



Product Overview

Cable and CONNECTivity



Cables, special cables, connectivity and accessories.

We offer our customers a wide range of products for various applications in almost all industries. **Everything around the cable, all from one source.**

We are represented in more than 40 countries worldwide with strong partners. True to our motto “Cables in Motion”, we are committed on a daily basis to ensuring that your applications are continuously in motion and thus remain economically successful.

You cannot find the right cable in our portfolio? Then contact us.

We develop and construct for you individually exactly the cables, connectivity solutions, or systems that are tailored to your applications.

TKD | CCG Product portfolio

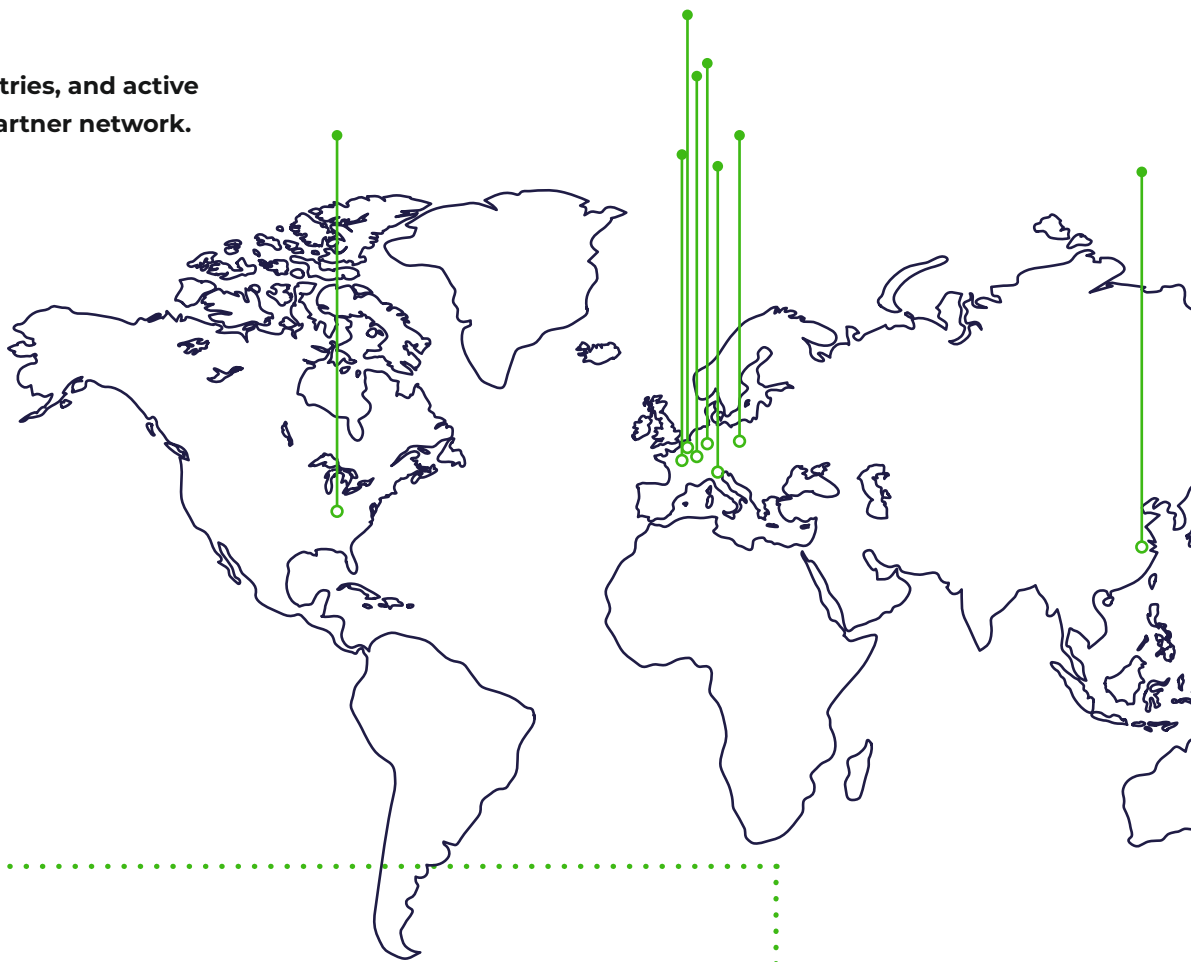
TKD is the German sales partner of the Cable Connectivity Group and specialises in all types of cables. Our experience in construction and application technology, which has been gathered over decades, combined with quality and environmental awareness, guarantees customers obtain innovative and high quality products even for the highest demanding requirements.



Footprint in 8 countries, and active globally with our partner network.

Own branches in:

- Germany
- Belgium
- Netherlands
- Poland
- Italy
- France
- China
- USA



CCG Worldwide Globally active

Welcome to the product portfolio of the Cable Connectivity Group (CCG) Distribution. CCG is one of the world's leading suppliers of cables, ready-to-connect cable systems and cable accessories.

CCG was created as a result of the merger of several successful companies in the cable and connectivity industry. One of the 1st companies started its activities in the cable business already in 1933, which are located in the Netherlands, Belgium, Germany, Italy, Poland, France, China and the USA, the company produces, distributes and assembles special cables, cable harnesses and accessories for customers and wholesalers.



Distribution

knowledge company with added value in cables and accessories for wholesale and OEM customers with branches in the Netherlands, Belgium, Germany, Italy, Poland, France, China and the USA.



Assembly

customer-specific assembly of connectivity solutions for OEM customers with own locations in the Netherlands, Poland and Germany.



Production


the production of a wide range of special cables.



We provide the expertise to safely and reliably connect for a faster, smarter and sustainable world.

Portfolio Overview

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Flexible control cables

Flexible control cables are widely used across all different industries and applications. They connect electrical equipment like motors, switching devices and connect different electrical cabinets or simply distribute LV power across your industrial applications.

We are offering different voltage ranges starting with 300/500V up to 1kV to cope with different requirements inside of the application.

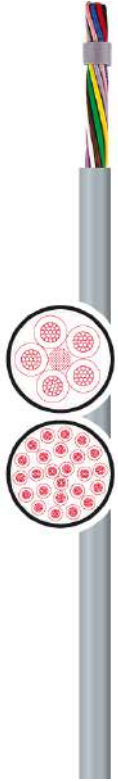
A wide range of different combination of insulations and sheath compounds suitable for all demands and regulations i.e., PVC or halogen free compounds or extremely robust PUR (Polyurethan) or TPE cables are available.

Depending on the application, we have cables in unshielded or shielded version to cope with EMC (Electromagnetic compatibility) requirements, as well as complying to different national standards like VDE and multinational standards like HAR and UL/CSA.

As a highlight, we have a wide range of cables that meet the CPR requirements in different classifications. Here especially our **FLAME-JZ/OZ-H FRNC** families, which are Dca and Cca classified or the shielded versions **FLAME-JZ/OZ-CH FRNC**, which even meets the B2ca requirement.

On top of it we are also able to offer extreme resistant cables like **KAWEFLEX® CONTROL ROBUST TPE** in for instance food or healthcare applications.



**PVC-control cables**

ÖPVC-JB/OB	300/500V, 450/750V, 0,6/1kV, unshielded, CPR Eca
ÖPVC-JB/OB-ICY	300/500V, 0,6/1kV, shielded, transparent, CPR Eca
ÖPVC-JZ/OZ	300/500V, unshielded, CPR Eca
ÖPVC-OZ-Yö 1.000 V	450/750V (IEC), 1.000V (UL), unshielded UL/CSA
ÖPVC-JZ/OZ ARCTIC +UV BK	300/500V, unshielded, cold resistant -60°C
ÖPVC-JZ/OZ-ICY	300/500V, shielded, transparent, CPR Eca
ÖPVC-JZ/OZ-CY (LIICY-JZ/OZ)	300/500V, shielded, CPR Eca
ÖPVC-OZ-CYö 1.000 V	450/750V (IEC), 1.000V (UL), shielded UL/CSA
ÖPVC-JB/OB-YSY	0,6/1kV, steel wire braided, CPR Eca
ÖPVC-JZ/OZ	0,6/1kV BK 0,6/1kV, unshielded, UV resistant, CPR Eca
ÖPVC-JZ/OZ-ICY	0,6/1kV BK 0,6/1kV, shielded, UV resistant, CPR Eca

Approved PVC-control cables

H05VV5-F	300/500V, unshielded, HAR, CPR Eca
H05VVC4V5-K	300/500V, shielded, HAR, CPR Eca
MULTINORM H05VV5-F,	300/500V (IEC), 600V (UL), unshielded, HAR, UL/CSA, CPR Eca
2-NORM (H)05VV5-F	
MULTINORM-CY H05VVC4V5-K,...	300/500V (IEC), 600V (UL), unshielded, HAR, UL/CSA, CPR Eca
2-NORM-CY (H)05VVC4V5-K	
2-NORM +UV 1.000V GY BK	300/500V (IEC), 1.000V (UL), unshielded, UL/CSA, CPR Eca
2-NORM-CY +UV 1.000V GY BK	300/500V (IEC), 1.000V (UL), shielded, UL/CSA, CPR Eca
2-NORM TRAY TC-ER MTW GY	0,6/1kV [IEC], 600V (UL:TC-ER & MTW), 1.000V (UL: WTTC & AWM), unshielded, grey, CPR Eca
2-NORM TRAY-CY TC-ER MTW GY	0,6/1kV [IEC], 600V (UL:TC-ER & MTW), 1.000V (UL: WTTC & AWM), shielded, grey, CPR Eca
2-NORM TRAY+UV DB TC-ER MTW BK	0,6/1kV [IEC], 600V (UL:TC-ER & MTW), 1.000V (UL: WTTC & AWM), unshielded, black, UV-resistant, direct burial, CPR Eca
2-NORM TRAY-CY+UV DB TC-ER MTW BK	0,6/1kV [IEC], 600V (UL:TC-ER & MTW), 1.000V (UL: WTTC & AWM), shielded, black, UV-resistant, direct burial, UL/CSA, CPR Eca

Halogen-free control cables

FLAME-JZ/OZ-H FRNC - Dca	300/500V, unshielded, CPR Dca
FLAME-JZ/OZ-H FRNC - Cca	300/500V, unshielded, CPR Cca
FLAME-JZ/OZ-CH FRNC - Dca	300/500V, shielded, CPR Dca
FLAME-JZ/OZ-CH FRNC - Cca or B2ca	300/500V, shielded, CPR Cca or B2ca

PUR-control cables, cables for hand-held machinery

PUR GREY & PUR YELLOW	300/500V, unshielded, (N)YMH11YÖ
H05BQ-F, H07BQ-F	300/500V, 450/750V, unshielded, halogen-free, orange, HAR, CPR Eca
KAWEFLEX® CONTROL YPUR	300/500V, unshielded
KAWEFLEX® CONTROL C-PUR GY...	300/500V, shielded, (N)YMHCT1YÖ
KAWEFLEX® CONTROL ROBUST TPE	300/500V, unshielded, black, cold flexible
KAWEFLEX® CONTROL ROBUST C-TPE	300/500V, shielded, black, cold flexible
ROCKERFLEX®	0,6/1kV, unshielded, yellow, for extreme conditions

Special single cores

HIGHFLEX LIFY	500V, 750V, 1.000V, high flexible
ESUY copper ground wire	2 kV Earthing Wire, shielded, transparent

Electronic (LF), instrumentation & telecommunication cables

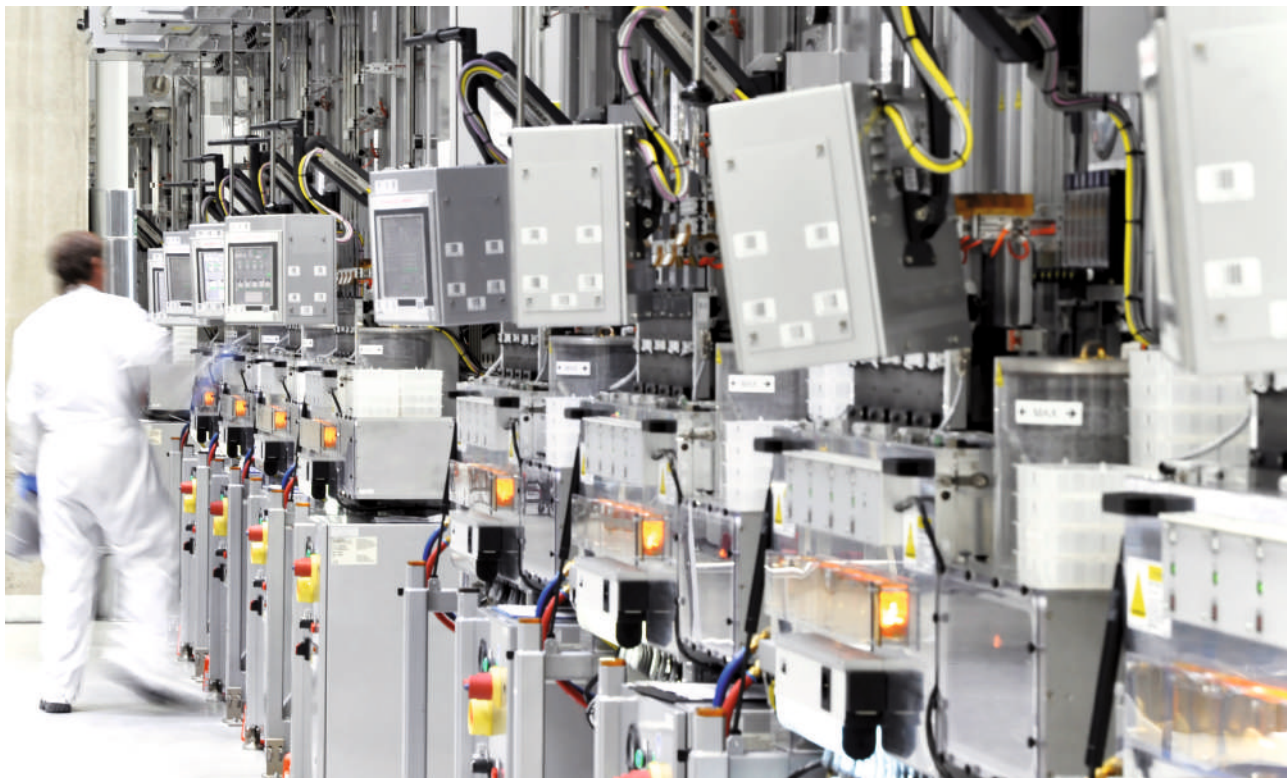
Cables for intrinsically safe circuits

Electronic (LF), Instrumentation & Telecommunication cables help to transmit analogue and digital data and signals in all kinds of process-controlled facilities as well as for telecommunication applications, i.e., fire detection applications.

Depending on the application the range is starting with cables for electronic data transmission in flexible and fixed installations with PVC insulation and PVC sheath as well as halogen free options or even extremely robust PUR (Polyurethan) versions. They are available in unshielded or shielded to cope with EMC (Electromagnetic compatibility) demands.

Furthermore you will find instrumentation cables acc. to EN 50288-7 suitable in all kinds of process-controlled factory applications for example in chemical plants with different kinds of mechanical protections like steel wire armouring or even ATEX certification.

As highlight we have a wide range of cables complying with CPR requirements in different classification.



Electronic (LF), instrumentation & telecommunication cables

Cables for intrinsically safe circuits



Electronic cables

ELITRONIC® LIYY	DIN47100, 250V, unshielded, CPR Eca
ELITRONIC®-CY LIYCY	DIN47100, 250V, shielded, CPR Eca
PAARTRONIC®-CY LIYCY (TP)	DIN47100, 250V, twisted pairs, shielded, CPR Eca
PAARTRONIC®-CY-CY LIYCY-CY (TP)	DIN47100, 250V, twisted pairs, double shielded, CPR Eca

Halogen-free electronic cables

ELITRONIC®-CH LIHCH	DIN47100, 250V, shielded, CPR Eca
PAARTRONIC®-CH LIHCH (TP)	DIN47100, 250V, twisted pairs, shielded, CPR Eca

Electronic and control cables for intrinsically safe circuits

ELITRONIC®-OZ-CY LIYCY-OZ EB	300/500V, shielded, blue
PAARTRONIC®-CY LIYCY (TP) EB	DIN47100, 250V, shielded, twisted pairs, blue

Approved electronic and data cables

ELITRONIC®-CY LIYCY	DIN47100 or IEC, 300V, shielded, UL/CSA
PAARTRONIC®-CY LIYCY (TP)	DIN47100 or IEC, 300V, shielded, twisted pairs, UL/CSA
DATATRONIC®-CY	DIN47100, 250V, 300V, shielded, twisted pairs, UL/CSA, AWG

Low-capacity data cables

DATEX-CY LI2YCY (TP) /	DIN47100, 250V, shielded, twisted pairs
DATEX-CYv + UV LI2YCYv (TP)	DIN47100, 250V, shielded, pairs in metal foil
DATEX-PIMF-CY LI2YCY-PIMF	DIN47100, 250V, shielded, pairs in metal foil

Hook up and installation cables

JE-Y(ST)Y Bd & JE-Y(ST)Y Bd EB	VDE0815, 225V, shielded, CPR Eca
JE-LIYCY Bd & JE-LIYCY Bd EB	VDE0815, 225V, shielded, CPR Eca
RD-Y(ST)Y Bd & RD-Y(ST)Yv Bd	VDE0815, 225V, shielded, CPR Eca
RD-Y(ST)Y Bd EB & RD-Y(ST)Yv Bd EB	

Instrumentation cables

INDUCOM® RE-2X(ST)Yv-fl	300V, shielded, EN50288-7, CPR Eca
INDUCOM® RE-2X(ST)Yv-fl PIMF	300V, shielded, pairs in metal foil, EN50288-7, CPR Eca
INDUCOM® RE-2X(ST)YSWBY-FL	300V, shielded, steel wire braid, EN50288-7, CPR Eca
INDUCOM® RE-2X(ST)YSWBY-FL PIMF	300V, shielded, pairs in metal foil, steel wire braid, EN50288-7, CPR Eca
INDUCOM® RE-2X(ST)YSWAY-FL	300V, shielded, steel wire armour, EN50288-7, CPR Eca
INDUCOM® RE-2X(ST)YSWAY-FL PIMF	300V, shielded, pairs in metal foil, steel wire armour, EN50288-7, CPR Eca

Telecommunication cables

J-Y(ST)Y Lg	VDE0815, 300V, shielded, CPR Eca
J-H(ST)H Bd	VDE0815, 300V, shielded, halogen free, different CPR versions available
A-2Y(L)2Y St III Bd , A-2YF(L)2Y St III Bd	VDE0816, 300V, shielded, UV-resistant

BUS, LAN, coaxial & video cables

BUS, LAN, coaxial & video cables are used for transmission of all bus and LAN communication like i.e., PROFIBUS, CAN BUS or other relevant protocols as well as Coaxial and video cables for transmission of high frequency data.

They are used in fixed installations for Network infrastructure, as well as flexible cables for connection of different devices along the whole industrial application i.e. in drag chain systems or elevators and comply with the different standard transmission rates Cat.5 up to Cat.7A.

Depending on the application and environmental requirements, the cables comply with different standards like i.e. UL/CSA listings and partly classified according to the CPR regulations.

A specific focus is set on the Industrial Ethernet portfolio with cables complying with PROFINET and SPE organisation requirements, as well as cables for other industrial ethernet applications and divided to the different installation categories. i.e., Type A for fixed installations, Type B for flexible installations as well as Type C and R for high dynamic usage.

TKD is member of the SPE (Single Pair Ethernet) Industrial Partner Network.

BUS | FIELDBUS technology - for industrial, process & building automation

PROFIBUS DP / FMS / FIP 150 Ω

PROFIBUS DP / FMS / FIP

fixed installation & limited flexible applications, UL/CSA, available acc. to CPR Eca and Dca

PROFIBUS DP / FMS / FIP - HF

for high flexible applications (drag chain, robotic & festoon) UL/CSA

PROFIBUS PA 100 Ω

PROFIBUS PA

for fixed installation & limited flexible applications, UL/CSA

MULTIBUS & INTERBUS 100 - 120 Ω

MULTIBUS & INTERBUS

for fixed installation & limited flexible applications, UL/CSA

MULTIBUS & INTERBUS - HF

for high flexible applications (drag chain) UL/CSA

CAN BUS - ControllerAreaNetwork 120 Ω

CAN BUS

for fixed installation & limited flexible applications, UL/CSA

CAN BUS - HF

for high flexible applications (drag chain) UL/CSA

DeviceNet 120 Ω

DeviceNet

for fixed installation & limited flexible applications, UL/CSA

DeviceNet - HF

for high flexible applications (drag chain) UL/CSA

Foundation Fieldbus 100 Ω

Foundation Fieldbus

for fixed installation & limited flexible applications, UL/CSA

**ASi-BUS Aktor Sensor Interface**

ASi-BUS
ASi-BUS - HF

for fixed installation & limited flexible applications, UL/CSA
for high flexible applications (drag chain) UL/CSA

SafetyBUS 100 - 120 Ω

SafetyBUS
SafetyBUS - HF

for fixed installation & limited flexible applications, UL/CSA
for high flexible applications (drag chain) UL/CSA

EIB/KNX BUS 75 Ω - building automation

EIB/KNX BUS 75

for fixed installation, PVC or halogen-free, CPR Eca

LAN | ETHERNET-Technology - for structured industry & building cabling**structured industry cabling**

PROFINET Cat.5e

for fixed installation, limited flexible & flexible use, UL/CSA,
different CPR versions available

PROFINET Cat.5e - HF

for high flexible applications (drag chain, robotic & festoon)
UL/CSA, CPR Eca version available

INDUSTRIAL ETHERNET Cat.5e - Cat.7A

for fixed installation, limited flexible & flexible use, UL/CSA,
CPR Eca Version erhältlich

INDUSTRIAL ETHERNET Cat.5e - Cat.7A - HF

for high flexible applications (drag chain, robotic, reeling & festoon)
UL/CSA

INDUSTRIAL ETHERNET Cat.5e - Cat.7A - Special

for fixed installation, special applications, fire resistant

SPE - Single Pair Ethernet

for fixed installation, limited flexible & flexible use, UL/CSA

SPE - Single Pair Ethernet - HF

for high flexible applications (drag chain, robotic) UL/CSA

INDUSTRIAL EtherCAT

for fixed installation, limited flexible & high flexible use, UL/CSA

structured building cabling**for fixed installation & patch applications**

LAN Cat.5e - 200 MHz

PVC or halogen free, different CPR versions available

LAN Cat.6 - 250 MHz

PVC or halogen free, different CPR versions available

LAN Cat.6A - 500 MHz

PVC or halogen free, different CPR versions available

LAN Cat.7 - 600 MHz

PVC or halogen free, different CPR versions available

LAN Cat.7A - 1000 MHz

PVC or halogen free, different CPR versions available

LAN Cat.7e - 1200..1500 MHz

PVC or halogen free, different CPR versions available

FO BUS-Technology - optical data transmission for industrial and building automation

POF - SIMPLEX, DUPLEX & BUS

for fixed installation, limited flexible & flexible use, UL/CSA

Coaxial cable**for fixed installation & limited flexible use**

RG coaxial cable 50 Ω

50 Ohm, UL MIL C 17, CPR Eca version available

RG coaxial cable 75 Ω

75 Ohm, UL MIL C 17, CPR Eca version available

RG coaxial cable PTFE/FEP

50/75/95 Ω 50, 75, 95 Ohm, FEP, UL MIL C 17

Control and data cables – high flexible – for use in drag chains & robotic applications

Control and data cables - high flexible - are the complementary versions of our standard control and electronic cables but for extreme harsh applications such as drag chain systems or robotic applications where an outstanding mechanical performance is needed.

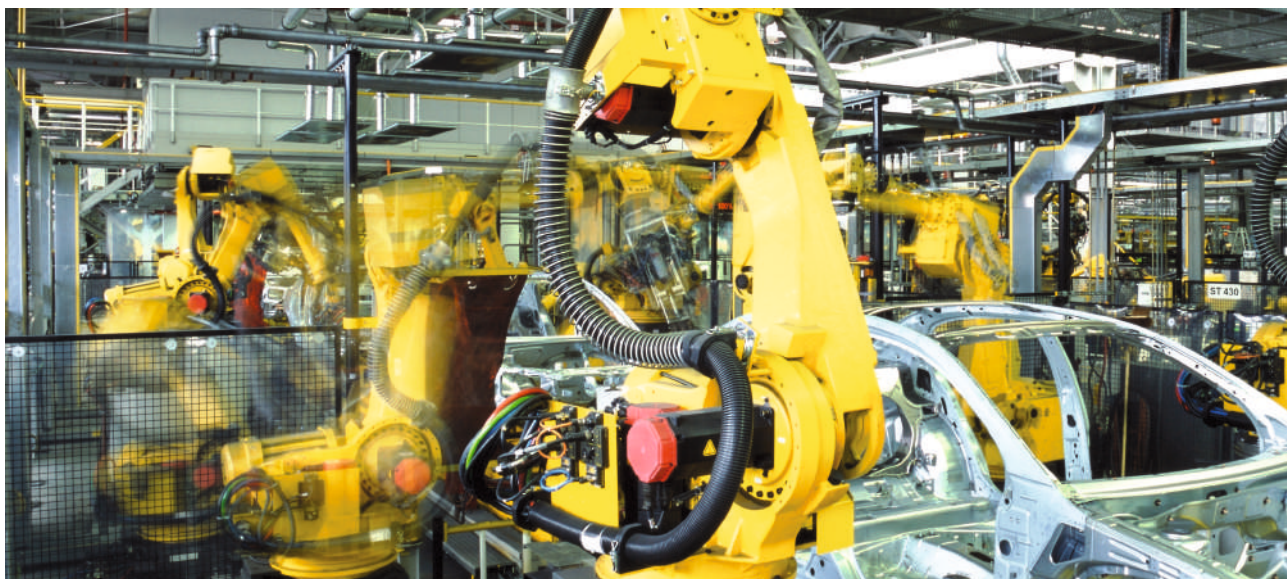
Similar as the standard portfolio they are available in different voltage classes and depending on the application in different designs related to material choice as well as national and international standards.

The specific designs allow our cables to be capable of withstanding the specific requirements in drag chain systems as well as robotic applications with continuous movement cycles or a lot of bending cycles occur. Available in various versions where a high number of bending cycles or high accelerations are required due to the application.

The KAWEFLEX® 6 series allows due to its specific design **up to 10 Mio. bending cycles** and is available in halogen free and UV resistant versions, UL/CSA approved

The KAWEFLEX® ALLROUND series allows due to its specific design **traverse lengths up to 400m** and is also available in halogen free and UV resistant versions, UL/CSA approved.

For sure all versions are available in shielded and unshielded versions to cope with EMC (Electromagnetic compatibility) requirements. Thanks to the specific design developed inhouse, the reliability of shielded versions are outstanding even to high mechanical requirements.



Control and data cables – high flexible – for use in drag chains & robotic applications



KAWEFLEX® Control cables for use in drag chains

for light to medium requirements

KAWEFLEX® 6100 ECO SK-PVC	300/500V, unshielded, UL/CSA
KAWEFLEX® 6200 ECO SK-C-PVC	300/500V, shielded, UL/CSA

for normal requirements

KAWEFLEX® 6110 SK-PVC	300/500V, unshielded, UL/CSA
KAWEFLEX® 6110 TRAY SK-PVC	300/500V, unshielded, UL/CSA
KAWEFLEX® 6210 SK-C-PVC	300/500V, shielded, UL/CSA
KAWEFLEX® 6210 TRAY SK-C-PVC	300/500V, shielded, UL/CSA
KAWEFLEX® Allround 7110 SK-PVC BK	300/500V, unshielded, UL/CSA

for increased requirements

KAWEFLEX® 6120 SK-PUR	300/500V, unshielded, UL/CSA
KAWEFLEX® Allround 7210 SK-C-PVC BK	300/500V, shielded, UL/CSA

for high requirements

KAWEFLEX® 6130 SK-PUR	0,6/1kV, unshielded, halogen-free, UL/CSA
KAWEFLEX® 6230 SK-C-PUR	0,6/1kV, shielded, halogen-free UL/CSA
KAWEFLEX® Allround 7130 SK-PUR BK	0,6/1kV, unshielded, halogen-free, UL/CSA
KAWEFLEX® Allround 7230 SK-C-PUR BK	0,6/1kV, shielded, halogen-free, UL/CSA

for highest requirements

KAWEFLEX® Allround 714.0 SK-TPE BK	0,6/1kV, unshielded, UL/CSA
KAWEFLEX® Allround 7240 SK-C-TPE BK	0,6/1kV, shielded, UL/CSA

KAWEFLEX® Electronic cables for use in drag chains

for normal requirements

KAWEFLEX® 6310 SK-PVC	DIN47100, 300V, unshielded, UL/CSA
KAWEFLEX® 6410 SK-C-PVC	DIN47100, 300V, shielded, UL/CSA
KAWEFLEX® 6510 SK-TP-C-PVC	DIN47100, 300V, twisted pairs, shielded, UL/CSA

for increased requirements

KAWEFLEX® Allround 7710 SK-TP-C-PVC BK	300V, shielded, UL/CSA
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for high requirements

KAWEFLEX® 6330 SK-PUR	DIN47100, 300V, unshielded, halogen-free, UL/CSA
KAWEFLEX® 6430 SK-C-PUR	DIN47100, 300V, shielded, halogen-free, UL/CSA
KAWEFLEX® 6530 SK-TP-C-PUR	DIN47100, 300V, twisted pairs, shielded, halogen-free, UL/CSA
KAWEFLEX® Allround 7720 SK-TP-C-PUR BK	300V, shielded, halogen-free, UL/CSA

for highest requirements

KAWEFLEX® Allround 7730 SK-TP-C-TPE BK	300V, shielded, UL/CSA
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KAWEFLEX® KINEMATICS® 3D Control & Electronic robotic cables for torsional stress

for bending and torsion applications

KAWEFLEX® KINEMATICS® 3D Control & Power	0,6/1kV, unshielded, halogen-free, UL/CSA
KAWEFLEX® KINEMATICS® 3D Data	DIN47100, 300V, unshielded, halogen-free, UL/CSA

Servo-drives, measurement & system cables - flexible & high flexible - for use in drag chains and robot applications

This Chapter includes Servo-drives, measurement & system cables for the electric drive technology variants for fixed installation as well as high flexible cables for use in permanent (highly) dynamic applications like drag chain or robotic.

The **KAWEFLEX® Servo 2X... EMC** double screened versions for fixed installation and casually movement as Power, control and connecting cable for drive systems with frequency converter technology - The XLPE core insulation offer the same reliability as the standard PE version but thanks to the choice of insulation system it could operate at a higher core temperature (2X: 90°C max conductor temp. vs 2Y: 70°C for standard PE versions).

Starting with a cross section of 10mm² they are available in optimized design where the earth conductor is located in the interstices of the conductor assembly resulting in much lower diameter and reduced weight.

This is complemented by the **KAWEFLEX® 5 series** for high flexible use in drag chains as Servo-Drive, feedback, encoder, resolver, speed sensor, signal & system cables for EMC compatible connecting. These cables are according to Siemens (MC 500, MC800PLUS), Bosch Rexroth, SEW Eurodrive, Lenze standard and other also compatible systems available.

Our **KINEMATICS® 3D series** additionally withstands a large number of cycles in torsional operation in robotic applications.



Servo-drives, measurement & system cables - flexible & high flexible - for use in drag chains and robot applications



Cables for servo-drives 0,6/1kV

KAWEFLEX® SERVO 2YSL(St)CY... & 2YSL(St)CYK
KAWEFLEX® SERVO 2XSL(St)CY... & 2XSL(St)CYK

0,6/1kV, EMC optimized, double shielded, K: UV-resistant
0,6/1kV, EMC optimized, double shielded, K: cold flexible, UV-resistant

KAWEFLEX® SERVO 9YSL(St)CY...VFD

0,6/1kV, EMC optimized, double shielded, BK: UV-resistant, direkt burial, UL/CSA, CPR Eca

KAWEFLEX® SERVO 2XSL(St)CYK...VFD TRAY

0,6/1kV, EMC optimized, double shielded, K: cold flexible, UV-resistant, direkt burial, UL/CSA, CPR Eca

KAWEFLEX® SERVO 2XSL(St)CHK...FRNC

0,6/1kV, EMC optimized, double shielded, halogen-free, K: cold flexible, UV-resistant, CPR Cca

KAWEFLEX® 5 Series – Cables for servo-drives 0,6/1kV for flexible applications

KAWEFLEX® 5268 C-PVC SERVO
KAWEFLEX® 52DSL C-PVC

0,6/1kV, shielded, UL/CSA, acc. MC500
0,6/1kV, shielded, DSL Hybrid, UL/CSA

for drag chain applications

KAWEFLEX® 5178 SC SK-PVC
KAWEFLEX® 5278 SC SK-C-PVC
KAWEFLEX® 5278 SK-C-PVC SERVO
KAWEFLEX® 5288 SK-C-PUR SERV
KAWEFLEX® 52DSL SK-C-PUR

0,6/1kV, single core, unshielded, UL/CSA
0,6/1kV, single core, shielded, UL/CSA
0,6/1kV, shielded, UL/CSA, acc. MC500PLUS
0,6/1kV, shielded, UV-resistant, UL/CSA, acc. MC800PLUS
0,6/1kV, shielded, DSL Hybrid, UV-resistant, UL/CSA

KAWEFLEX® 5 Series – Measurement & System cables (feedback, encoder, resolver, speedo sensor, signal) for flexible applications

KAWEFLEX® 5468 C-PVC

300V, shielded, UL/CSA, acc. MC500

for drag chain applications

KAWEFLEX® 5488 SK-C-PUR

300V, shielded, halogen-free, UV-res., UL/CSA acc. MC800PLUS

KAWEFLEX® ServoDriveQ UL/CSA - cables for DRIVE-CLiQ applications

for fixed installation & flexible applications

KAWEFLEX® ServoDriveQ C-PVC
KAWEFLEX® ServoDriveQ FLEX-C-PVC

300V, shielded, UL/CSA, acc. MC5200
300V, shielded, UL/CSA, acc. MC500

for drag chain applications

KAWEFLEX® ServoDriveQ Plus SK-C-PUR

300V, shielded, halogen-free, UV-res., UL/CSA, acc. MC800PLUS

KAWEFLEX® Allround Motor cables 0,6/1kV for use in drag chains

for increased requirements

KAWEFLEX® Allround 7310 SK-PVC
KAWEFLEX® Allround 7410 SK-C-PVC

0,6/1kV, unshielded, UL/CSA
0,6/1kV, shielded, UL/CSA

for highest requirements

KAWEFLEX® Allround 7510 SK-TPE (NATURAL)
KAWEFLEX® Allround 7520 SK-TPE (GNYE)
KAWEFLEX® Allround 7610 SK-C-TPE (NATURAL)
KAWEFLEX® Allround 7320 SK-TPE
KAWEFLEX® Allround 7420 SK-C-TPE

0,6/1kV, single core, unshielded, halogen-free, UV-res., UL/CSA
0,6/1kV, single core, unshielded, halogen-free, UV-res., UL/CSA
0,6/1kV, single core, shielded, halogen-free, UV-res., UL/CSA
0,6/1kV, unshielded, halogen-free, UV-res., UL/CSA
0,6/1kV, shielded, halogen-free, UV-res., UL/CSA

KAWEFLEX KINEMATICS® 3D Servo, MeSys & Hybrid robotic cables for torsional stress

for bending and torsion applications

KAWEFLEX KINEMATICS® 3D Servo
KAWEFLEX KINEMATICS® 3D Measure & System cable
KAWEFLEX KINEMATICS® 3D Hybrid

0,6/1kV, shielded, halogen-free, UV-res., UL/CSA
300V, shielded, , halogen-free, UV-res., UL/CSA
0,6/1kV, shielded elements, halogen-free, UV-res., UL/CSA

Crane, conveyor and lift cables

Crane, conveyor cables are used in all applications related to material handling and lift applications describe specific solutions for either passenger transportation or freight lifts.

Specific cables are needed for both applications as they are working with high speeds and / or permanent movement where on top of it cables need to carry its own weight.

In our **LIFTEC®** portfolio dedicated for lift applications we see mainly PVC flat cables, partly with supporting elements. As communication inside of passenger lifts is today state of the art, we also offer cables for lift applications which can transport signals and even CAT.7 cables for fast data communication.

For crane systems there is a wide range of different cables needed which are in many cases subject to reeling or festoon applications, where either cables with improved mechanical performance due to the nature of the reeling application or fast trolley speeds in festoon usage are needed.

Travelling speeds of up to 180m/min in reeling operations and **up to 240m/min** in festoon applications are requiring an adapted design to withstand this kind of mechanical stress.

On both application we see rubber or PUR cable designs where especially PUR designs offer improved weight and diameter combined with extra mechanical performance and on top halogen free compounds are used.

Our **REELTEC® PUR-HF** and **FESTOONTEC® PUR-HF** are developed specially to combine those features and are available in shielded and unshielded designs.

Other than cables for standard installations crane and lift cables are not subject to any CPR ratings.





PVC-flat cables

for festoon & lift applications

FESTOONTEC® H05VVH6-F, (H)05VVH6-F	300/500V, unshielded, HAR
FESTOONTEC® H07VVH6-F, (H)07VVH6-F	450/750V, unshielded, HAR

PVC special flat cables, unshielded and shielded

for festoon & lift applications

FESTOONTEC® YCFLY, YFLCYK (EMC)	300/500V, shielded
FESTOONTEC® KYCFLY, KYFLCY (EMC)	300/500V, shielded
FESTOONTEC® H05VVD3H6-F	300/500V, unshielded, steel supporting element
FESTOONTEC® KYFLTY, KYFLTFY	300/500V, unshielded, steel supporting element
FESTOONTEC® KYCFLTY, KYFLTCY (EMC)	300/500V, shielded, steel supporting element

for lift applications

LIFTTEC® (H)05VE7A7VH6-F	300/500V, shielded data pairs
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Polychloropren flat cables

for festoon & lift applications

FESTOONTEC® NGFLGÖU, (N)GFLGÖU	300/500V, unshielded
FESTOONTEC® M(StD)HÖU (EMC)	0,6/1kV, shielded

Halogen-free flat cables

for festoon & lift applications

FESTOONTEC® LSOH, LSOH-C (EMC)	up to 06/1kV, unshielded, halogen-free
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PVC lift cables

LIFTTEC® KYSTY, KYSTUY	300/500V, unshielded, textile supporting element
LIFTTEC® KYSTY-MR	300/500V, unshielded, textile supporting element, for mid rise
LIFTTEC® YSSTCY, YSSTVCY	DIN47100, 300V, shielded, steel supporting element
LIFTTEC® KYSTCY, KYSTCUY, KYSTFUY	300/500V, shielded, textile supporting element
LIFTTEC® KYSTCY-MR, KYSTFY-MR	300/500V, shielded, textile supporting element, mid rise supported
LIFTTEC® CAT.7 - PVC	Cat.7, shielded, steel supporting elements

Halogen-free lift cables

LIFTTEC® K12YSTU11Y	300/500V, unshielded, halogen-free, textile supporting element
LIFTTEC® K9YSTFU11Y, K9YSTCU11Y	300/500V, element shielded, halogen-free, textile supporting element
LIFTTEC® CAT.7 - H	Cat.7, shielded, halogen-free, steel supporting elements, premium version
LIFTTEC® CAT.7 - H-LC	Cat.7, shielded, halogen-free, steel supporting elements

PVC control cables with and without supporting element

for lift applications

LIFTTEC® YMHY-KT	300/500V, unshielded, textile supporting element
LIFTTEC® YMHY-KST	300/500V, unshielded, steel supporting element
LIFTTEC® FYMYTW	300/500V, unshielded, 2 steel supporting elements, unshielded

Polychloropren control cables with supporting element

for lift applications

LIFTTEC® FLGÖU	300/500V, unshielded, textile supporting element
LIFTTEC® STN	300/500V, unshielded, textile supporting element
LIFTTEC® STCN (EMC)	300/500V, shielded, textile supporting element

**Reelable cables**

REELTEC® PUR-HF	0,6/1kV, unshielded, halogen-free
REELTEC® (K) NSHTÖU, (N)SHTÖU	0,6/1kV, unshielded
REELTEC® KSM-S (N)SHTÖU	0,6/1kV, unshielded
REELTEC® KSM-S (N)SHTÖU+FO	0,6/1kV, unshielded, failure-free datatransmission via FO

Cables for usage in baskets

SPREADERFLEX 3GSLTOE	0,6/1kV, unshielded
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Trailing cables 1-30 kV**for reeling applications**

REELTEC® KSM-S (N)TSCGEWÖU	3,6/6kV to 12/20kV, unshielded
REELTEC® KSM-S (N)TSCGEWÖU + FO	3,6/6kV to 12/20kV, unshielded, failure-free datatransmission via FO

Control cables for cable trolley systems

FESTOONTEC® PUR-HF	0,6/1kV, unshielded, halogen-free
FESTOONTEC® C-PUR-HF	0,6/1kV, shielded, halogen-free
FESTOONFIBERFLEX PUR-HF	fiber optic, halogen-free

Battery charge cable

WYBLYK	80V, Battery cable
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*State-of-the-art
cables that deliver
extreme
performance.*



Rubber cables

Rubber cables are widely used when a specific flexibility or high mechanical stress is needed, they are used for connection of tools and mobile equipment or i.e., on construction sites or as connection for distribution cabinets and also suitable in wet or humid environment and partly even in application in water.

Different other applications require specific designs like i.e., welding applications or short circuit proof cables.

Specific highlight is our **H07RN-F PREMIUM** which combines the features of different other designs in one unique cable design where we have an answer for 5 different designs (low and high temperature, halogen free and underwater application) combined in only one cable.



Light and middle rubber-sheathed flexible cables

H05RR-F, H05RN-F 300/500V, unshielded, HAR, CPR Eca

Heavy rubber-sheathed flexible cables

H07RN-F, A07RN-F 450/750V, unshielded, HAR, CPR Eca
 H07RN-F PREMIUM 450/750V, +90 °C, unshielded, halogen-free, HAR, CPR Eca
 NSSHÖU 0,6/1kV, unshielded, VDE

Welding cables

H01N2-D, H01N2-E 100V, unshielded, HAR

Special rubber core

NSGAFÖU 1,8/3kV, unshielded, VDE, CPR Eca
 NSHXAFÖ 1,8/3kV, unshielded, halogen-free, VDE, CPR Eca

Cables for permanent use in water

TML N-RD round, TML N-F flat 450/750V, 0,6/1kV, waste water
 TML T-RD round, TML T-F flat 450/750V, 0,6/1kV, drinking water



Extreme temperature cables

For applications where either due to electrical requirements a higher temperature on the core is needed or environmental conditions ask for higher temperatures, we have a wide range of different cables which answering this demand.

The scope depending on the application is as wide as the temperature range available as there are different solutions available to answer demands **from -190°C up to +350°C.**

Materials incorporated could be Silicone, FEP, PTFE and others.





Silicone insulated cables for temperatures up to +180°C

SiD, SiD/GL, SiF, SiF/GL, SiFF, SiFv, SiZ	300/500V, singles cores & twin cable, halogen-free, solid & fine stranded, GL:glass silk braid
ZKSi ignition cable	20kV, halogen-free, fine stranded
HZLSi high volt age ignition cable	15 & 20kV, halogen-free, fine stranded
SiL neon cable	10kV, halogen-free, fine stranded
SIHF-J	300/500V, unshielded, halogen-free, fine stranded
SIHF+C / SIHF-SI+C	300/500V, shielded, halogen-free, fine stranded
SIHF-J/GLP	300/500V, halogen-free, fine stranded, glass-silk and steel wire braided
HO5SS-F	300/500V, halogen-free, fine stranded, HAR
HO5SS-F EWKF	300/500V, halogen-free, fine stranded, initial tear, tear growth & notch resistant, HAR

FEP/PTFE insulated cables for temp. up to +205°C / +260°C

THERM-205-FEP-EA	600V, up to 205°C, single cores, tinned or silvered
THERM-260-PTFE-EA	600V, up to 260°C, single cores, silvered or nickel plated
THERM-260-PTFE/GLP	600V, up to 260°C, multi core, glass-silk and steel wire braided



Cables and wires for fixed installation

Cables and wires for fixed installation can be found in almost every kind of electrical installation such as building and infrastructure or in many kinds of switchboard or cabinet installations.

The portfolio includes single wires with only insulation with different properties and approvals as well as multicore cables. As such kind of wires and cables are used in fixed installations there is very often a requirement for specific CPR approval and classification, therefore almost all our designs are CPR classified.

One of the focus areas is the wide portfolio of different single core cables like i.e., the harmonized **H05V-K / H07V-K** or their relevant halogen free versions **H05Z-K/H07Z-K**, as well as the types with multi approval like the **MULTINORM H07V2-K** coping with harmonized and UL/CSA standards.



PVC-insulated wiring cables

LIYvz, H05V-K, H07V-K

300/500V, 450/750V, Hook-up wires, HAR, CPR Eca

PVC-insulated wiring cables with UL/CSA approvalMultinorm H05V2-K, H07V2-K
Wire300/500V, 450/750V, Hook-up wires, HAR,UL/CSA, CPR Eca
300V, 600V, Hook-up wires, UL/CSA**Halogen-free wiring cables**

LIHvz, H05Z-K, H07Z-K

300/500V, 450/750V, Hook-up wires, CPR Eca

Installation cable

NYM

300/500V, CPR Eca

Halogen-free installation cable

NHXMH

300/500V, CPR Dca

High voltage cables

NYY 0,6/1kV

0,6/1kV, UV-resistant, direct burial, VDE, CPR Eca

NYCY 0,6/1kV

0,6/1kV, shielded, UV-resistant, direct burial, VDE, CPR Eca

NYCWY 0,6/1kV

0,6/1kV, shielded, UV-resistant, direct burial, VDE, CPR Eca

NAYY 0,6/1kV

0,6/1kV, AL-conductor, UV-resistant, direct burial, VDE, CPR Eca



Fuel resistant cables

Special solutions for safety-relevant applications in the field of petroleum and filling station technology.

Based on special sheathing compounds, our cables withstand the extreme demands placed on plastics by contact with various fuels.



Data transmission cables, resistant to oil and petrol

A-Y(ST)YÖ

240V, element shielded, UV-resistant, direct burial

Cables for probes and limiting value transmitters, resistant to oil and petrol

KOAX-Kabel RG 59 blau

75 Ohm, shielded, blue, direct burial

LIYCYÖ, LI2YCYVÖ-OB

300V, 500V, shielded, blue, direct burial

LIY(ST)YÖ, LI2Y(ST)YÖ

500V, 900V, shielded, blue, direct burial

RE-2Y(ST)YÖ

300V, shielded, blue, direct burial

High voltage cables, resistant to oil and petrol

(N)YYÖ

0,6/1kV, shielded, black or blue, UV-resistant, direct burial



CONNECTivity

Connectivity consolidates all different cable solutions together with activities like cutting, labelling, printing or preparation with cable lugs, end sleeves or connectors to an either ready to install or even plug and play solution.

It could also include further preparation with cables hoses or even spiral cables or cables ready to install for i.e., servo motors in line with requirements from well know companies like Bosch Rexroth, SEW Eurodrive, Siemens, Lenze Sick and many others.

For any demand on Connectivity solutions / cable preparation / ready to install solutions feel free to contact us.



Spiral cables**Connection and control cables**

KAWEFLEX® SPIKA H05VV-F

300/500V, PVC, black, HAR

KAWEFLEX® SPIKA H05BQ-F

300/500V, PUR, orange and black, HAR

KAWEFLEX® SPIKA H07BQ-F

450/750V, PUR, orange and black, HAR

Control & Power cables

REELTEC® PUR-HF SPIKA

0,6/1kV, PUR, black

Electronic cables

KAWEFLEX® SPIKA Li12Y11Y

250V, PUR, black

KAWEFLEX® SPIKA Li12YD11Y

250V, shielded, PUR, black

Ready made cable assemblies...

- Servo assemblies acc. to system standards
... compatible systems such as e.g.:

B&R , Baumüller, Berger Lahr, Control Techniques, ELAU, Fagor, FANUC, Heidenhain, Jetter, Lenze, LTi DRIVES, NUM, Omron, Rexroth, SEW, Siemens, Sick, Stöber, u.a.

- Woven ribbon cable
- Assembled reeling cables
- Fiber Optic Assemblies
- assembled drag chain systems
- assembled fiber optic cable car
- Assemblies for elevator industry
- etc.

... for

- Engines and controls
- Operating devices/controls for machine tools, mobile concrete pumps,
- robots and operational equipment
- Measuring systems for the process industry
- Operating devices for hospital beds
- Power and data transmission in surgical tables
- Mechanical & Plant engineering
- Building and mining machines
- Passenger and goods elevators
- Space and aviation technology
- Crane and harbour constructions
- etc.



CCG worldwide Industries

Our companies are active in a broad selection of industries. Contact us to discuss our custom solutions for your specific industry.

- Machine building
- Industrial automation
- Energy
- Marine & offshore
- Automotive
- Public infrastructure
- Agriculture
- Lifts and escalators
- Transportation infrastructure
- Cranes & material handling
- Train, tram and metro industry
- Telecommunication and datacentres
- Food & beverage





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