



## **Conveyor Technology**

Cable and CONNECTivity



## **Conveyor Technology: Extreme conditions and requirements.**

Conveyor lines have one thing in common: they have to transmit power or data safely under the most difficult conditions – permanently and absolutely interference-free.

Increasing dynamic loads are the norm. For example, reeling cables on motorized cable reels must remain fully operational even in continuous operation at ever higher speeds – in some cases they are even subjected to 24-hour operation 365 days a year. We meet these requirements by using innovative designs, materials and manufacturing techniques. What is still the future elsewhere, you can already take for granted at TKD as the current state of the art and plan it for your projects.

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.



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**

Category	Page
Overview: Conveyor cables	6
KAWEFLEX® Highlights	8
REELTEC® Highlights	10
FESTOONTEC® Highlights	12
Flexible control cables	15
BUS, LAN, coaxial & video cables	15
Control and data cables – high flexible for use in drag chains & robotic applications	15
Servo-drives, measurement & system cables - flexible & high flexible for use in drag chains and robot applications	16
Crane, conveyor and lift cables	18
Rubber cables	19
Cables and wires for fixed installation	19
Service	20

## **Overview: Conveyor cables**

Round and flat cables													
cable guidance systems	reel		٢	700000	<del>(,,)</del>	2				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 (EMV)	-	-	-	++	-	0	-	-	-	06.02.03			
FESTOONTEC® NGFLGÖU, (N) GFLGÖU	-	-	-	++	-	0	-	-	-	06.03.01			
FESTOONTEC® M(StD)HÖU (EMV)	-	-	-	++	-	0	-	-	-	06.03.02			
FESTOONTEC® LSOH, LSOH-C	-	-	-	++	-	0	-	-	-	06.04.01			
FESTOONTEC® PUR-HF	+	0	-	++	0	+	-	-	-	06.12.01.01			
FESTOONFLEX PUR-HF	+	0	-	++	0	+	-	-	-	06.12.01			
FESTOONTEC® C-PUR-HF	-	-	-	++	0	+	-	-	-	06.12.02.01			
FESTOONFLEX C-PUR-HF	-	-	-	++	0	+	-	-	-	06.12.02			
FESTOONTEC® FIBER RUBBER	+	-	-	++	0	+	-	-	-	06.12.05.02			
FESTOONFIBERFLEX PUR-HF	+	-	-	++	0	+	-	-	-	06.12.05			
REELTEC® PUR-HF	+	++	++	+	++	+	++	-	-	06.09.10.01			
TROMMELFLEX PUR-HF	+	++	++	+	++	+	++	-	-	06.09.01			
TROMMELFLEX PUR-HF SPREADER REEL	+	+	++	-	0	0	-	-	-	06.09.01.01			
TROMMELFLEX-HD SPECIAL SPREA- DER REEL	+	+	++	-	0	0	-	-	-	06.09.01.02			
REELTEC® (K) NSHTÖU, (N)SHTÖU	++	+	0	++	0	+	-	-	-	06.09.13.01			
TROMMELFLEX (K) NSHTÖU, (N) SHTÖ–U	++	+	0	++	0	+	-	-	-	06.09.02			
REELTEC® KSM-S (N)SHTÖU-J, (N)SHTÖU-J + LWL	+	++	++	0	0	+	0	-	-	06.09.16.01			
TROMMELFLEX KSM-S (N)SHTÖU-J, (N)SHTÖU-J + LWL	+	++	++	0	0	+	0	-	-	06.09.05			
REELTEC KSM-S (N)TSCGEWÖU, (N) TSCGEWÖU + LWL	+	+	++	++	0	0	++	-	-	06.11.03			
SPREADERFLEX 3GSLTOE	-	-	-	-	-	-	-	-	++	06.10.03			
LIFTTEC® FLGÖU	0	-	-	0	-	0	-	++	0	06.08.01			
LIFTTEC® STN	0	-	-	0	-	++	-	++	0	06.08.02			
LIFTTEC® STCN (EMV)	-	-	-	0	-	++	-	++	-	06.08.03			
LIFTTEC® YMHY-KT	-	-	-	-	-	-	-	++	-	06.07.01			
LIFTTEC® YMHY-KST	-	-	-	-	-	-	-	++	-	06.07.02			
LIFTTEC® FYMYTW	-	-		-	-	-	-		-	06.07.05			





#### **KAWEFLEX®**

Our KAWEFLEX® series is specifically designed for moving use in drag chain applications, such as in mechanical engineering or robotics. All cables are designed for several million bending cycles and can be used for normal, increased, high or highest requirements.

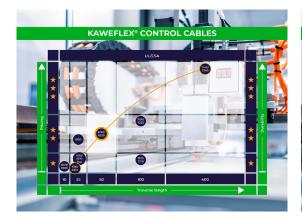
The compact design and advanced stranding technology ensure slim cables with low weight. From data and control cables to power supply, everything is available that mechanical engineering and robotics need: Shielded or unshielded, hybrid or halogen-free products - with a wide variety of cross-sections and core counts.

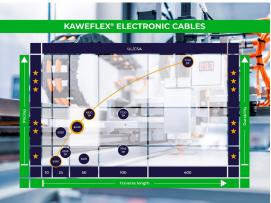
Always choose the optimum cable for your application from up to three different quality levels, both for indoor and outdoor applications, long travel distances or the smallest bending radii. Our KAWEFLEX® cables have been developed to withstand mechanical stress, tensile strength and a wide range of environmental influences, making them extremely versatile. Their range of applications extends from crane and port installations, where the cables are affected by wind and weather, to highly dynamic applications in machinery and plant engineering.

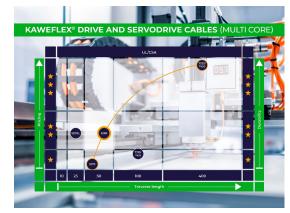
#### Go directly to KAWEFLEX® product overview - Scan or click QR code



#### **KAWEFLEX®** selection guide







#### **KAWEFLEX®** Highlights

#### KAWEFLEX® 6310 SK-PVC UL/CSA

electronic drag chain cable for data and signal transmission for normal requirements in drag chains and moving drive systems.

#### KAWEFLEX® 5288 SK-C-PUR UL/CSA SERVO 0,6/1kV

shielded, low capacity power cable, also with 2, 3 resp. 4 control cores for temperature sensors or brake for EMC-compatible connecting between drives and frequency converter for high requirements in drag chain applications, moving drive systems, in the field of robotic technology, in manufacturing plants as well as in dry and humid rooms.



CE UL/

🖄 🖄

#### **KAWEFLEX® 6130 SK-PUR UL/CSA**

as highly flexible, low capacity power and control cable for high electrical and mechanical requirements in drag chains and motion drive systems in machine and plant engineering.

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

power and control cable for EMC compatible connecting at highest requirements in drag chain applications, for machining centers, machine and plant engineering in the field of crane and conveyor facilities, in compost-, sewage and car wash facility, laundries, in the chemcial industries as well as in the food- and beverage industrie. Applicable in dry and humid rooms also outdoor.







#### **REELTEC**<sup>®</sup>



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.

#### 

🐵 🐜 💉 🕒

CE

**A** 

**A** 

₩ (€

CE

\* \*

#### 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 comercial 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.



www.tkd-kabel.de



#### **FESTOONTEC®**

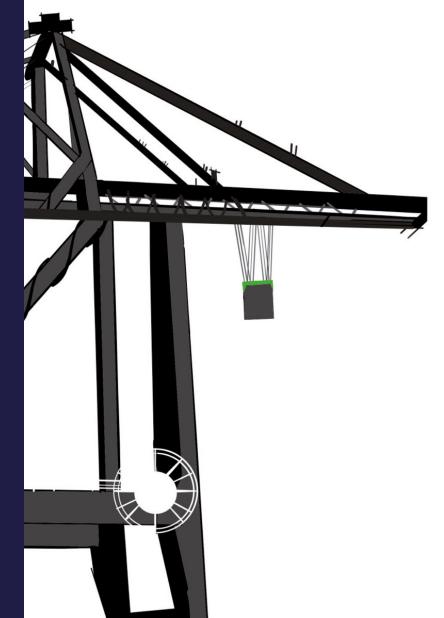


Power and control cables are important components in many industrial applications, especially in areas such as conveyor technology or crane systems. A special way of laying these cables is to use Festoon systems. One of the leading products on the market for Festoon applications is our **FESTOONTEC®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





#### **Our product groups for Conveyor Technology**

Cables have a central role in ensuring an efficient and reliable power supply as well as in the transmission of signals and data in various components and systems.

In the demanding world of materials handling, cables are used in a wide variety of ways to meet the requirements of different applications. They are used to provide reliable power to drives in conveyor systems, roller conveyors and other transport systems. The use of cables with appropriate conductor strength and high quality is essential to ensure a stable and continuous power supply. This is essential for efficient productivity and smooth control of material flow.

In addition, cables perform an essential role in the precise transmission of control signals and data. The reliable functioning of sensors and actuators for monitoring and controlling conveyor systems requires precise and reliable information transmission.



#### **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

PUR-control cables, cables for hand-held machinery ROCKERFLEX® Hardcore 3 300/500V, unshielded, UV-resistant, cold flexible -60°C 0,6/1kV, unshielded, UV-resistant, CPR Eca 0,6/1kV, shielded, UV-resistant, CPR Eca

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

### 03

#### **BUS, LAN, coaxial & video cables**

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

PROFIBUS DP / FMS / FIP 150 Ω PROFIBUS DP / FMS / FIP - HF MULTIBUS & INTERBUS 100 - 120 Ω MULTIBUS & INTERBUS - HF

CAN BUS - ControlerAreaNetwork 120  $\Omega$  CAN BUS - HF

DeviceNet 120  $\Omega$ DeviceNet - HF for high flexible applications (drag chain, robotic & festoon) UL/CSA

for high flexible applications (drag chain) UL/CSA

for high flexible applications (drag chain) UL/CSA

for high flexible applications (drag chain) UL/CSA

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

structured industry cabling PROFINET Cat.5e - HF

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

SPE - Single Pair Ethernet SPE - Single Pair Ethernet - HF for high flexible applications (drag chain, robotic & festoon) UL/CSA, CPR Eca version available for high flexible applications (drag chain, robotic & festoon) UL/CSA for fixed installation, limited flexible & flexible use, UL/CSA for high flexible applications (drag chain, robotic) UL/CSA

04

## 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

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

1

0

9

0

0

## 06

#### Crane, conveyor and lift cables

#### **PVC-flat cables**

for festoon & lift applications FESTOONTEC® H05VVH6-F, (H)05VVH6-F FESTOONTEC® H07VVH6-F, (H)07VVH6-F

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

FESTOONTEC® YCFLY, YFLCYK, KYCFLY, KYFLCY (EMC) FESTOONTEC® H05VVD3H6-F, KYFLTY, KYFLTFY, KYCFLTY, KYFLTCY (EMC) LIFTTEC® (H)05VE7A7VH6-F

#### Polychloropren flat cables

for festoon & lift applications FESTOONTEC® NGFLGÖU, (N)GFLGÖU FESTOONTEC® M(StD)HÖU (EMC)

#### Halogen-free flat cables

for festoon & lift applications FESTOONTEC® LSOH, LSOH-C (EMC)

#### **Reelable cables**

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

#### Cables for usage in baskets SPREADERFLEX 3GSLTOE

Trailing cables 1-30 kV for reeling applications REELTEC® KSM-S (N)TSCGEWÖU, (N)TSCGEWÖU + LWL

#### Control cables for cable trolley systems

FESTOONTEC® PUR-HF FESTOONTEC® C-PUR-HF (EMC) FESTOONFIBERFLEX PUR-HF 300/500V, unshielded, HAR 450/750V, unshielded, HAR

300/500V, shielded

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

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

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

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

0,6/1kV, unshielded

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

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

## 07

#### **Rubber cables**

Heavy rubber-sheathed flexible cables

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

Welding cables H01N2-D, H01N2-E 450/750V, unshielded, HAR, CPR Eca 450/750V, +90 °C, unshielded, halogen-free, HAR, CPR Eca 0,6/1kV, unshielded, VDE

100V, unshielded, HAR

## 09

#### Cables and wires for fixed installation

**High voltage cables** NYY 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



#### 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







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









Deliveries



Site delivery



track & trace



Cladding with Lamiflex or wood

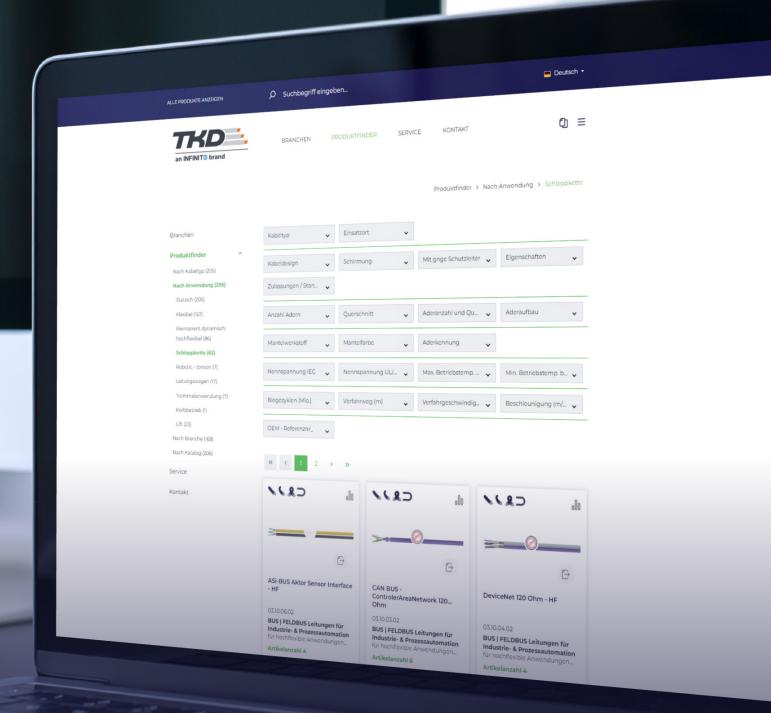


Special packaging



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 INDIVIDUAL TKD CONNECT servo assemblies Customized solutions TKD CONNECT spiral cable Customized solutions TKD CONNECT network technology TKD CONNECT power connection cables 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







## Notes

			 			 	 				 _			 		 	 			
			 				 		-		 _					 				
							 				 _					 				
							 				-									
-									-		-							-		
									-						_		_	-		
																		_		
							 				 _						 			
			 				 										 	_		
						 	 				 -									
			 			 	 				 -			 		 	 			
			 				 				 -					 				
			 				 				_					 				
	-		 				 				 _						 			
							 					_				 				
							 				 _						 			
							 		-			_			_	 	 			
			 				 		-											
									-		-							$\rightarrow$		
																		-		
-									-									-		

© Copyright by TKD Kabel GmbH

We reserve the right to perform modifications to our products, particularly technical improvements and continued development. All illustrations, numerical data, etc. are therefore without warranty.

# TKD worldwide

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





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. 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.

TKD Kabel GmbH An der Kleinbahn 16 41334 Nettetal Phone +49 (0) 2157 8979-0 E-Mail info@tkd-kabel.de

www.tkd-kabel.de