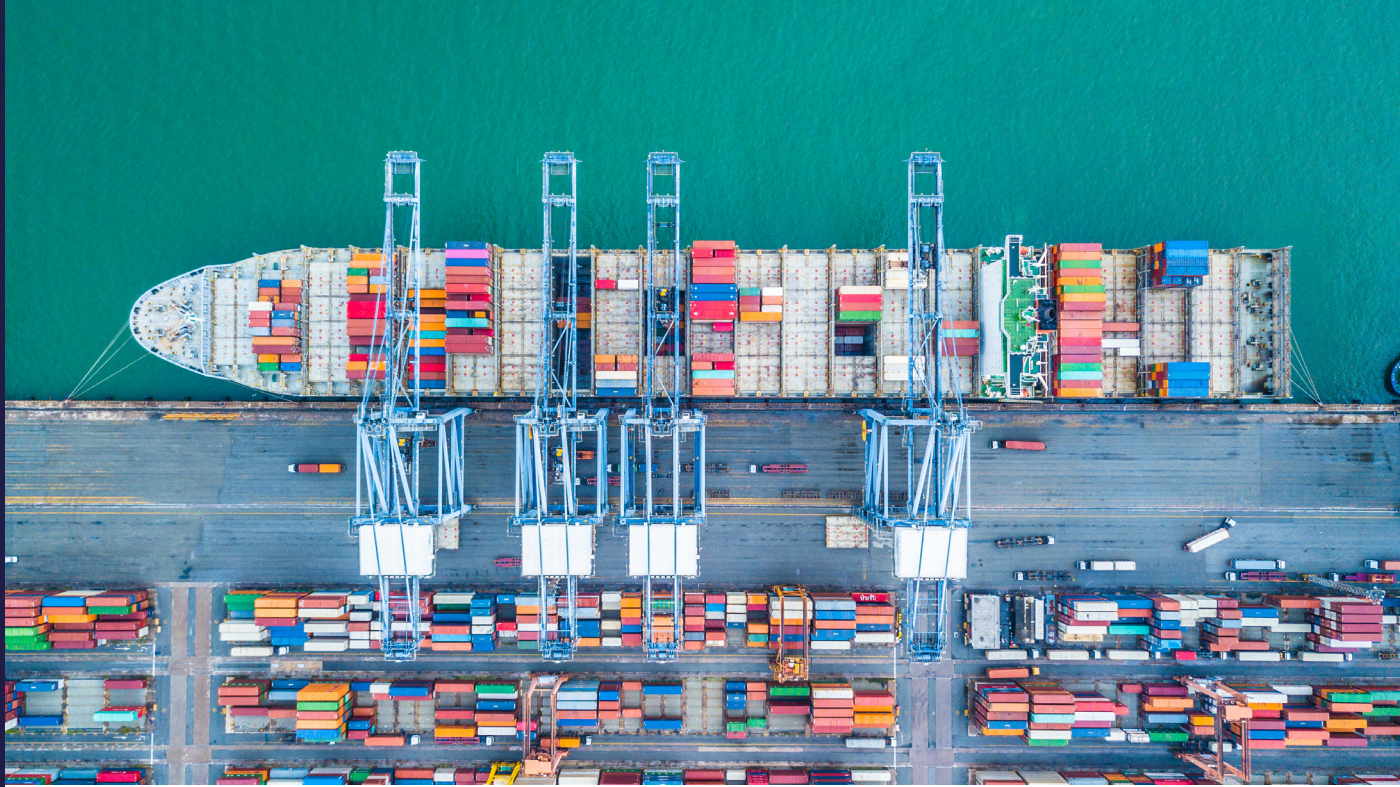




# Crane and Lifting Equipment

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Cable and CONNECTivity



# Lighter, smaller, more versatile: The requirements for cables in the crane.

Digitalization and automation are also progressing in cranes and conveyor systems. Many port facilities run fully automatically and increase the speeds at which goods have to be shipped and unloaded due to increasingly shorter handling times. For the wiring used, this means that they have to provide more and more functions and withstand environmental influences such as strongly fluctuating temperatures, high conveying speeds and aggressive, salty air.

Cranes and conveyor systems require extreme power and data cables. Not infrequently, arm-thick cables have to be wound up and unwound from reels and cable trolleys at several meters per second. Due to the increasing digitalization, hybrid cables are necessary to withstand harsh external conditions for a long time and safely transport large amounts of data. We have the know-how and broad portfolio to always offer the right solution.

**We have the know-how and broad portfolio to always offer the right solution.**

## TKD Product Overview

TKD is the distributor of Infinite Electronics, specialized in all types of cables.

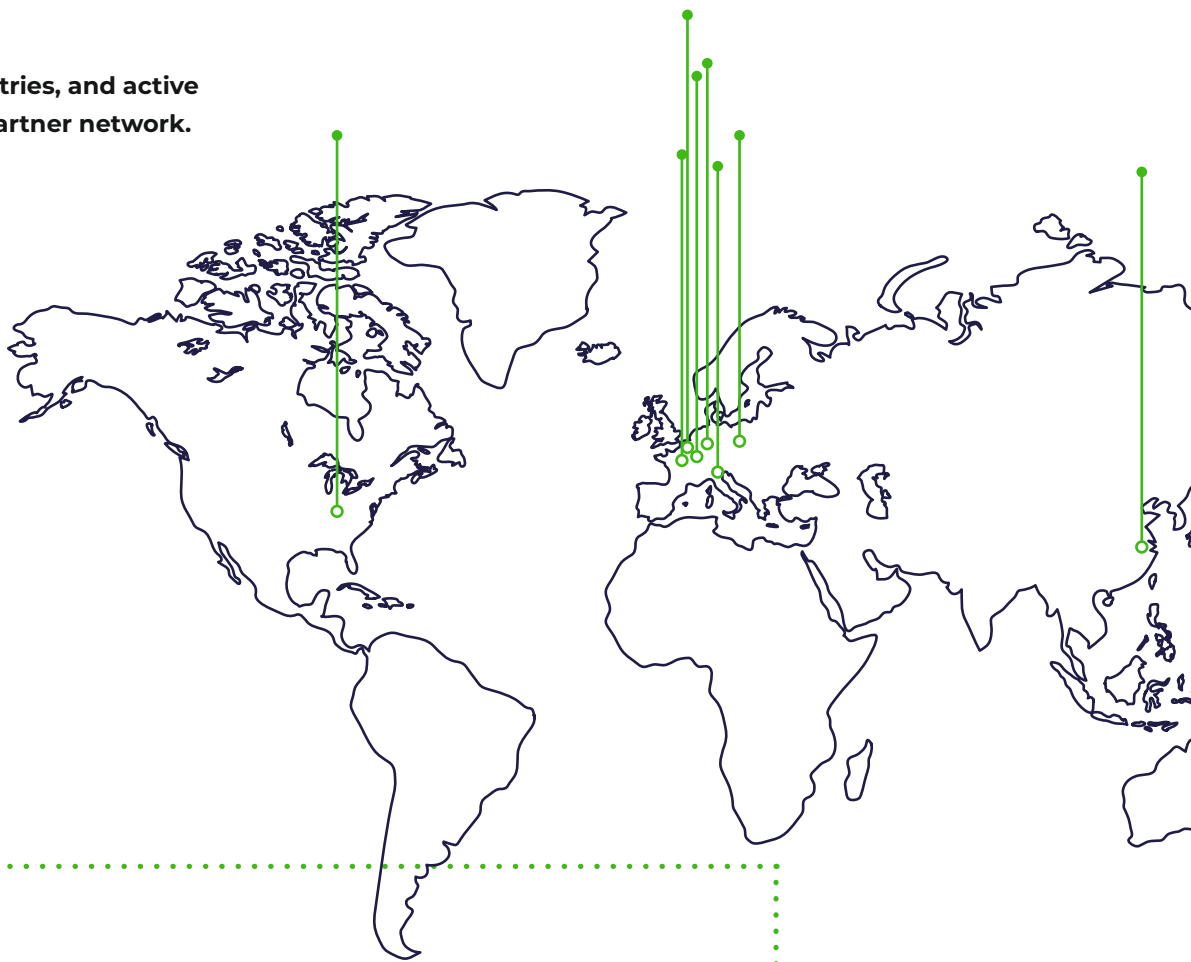
TKD has decades of experience in design and application technology, combined with a strong awareness of quality and environment. This gives our customers the security of receiving innovative and high-quality products, even for the most demanding requirements.



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

**Own branches in:**

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



# Globally active

Welcome to the product portfolio of TKD Kabel GmbH. We are one of the world's leading suppliers of cables, ready-to-connect cable systems and cable accessories.

Since 2023 we are part of Infinite Electronics, and since then a progressive and international player in the specialty cable and connectivity solutions market.

Infinite Electronics was formed from the merger of several successful companies in the cable and connectivity industry. The group of companies produces, distributes and assembles special cables as well as cable harnesses and accessories.



## 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









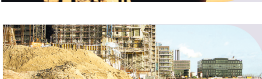

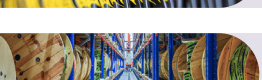
the production of a wide range of special cables.



“

*Around the world, our team members work urgently to provide connectivity solutions and support, giving our customers what they need, when they need it.*

# Contents at a glance

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	Highlight: FESTOONTEC®	10
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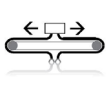

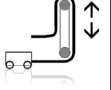

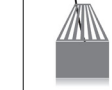
A wide range of different cables is required for crane systems. In many cases, these are drum or drag applications, where cables with improved mechanical properties due to the type of drum application or fast cross travel speeds in drag and cable trolley operation are required.

Our **REELTEC® PUR-HF** and **FESTOONTEC® PUR-HF** have been specially developed for this application and are available in shielded and unshielded versions.

# Application Overview Crane cables

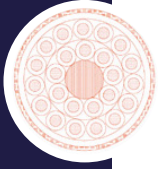
Crane cables are an important part of crane systems and help to ensure the safety and efficiency of their operation. They are responsible for transporting loads and enable the crane to carry out its movements.

In this application overview, we present the different cable routing systems and the matching cable solution.

Round and flat cables										
cable guidance systems	reel									chapter
stress	simple	high	extreme							
FESTOONTEC® H05VVH6-F, (H)05VVH6-F	-	-	-	++	-	0	-	-	-	06.01.01
FESTOONTEC® H07VVH6-F, (H)07VVH6-F	-	-	-	++	-	0	-	-	-	06.01.02
FESTOONTEC® YCFLY, YFLCY, KYCFLY	-	-	-	++	-	0	-	-	-	06.02.02
FESTOONTEC® H05VVD3H6-F, KYFLTY, KYFLTFY, KYCFLTY, KYFLTCY (EMC)	-	-	-	++	-	0	-	-	-	06.02.03
FESTOONTEC® NGFLGÖU, (N)GFLGÖU	-	-	-	++	-	0	-	-	-	06.03.01
FESTOONTEC® M(StD)HÖU (EMC)	-	-	-	++	-	0	-	-	-	06.03.02
FESTOONTEC® LSOH, LSOH-C	-	-	-	++	-	0	-	-	-	06.04.01
FESTOONTEC® PUR-HF	+	0	-	++	0	+	-	-	-	06.12.01.01
FESTOONTEC® C-PUR-HF	-	-	-	++	0	+	-	-	-	06.12.02.01
FESTOONTEC® FIBER RUBBER	+	-	-	++	0	+	-	-	-	06.12.05.02
FESTOONFIBERFLEX PUR-HF	+	-	-	++	0	+	-	-	-	06.12.05
REELTEC® PUR-HF	+	++	++	+	++	+	++	-	-	06.09.10.01
REELTEC® (K) NSHTÖU, (N)SHTÖU	++	+	0	++	0	+	-	-	-	06.09.13.01
REELTEC® KSM-S (N)SHTÖU-J, (N)SHTÖU-J + LWL	+	++	++	0	0	+	0	-	-	06.09.16.01
REELTEC KSM-S (N)TSCGEWÖU, (N)TSCGEWÖU + LWL	+	+	++	++	0	0	++	-	-	06.11.03
LIFTTEC® FLGÖU	0	-	-	0	-	0	-	++	0	06.08.01
LIFTTEC® STN	0	-	-	0	-	++	-	++	0	06.08.02
LIFTTEC® STCN (EMC)	-	-	-	0	-	++	-	++	-	06.08.03
LIFTTEC® YMHY-KT	-	-	-	-	-	-	-	++	-	06.07.01
LIFTTEC® YMHY-KST	-	-	-	-	-	-	-	++	-	06.07.02
LIFTTEC® FYMYTW	-	-	-	-	-	-	-	-	-	06.07.05

++ main application  
 + suitable  
 0 conditionally suitable  
 - not suitable





## REELTEC®



Our **REELTEC®** series is especially robust and durable, making it ideal for use in industrial crane and harbor crane systems. It is widely used to provide power and control pulses to systems. Their reeling characteristic makes them easy to wind and unwind, which contributes to longer lifetime.

They are suitable for use in harsh industrial environments and are particularly resilient to withstand high mechanical stresses. We offer various designs of reelable cables, which differ depending on the application. Our cables are thus an important component in industrial crane and harbor crane systems and contribute to a safe and reliable power supply.

Go directly to **REELTEC®** product overview - Scan or click QR code





## REELTEC® Highlights

### REELTEC® PUR-HF

Halogen-free reeling cable for heavy duty devices such as cable reels (also vertical operation), hoisting devices, conveyor facilities, mobile motors, rail motors and agricultural devices. For exceptional mechanical stress in dry, humid and wet rooms and for outdoor use.



### REELTEC® (K) NSHTÖU, (K) (N)SHTÖU

Reeling cable for winding operation, especially with tensile stress at the same time and/or torsional stress and/or compulsory cable direction. Suitable for dry, humid and wet rooms, for outdoor use and also on construction sites, in commercial and agricultural plants. For travelling up to 120 m/min.



### REELTEC® KSM-S (N)SHTÖU, (N)SHTÖU+LWL

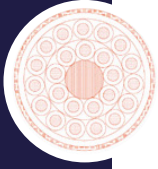
Reeling cable for winding operation, especially with simultaneously tensile stress and/or torsional stress and/or forced cable guidance. Suitable for dry, humid and wet rooms, for outdoor use and also on construction sites, in commercial and agricultural plants.



### REELTEC® (N)TSCGEWÖU KSM-S

Reeling power cable also for trolley systems for power resp. data transmission for high and extreme mechanical stress such as dynamic tensile stress, multiple direction changes in different levels. Especially for mobile facilities such as fast running container cranes, crane facilities, mobile heavy equipment and diggers. Suitable for dry, humid and wet rooms and for outdoor use.





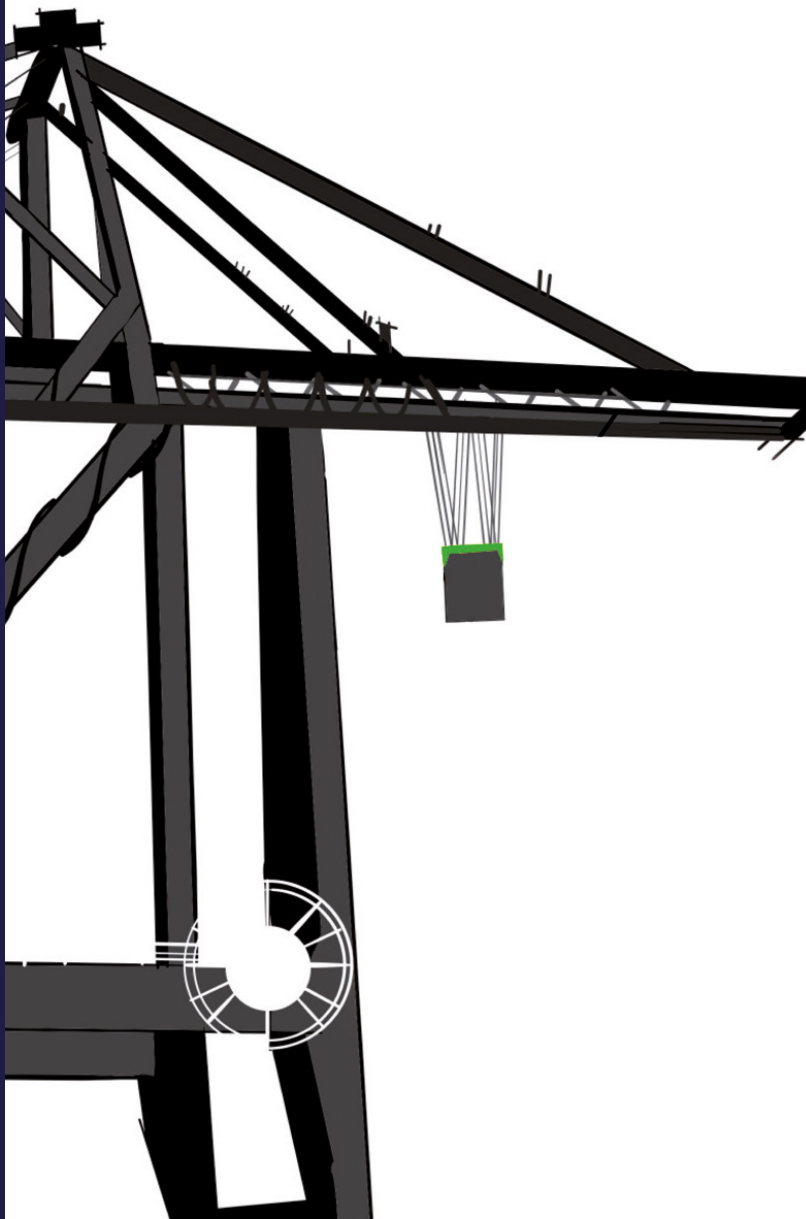
## FESTOONTEC®



Power and control cables are important components in many industrial applications, especially in areas such as conveyor technology or crane systems. A special way of laying these cables is to use Festoon systems. One of the leading products on the market for Festoon applications is our **FESTOONTEC® series**. It is a state-of-the-art power and control cable designed specifically for use in Festoon systems.

A Festoon system consists of a series of cables attached to a steel cable or chain and routed along a predetermined path. This allows for flexible and safe routing of the cables while allowing for easy maintenance and inspection. In this regard, our **FESTOONTEC® series** offers high reliability and durability combined with high flexibility, making it the ideal choice for these applications.

Go directly to **FESTOONTEC® product overview** - Scan or click QR code



# FESTOONTEC® Highlights

## FESTOONTEC® PUR-HF - unshielded

Power and control cable for very high mechanical requirements, frequently bendings, especially for use in trolley systems, drag chains on moving parts of machines, conveyor facilities. Suitable for dry, humid and wet rooms and for outdoor use.



## FESTOONTEC® C-PUR-HF - shielded

Power and control cable for very high mechanical requirements, frequently bendings, especially for use in trolley systems, drag chains on moving parts of machines, conveyor facilities. Suitable for dry, humid and wet rooms and for outdoor use.



www.tkd-kabel.de



## Our product groups for crane and lifting equipment

Cables in materials handling technology - for example, in huge crane systems for containers - are often often wound up and unwound under extreme conditions on cable reels, in cable trolleys or freely suspended as festoon systems.

Irregular accelerations, movements over all axes and lots of tensile forces are the order of the day for spreader cables, for example, which operate as reeling cables on cranes more than 60 m high and ensure that the heaviest containers are moved back and forth safely. The situation is made even more difficult by harsh environmental conditions such as temperature, sunlight or salt water during outdoor operations.

For industrial cranes used indoors, fire protection, continuous load and a small installation size play a decisive role. Whether in ports, in shipping, in logistics, in mining, on transshipment stations, in industrial plants, on construction cranes, for theater technology or for towing and salvage - we supply the right solutions for all types of crane and conveyor construction.

Our range extends from ribbon cables and round cables for operation in trolleys to reeling cables in PUR or rubber design as well as cable harnesses and cables for cage operation up to control cables with supporting elements, heavy rubber cables and classic 1 kV PVC control cables.



## Flexible control cables

### PVC-control cables

ÖPVC-JZ/OZ ARCTIC +UV Black  
 ÖPVC-JZ/OZ 0,6/1kV Black  
 ÖPVC-JZ/OZ-YCY 0,6/1kV Black

300/500V, unshielded, UV-resistant, cold flexible -60°C  
 0,6/1kV, unshielded, UV-resistant, CPR Eca  
 0,6/1kV, shielded, UV-resistant, CPR Eca

### PUR-control cables, cables for hand-held machinery

ROCKERFLEX® Hardcore 3

0,6/1kV, unshielded, yellow, for extreme conditions

## BUS, LAN, coaxial & video cables

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

#### PROFIBUS DP / FMS / FIP 150 Ω

PROFIBUS DP / FMS / FIP - HF

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

#### MULTIBUS & INTERBUS 100 - 120 Ω

MULTIBUS & INTERBUS - HF

for high flexible applications (drag chain) UL/CSA

#### CAN BUS - ControllerAreaNetwork 120 Ω

CAN BUS - HF

for high flexible applications (drag chain) UL/CSA

#### DeviceNet 120 Ω

DeviceNet - HF

for high flexible applications (drag chain) UL/CSA

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

#### structured industry cabling

PROFINET Cat.5e - HF

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

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

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

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

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

### KAWEFLEX® Allround Control cables for use in drag chains

KAWEFLEX® Allround 7140 SK-TPE UL/CSA  
 KAWEFLEX® Allround 7240 SK-C-TPE UL/CSA

for highest requirements, 0,6/1kV, unshielded, UL/CSA  
 for highest requirements, 0,6/1kV, shielded, UL/CSA

### KAWEFLEX® Allround Electronic cables for use in drag chains

KAWEFLEX® Allround 7730 SK-TP-C-TPE UL/CSA

for highest requirements, 300V, shielded, UL/CSA

## 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® Allround Motor cables 0,6/1kV for use in drag chains for highest requirements

KAWEFLEX® Allround 7510 SK-TPE  
KAWEFLEX® Allround 7520 SK-TPE  
KAWEFLEX® Allround 7610 SK-C-TPE  
KAWEFLEX® Allround 7320 SK-TPE  
KAWEFLEX® Allround 7420 SK-C-TPE

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

## Crane, conveyor and lift cables

### PVC-flat cables

#### for festoon & lift applications

FESTOONTEC® H05VVH6-F, (H)05VVH6-F  
FESTOONTEC® H07VVH6-F, (H)07VVH6-F

300/500V, unshielded, HAR  
450/750V, unshielded, HAR

### PVC special flat cables, unshielded and shielded for festoon & lift applications

FESTOONTEC® YCFly, YFLCYK, KYCFly, KYFLCY (EMC)  
FESTOONTEC® H05VVD3H6-F, KYFLTY, KYFLTY, KYCFLTY,  
KYFLTY (EMC)  
LIFTTEC® (H)05VE7A7VH6-F

300/500V, shielded  
300/500V, unshielded, steel supporting element  
300/500V, shielded data pairs

### Polychloropren flat cables

#### for festoon & lift applications

FESTOONTEC® NGFLGÖU, (N)GFLGÖU  
FESTOONTEC® M(StD)HÖU (EMC)

300/500V, unshielded  
0,6/1kV, shielded

### Halogen-free flat cables

#### for festoon & lift applications

FESTOONTEC® LSOH, LSOH-C (EMC)

bis zu 0,6/1kV, unshielded, halogen-free

### Reelable cables

REELTEC® PUR-HF  
REELTEC® (K) NSHTÖU, (N)SHTÖU  
REELTEC® KSM-S (N)SHTÖU+LWL

0,6/1kV, unshielded, halogen-free  
0,6/1kV, unshielded  
0,6/1kV, unshielded

### Cables for usage in baskets

SPREADERFLEX 3GSLTOE

0,6/1kV, unshielded

### Trailing cables 1-30 kV

#### for reeling applications

REELTEC® KSM-S (N)TSCGEWÖU, (N)TSCGEWÖU + LWL

3,6/6kV to 12/20kV, unshielded

### Control cables for cable trolley systems

FESTOONTEC® PUR-HF  
FESTOONTEC® C-PUR-HF (EMC)  
FESTOONFIBERFLEX PUR-HF

0,6/1kV, unshielded, halogen-free  
0,6/1kV, shielded, halogen-free  
LWL, halogen-free



“

*State-of-the-art  
cables that deliver  
extreme  
performance.*

# 07

## Rubber cables

### Heavy rubber-sheathed flexible cables

H07RN-F, A07RN-F  
H07RN-F PREMIUM  
NSSHÖU

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

### Welding cables

H01N2-D, H01N2-E

100V, unshielded, HAR

# 09

## Cables and wires for fixed installation

### High voltage cables

NYN 0,6/1kV  
NYCY 0,6/1kV

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





“

***Electrification of cranes -  
more functions in one cable***

## Service

### Benefit from outstanding logistics services.

Our state-of-the-art and fully automated logistics centre in Nettetal and our logistics centres in the Netherlands, Poland, Italy and China ensure high availability of goods and fast delivery.

### Our logistics – your advantage



Fully automated  
Central warehouse



Drum types (disposable,  
treated, untreated  
in all sizes)



Rings  
(All lengths, welded  
in foil or blanco)



Customer markings



"Speed"  
Deliveries



Site delivery



track & trace



Cladding with Lamiflex  
or wood

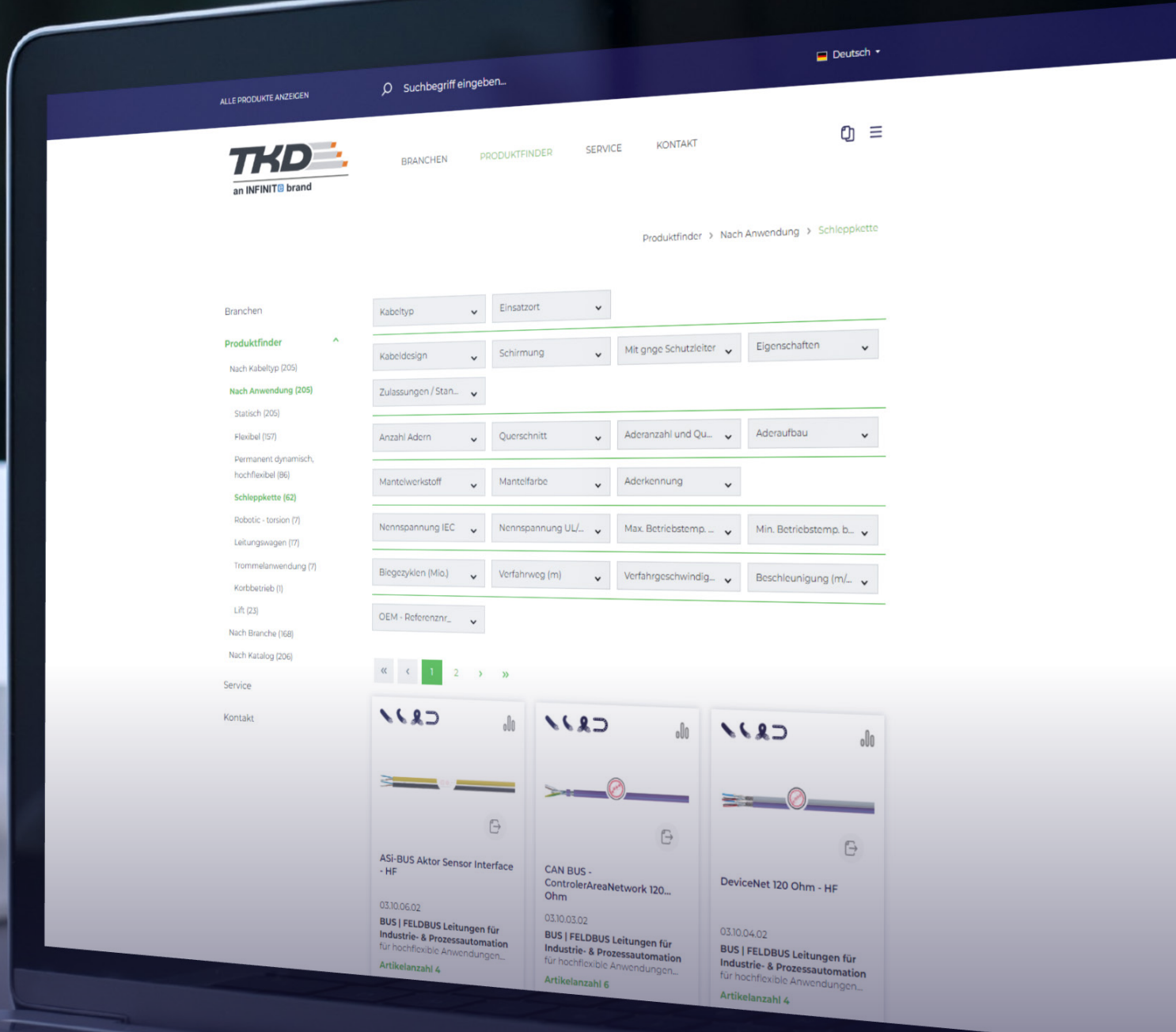


Special packaging



Ecologically compostable  
filling material





**For the right choice of your cable  
our product finder will help you:**



# TKD CONNECTivity

## Cable assembly, spiral cable, ready for connection cable and energy drag chain system

Cabling systems are the decisive basis for reliable operational processes – whether in mechanical engineering, automation technology, telecommunications or the chemical industry; whether in tank installations, in the audio, video and broadcasting sector or in security technology. Pre-assembled and ready-to-connect cable solutions from TKD help you to complete projects much more quickly and cost-effectively

With our innovative solution concepts divided into 4 areas **STANDARD**, **INDIVIDUAL**, **SERVICES** and **ADVANCED** you are also optimally positioned for all challenges.

### STANDARD

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- TKD CONNECT servo assemblies
- TKD CONNECT spiral cable
- TKD CONNECT network technology
- TKD CONNECT power connection cables

### INDIVIDUAL

---

Customized solutions

### SERVICES

---

- Logistics
- KanBan, Printing, Kitting
- Product development
- Product design
- Special packaging

### ADVANCED

---

- Cable sets
- Cable harnesses
- Assemblies
- Woven ribbon cable
- Energy drag chain systems



# TKD CONNECTivity

Service portfolio Individual & Advanced

CRIMP

SOLDERING

ULTRASONIC  
VERDICT

WRAPPING

ASSEMBLY  
WORK

CABLESETS

SPIRALIZATION

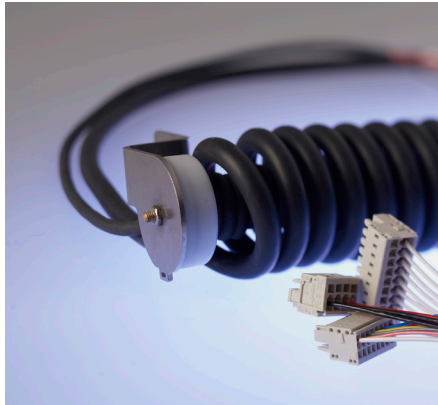
KITTING

STRIPPING

PARTIAL  
STRIPPING

INDIVIDUAL  
LENGTHS

WOVEN  
TECHNOLOGY





# TKD 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





**TKD**  
an INFINITE® brand

About Infinite Electronics

Infinite Electronics has a global portfolio of leading in-stock connectivity solution brands. Infinite's brands help propel the world's innovators forward by working urgently to provide products, solutions, and real-time support for their customers.

Backed by Warburg Pincus, Infinite's brands serve customers across a wide range of industries with a broad inventory selection, same-day shipping and 24/7 customer service. Learn more at [infiniteelectronics.com](http://infiniteelectronics.com).

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