 E9/125 bk ITU-T G.652d		fibre optic
PUR		801194	HELUKAT® 100IND PROFINET A PUR		100
		805700	HELUKAT® 100IND SF/UTP 2x2xAWG24/1 PUR		100
PE		801650	HELUKAT® PROFINET A Cat 5e SF/UTP PE armoured		100
PVC	Cat 7e	801147	HELUKAT® 600A Cat 7e S/FTP 4x2xAWG 23/1 PVC/PVC		1000
PE		802167	HELUKAT® 600E Cat 7e S/FTP 4x2xAWG 23/1 PVC		1000
		802168	HELUKAT® 600AE Cat 7e S/FTP 4x2xAWG 23/1 FRNC/PE armoured		1000
PVC	SPE	11019819	HELUKAT® SPE Type A 10 BASE T1L 1x2xAWG18/1 armoured PVC		20

HIGHLY FLEXIBLE

Sheath material	Category	Part no.	Product name	Further information, properties	Frequency range (MHz)
PUR	Cat 5 Cat 5e	800088	HELUKAT® 200S Cat 5 4C SF/UTP 4x1xAWG24/19 PUR	Drag chain	100
		81155	HELUKAT® 200S Cat 5 4P SF/UTP 4x2xAWG24/19 PUR	Drag chain	100
		802101	HELUCOM® PROFINET POF I-V(ZN)11Y 4Y2P980/1000 PUR	Drag chain	fibre optic
		805838	HELUCOM® PROFINET POF I-V(ZN)11Y 4Y2P980/1000 PUR	Drag chain	fibre optic
		805690	HELUCOM® PROFINET AT-W(ZN)Y(ZN)11Y 2 G50/125µm OM2 PUR	Drag chain	fibre optic

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Cables for permanent installation or applications with occasional movement

	Operating temperature range	Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
	-25°C to +80°C	4	0.21	blue			●			●	
	-10°C to +70°C	4	0.14	blue			●			●	
	-30°C to +70°C	2	–	black		●	●	●	●	●	
	-40°C to +80°C	4	–	black		●	●	●	●	●	
	-40°C to +80°C	4	0.32	green		●		●		●	
	-40°C to +80°C	4	0.21	blue		●	●			●	
	-40°C to +70°C	4	0.32	black				●	●		
	-30°C to +70°C	8	0.25	black				●	●		
	-45°C to +65°C	8	0.25	black				●	●		
	-45°C to +70°C	8	0.25	black			●	●	●		
	-30°C to +80°C	2	0.82	black				●	●	●	

Highly flexible cables for flexible installation in, e.g., drag chains

	Operating temperature range	Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
	-20°C to +70°C	4	0.25	green		●	●			●	
	-25°C to +70°C	8	0.25	green		●	●			●	
	-20°C to +70°C	2	–	red		●	●	●			
	-30°C to +70°C	2	–	green		●	●	●		●	
	-40°C to +80°C	2	–	green		●		●	●		

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the **red numbers** with the relevant part no.)

Industrial Ethernet

ACC. TO UL/CSA

Sheath material	Category	Part no.	Product name	Further information, properties	Frequency range (MHz)
PVC	Cat 5e	800653	HELUKAT® PROFINET A Cat 5e SF/UTP 2x2xAWG22/1 PVC	CMG, PLTC, AWM 21694	100
		800654	HELUKAT® PROFINET B Cat 5e SF/UTP 2x2xAWG22/7 PVC	CMG, PLTC, AWM 21694	100
		11018984	PROFINET Type A Cat 5e SF/UTP 2x2xAWG22/1 PVC PLTC-ER	CMG/ PLTC-ER	100
		11018959	PROFINET Type B Cat 5e SF/UTP 2x2xAWG22/7 PVC PLTC-ER	CMG/ PLTC-ER	100
		802471	HMCB200 Industrial Ethernet 2x2x0.22 PVC	AWM 2502	100
		803672	HMCB500 Industrial Ethernet 2x2x0.22 + 1x2x0.38 PVC	AWM 2502	100
FRNC		801651	HELUKAT® PROFINET B Cat 5e SF/UTP FRNC, hybrid	AWM 22482	100
		805653	HELUKAT® PROFINET A Cat 5e SF/UTP 2x2xAWG22/1 FRNC	CM, PLTC, AWM 21279	100
		805654	HELUKAT® PROFINET B Cat 5e SF/UTP 2x2xAWG22/7 FRNC	CM, PLTC, AWM 21279	100
		11027770	HELUKAT® PROFINET B Cat 5e SF/UTP 2x2xAWG22/7 FRNC Cca	CMG, PLTC, AWM 22375	100
		802185	HELUKAT® PROFINET B Cat 5e SF/UTP 2x2xAWG22/7 FRNC SHIPFLEX	CM	100
		802293	HELUKAT® 100IND Cat 5 WK SF/UTP 2x2xAWG22/7 X-FRNC FLEX	AWM 21281	100
PUR	805702	HELUKAT® 100IND Cat 5 SF/UTP 2x2xAWG26/7 PUR	AWM 21576	100	
	800068	HELUKAT® 200IND Cat 5e SF/UTP 4x2xAWG26/7 PUR ROBUSTFLEX	AWM 21576	200	
PVC	Cat 6	805655	HELUKAT® 250IND Cat 6 CMG SF/UTP 4x2xAWG 24/1 PVC	CMG	250
		805681	HELUKAT® 250IND Cat 6 AWM SF/UTP 4x2xAWG 24/1 PVC	AWM 2571	250
	Cat 6a	11017904	HELUKAT® 250IND Cat 6 AWM SF/FTP 4x2xAWG 24/1 PVC	CMG	250
		803693	HELUKAT® 500IND Cat 6a SK SF/FTP 4x2xAWG 22/1 PVC	CMG	500
		11023769	HELUKAT® 500IND Cat 6a S/FTP 4x2xAWG 23/7 PVC	AWM 2461	500
		11026524	HELUKAT® 500IND Cat 6a S/FTP 4x2xAWG 23/7 FRNC	AWM 21307	500
FRNC	11007776	HELUKAT® 500IND Cat 6a S/FTP 4x2xAWG22/1 PVC	CMG, AWM 21694	500	
	11007777	HELUKAT® 500IND Cat 6a S/FTP 4x2xAWG22/1 FRNC	CM	500	
PUR	11007778	HELUKAT® 500IND Cat 6a S/FTP 4x2xAWG22/1 PUR	CMX, AWM 21238	500	
PUR	Cat 7 Cat 7e Cat 7a	11007775	HELUKAT® 600IND Cat 7e S/FTP 4x2xAWG 23/1 FRNC	AWM 21143	1200
		801197	HELUKAT® 600IND Cat 7e S/FTP 4x2xAWG 23/1 PUR	AWM 21238	1200
		11022997	HELUKAT® 600IND Cat 7e S/FTP 4x2xAWG 23/1 PUR	AWM 21238	1200
		11022998	HELUKAT® 600IND Cat 7e S/FTP 4x2xAWG 23/1 PUR	AWM 21238	1200
		803815	HELUKAT® 600IND Cat 7e S/FTP 4x2xAWG 23/1 PUR	AWM 21238	1200
		805680	HELUKAT® 1200IND Cat 7a S/FTP 4x2xAWG 23/1 PUR	AWM 20549	1200
		802184	HELUKAT® 600IND Cat 7 S/FTP 4x2xAWG 26/7 PUR ROBUSTFLEX	AWM 20963	600
		805684	HELUKAT® 1000IND Cat 7a S/FTP 4x2xAWG 26/7 PUR ROBUSTFLEX	AWM 21238	1000
PVC	SPE	11017748	HELUKAT® SPE Type A 10 BASE T1L 1x2xAWG18/1 PVC	AWM 21179	20
		11019820	HELUKAT® SPE Type A 10 BASE T1L 1x2xAWG18/7 PVC	AWM 21179	20
		11023764	HELUKAT® SPE Type A 10 BASE T1L 1x2xAWG16/7 PVC	AWM 21179	20
		11022604	HELUKAT® SPE Hybrid Type B 1000BASE-T1 1x2xAWG26/7 + 4xAWG16 PUR	AWM 20233	600

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Cables for permanent installation or applications with occasional movement

	Operating temperature range	Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
	-40°C to +80°C	4	0.32	green		●		●		●	●
	-40°C to +80°C	4	0.34	green		●		●		●	●
	-40°C to +80°C	4	0.32	green		●		●		●	
	-40°C to +80°C	4	0.34	green		●		●		●	
	-20°C to +60°C	4	0.22	green						●	
	0°C to +60°C	6	0.22 / 0.38	green						●	
	-30°C to +70°C	8	0.34 / 1.5	green			●			●	●
	-25°C to +75°C	4	0.32	green			●	●		●	●
	-25°C to +75°C	4	0.34	green			●	●		●	●
	-40°C to +70°C	4	AWG 22	green		●	●	●		●	●
	-25°C to +75°C	4	0.34	green		●	●	●		●	
	-40°C to +105°C	4	0.34	black		●	●	●		●	●
	-30°C to +70°C	4	0.14	blue		●	●	●		●	●
	-20°C to +50°C	8	0.14	grey		●	●	●		●	●
	-40°C to +80°C	8	0.25	green				●		●	●
	-40°C to +80°C	8	0.25	green				●		●	●
	-30°C to +80°C	8	AWG 24	green		●		●		●	
	-40°C to +80°C	8	0.32	green				●		●	
	-40°C to +80°C	8	AWG 23	black				●		●	●
	-40°C to +80°C	8	AWG 23	black		●	●	●		●	●
	-30°C to +80°C	8	0.32	green				●		●	●
	-40°C to +80°C	8	0.32	green			●			●	
	-40°C to +80°C	8	0.32	green		●	●	●		●	
	-40°C to +80°C	8	0.25	green			●	●		●	
	-40°C to +80°C	8	AWG 23	green		●	●	●		●	
	-40°C to +80°C	8	AWG 23	grey		●	●	●		●	●
	-40°C to 80°C	8	AWG 23	blue		●	●	●		●	●
	-40°C to +80°C	8	AWG 23	red		●	●	●		●	●
	-40°C to +80°C	8	AWG 23	green		●	●	●		●	●
	-40°C to +80°C	8	0.14	green		●	●	●		●	●
	-40°C to +80°C	8	0.14	green		●	●	●		●	●
	-30°C to +80°C	2	0.82	black		●		●		●	●
	-30°C to +80°C	2	0.9	black		●		●		●	●
	-30°C to +80°C	2	1.44	black		●		●		●	●
	-20°C to +90°C	6	0.14 / 1.31	black		●	●	●		●	●

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Industrial Ethernet

ACC. TO UL/CSA – HIGHLY FLEXIBLE

Sheath material	Category	Part no.	Product name	Further information, properties	Frequency range (MHz)
PVC		802914	HELUKAT® PROFINET C Cat 5e SF/UTP 2x2xAWG22/7 PVC	CMG, PLTC, AWM 21694, drag chain	100
		803295	HELUKAT® PROFINET B Cat 5e SF/UTP 2x2xAWG22/7 PVC	CMG, PLTC, AWM 21694, FESTOON	100
PUR	Cat 5 Cat 5e	82838	HELUKAT® 100S ECO Cat 5 SF/UTP 4x1xAWG26/19 PUR	AWM 20963, drag chain	155
		82839	HELUKAT® 100S ECO Cat 5e SF/UTP 4x2xAWG26/19 PUR	AWM 20963, drag chain	155
		11021879	HELUKAT® 100S ECO Cat 5e SF/UTP 4x2xAWG26/19 PUR	AWM 20963, drag chain	155
		11007779	HELUKAT® 100S ECO Cat 5e SF/UTP 4x2xAWG26/19 PUR	AWM 21576, drag chain	155
		800067	HELUKAT® 100T Cat 5 SF/UTP 4x2xAWG 26/19 PUR	AWM 21161, torsion	100
		800655	HELUKAT® PROFINET C Cat 5e SF/UTP PUR CHAIN 2x2xAWG22/7 PUR	CMX, drag chain	100
		802186	HELUKAT® 100 Cat 5e S/UTP 2x2xAWG22/19 PUR	AWM 20549, torsion	100
		11007800	HELUKAT® PROFINET R Cat 5e SF/UTP 2x2xAWG22/19 PUR	AWM 21209, robot	100
		11007522	HELUKABEL® EtherCAT-P100S-L 4x1xAWG22/7 PUR	AWM 21198, drag chain	100
		11007523	HELUKABEL® EtherCAT-P100S-L 4x1xAWG24/7 PUR	AWM 21198, drag chain	100
		804767	HMCB800 Industrial Ethernet 2x2x0.20 + 1x2x0.38 PUR	Drag chain	100
TPE		11027791	HELUCHAIN® HELUKAT® PROFINET C Cat 5e SF/UTP TPE 2x2xAWG22/19	AWM 22541, drag chain	100
		11027793	HELUCHAIN® HELUKAT® 100S Cat 5e 4C SF/UTP TPE 2x2x0.15mm ²	AWM 22541, drag chain	100
		11027792	HELUCHAIN® HELUKAT® 100S Cat 5e 4P SF/UTP TPE 4x2x0.18mm ²	AWM 22541, drag chain	100
PVC		805658	HELUKAT® 250S Cat 6 SF/UTP 4x2xAWG24/7 PVC	CMG, drag chain	250
		805704	HELUKAT® 500S Cat 6 _a SF/FTP 4x2xAWG24/7 PVC	CM, drag chain	500
PUR	Cat 6 Cat 6a	803387	HELUKAT® 250S Cat 6 SF/UTP 4x2xAWG26/19 PUR	CMX, AWM 21576, drag chain	250
		805548	HELUKAT® 500S Cat 6A SF/FTP SLIM PUR CHAIN 4x2xAWG26/7 PUR	CMX, AWM 21576, drag chain	500
TPE		805703	HELUKAT® 500S Cat 6 _a SF/FTP 4x2xAWG24/7 PUR	CMX, AWM 21576, drag chain	500
		11027808	HELUCHAIN® HELUKAT® 250S Cat 6 SF/UTP TPE 4x2x0.18mm ²	AWM 22541, drag chain	250
		11027794	HELUCHAIN® HELUKAT® 500S Cat 6A S/SFTP TPE 4x2x0.15mm ²	AWM 22541, drag chain	500
PUR	Cat 7	805614	HELUKAT® 600S Cat 7 SF/FTP PUR CHAIN 4x2xAWG24/7 PUR	CMX, AWM 20940, drag chain	600
		805828	HELUKAT® 600T Cat 7 SF/FTP 4x2xAWG24/7 PUR	CMX, AWM 20940, torsion	600
TPE		11027809	HELUCHAIN® HELUKAT® 600S Cat 7 S/SFTP TPE 4x2x0.15mm ²	AWM 22541, drag chain	600
PUR	SPE	11018067	HELUKAT® SPE 1000Base-T1 highflex 1x2xAWG26/19 PUR	AWM 21223, drag chain	600
		11018068	HELUKAT® SPE 1000Base-T1 highflex 1x2xAWG22/19 PUR	AWM 21223, drag chain	600
		11019818	HELUKAT® SPE 1000Base-T1 highflex 1x2xAWG26/19 PUR	AWM 21223, robot	600

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Highly flexible cables for flexible installation in, e.g., drag chains

	Operating temperature range	Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
	-10°C to +70°C	4	0.34	green				●		●	●
	-10°C to +80°C	4	0.34	green		●		●		●	●
	-30°C to +60°C	4	0.15	green		●	●	●		●	
	-30°C to +60°C	8	0.15	green		●	●	●		●	
	-30°C to +60°C	8	AWG 26	yellow		●	●	●		●	●
	-30°C to +60°C	8	0.15	green		●	●	●		●	
	-30°C to +70°C	8	0.15	green		●	●	●		●	
	-30°C to +75°C	4	0.34	green		●	●	●		●	●
	-30°C to +70°C	4	0.38	green		●	●	●		●	
	-30°C to +90°C	4	0.38	green		●	●	●		●	
	-30°C to +70°C	4	AWG 22	black-red		●	●	●		●	●
	-30°C to +70°C	4	AWG 24	black-red		●	●	●		●	●
	-20°C to +60°C	6	0.2 / 0.38	green		●	●			●	
	-35°C to +90°	4	AWG 22	green		●				●	●
	-35°C to +90°	4	AWG 26	violet		●				●	●
	-35°C to +90°	8	AWG 25	violet		●				●	●
	-25°C to +80°C	8	0.23	green				●		●	
	-10°C to +70°C	8	0.23	green						●	
	-30°C to +70°C	8	0.15	green		●	●	●		●	●
	-20°C to +60°C	8	0.14	green		●	●	●		●	●
	-20°C to +60°C	8	0.23	green		●	●	●		●	●
	-35°C to +90°	8	AWG 25	violet		●				●	●
	-35°C to +90°	8	AWG 26	violet		●				●	●
	-30°C to +70°C	8	0.23	green		●	●	●		●	●
	-30°C to +70°C	8	0.23	green		●	●	●		●	●
	-35°C to +90°	8	AWG 26	violet		●				●	●
	-30°C to +80°C	2	0.15	green		●	●	●		●	●
	-30°C to +80°C	2	1.38	green		●	●	●		●	●
	-30°C to +80°C	2	0.15	green		●	●	●		●	●

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Bus Cables

Sheath material	Part no.	Product name	Further information, properties	Bus system
PVC	805705	PROFIBUS High temperature 1x2x0.64mm PVC +150°C		PROFIBUS
FRNC	802178	PROFIBUS L2 Shipline 1x2x0.64mm X-FRNC		PROFIBUS
	805706	PROFIBUS High temperature 1x2x0.64mm FRNC +200°C		PROFIBUS
	805657	PROFIBUS SK/ FIP 7-wire 1x2x0.64 FRNC		PROFIBUS
	800651	SafetyBUS 3x0.75mm ² FRNC		SafetyBUS
	11027769	RS-485 BUS 2xAWG22+1xAWG22 FRNC		RS-485
	805445	HELUCOM® AT-V(ZN)H(ZN)BH 2 G50/125 bk 2 OM2		PROFINET + PROFIBUS
PUR	805687	HELUCOM® AT-V(ZN)H(ZN)BH 4 E9/125 bk ITU-T G652.d		PROFINET + PROFIBUS
	81186	PROFIBUS L2 1x2x0.64mm PUR		PROFIBUS
TPE	801846	AS-Interface, A-Bus 2x1.5mm ² yellow TPE		AS-Interface
	801847	AS-Interface, A-Bus 2x1.5mm ² black TPE		AS-Interface
PE	80792	PROFIBUS L2 outdoor 1x2x0.64mm PE		PROFIBUS
	82824	PROFIBUS L2 direct burial 1x2x0.64mm PVC/PE		PROFIBUS
	802177	PROFIBUS L2 armoured direct burial 1x2x0.64mm PVC/PE		PROFIBUS
	81904	PROFIBUS SK outdoor 1x2x0.64mm PE		PROFIBUS
	804268	CAN-Bus direct burial 1x2x0.5mm ² PE		CAN-Bus
	804269	CAN-Bus direct burial 4x1x0.5mm ² PE		CAN-Bus
FEP	802179	PROFIBUS High temperature 1x2x0.64mm FEP +180°		PROFIBUS
EPDM	80824	AS-Interface, A-Bus 2x1.5mm ² yellow EPDM		AS-Interface
	80825	AS-Interface, A-Bus 2x1.5mm ² black EPDM		AS-Interface
	804408	AS-Interface, A-Bus Long Distance 2x2.5mm ² yellow EPDM		AS-Interface
	804409	AS-Interface, A-Bus Long Distance 2x2.5mm ² black EPDM		AS-Interface

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Sheath material	Part no.	Product name	Further information, properties	Bus system
PUR	80267	PROFIBUS 1x2x0.65mm PUR	Drag chain	PROFIBUS
	81003	PROFIBUS 1x2x0.65mm PUR	Drag chain	PROFIBUS
	81203	I-Bus drag chain 3x2x0.25mm ² PUR	Drag chain	Interbus
	82696	I-Bus hybrid drag chain 3x2x0.25mm ² +3x1.0mm ² PUR	Drag chain	Interbus
	81911	CAN-Bus 1X2X0.25 PUR	Drag chain	CAN-Bus
	81912	CAN-Bus 4X1X0.25 PUR	Drag chain	CAN-Bus
	81611	HELUCOM® POF I-V2Y11Y 1P 980/1000 PUR	Drag chain	DESINA
	80629	HELUCOM® POF I-V2Y11Y 2P 980/1000 PUR	Drag chain	DESINA
	801201	HELUCOM® POF I-V(ZN)11Y 4Y2P980/1000 PUR	Drag chain	PROFINET
	805838	HELUCOM® POF I-V(ZN)11Y 4Y2P980/1000 PUR	Drag chain	PROFINET
	805690	HELUCOM® AT-W(ZN)Y(ZN)11Y 2 G50/125µm OM2 PUR	Drag chain	PROFINET

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Cables for permanent installation or applications with occasional movement

	Impedance (Ohm)	Operating temperature range	Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
	150	-40°C to +105°C	2	0.34	violet						●	
	150	-25°C to +80°C	2	0.38	violet		●	●	●		●	
	150	-50°C to +200°C	2	0.34	black			●			●	
	150	-20°C to +70°C	2	0.22	violet			●			●	
	110	-25°C to +80°C	3	0.75	yellow			●			●	
	120	-30°C to +80°C	3	0.34	black			●	●		●	
	fibre optic	-30°C to +70°C	2	–	black			●	●	●	●	
	fibre optic	-40°C to +80°C	4	–	black			●	●	●	●	
	150	-40°C to +70°C	2	0.34	turquoise		●	●			●	
	–	-40°C to +105°C	2	1.5	yellow		●				●	
	–	-40°C to +105°C	2	1.5	black		●		●		●	
	150	-40°C to +70°C	2	0.34	black			●	●	●		
	150	-40°C to +80°C	2	0.34	black				●	●		
	150	-40°C to +80°C	2	0.34	black				●	●		
	150	-20°C to +70°C	2	0.34	black				●	●		
	120	-40°C to +70°C	2	0.5	black				●	●		
	120	-40°C to +70°C	4	0.5	black				●	●		
	150	-50°C to +180°C	2	0.34	violet		●		●	●	●	
	–	-40°C to +85°C	2	1.5	yellow		●	●				
	–	-40°C to +85°C	2	1.5	black		●	●	●			
	–	-40°C to +85°C	2	2.5	yellow		●	●				
	–	-40°C to +85°C	2	2.5	black		●	●	●			

Highly flexible cables for flexible installation in, e.g., drag chains

	Impedance (Ohm)	Operating temperature range	Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
	150	-30°C to +70°C	2	0.25	violet		●	●			●	
	150	-30°C to +70°C	2	0.25	turquoise		●	●			●	
	100	-20°C to +70°C	6	0.25	pastel turquoise		●		●		●	
	100	-20°C to +70°C	11	0.25–1.0	pastel turquoise		●		●		●	
	120	-30°C to +70°C	2	0.25	violet		●	●				
	120	-30°C to +70°C	4	0.25	violet		●	●				
	fibre optic	-20°C to +70°C	1	–	violet		●	●			●	
	fibre optic	-20°C to +70°C	2	–	violet		●	●			●	
	fibre optic	-20°C to +70°C	2	–	red		●	●	●			
	fibre optic	-30°C to +70°C	2	–	green		●	●	●		●	
	fibre optic	-40°C to +80°C	2	–	green		●		●	●		

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Bus Cables

ACC. TO UL/CSA

Sheath material	Part no.	Product name	Further information, properties	Bus system
PVC	80384	PROFIBUS L2 1x2x0.64mm PVC	CMX	PROFIBUS
	81448	PROFIBUS L2 1x2x0.64mm PVC	CMX	PROFIBUS
	81903	PROFIBUS SK 1x2x0.64mm PVC	CMG, AWM 21694	PROFIBUS
	800648	PROFIBUS L2 / FIP 7-wire 1x2x0.64mm PVC		PROFIBUS
	805656	PROFIBUS SK / FIP 7-wire 1x2x0.64mm PVC	CMG	PROFIBUS
	81286	CAN-Bus 1x2x0.22mm ² PVC	AWM 21695	CAN-Bus
	81287	CAN-Bus 4x1x0.22mm ² PVC	AWM 21695	CAN-Bus
	82509	CAN-Bus 2x2x0.22mm ² PVC	AWM 21695	CAN-Bus
	801572	CAN-Bus 1x2x0.34mm ² PVC	AWM 21695	CAN-Bus
	801573	CAN-Bus 4x1x0.34mm ² PVC	AWM 21695	CAN-Bus
	803344	CAN-Bus 2x2x0.34mm ² PVC	CMX	CAN-Bus
	800571	CAN-Bus 1x2x0.5mm ² PVC	AWM 21695	CAN-Bus
	800685	CAN-Bus 4x1x0.5mm ² PVC	AWM 21695	CAN-Bus
	803722	CAN-Bus 2x2x0.5mm ² PVC	CMX	CAN-Bus
	803383	CAN-Bus 1x2x0.75mm ² PVC		CAN-Bus
	803384	CAN-Bus 4x1x0.75mm ² PVC		CAN-Bus
	11024857	CAN-Bus 1x2xAWG22/7+AWG22/7 PVC		CAN-Bus
	800683	DeviceNet™ Thick 1x2xAWG18 + 1x2xAWG15 PVC	CMG, PLTC	DeviceNet™
	800684	DeviceNet™ Thin 1x2xAWG24 + 1x2xAWG22 PVC	CMG, PLTC	DeviceNet™
	80778	I-Bus static 3x2x0.22mm ² PVC		Interbus
	81202	I-Bus hybrid static 3x2x0.22mm ² + 3x1.0mm ² PVC		Interbus
	11017918	AS-Interface, A-Bus 2x1.5mm ² yellow PVC	CMG	AS-Interface
	11017919	AS-Interface, A-Bus 2x1.5mm ² black PVC	CMG	AS-Interface
	803354	FF-BUS Basic 1x2x1.2 / 2.55-100 LI Type A	CMG	FOUNDATION™ Fieldbus
	800497	CC-Link Bus 3x0.5mm ² PVC	CM, PLTC	CC-Link
11024857	RS-485 BUS 2xAWG22+1xAWG22 PVC	AWM 2464	RS-485	
FRNC	81501	PROFIBUS SK 1x2x0.64mm FRNC	CM	PROFIBUS
	800681	DeviceNet™ Thick 1x2xAWG18 + 1x2xAWG15 FRNC	CMG	PROFIBUS
	800682	DeviceNet™ Thin 1x2xAWG24 + 1x2xAWG22 FRNC	CMG	PROFINET + PROFIBUS
PUR	81905	PROFIBUS SK 1x2x0.64mm PUR	AWM 20236	PROFIBUS
	801982	CAN-Bus 2x2x0.25mm ² PUR 105°C	AWM 21223	CAN-Bus
	82434	AS-Interface, A-Bus 2x1.5mm ² yellow PUR	AWM 20549	AS-Interface
	82822	AS-Interface, A-Bus 2x1.5mm ² black PUR	AWM 20549	AS-Interface
	804410	AS-Interface, A-Bus 2x2.5mm ² yellow PUR	AWM 20549	AS-Interface
	804411	AS-Interface, A-Bus 2x2.5mm ² black PUR	AWM 20549	AS-Interface
	805887	AS-Interface, A-Bus 2x2.5mm ² grey PUR	AWM 20549	AS-Interface
	81909	DeviceNet™ Thick 1x2xAWG18 + 1x2xAWG15 PUR	CMX	DeviceNet™
	81910	DeviceNet™ Thin 1x2xAWG24 + 1x2xAWG22 PUR	CMX	DeviceNet™
TPE	801846	AS-Interface, A-Bus 2x1.5mm ² yellow TPE		AS-Interface
	801847	AS-Interface, A-Bus 2x1.5mm ² black TPE		AS-Interface

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Cables for permanent installation or applications with occasional movement

	Impedance (Ohm)	Operating temperature range	Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
	150	-40°C to +70°C	2	0.34	grey						●	
	150	-40°C to +70°C	2	0.34	violet						●	
	150	-40°C to +80°C	2	0.34	violet			●			●	●
	150	-30°C to +80°C	2	0.22	violet						●	
	150	-40°C to +80°C	2	0.22	violet						●	
	120	-40°C to +70°C	2	0.22	violet						●	●
	120	-40°C to +70°C	4	0.22	violet						●	●
	120	-25°C to +70°C	4	0.22	violet						●	●
	120	-30°C to +70°C	2	0.34	violet						●	●
	120	-30°C to +70°C	4	0.34	violet						●	●
	120	-40°C to +70°C	4	0.34	violet						●	
	120	-40°C to +70°C	2	0.5	violet						●	●
	120	-40°C to +70°C	4	0.5	violet						●	●
	120	-40°C to +70°C	4	0.5	violet						●	
	120	-40°C to +70°C	2	0.75	violet						●	
	120	-40°C to +70°C	4	0.75	violet						●	
	120	-30°C to +80°C	3	0.36	black		●		●		●	
	120	-40°C to +80°C	4	0.96 / 1.6	grey		●		●		●	
	120	-40°C to +80°C	4	0.24 / 0.38	grey		●		●		●	
	100	-40°C to +70°C	6	0.22	pastel turquoise						●	
	100	-40°C to +70°C	9	0.22 / 1.0	pastel turquoise						●	
	–	-40°C to +90°C	2	1.5	yellow		●				●	
	–	-40°C to +90°C	2	1.5	black		●		●		●	
	100	-40°C to +80°C	3	0.88	orange		●		●		●	
	110	-40°C to +75°C	3	0.5	red		●		●		●	
	120	-30°C to +80°C	3	0.34	black		●		●		●	●
	150	-25°C to +70°C	2	0.34	violet			●	●		●	●
	120	-25°C to +80°C	4	0.96 / 1.6	violet			●			●	●
	120	-25°C to +80°C	4	0.24 / 0.38	violet			●			●	
	150	-40°C to +70°C	2	0.34	violet		●	●	●		●	●
	120	-40°C to +105°C	4	0.25	violet		●	●	●		●	●
	–	-40°C to +80°C	2	1.5	yellow		●	●			●	●
	–	-40°C to +80°C	2	1.5	black		●	●	●		●	●
	–	-40°C to +80°C	2	2.5	yellow		●	●			●	●
	–	-40°C to +80°C	2	2.5	black		●	●	●		●	●
	–	-40°C to +80°C	2	2.5	grey		●	●	●		●	●
	120	-40°C to +80°C	4	1.0 / 1.6	violet		●	●	●		●	●
	120	-40°C to +80°C	4	0.24 / 0.38	violet		●	●	●		●	●
	–	-40°C to +105°C	2	1.5	yellow		●				●	
	–	-40°C to +105°C	2	1.5	black		●		●		●	

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Bus Cables

ACC. TO UL/CSA-HIGHLY FLEXIBLE

Sheath material	Part no.	Product name	Further information, properties	Bus system	
PVC	800649	PROFIBUS L2 FESTOON 1x2x0.65mm PVC	CM, AWM 21694, festoon application	PROFIBUS	
	81906	PROFIBUS SK Drag chain 1x2x0.65mm PUR	CMX, drag chain	PROFIBUS	
PUR	801659	PROFIBUS SK Drag chain 1x2x0.65mm PUR	CMX, drag chain	PROFIBUS	
	800109	PROFIBUS L2 Torsion 1x2x0.8mm PUR	CMX, torsion	PROFIBUS	
	82913	PROFIBUS ET200X 1x2x0.65 + 3x0.75mm ² PUR	AWM 21184, drag chain	PROFIBUS	
	800044	PROFIBUS ECOFAST 1x2x0.65 + 4x1.5mm ² PUR	AWM 21198, drag chain	PROFIBUS	
	802182	CAN-Bus 1x2x0.34mm PUR	CMX, drag chain	CAN-Bus	
	802339	CAN-Bus 4x1x0.34mm PUR	CMX, drag chain	CAN-Bus	
	805685	CAN-Bus highly flexible 1x2x0.50mm PUR	CMX, drag chain	CAN-Bus	
	805696	CAN-Bus highly flexible 4x1x0.50mm PUR	CMX, drag chain	CAN-Bus	
	81909	DeviceNet™ highly flexible thick + thin 1x2xAWG18 + 1x2xAWG15 PUR	CMX, drag chain	DeviceNet™	
	81910	DeviceNet™ highly flexible thick + thin 1x2xAWG24 + 1x2xAWG22 PUR	CMX, drag chain	DeviceNet™	
	82434	AS-Interface, A-Bus 2x1.5mm ² yellow PUR	AWM 20549, drag chain	AS-Interface	
	82822	AS-Interface, A-Bus 2x1.5mm ² black PUR	AWM 20549, drag chain	AS-Interface	
	804410	AS-Interface, A-Bus 2x2.5mm ² yellow PUR	AWM 20549, drag chain	AS-Interface	
	804411	AS-Interface, A-Bus 2x2.5mm ² black PUR	AWM 20549, drag chain	AS-Interface	
	802469	USB S 2.0 1x2xAWG28 + 1x2xAWG20 PUR	AWM 20963, drag chain	USB 2.0	
	802470	USB L 2.0 1x2xAWG24 + 1x2xAWG20 PUR	AWM 21198, drag chain	USB 2.0	
	805287	USB 3.0 2x2xAWG28 + 2x2xAWG28 PUR	AWM 20236, drag chain	USB 3.0	
	800652	SafetyBUS 3x0.75mm ² PUR	CMX, drag chain	SafetyBUS	
	TPE	11027798	HELUCHAIN® PROFIBUS TPE 1x2x0.25mm ²	AWM 22541, drag chain	PROFIBUS
		11027795	HELUCHAIN® CAN-Bus 2-PAIR/QUAD TPE 2x2x0.25mm ²	AWM 22541, drag chain	CAN-Bus
11027796		HELUCHAIN® CAN-Bus 1-PAIR TPE 1x2x0.5mm ²	AWM 22541, drag chain	CAN-Bus	
11027797		HELUCHAIN® CAN-Bus 2-PAIR/QUAD TPE 2x2x0.5mm ²	AWM 22541, drag chain	CAN-Bus	

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Highly flexible cables for flexible installation in, e.g., drag chains

	Impedance (Ohm)	Operating temperature range	Core count	Cross-section mm ²	Sheath colour	CPR class	Oil resistant	Halogen free	UV resistant	Outdoor installation	Flame retardant	NFPA 79
	150	-20°C to +70°C	2	0.25	turquoise				●		●	
	150	-30°C to +70°C	2	0.38	turquoise		●		●		●	
	150	-30°C to +70°C	2	0.38	violet		●		●		●	
	150	-25°C to +75°C	2	0.38	violet		●	●	●		●	
	150	-30°C to +70°C	5	0.38 / 0.75	turquoise		●	●	●		●	
	150	-30°C to +70°C	6	0.38 / 1.5	violet		●	●	●		●	
	120	-30°C to +70°C	2	0.34	violet		●	●	●		●	
	120	-30°C to +70°C	4	0.34	violet		●	●	●		●	
	120	-30°C to +70°C	2	0.5	violet		●	●	●		●	
	120	-30°C to +70°C	4	0.5	violet		●	●	●		●	
	120	-40°C to +80°C	4	1.0 / 1.6	violet		●	●	●		●	
	120	-40°C to +80°C	4	0.24 / 0.38	violet		●	●	●		●	
	-	-40°C to +80°C	2	1.5	yellow		●	●	●		●	
	-	-40°C to +80°C	2	1.5	black		●	●	●		●	
	-	-40°C to +80°C	2	2.5	yellow		●	●	●		●	
	-	-40°C to +80°C	2	2.5	black		●	●	●		●	
	90	-30°C to +70°C	4	0.09 / 0.5	violet		●	●	●		●	●
	90	-30°C to +70°C	4	0.24 / 0.6	violet		●	●	●		●	●
	90 / 105	-30°C to +70°C	8	0.09 / 0.09	violet		●	●	●		●	●
	110	-30°C to +70°C	3	0.75	yellow		●	●	●		●	
	150	-35°C to +90°	2	AWG 24	violet		●				●	●
	120	-35°C to +90°	4	AWG 24	violet		●				●	●
	120	-35°C to +90°	2	AWG 20	violet		●				●	●
	120	-35°C to +90°	4	AWG 20	violet		●				●	●

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

Cable Glands

Part no.	Product name	Additional information, characteristics	Thread types	Temperature range
93908	HELUTOP® HT-PA	IP66/IP68-5 bar (30min), with vibration protection	metric/PG/NPT	-20°C to +100°C
	HELUTOP® HT-PA		metric/PG/NPT	-20°C to +100°C
	HELUTOP® HT-PA		metric/PG/NPT	-20°C to +100°C
11024765	HELUTOP® HT-PA RJ45	IP68-5bar(30min), for pre-assembled fibre-optic connectors	metric	-20°C to +100°C
	HELUTOP® HT-PA RJ45		metric	-20°C to +100°C
	HELUTOP® HT-PA RJ45		metric	-20°C to +100°C
908054	HELUTOP® Easy	IP66/IP68-5 bar (30min), time and space-saving assembly	without thread	-20°C to +100°C
	HELUTOP® Easy		without thread	-20°C to +100°C
	HELUTOP® Easy		without thread	-20°C to +100°C
90760	HELUTOP® HT-MS	IP66/IP68-5 bar (30min), high mechanical load	metric/PG/NPT	-20°C to +100°C
99980	HELUTOP® HT-E	IP68-5 bar (30min), for extreme enviroins.	metric/PG	-20°C to +100°C
99950	HELUTOP® HT-MS-EP	IP68-5bar (30min), for screened cables	metric	-20°C to +100°C
905181	HELUTOP® HT-MS-EP4	IP68-5bar (30min), for screened cables	metric	-20°C to +100°C
905957	KVA-XXL-MS	IP68-10 bar, for screened cables	metric	-40°C to +135°C
98257	KVA-XXL-MS-E	IP68-10 bar, for screened cables	metric	-40°C to +135°C
97527	HSK-PVDF	IP68-10 bar, for extreme environments	metric/PG/NPT	-35°C to +150°C
97571	HSK-MS-PVDF	IP68-10 bar, for extreme environments	metric/PG/NPT	-35°C to +150°C
906990	HELUTOP® HT-AIR-PA	IP66/IP67, with air-vent system	metric	-20°C to +100°C
	HELUTOP® HT-AIR-PA		metric	-20°C to +100°C
906993	HELUTOP® HT-AIR-MS	IP66/IP67, with air-vent system	metric	-20°C to +100°C
93867	HELUTOP® HT-K	IP66/IP68-5 bar (30min), anti-kink	metric/PG/NPT	-20°C to +100°C
	HELUTOP® HT-K		metric/PG/NPT	-20°C to +100°C
	HELUTOP® HT-K		metric/PG/NPT	-20°C to +100°C
92917	HSK-MS-B	IP68-10bar/IP69K, with kink protection	metric/PG/NPT	-40°C to +100°C
91690	HSK-L	IP54/with addtl. O-ring on AG IP68-10 bar (30min)/IP69K, extended thread	metric	-40°C to +100°C
	HSK-L		metric	-40°C to +100°C
91720	HSK-MS-L	IP68-10bar/IP69K, long connection thread	metric/PG	-40°C to +100°C
91284	HSK-WI	IP68, angled	metric/PG/NPT	-40°C to +100°C
	HSK-WI		metric/PG/NPT	-40°C to +100°C
90800	KVA-MS	IP68-10bar, with colour-coded insert	metric/PG	-20°C to +105°C
93400	KVA-MFD-MS	IP68-10bar (all cables of the same outer diameter and all holes occupied) with multiple sealing inserts	metric/PG	-20°C to +105°C

For further information, variants, and dimensions, see data sheets at: helu.com/999999en (replace the red numbers with the relevant part no.)

	Cable diameter range (mm)	Material / Colour	CPR class	Halogen free	UV resistant	Outdoor installation	EMC	UL	Suitable lock nut
	3 to 44	Polyamide / light grey	UL94V2					●	KMK-PA-OB(94630)/KMK-PA-MB(97816)
	3 to 44	Polyamide / dark grey	UL94V2					●	KMK-PA-OB(94630)/KMK-PA-MB(97816)
	3 to 44	Polyamide / black	UL94V2		●	●		●	KMK-PA-OB(94630)/KMK-PA-MB(97816)
	3 to 6	Polyamide / light grey	UL94V2						
	3 to 6	Polyamide / dark grey	UL94V2						
	3 to 6	Polyamide / black	UL94V2		●	●			
	5 to 21	Polyamide / light grey	UL94V2					●	Disassembly tool (908056)
	5 to 21	Polyamide / dark grey	UL94V2					●	Disassembly tool (908056)
	5 to 21	Polyamide / black	UL94V2		●			●	Disassembly tool (908056)
	3 to 55	Brass, nickel plated	UL94V2		●	●		●	KM(90175)
	3 to 44	Stainless steel	UL94V2		●	●		●	KM-INOX(920605)
	3 to 44	Brass, nickel plated	UL94V2		●	●	●	●	KM-EMV(90165)
	3 to 53	Brass, nickel plated	UL94V2		●	●	●	●	KM-EMV(90165)
	42 to 95	Brass, nickel plated			●				KM(98314)
	40 to 70	Brass, nickel plated			●		●		KM-EMV(90165/99875)
	3 to 25	PVDF polyvinylidene fluoride	UL94VO		Long term ●	●		●	KMK-PA-OB(94630)/KMK-PA-MB(97816)
	3 to 44	Brass, nickel plated			Long term ●	●		●	KM-INOX(920605)
	4 to 12	Polyamide / light grey	UL94V2					●	KMK-PA-OB(94630)/KMK-PA-MB(97816)
	4 to 12	Polyamide / black	UL94V2		●	●		●	KMK-PA-OB(94630)/KMK-PA-MB(97816)
	4 to 12	Brass, nickel plated	UL94V2		●	●		●	KM(90175)
	3 to 18	Polyamide / light grey	UL94V2					●	KMK-PA-OB(94630)/KMK-PA-MB(97816)
	3 to 18	Polyamide / dark grey	UL94V2					●	KMK-PA-OB(94630)/KMK-PA-MB(97816)
	3 to 18	Polyamide / black	UL94V2		●	●		●	KMK-PA-OB(94630)/KMK-PA-MB(97816)
	3 to 18	Brass, nickel plated	UL94VO	●	●	●		●	KM(90175)
	3 to 44	Polyamide / light grey	UL94VO	●				●	KMK-PA-OB(94630)/KMK-PA-MB(97816)
	3 to 44	Polyamide / black	UL94VO	●	●	●		●	KMK-PA-OB(94630)/KMK-PA-MB(97816)
	3 to 44	Brass, nickel plated	UL94VO	●	●	●		●	KM(90175)
	4 to 25	Polyamide / light grey		●				●	KMK-PA-OB(94630)/KMK-PA-MB(97816)
	4 to 25	Polyamide / black		●	●	●		●	KMK-PA-OB(94630)/KMK-PA-MB(97816)
	4 to 45	Brass, nickel plated			●	●			KM(90175)/KM90610
	(2)x1 to (2)x15	Brass, nickel plated			●	●			KM(90175)/KM90612

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