

Cables, Wires & Accessories for

INDUSTRIAL AUTOMATION

Ed. 1 // EN



**(Channeling
POWER)** 

Connection Technology for the Next Generation of Industry

An increasing number of production processes are being automated across industries around the world; for example, in the automotive industry and its suppliers, the food industry, the trade sector and logistics.

Autonomous handling and transport systems as well as industrial robots and computer-controlled machining centres ensure greater productivity, consistent high quality and flexible manufacturing to batch size 1.

Integrated automation systems in industry require a very large number of processors, sensors, drives and controls that are intelligently and digitally interconnected with each other. The right cables and wires are indispensable for this: they ensure that all system components reliably receive the power and data they need.

They must also meet complex requirements, depending on the application: for example, they might need to be resistant to high temperatures, chemicals, oil or mechanical stresses such as

bending and torsion, be suitable for use in confined spaces or capable of ever higher data transmission rates. Such requirements make industrial automation a challenging environment for cables and wires.

For decades, HELUKABEL has been a renowned partner to numerous leading companies in this field and offers a comprehensive product portfolio for automation technology: our range includes motor, servo and encoder cables for electrical drives, flexible and torsion-resistant robot cables, cable accessories, data, bus and ethernet cables and even space-saving hybrid cables that combine power and data transmission.

Customer-specific designs, pre-assembled components, ready-to-use system solutions and drag chains are just as much our strengths as our worldwide logistics network, which ensures high product availability and short delivery times.

Contents

	page
Connection Technology for the Next Generation of Industry	2
Contents	3
The suitable solution for every application	4
Industrial Automation - Chart	6
Solutions for the Industrial Automation	8
[1] Data cables (Bus/Ethernet/Fibre cables)	8
[2] Drive cables (Servo/Feedback/Hybrid)	8
[3] Cables for robot applications	10
[4] Drag chain cables	12
[5] Installation cables	14
[6] Pre-assembled cables (Data/Drive technologie)	14
[7] HELUTEK® circular connectors	15
[8] HELUTOP® cable glands	16
[9] HELUKAT® data connector	17
[10] Components for earthing concepts	17
[11] Protection tubes	18
[12] Tools & Accessories	19
[13] EKD Systems - Drag chains	20
[14] SANGEL® Systemtechnik - Industrial Luminaires	21
Glossary	22
Contact	23

The suitable solution for every application

See how cables, wires and accessories are used in various areas of industrial automation.

- [1] Data cables (Bus/Ethernet/Fibre cables)
- [2] Drive cables (Servo/Feedback/Hybrid)
- [3] Cables for robot applications
- [4] Drag chain cables
- [5] Installation cables
- [6] Pre-assembled cables (Data/Drive technology)
- [7] HELUTEK® circular connectors
- [8] HELUKAT® data connector
- [9] HELUTOP® cable glands
- [10] Components for earthing concepts
- [11] Protection tubes
- [12] Tools and accessories
- [13] EKD Systems - Drag chains
- [14] SANGEL® Systemtechnik - Industrial Luminaires

A Control Station

Key point for controlling and monitoring manufacturing and logistics processes.

[1] [5] [6] [8] [9] [12]

B Laser-Cut Device

System for separating workpieces using laser radiation.

[1] [2] [4] [5] [6] [7] [8] [9] [12] [13] [14]

C Machining Centre

Machine tool containing several functions such as turning, milling and drilling.

[1] [2] [4] [5] [6] [7] [8] [9] [10] [11] [12] [13] [14]

D Control Panel

Stationary or mobile device with display and/or keyboard for operating machines and systems.

[1] [3] [6] [8] [9] [11] [12] [13]

E Switching cabinet

Contains all electrical and electronic components that are not directly installed in the machine or system.

[1] [2] [5] [6] [7] [8] [9] [10] [11] [12] [13] [14]

F Pick & Place Area

Device that independently grips, sorts and places goods or workpieces.

[1] [2] [6] [7] [8] [9] [13] [14]

G Conveyor System

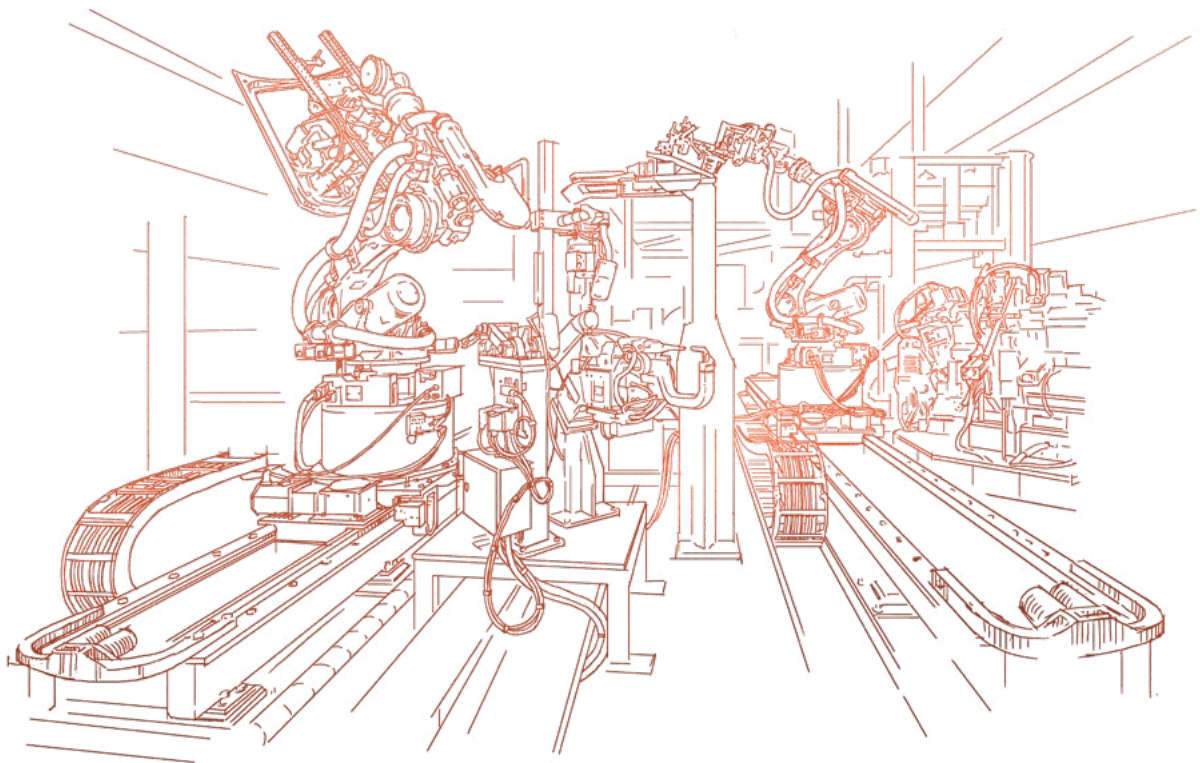
Stationary conveyor system for transporting various goods or workpieces.

[1] [2] [5] [6] [7] [8] [9] [10] [11] [12]

H 6 Axis Robot

Articulated arm robot with six rotary axes for carrying out a wide range of movements and tasks.

[1] [2] [3] [6] [7] [8] [9] [10] [11] [12] [13]



I Driverless Transport System

Floor-bound conveyor with its own travel drive, which is automatically controlled and guided without contact.
[1] [2] [5] [6] [8]

J Labelling Area

Used to apply barcodes or labels to goods and workpieces.
[1] [4] [5] [6] [8] [9] [12] [13] [14]

K Stacker Crane

Rail-guided, single-track vehicle used to store and retrieve goods in a high-bay warehouse.
[1] [2] [4] [5] [6] [7] [8] [9] [12] [13]

L High-bay warehouse

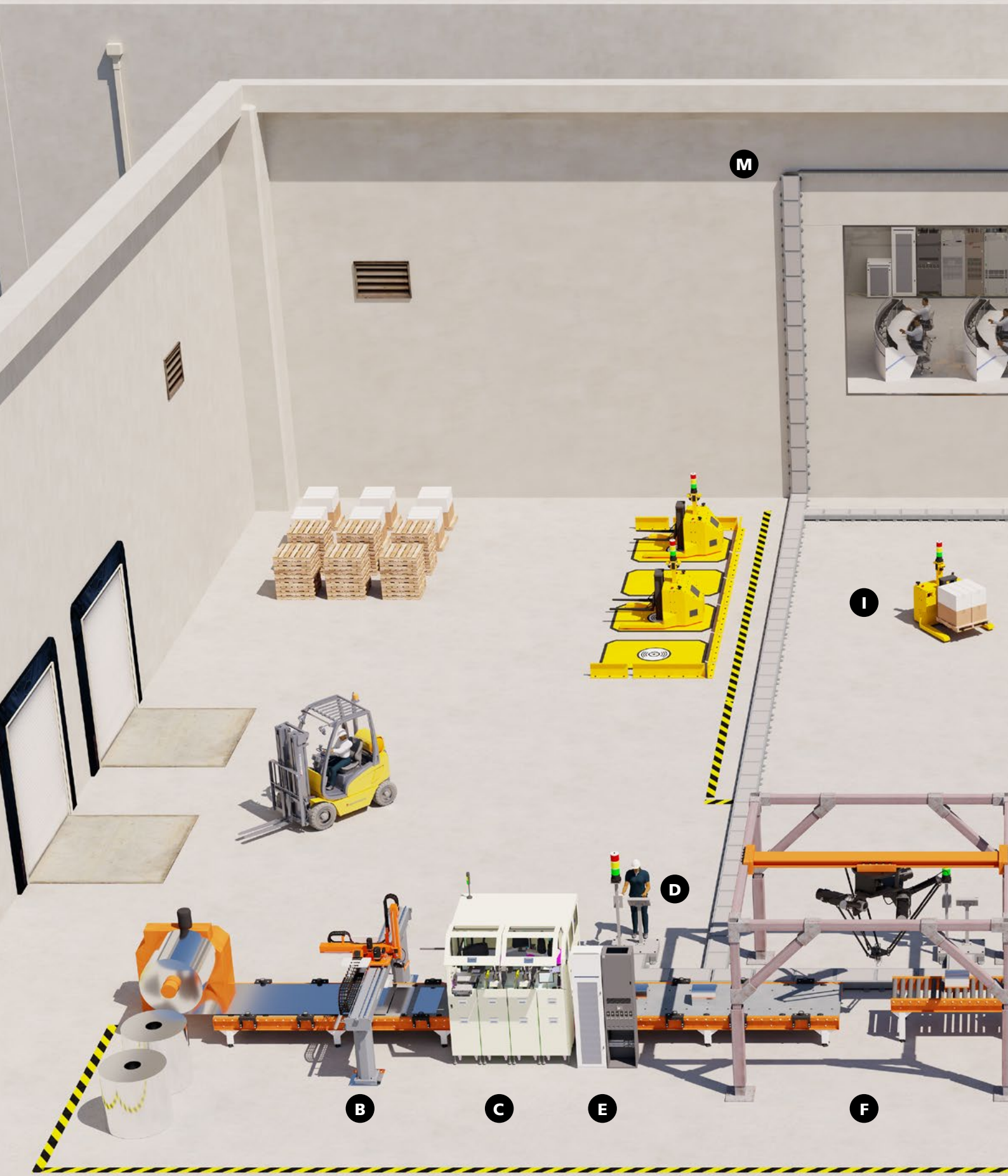
Storage area with permanently installed shelf constructions where goods or workpieces are stored on top of each other.
[1] [2] [4] [5] [7] [8] [9] [12]

M Cable Trays

Load-bearing structure made of sheet metal or plastic for cables and wires.
[1] [5] [11] [12]

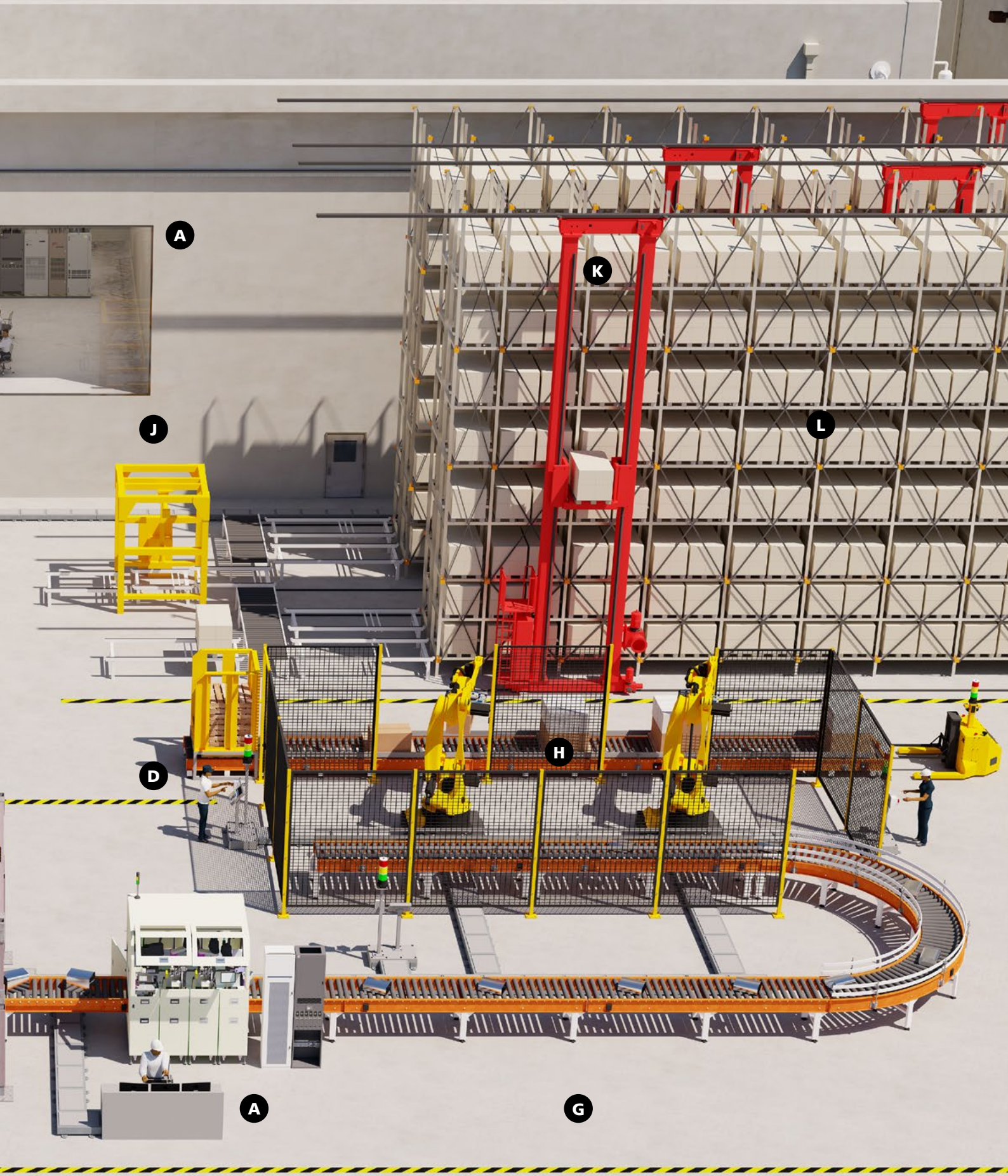


You can find further information material on our products in our Download Centre: www.helukabel.com/download-center



- A** Control Station
- B** Laser-Cut Device
- C** Machining Centre
- D** Control Panel

- E** Switching Cabinet
- F** Pick & Place Area
- G** Conveyor System



H 6 Axis Robot

I Driverless Transport System

J Labelling Area

K Stacker Crane

L High-bay Warehouse

M Cable Trays

Solutions for the Industrial Automation

For further information, variants and dimensions, see data sheets under: www.helukabel.com/999999en
(replace the **red numbers** with the corresponding part no.)

[1] DATA CABLES

HELUKAT® PROFINET TYP B Cat. 5e SF/UTP PVC FLEX

2 x 2 x AWG 22 /7 green
for mobile use, quick contact
PVC flame retardant, UL approved
Part no. 800654



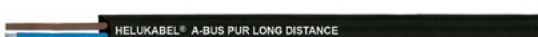
HELUKABEL® Profibus SK PVC STATIC

1 x 2 x 0.64 mm² purple
fixed installation, quick contact
PVC flame retardant, UL approved
Part no. 81903



HELUKABEL® A-BUS PUR LONG DISTANCE CHAIN

2 x 2.5 mm² black
approved for drag chain, suitable for ASI 5.0
PUR halogen-free, UL approval
Part no. 804411



HELUCOM® AT-W(ZN)H(ZN)H

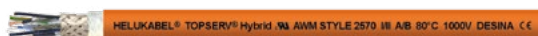
2G50/125 OM4 green
fixed installation, splittable
FRNC, UL approval
Part no. 805691



[2] DRIVE CABLES

TOPSERV® Hybrid PVC

(4G1+(2x0.75)C+(2x22AWG)C)C mm² orange
PVC sheath flame retardant, hybrid cable acc. to
SICK Hyperface DSL, bending cycle: 100,000,
PVC sheathed cable with UL/CSA
Part no. 709932



Hybrid cables, version acc. to Siemens OCC

TOPSERV® Hybrid PVC Siemens OCC (4G0.75+(2x0.50)C+(4x0.20)C)C mm² orange

Part no. 17001156

TOPSERV® 108 PVC - Siemens

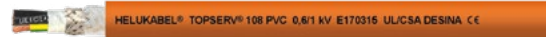
(4G1.5)C mm² orange, PVC sheath flame retardant,
Motor servo cable acc. to div. standards, bending
cycles: 100,000, PVC sheathed cable with UL/CSA

Part no. 707250

Motor servo cable, version acc. to Siemens 6FX5002

TOPSERV® 112 PVC - Siemens (4G1.5+(2x1.5)C)C mm² orange,

Part no. 707280

**TOPGEBER® 511 PVC, Siemens**

(3x(2x0.14)D+4x0.14+4x0.25+2x0.5)C mm² green
PVC sheath flame retardant, feedback cable acc. to Siemens
6FX5002, bending cycles: 100,000, PVC sheathed cable
with UL/CSA

Part no. 707390

**HMCB500S DRIVE CLIQ™ PVC CHAIN**

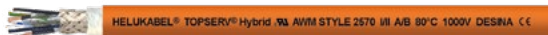
(2x2x0.22+1x2x0.34)C mm² green
PVC sheath flame retardant, feedback cable acc. to Siemens
6FX5002, bending cycles: 100,000, PVC sheathed cable
with UL/CSA

Part no. 803672

**TOPSERV® Hybrid PUR**

DSL (4G1.5+(2x0.75)C)+(2x22AWG)C)C mm² orange,
PUR sheath halogen-free, hybrid cable acc. to SICK Hyperface
DSL, bending cycles: 5 Mio., drag chain cable with UL/CSA

Part no. 708544



Hybrid cables, version acc. to Heidenhain EnDat ,

TOPSERV® Hybrid PUR, EnDat (4G1.5+(2x0.75)C)+(2x0.24+2x2x0.09)C)C mm² orange

Part no. 709722

Hybrid cables, version acc. to Hengstler Acuro Link

TOPSERV® Hybrid PUR, Acuro Link (4G1.5+(2x0.75)C)+(4x24AWG)C)C mm² orange

Part no. 17000505

Hybrid cables, version acc. to Siemens OCC

TOPSERV® Hybrid PUR, Siemens OCC (4G0.38+(2x0.38)C)+(4x0.20)C)C mm² orange

Part no. 17001157

TOPSERV® 109 PUR - Siemens

(4G2.5)C mm² orange, PUR sheath halogen-free,
motor servo cable acc. to various standards,
bending cycles: 5 Mio., drag chain cable with UL/CSA

Part no. 75944



Motor servo cable, version acc. to Siemens 6FX8002

TOPSERV® 113 PUR - Siemens (4G1.5+(2x1.5)C)C mm² orange

Part no. 78948

Motor servo cable, version acc. to Bosch Rexroth

TOPSERV® 121 PUR - Bosch Rexroth (4G1.5+2x(2x0.75)C)C mm² orange

Part no. 700561

TOPGEBER® 512 PUR - Siemens

(3x(2x0.14)D+4x0.14+2x0.5)C mm² green
PUR sheath halogen-free, feedback cable acc. to
Siemens 6FX8002, bending cycles: 5 Mio.,
drag chain cable with UL/CSA



Part no. 700657

version acc. to Siemens,

TOPGEBER® 512 PUR - Siemens (3x(2x0.14)D+4x0.14+4x0.25+2x0.5)C mm² green

Part no. 700540

version acc. to Bosch Rexroth Standard,

TOPGEBER® 512 PUR - Bosch Rexroth (4x2x0.25+2x0.5)C mm² green

Part no. 78080

version acc. to Bosch Rexroth Standard,

TOPGEBER® 512 PUR - Bosch Rexroth (4x2x0.25+2x0.5)C mm² orange

Part no. 707739

HMCB800W DRIVE CLIQ™ PUR CHAIN

(2x2x0.20+1x2x0.38)C mm² green
PUR sheath halogen-free, feedback cable acc. to
Siemens 6FX8002, bending cycles: 5 Mio.,
drag chain cable with UL/CSA



Part no. 804767

version acc. to Heidenhain Standard,

TOPGEBER® 512 PUR - Heidenhain (1x4x0.14+4x0.34)C mm² black

Part no. 710106

version acc. to Fanuc Standard,

TOPGEBER® 512 PUR - Fanuc (1x2x0.18+5x0.5)C mm² green

Part no. 707115

version acc. to Bosch Rexroth Standard,

TOPGEBER® 512 PUR - Bosch Rexroth (4x2x0.25+2x1.0)C mm² orange

Part no. 707738

[3] CABLES FOR ROBOT APPLICATIONS

HELUPOWER® ROBOFLEX® PUR UL/CSA

3G2.5 mm² black,
torsion cycles: 5 Mio. at +/- 360°/m,
10 Mio. at +/- 180°/m, bending cycles: 10 Mio.



Part no. 11022415

HELUCONTROL® ROBOFLEX®-D PUR UL/CSA

18G0.75 mm² black
torsion cycles: 5 Mio. at +/- 180°/m,
bending cycles: 5 Mio.



Part no. 11022444

HELUPOWER® ROBOFLEX®-D PUR UL/CSA4G 1.5 mm² black

torsion cycles: 5 Mio. at +/- 180°/m,

bending cycles: 5 Mio.

Part no. 11022454**HELUDATA® ROBOFLEX®-D PUR UL/CSA**10x0.14 mm² black

torsion cycles: 5 Mio. at +/- 180°/m,

bending cycles: 5 Mio.

Part no. 11022427**HELUDATA® ROBOFLEX®-PAIR-D PUR UL/CSA**4x2x0.25 mm² black

torsion cycles: 5 Mio. at +/- 180°/m,

bending cycles: 5 Mio.

Part no. 11022466**HELUDATA® ROBOFLEX®-recycle PUR UL/CSA**4x0.34 mm² black

torsion cycles: 10 Mio. at +/- 360°/m,

bending cycles: 10 Mio.

Part no. 11022476**HELUPOWER® ROBOFLEX® HYBRID PUR UL/CSA**16 G 1.0 mm² + (2 x 1.0 mm²) D black,

torsion cycles: 5 Mio. at +/- 360°/m,

10 Mio. at +/- 180°/m, bending cycles: 10 Mio.

Part no. 11022542**HELUPOWER® ROBOFLEX® HYBRID-D PUR UL/CSA**(4 G 1.5 mm² + 2 x (2 x 1.5 mm²) D) D black

torsion cycles: 5 Mio. at +/- 180°/m,

bending cycles: 5 Mio.

Part no. 11022491**HELUKAT® PROFInet R+ Cat. 5e SF/UTP PUR TORSION**

2 x 2 x AWG 22/19 green, double screening,

applications with torsional stress,

e.g. robot, UL recognized, PROFInet Type R 100 Mbit

Part no. 11007800**HELUKAT® 600T Cat. 7 SF/FTP PUR TORSION**

4 x 2 x AWG 24 /7 green, double total + pair screening,

applications with torsional stress,

e.g. robot, UL listed & recognized 600V

Part no. 805828**Profibus L2 PUR TORSION**1 x 2 x 0.80 mm² purple, double screening

applications with torsional stress,

e.g. robot, UL recognized, Profibus L2 Torsion

Part no. 800109

[4] DRAG CHAIN CABLES

HELUKAT® PROFInet Typ C

Cat. 5e SF/UTP PUR CHAIN, 2 x 2 x AWG 22 /7 green
highly dynamic application, double screening, UL listed
Part no. 800655



HELUKAT® 600S

Cat. 7 SF/FTP PUR CHAIN, 4 x 2 x AWG 24 /7 green
highly dynamic application, double screening +
pair screening, UL listed + recognized
Part no. 805614



SPE 1000BASE-T1 Highflex

PUR CHAIN, 1 x 2 x AWG 22/19 green
highly dynamic application, double screening,
UL recognized
Part no. 11018068



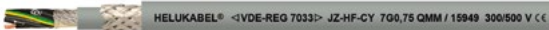
MULTISPEED® 500-PUR

12G1.5 mm² black, max. movement distance 450 m,
min. bending radius 7.5 x Ø, max. speed 5 m/s,
max. acceleration 50 m/s², max. bending cycles 11 Mio.
Part no. 24147



JZ-HF-CY

4G1.5 mm² grey, max. movement distance 10 m,
min. bending radius 10 x Ø, max. speed 2 m/s,
max. acceleration 10 m/s², max. bending cycles 9 Mio.
Part no. 15978



SUPERTRONIC®-PURö

3x0.25 mm² grey, max. movement distance 5 m,
min. bending radius 5 x Ø, max. speed 3 m/s,
max. acceleration 10 m/s², max. bending cycles 9 Mio.
Part no. 49595



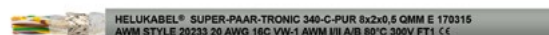
SUPERTRONIC®-PURö

4x0.25 mm² grey, max. movement distance 5 m,
min. bending radius 5 x Ø, max. speed 3 m/s,
max. acceleration 10 m/s², max. bending cycles 9 Mio.
Part no. 49596



SUPER-PAAR-TRONIC 340-C-PUR

4x2x0.25 mm² grey, max. movement distance 30 m,
min. bending radius 10 x Ø, max. speed 4 m/s,
max. acceleration 50 m/s², max. bending cycles 11 Mio.
Part no. 49833



MULTIFLEX 512®-PUR

3G1.5 mm² grey, max. movement distance 100 m,
min. bending radius 5 x Ø, max. speed 4 m/s,
max. acceleration 10 m/s², max. bending cycles 11 Mio.

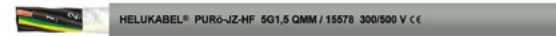
Part no. 22535



PURö-JZ-HF

7G1 mm² grey, max. movement distance 15 m,
min. bending radius 7.5 x Ø, max. speed 3 m/s,
max. acceleration 10 m/s², max. bending cycles 10 Mio.

Part no. 15560



PURö-J-HF

1G16 mm² grey, max. movement distance 15 m,
min. bending radius 7.5 x Ø, max. speed 3 m/s,
max. acceleration 10 m/s², max. bending cycles 10 Mio.

Part no. 15655



SUPER-PAAR-TRONIC-C-PUR®

2x2x0.25 mm² grey, max. movement distance 30 m,
min. bending radius 10 x Ø, max. speed 4 m/s,
max. acceleration 50 m/s², max. bending cycles 9 Mio.

Part no. 19102



SUPERTRONIC®-C-PVC

12x0.25 mm² grey, max. movement distance 5 m,
min. bending radius 7.5 x Ø, max. speed 2 m/s,
max. acceleration 10 m/s², max. bending cycles 9 Mio.

Part no. 49637



MULTISPEED® 500-C-PUR

4G1 mm² black, max. movement distance 450 m,
min. bending radius 7.5 x Ø, max. speed 5 m/s,
max. acceleration 50 m/s², max. bending cycles 11 Mio.

Part no. 24175



SUPERTRONIC®-310-C-PVC

5x0.34 mm² (22AWG) grey, max. movement distance 5 m,
min. bending radius 7.5 x Ø, max. speed 2 m/s,
max. acceleration 10 m/s², max. bending cycles 9 Mio.

Part no. 49945



SUPERTRONIC®-PVC

2x0.14 mm² grey, max. movement distance 5 m,
min. bending radius 5 x Ø, max. speed 2 m/s,
max. acceleration 10 m/s², max. bending cycles 9 Mio.

Part no. 49550



[5] INSTALLATION CABLES

HELUKAT® 500IND Cat. 6A SK S/FTP PVC STATIC

4 x 2 x AWG green, 22 / 1 fixed laying,
Cat.6A Gbit, UL listed

Part no. 803693



HELUCOM® AT-W(ZN)Y(ZN)11Y

Fibre optic PUR drag chain cable green, 2G50/125 OM2,
drag chain cable OM2 Profinet, splittable, PUR sheath

Part no. 805690



[6] PRE-ASSEMBLED CABLES

HELUKAT® CONNECTING SYSTEMS - INDUSTRY HELUKAT 100S SF/UTP CAT.5e RJ45 180° green 5m

Drag chain cable with UL, RJ45 straight-mounted plugs on
both ends, PUR outer sheath, halogen-free

Part no. 806550



HELUKAT® CONNECTING SYSTEMS - INDUSTRY HELUKAT 600 S/FTP CAT.6A M12-X (male) 180° green 3m

Robustflex with UL, M12 x-coded straight-mounted
connectors at both ends, PUR outer sheath, halogen-free

Part no. 806639



HELUKAT® CONNECTING SYSTEMS - INDUSTRY HELUKAT 600 S/FTP CAT.6A ix Industrial (male) 180° green 5m

Robustflex with UL, ix plug a-coded straight-mounted
plugs on both sides, PUR sheath, halogen-free

Part no. 11023239



TOPSERV® CONNECTING SYSTEMS

PVC Siemens 5DN06

According to Siemens standard 6FX5002, PVC sheathed cable
with UL/CSA, 100,000 bending cycles, PVC flame retardant

Part no. 17004711



TOPSERV® CONNECTING SYSTEMS

PUR Siemens 5DS01

According to Siemens standard 6FX8002, drag chain
cable with UL/CSA, 5 Mio. bending cycles, PUR sheath,
halogen-free

Part no. 661875



TOPGEBER® CONNECTING SYSTEMS

PVC Siemens 2EQ10

According to Siemens standard 6FX5002, PVC sheathed cable with UL/CSA, 100,000 bending cycles, PVC flame retardant

Part no. 662167



TOPSERV® Hybrid CONNECTING SYSTEMS

PUR Siemens 8QN04

According to Siemens standard 6FX8002, drag chain cable with UL/CSA, 5 Mio. bending cycles, PUR sheath, halogen-free

Part no. 17005185



TOPGEBER® CONNECTING SYSTEMS

PUR Siemens 2DC10

According to Siemens standard 6FX8002, drag chain cable with UL/CSA, 5 Mio. bending cycles, PUR sheath, halogen-free

Part no. 661156



[7] HELUTEK® CIRCULAR CONNECTORS

HELUTEK® signal & power connectors

For feedback (signal) and motor (power) cables up to IP 66/67, optionally up to IP 68/69, rotatable housing, quick-locking system, EMC standard - 360° shielding end closure, -20°C to 130°C, VDE, UL/CSA, modular design principle

Online Cable Configurator



HELUTEK®



www.helutec.com

Configure connectors simply online

Our HELUTEK® online configurator provides you with access to our complete product range in the field of signal, power and hybrid connectors.

[8] HELUTOP® CABLE GLANDS

HELUTOP® HT-PA

IP66/IP68-5bar, polyamide PA6, test standard: EN62444 VDE/UL/CSA
the plastic cable gland with vibration protection

Part no. 93908



HELUTOP® HT-MS

IP66/IP68-5bar/IP69K, brass, nickel-plated, test standard: EN62444
VDE/UL/CSA, the cable gland for standard applications

Part no. 90760



HELUTOP® HT-E

IP68-5bar, stainless steel 1.4305, test standard: EN62444 VDE/UL,
particularly robust, high chemical resistance

Part no. 99980



HELUTOP® Easy

IP66/IP68-5bar, polyamide PA6, test standard: EN62444 VDE/UL,
threadless cable gland for easy, toolless and quick assembly with
patented spring/engagement system

Part no. 908054



HELUTOP® HT-MS-EP4

IP68-5bar, brass, nickel-plated, test standard: EN62444 VDE/UL/CSA
EMC cable gland with integrated contact system

Part no. 905181



[9] HELUKAT® DATA CONNECTOR

PROFInet Copper Connector RJ45

Cat 5, 4 PIN, straight metal, AWG 22-24, PROFInet types A, B and C, screened version, 6.3-6.7 mm cable Ø

Part no. 805401



Industrial Ethernet Copper Connector RJ45

Cat 6A, 8 PIN, straight metal, AWG 22-27 stranded, PROFInet and Industrial Ethernet, screened version, 8-pin, AWG 22-26 solid, 5.0-9.5 mm cable Ø

Part no. 804544



PROFInet Copper Connector M12

Cat 5, 4 PIN, straight, AWG 22-26, M12 d-coded, PROFInet types A, B, C and R, screened version, 4.0-8.0 mm cable Ø

Part no. 805966



Industrial Ethernet Copper Connector M12

Cat 6A, 8 PIN, straight, AWG 22-26, M12 x-coded, PROFInet and Industrial Ethernet, screened version, 5.0-9.7 mm cable Ø

Part no. 806206



[10] COMPONENTS FOR EARTHING CONCEPTS

CU- Earthing strap

Copper, tin-plated, single wire thickness 0.2 mm, EMC, -20°C to + 125°C

Part no. 11008412



HELUTOP® MS-EP4

IP68-5bar, brass, nickel-plated, test standard: EN62444 VDE/UL/CSA

EMC cable gland with integrated contact system

Part no. 905181



[11] PROTECTION TUBES

HELUcond corrugated tube PA12

Polyamide PA12, highly flexible, -50°C to +120°C,
flammability acc. to UL94: HB

Part no. 920156



HELUcond corrugated tube PA6-UL

Polyamide PA 6, high load capacity, -40°C to +140°C,
flammability acc. to UL94: V0

Part no. 920384



Corrugated tubes-conduit gland HSSV

Polyamide PA 6, protection class: IP65, -40°C to +110°C,
flammability acc. to UL94: V0

Part no. 905858



Cable conduit Type S

PVC with integrated, insulated spring steel wire helix,
extremely flexible, -25°C to +80°C, in combination with
USK tube connector: protection class: IP54

Part no. 91219



Tube connector USK

Polypropylene, vibration-resistant, -10°C to +110°C,
in combination with protective conduit type S: protection
class: IP54

Part no. 97594



Tube connector US

Brass, nickel-plated, vibration-resistant, -25°C to +100°C,
in combination with protective conduit type S: protection
class: IP54

Part no. 98331



[12] TOOLS & ACCESSORIES

SKABI-Tool Profinet

For A, B, C with nom. 6.5 mm, Fast Connect compatible, cut and strip in one operation, for plugs with SK or Fast Connect technology

Part no. 801497



SKABI-Tool Profibus

For Profibus SK types with nom. 8.0 mm, Fast Connect compatible, cutting and stripping in one operation, for connectors with SK or Fast Connect technology

Part no. 81233



HELUTOOL D20

For cutting CU- and AL-cables single- / multi-wire up to 20 mm outer diameter, cuts smoothly and cleanly without crushing, hardened cutting edges with precision grinding, VDE tested, 1000 Volt

Part no. 904933



HELUTOOL HKS32

For cutting stranded CU and AL cables single / multi-wire, for cutting ranges up to 32 mm, blades made of forged, specially hardened tool steel, weight 1500 g

Part no. 907603



HELUTOOL 250 pocket

For easy unwinding of cable drums, dynamic unwinding brake, weight 1 kg, load capacity 190 kg

Part no. 903716



HELUTOOL 190

For easy unwinding of cable drums, dynamic unwinding brake, weight 7 kg, load capacity 380 kg

Part no. 93529



[13] EKD-SYSTEMS - DRAG CHAINS

Drag chains configurable in length, width, radius, design, etc.

Kolibri

Standard drag chain made of plastic, cost-effective, versatile energy chain system for light machine construction



PKK

Variable drag chain made of plastic, light to more sophisticated applications, all the advantages of plastic cable guides in a universally applicable system



PLE

Robust drag chain made of plastic, with aluminium bars, stable, for medium applications, chain widths in 1 mm increments



SLP

Solid steel or stainless steel drag chain, the first choice for long unsupported lengths, large cable quantities and heavy hydraulic hoses



[14] SANGEL® SYSTEMTECHNIK - INDUSTRIAL LUMINAIRES

All luminaires have a service life of 60,000 h.

LED FLS 450 ESGd-M8-57

Lumen 3,200 lm, IP protection class 67, light colour 5,700 K

Part no. 15070223



LED LR40 540 ESGd-O-M12-57

Lumen 1,600 lm, IP protection class 67, light colour 5,700 K

Part no. 15070538



LED SL 280 S-PMMAAd-M8-57

Lumen 1,200 lm, IP protection class 40/69, depending on cover, light colour 5,700 K

Part no. 15070709



LED LR40-RGBW 610 PMMAAd-M12-57

Lumen 1,820 lm, IP protection class 67, light colour 5,700 K

Part no. 15070984



LED ELN 560 PMMAAd-M8-57

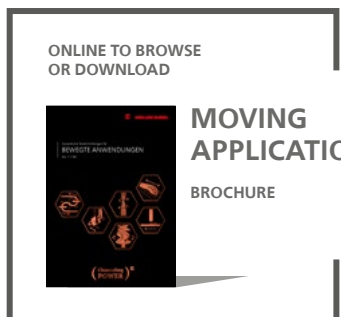
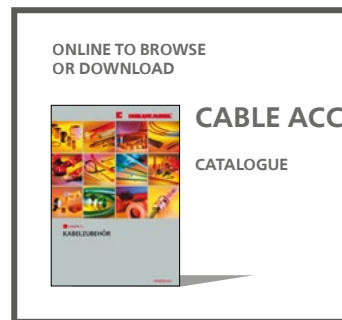
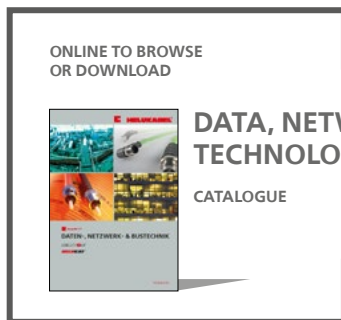
Lumen 2,400 lm, IP protection class 54, light colour 5,700 K

Part no. 15070246



Glossary

You can find further information material in our Download Centre:
www.helukabel.com/download-center



Contact

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POWER)** 