Innovation in Motion

TSUBAKI

KABELSCHLEPP

TRAXLINE CABLES FOR MOTION

CONTINUOUS BENDING HI-FLEX ELECTRICAL CABLES

TOTALTRAX TURN-KEY SYSTEMS

TRAXLINE PRE-ASSEMBLED CABLES

… FOR CABLE CARRIERS

EDITION
02-2013

Cost-effective, reliable, durable

TRAXLINE cables for cable carriers

Ready for solutions – your advantage

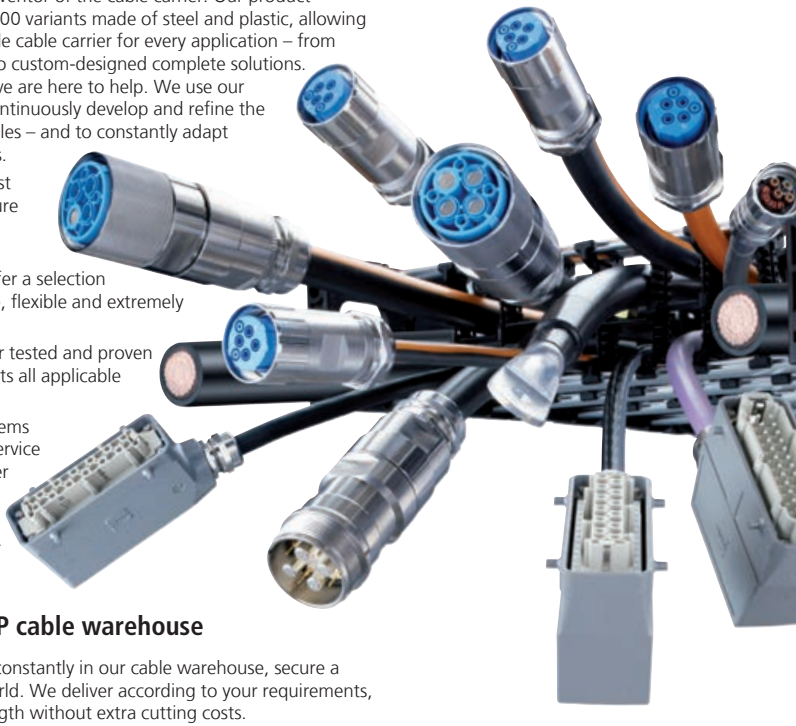
TSUBAKI KABELSCHLEPP – the inventor of the cable carrier. Our product portfolio covers more than 100,000 variants made of steel and plastic, allowing us to deliver a suitable and reliable cable carrier for every application – from standard off-the-shelf products to custom-designed complete solutions. Wherever you are in the world, we are here to help. We use our over 50 years of experience to continuously develop and refine the "insides" – i.e. the TRAXLINE cables – and to constantly adapt them to the market requirements.

Our cable ranges meet the highest quality standards in order to ensure availability of your systems and installations.

With the TRAXLINE range, we offer a selection of cables which are cost-effective, flexible and extremely durable.

A key factor for our cables is their tested and proven operational reliability, which meets all applicable standards and directives.

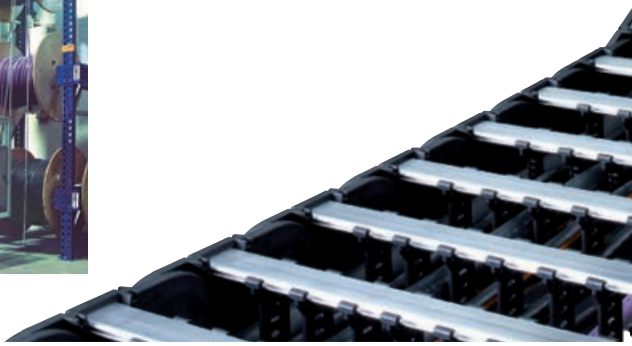
Competent, objective-driven systems consultation and global on-site service are both part of what we consider an on-going commitment to the technical and commercial optimisation of your applications.



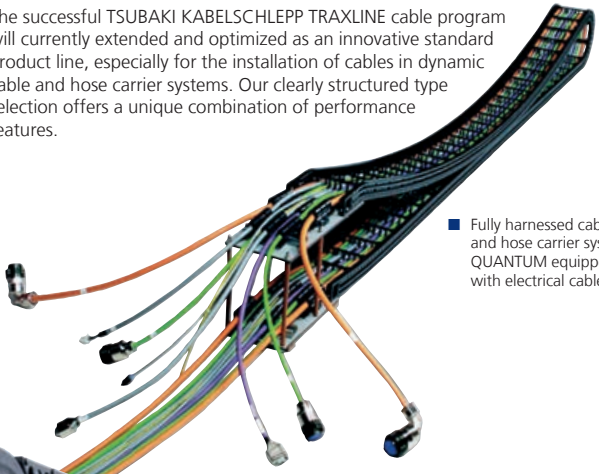
TSUBAKI KABELSCHLEPP cable warehouse

Hundreds of cable types, stored constantly in our cable warehouse, secure a fast availability all around the world. We deliver according to your requirements, no minimum quantities, each length without extra cutting costs.

■ TSUBAKI KABELSCHLEPP cable warehouse.



The successful TSUBAKI KABELSCHLEPP TRAXLINE cable program will currently extended and optimized as an innovative standard product line, especially for the installation of cables in dynamic cable and hose carrier systems. Our clearly structured type selection offers a unique combination of performance features.



■ Fully harnessed cable and hose carrier system QUANTUM equipped with electrical cables.

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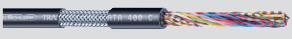
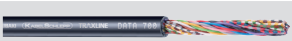
Overview TRAXLINE cable types

Cable type		Outer jacket	Shield	Factor for KR_{min} = n x Ø cable	Temperature moved	Approvals
CONTROL cables						
CONTROL 200		PVC	–	10	-5 to +80 °C	
CONTROL 200 C		PVC	✓	10	-5 to +80 °C	
CONTROL 400 – 600 V		PVC	–	7.5	-5 to +80 °C	
CONTROL 400 C – 600 V		PVC	✓	7.5	-5 to +80 °C	
CONTROL 700 – 600 V		PUR	–	7.5	-30 to +90 °C	
CONTROL 700 C – 600 V		PUR	✓	7.5	-30 to +90 °C	
POWER cables						
POWER 400 – 1 kV		PVC	–	7.5	-5 to +80 °C	
POWER 400 C – 1 kV		PVC	✓	7.5	-5 to +80 °C	
POWER 700 – 1 kV		PUR	–	7.5	-30 to +90 °C	
POWER ONE 700 – 1 kV		PUR	–	7.5	-40 to +90 °C	
POWER ONE 700 PE		PUR	–	7.5	-40 to +90 °C	
POWER 700 C – 1 kV		PUR	✓	7.5	-30 to +90 °C	
POWER ONE 700 C – 1 kV		PUR	✓	7.5	-40 to +90 °C	
DATA cables						
DATA 400 C		PVC	✓	7.5	-5 to +80 °C	
DATA 700		PUR	–	7.5	-30 to +90 °C	
DATA 700 TPi C		PUR	✓	7.5	-30 to +90 °C	
DATA 700 TPi CD / POWER 700 TPi CD – 1 kV		PUR	✓	7.5	-30 to +90 °C	

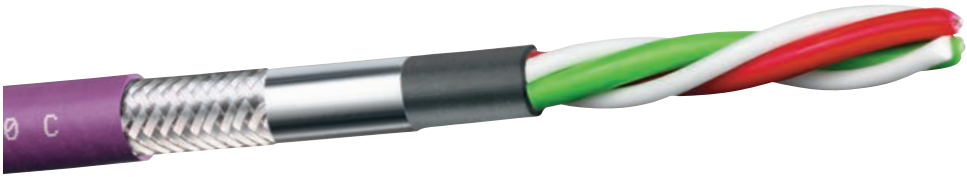
Cable overview after part numbers ➤ Page 83

Standards	Colour type-dependent	Halogen-free	Flame-retardant	Oil-resistant	v_{max} supported (m/s)	v_{max} gliding (m/s)	a_{max} (m/s2)	Diameter mm2/ Type/Other	Core number	Page
12										
CE RoHS conform	**black**	–	✓	✓	3.5	2	10	0.5^2 to 2.5^2	2-25	**12**
CE RoHS conform	**black**	–	✓	✓	3.5	2	10	0.5^2 to 1.5^2	2-25	**14**
CE RoHS conform	**black**	–	✓	✓	5	3	20	0.34^2 to 2.5^2	2-48	**16**
CE RoHS conform	**black**	–	✓	✓	5	3	20	0.5^2 to 1.5^2	3-36	**18**
CE RoHS conform	**black**	✓	✓	✓	20	5	50	0.5^2 to 1^2	2-36	**20**
CE RoHS conform	**black**	✓	✓	✓	20	5	50	0.5^2 to 1^2	3-25	**22**
24										
CE RoHS conform	**black**	–	✓	✓	5	3	20	1.5^2 to 70^2	2-25	**24**
CE RoHS conform	**black**	–	✓	✓	5	3	20	1.5^2 to 35^2	4-7	**26**
CE RoHS conform	**black**	✓	✓	✓	20	5	50	1.5^2 to 95^2	2-36	**28**
CE RoHS conform	**black**	✓	✓	✓	20	5	50	0.25^2 to 700^2	1	**30**
CE RoHS conform	**black**	✓	✓	✓	20	5	50	1.5^2 to 95^2	1	**32**
CE RoHS conform	**black**	✓	✓	✓	20	5	50	1.5^2 to 150^2	2-49	**34**
CE RoHS conform	**black**	✓	✓	✓	20	5	50	1.5^2 to 300^2	1	**36**
38										
CE RoHS conform	**coloured/ black**	–	✓	✓	5	3	20	0.25^2 to 0.34^2	4-25	**38**
CE RoHS conform	**coloured/ black**	✓	✓	✓	20	5	50	0.25^2 to 0.34^2	3-15	**40**
CE RoHS conform	**black**	✓	✓	✓	20	5	50	0.25^2 to 1^2	2-32	**42**
CE RoHS conform	**black**	✓	✓	✓	20	5	50	0.25^2 to 1.5^2	6-20	**44**

Cable overview after part numbers ➤ Page 83

Overview TRAXLINE cable types

Cable type	Outer jacket	Shield	Factor for KR_{min} = n x Ø cable	Temperature moved	Approvals
BUS-/fiber optic-/coaxial cables					
PROFIBUS 700 C	PUR	✓	15	-20 to +60 °C	
CAN-BUS 700 C	PUR	✓	7.5	-20 to +80 °C	
USB S 700 C / USB L 700 C	PUR	✓	10	-10 to +70 °C	
INTERBUS 700 C	PUR	✓	10	-30 to +70 °C	
CAT.5E / CAT.6 700 CD	PUR	✓	10	-40 to +80 °C	
KOAX 700 CD	PUR	✓	10	-20 to +60 °C	
FOC 700	PUR	–	7.5	-30 to +90 °C	–
OEM SYSTEM cables					
SYSTEM S 700 C	PUR	✓	7.5	-30 to +90 °C	
SYSTEM M 700 C	PUR	✓	7.5/10	-30 to +90 °C	



Cable overview after part numbers ➤ Page 83

Standards	Colour type-dependent	Halogen-free	Flame-retardant	Oil-resistant	v_{max} supported (m/s)	v_{max} gliding (m/s)	a_{max} (m/s2)	Diameter mm2/ Type/Other	Core number	Page
46										
CE RoHS conform	purple	✓	✓	✓	3.5	2	10	0.64 mm	2	**46**
CE RoHS conform	black	✓	✓	✓	3	3	10	0.5^2	2-4	**48**
CE RoHS conform	purple	✓	✓	✓	3.5	2	10	AWG 28 / 24 / 20	4	**50**
CE RoHS conform	purple	✓	✓	✓	3.5	2	10	0.25^2	6	**52**
CE RoHS conform	green	✓	✓	✓	3	3	5	0.15^2	8	**54**
CE RoHS conform	black	✓	✓	✓	3.5	3.5	10	HF 50/75 Ω	1-5	**56**
CE RoHS conform	black	✓	✓	–	3.5	3.5	10	50µ/62.5µ	6-12	**58**
60										
CE RoHS conform	green	✓	✓	✓	5	5	50	0.14^2 to 0.1^2	3-16	**60**
CE RoHS conform	orange	✓	✓	✓	5	5	50	1^2 to 50^2	4	**62**

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Overview TRAXLINE pre-assembled cables

USB / CAT.5E / CAT.6 65

USB 700 C pre-assembled		65
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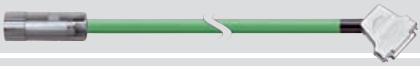
Signal cables Cables with connections compatible with the OEM standards 66

Signal basic cables		66
Signal extension cables		66

Power cables Cables with connections compatible with OEM standards 67

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Cable overview after part numbers ➤ Page 83

TSUBAKI KABELSCHLEPP and EPLAN

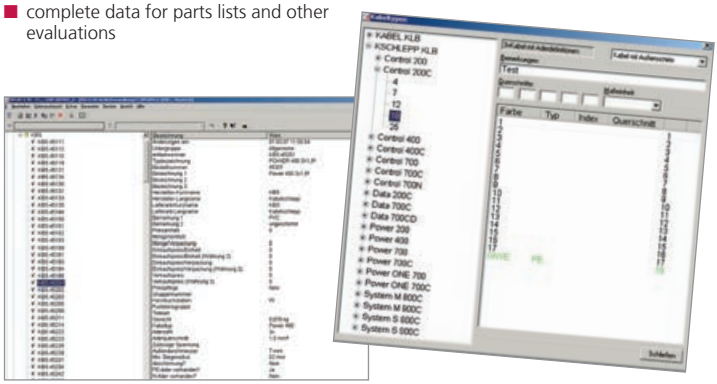
EPLAN has developed over more than 20 years into a leading E-CAD system and has become more-or-less established as a standard in some branches.

TRAXLINE cable database for EPLAN

As a provider of highly-flexible electrical cables for cable and hose carriers, we offer you the TSUBAKI KABELSCHLEPP TRAXLINE cable data bases as a superior tool for optimising your daily work with EPLAN.

The databases are optimized for use in EPLAN5 and for transmission according to EPLAN P8 electric.

- easy cable selection by construction
- automatic addition of core number, cross-section and core colour
- complete data for parts lists and other evaluations



Cable overview after part numbers ➤ Page 83

TOTALTRAX turn-key systems
Fully harnessed cable carrier systems

The product you need – we support and supply it to you completely harnessed

One supplier – one responsibility

We develop, design and supply all components required for your individual cable & hose carrier system.

■ Ready-to-connect assembled plastic cable carrier system, packed ready for installation

Everything you need

- Consulting
- Planning
- Design
- Cable carriers
- Electrical cables
- Complete guarantee
- Hydraulic hoses
- Pneumatic hoses
- Plug-and-socket connectors
- Assembly plates
- Complete assembly of all components

+ One contact person
+ One order
+ One delivery
+ Guaranteed quality

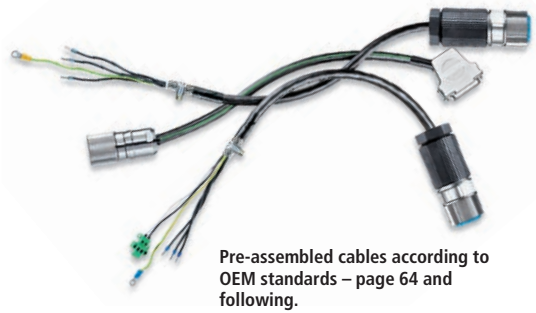
= **TOTALTRAX Complete System**

TOTALTRAX – from design to the complete system

NOTE:
Harnessed cables according to all OEM

We manufacture KABELSCHLEPP **TRAXLINE** cables according to OEM specifications, suitable for all drive controls which consist of signal and power cables and/or extension cables.

- any cable length available
- delivery minimum: 1 unit



Pre-assembled cables according to OEM standards – page 64 and following.

Cut costs with TOTALTRAX complete cable carrier systems

We help you . . .

- Advice on planning
- Support in the design phase
- Only one contact person for the complete system including all the individual components
- Complete delivery from a single source
- Only one supplier – one purchase order and one item number
- All components match each other perfectly
- Guarantee certificate upon requests

. . . to cut your costs!

- Goods receiving inspections for all individual components are no longer required
- Expensive technical personnel and special tools are no longer required
- Shorter assembly times
- No hidden costs, e.g. cables being cut to excessive lengths etc.
- Less captive capital with almost no inventory
- On-time delivery directly to your production site

No storage costs for individual components like cables and connectors

Our warehouses offer cables, plug-and-socket connectors as well as many other individual components.

■ Complete system with reusable shipping fixture

■ Fully harnessed steel cable carrier

■ Plastic cable carrier fully harnessed with cables, hoses, connectors and holding plates

Complete service – even for applications with extreme assembly conditions

Our service team can design and assemble your cable carrier system even for applications with extreme assembly conditions. Our service center experts provide you with the support you need.

- Complete assembly with guide channels
- Uncoiling of harnessed cable carrier systems with long travel lengths
- Assembly at great heights (e. g. crane systems)

■ Fully harnessed cable carrier system in shipping crate

■ Assembly of the fully harnessed cable carrier system

TRAXLINE CONTROL 200

Unshielded continuous bending hi-flex PVC control cables

Picture obtainable.

Up to 2 million motion cycles!

Up to 25 m travel length!

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

Developed for

- systems engineering and mechanical engineering
- crane and conveyor equipment
- monitoring, measuring and control cables
- light to medium loads

Properties

- hi-flex design
- oil-resistant
- UV-resistant
- RoHS-conform
- ozone-resistant
- metermarked
- CFC-free
- flame-retardant
- silicone-free

Design

Conductor:	bare copper wires class 5 in an optimized hi-flex design
Center element:	type-dependent
Core insulation:	KS-PP
Core identification:	black with white numbers, protective conductor green/yellow
Core stranding:	conductor cores layered
Outer jacket:	KS-PVC
Jacket colour:	black

Technical Data

Temperature range while moved:	– 5 to + 80 °C
Minimum bend radius while moved:	$KR_{min} \geq 10 \times Ø$
v_{max} supported:	3.5 m/s
v_{max} gliding:	2 m/s
a_{max}:	10 m/s²
Insulation resistance:	≥ 30 MΩ x km
Rated voltage:	according to VDE 300/500 V according to UL 300 V
Approvals:	UL, cUL, based on VDE

varying parameters possible – please contact us

Core insulation
KS-PP
layered

Outer jacket
KS-PVC
valley-sealed extruded
hi-flex design
UV-resistant
ozone-resistant
high abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Subject to change.

Questions about cable carrier cables? Fon: +49 2762 4003-0

kabelschlepp.de

Type selection

TRAXLINE CONTROL 200 – unshielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
2 x 0.5²	**47351**	4.5	0.026	0.010
3 G 0.5²	**47352**	4.7	0.031	0.014
4 G 0.5²	**47353**	5.1	0.037	0.019
5 G 0.5²	**47354**	5.5	0.045	0.024
7 G 0.5²	**47356**	6.5	0.062	0.034
12 G 0.5²	**47360**	7.6	0.090	0.058
18 G 0.5²	**47364**	9.0	0.131	0.086
25 G 0.5²	**47367**	11.4	0.195	0.120
3 G 0.75²	**47372**	5.5	0.043	0.022
4 G 0.75²	**47373**	6.1	0.055	0.029
5 G 0.75²	**47374**	6.6	0.066	0.036
7 G 0.75²	**47376**	7.7	0.088	0.050
12 G 0.75²	**47380**	9.3	0.134	0.086
18 G 0.75²	**47384**	11.2	0.197	0.130
25 G 0.75²	**47387**	13.9	0.290	0.180
3 G 1²	**47392**	6.0	0.054	0.029
4 G 1²	**47393**	6.5	0.067	0.038
5 G 1²	**47394**	7.0	0.079	0.048
7 G 1²	**47396**	8.2	0.107	0.067
12 G 1²	**47400**	10.2	0.168	0.115
18 G 1²	**47404**	12.0	0.243	0.173
25 G 1²	**47407**	15.1	0.363	0.240
4 G 1.5²	**47413**	7.1	0.087	0.058
5 G 1.5²	**47414**	7.7	0.105	0.072
7 G 1.5²	**47416**	9.2	0.144	0.101
12 G 1.5²	**47420**	11.5	0.230	0.173
18 G 1.5²	**47424**	13.4	0.330	0.259
25 G 1.5²	**47427**	16.8	0.491	0.360
4 G 2.5²	**47433**	8.7	0.136	0.096

Subject to change.

Additional cable types upon request.

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Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE CONTROL 200 C

Shielded continuous bending hi-flex PVC control cables

Picture obtainable.

Core insulation
KS-PP
layered

Inner jacket
KS-PVC
valley-sealed,
pressure extruded,
hi-flex design

Overall shield
high flexural strength,
tin-plated copper braiding
for small bend radii

Outer jacket
KS-PVC
pressure extruded
hi-flex design
high abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Up to 2 million motion cycles!

Up to 25 m travel length!

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

Developed for

- systems engineering and mechanical engineering
- crane and conveyor equipment
- monitoring, measuring and control cables
- light to medium loads

Properties

- hi-flex design
- oil-resistant
- UV-resistant
- RoHS-conform
- ozone-resistant
- metermarked
- CFC-free
- silicone-free
- flame-retardant

Design

Conductor:	bare copper wires class 5 in an optimized hi-flex design
Center element:	type-dependent
Core insulation:	KS-PP
Core identification:	black with white numbers, protective conductor green/yellow
Core stranding:	conductor cores layered
Inner jacket:	KS-PVC
Shielding:	coverage nom. 83 %
Outer jacket:	KS-PVC
Jacket colour:	black

Technical Data

Temperature range while moved:	– 5 to + 80 °C
Minimum bend radius while moved:	$KR_{min} \geq 10 \times Ø$
v_{max} supported:	3.5 m/s
v_{max} gliding:	2 m/s
a_{max}:	10 m/s^2
Insulation resistance:	≥ 30 MΩ x km
Rated voltage:	according to VDE 300/500 V according to UL 300 V
Approvals:	UL, cUL, based on VDE

varying parameters possible – please contact us

Subject to change.

Type selection

TRAXLINE CONTROL 200 C – shielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
(2 x 0.5²)	**47651**	6.2	0.057	0.030
(3 G 0.5²)	**47652**	6.4	0.062	0.036
(4 G 0.5²)	**47653**	6.8	0.070	0.042
(5 G 0.5²)	**47654**	7.2	0.081	0.048
(7 G 0.5²)	**47656**	8.2	0.104	0.064
(12 G 0.5²)	**47660**	9.7	0.149	0.105
(18 G 0.5²)	**47664**	11.0	0.194	0.137
(25 G 0.5²)	**47667**	13.6	0.283	0.210
(3 G 0.75²)	**47672**	7.2	0.079	0.048
(4 G 0.75²)	**47673**	7.6	0.090	0.055
(5 G 0.75²)	**47674**	8.3	0.108	0.066
(7 G 0.75²)	**47676**	9.8	0.147	0.085
(12 G 0.75²)	**47680**	11.3	0.198	0.135
(18 G 0.75²)	**47684**	13.4	0.284	0.190
(25 G 0.75²)	**47687**	16.5	0.416	0.275
(3 G 1²)	**47692**	7.7	0.091	0.059
(4 G 1²)	**47693**	8.2	0.108	0.070
(5 G 1²)	**47694**	8.7	0.124	0.084
(7 G 1²)	**47696**	10.4	0.167	0.106
(12 G 1²)	**47700**	12.1	0.232	0.174
(18 G 1²)	**47704**	14.2	0.334	0.240
(25 G 1²)	**47707**	17.5	0.486	0.332
(3 G 1.5²)	**47712**	8.3	0.113	0.075
(4 G 1.5²)	**47713**	8.8	0.133	0.090
(5 G 1.5²)	**47714**	9.8	0.163	0.108
(7 G 1.5²)	**47716**	11.2	0.207	0.157
(12 G 1.5²)	**47720**	13.7	0.318	0.240
(18 G 1.5²)	**47724**	15.8	0.440	0.355
(25 G 1.5²)	**47727**	19.6	0.646	0.448

Subject to change.

Additional cable types upon request.

kabelschlepp.de

Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE CONTROL 400 – 600 V

Unshielded continuous bending hi-flex PVC control cables

Picture obtainable.

Up to 4 million motion cycles!

Up to 100 m travel length!

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

Developed for

- systems engineering and mechanical engineering
- crane and conveyor equipment
- monitoring, measuring and control cables
- medium to heavy loads

Properties

- hi-flex design
- oil-resistant
- UV-resistant
- RoHS-conform
- ozone-resistant
- metermarked
- CFC-free
- silicone-free
- flame-retardant
- long distance technology

Design

Conductor:	bare copper wires class 6 in an optimized hi-flex design
Center element:	type-dependent
Core insulation:	KS-PP
Core identification:	black with white numbers, protective conductor green/yellow
Core stranding:	conductor cores bundled in short pitches with minimal torsion (> 8 cores) conductor cores layered in short pitches with minimal torsion (≤ 8 cores)
Outer jacket:	KS-PVC
Jacket colour:	black

Technical Data

Temperature range while moved:	– 5 to + 80 °C
Minimum bend radius while moved:	$KR_{min} \geq 7.5 \times Ø$
v_{max} supported:	5 m/s
v_{max} gliding:	3 m/s
a_{max}:	20 m/s²
Insulation resistance:	≥ 30 MΩ x km
Rated voltage:	according to VDE 300/500 V according to UL 600 V
Approvals:	UL, cUL, based on VDE

varying parameters possible – please contact us

Core insulation
KS-PP
bundled stranding
(> 8 cores)

Outer jacket
KS-PVC
valley-sealed extruded
hi-flex design
high abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Subject to change.

Questions about cable carrier cables? Fon: +49 2762 4003-0
kabelschlepp.de

Type selection

TRAXLINE CONTROL 400 – 600 V – unshielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
4 x 0.34²	**48373**	5.7	0.042	0.013
2 x 0.5²	**48110**	5.8	0.032	0.010
3 G 0.5²	**48111**	6.1	0.038	0.014
4 G 0.5²	**48112**	6.5	0.045	0.019
5 G 0.5²	**48113**	7.0	0.058	0.025
7 G 0.5²	**48115**	8.1	0.078	0.034
12 G 0.5²	**48119**	10.7	0.137	0.063
18 G 0.5²	**48121**	12.7	0.199	0.087
25 G 0.5²	**48124**	14.4	0.275	0.130
30 G 0.5²	**48125**	15.9	0.324	0.155
36 G 0.5²	**48126**	17.5	0.390	0.185
48 G 0.5²	**48128**	21.0	0.524	0.260
4 G 0.75²	**48040**	7.2	0.057	0.029
5 G 0.75²	**48041**	7.8	0.070	0.036
7 G 0.75²	**48042**	8.9	0.096	0.051
12 G 0.75²	**48043**	12.1	0.178	0.088
18 G 0.75²	**48044**	14.3	0.258	0.138
25 G 0.75²	**48045**	16.6	0.354	0.195
3 G 1²	**48046**	6.9	0.056	0.029
4 G 1²	**48047**	7.6	0.070	0.039
5 G 1²	**48048**	8.2	0.084	0.050
7 G 1²	**48049**	9.4	0.119	0.068
12 G 1²	**48050**	12.7	0.212	0.125
18 G 1²	**48051**	15.4	0.310	0.187
25 G 1²	**48052**	17.9	0.429	0.260
3 G 1.5²	**48053**	7.7	0.073	0.045
4 G 1.5²	**48054**	8.4	0.097	0.058
5 G 1.5²	**48055**	9.1	0.125	0.072
7 G 1.5²	**48056**	10.6	0.170	0.101
12 G 1.5²	**48057**	14.7	0.303	0.174
18 G 1.5²	**48058**	18.0	0.437	0.280
25 G 1.5²	**48059**	20.7	0.597	0.360
30 G 1.5²	**48580**	23.5	0.742	0.473
4 G 2.5²	**48060**	9.7	0.140	0.096

Subject to change.

Additional cable types upon request.

kabelschlepp.de

Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE CONTROL 400 C – 600 V

Shielded continuous bending hi-flex PVC control cables

Picture obtainable.

Core insulation
KS-PP
bundled stranding
(> 8 cores)

Inner jacket
KS-PVC
valley-sealed,
pressure extruded,
hi-flex design

Overall shield
continuous bending hi-flex,
tin-plated copper braiding
for smallest bend radii

Outer jacket
KS-PVC
pressure extruded
hi-flex design
very abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Up to 4 million motion cycles!

Up to 100 m travel length!

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

Developed for

- systems engineering and mechanical engineering
- crane and conveyor equipment
- monitoring, measuring and control cables
- medium to heavy loads

Properties

- hi-flex design
- oil-resistant
- UV-resistant
- RoHS-conform
- ozone-resistant
- metermarked
- CFC-free
- silicone-free
- flame-retardant
- long distance technology

Design

Conductor:	bare copper wires class 6 in an optimized hi-flex design
Center element:	type-dependent
Core insulation:	KS-PP
Core identification:	black with white numbers, protective conductor green/yellow
Core stranding:	conductor cores bundled in short pitches with minimal torsion (> 8 cores) conductor cores layered in short pitches with minimal torsion (≤ 8 cores)
Inner jacket:	KS-PVC
Shielding:	coverage nom. 85 %
Outer jacket:	KS-PVC
Jacket colour:	black

Technical Data

Temperature range while moved:	– 5 to + 80 °C
Minimum bend radius while moved:	$KR_{min} \geq 7.5 \times Ø$
v_{max} supported:	5 m/s
v_{max} gliding:	3 m/s
a_{max}:	20 m/s²
Insulation resistance:	≥ 30 MΩ x km
Rated voltage:	according to VDE 300/500 V according to UL 600 V
Approvals:	UL, cUL, based on VDE

varying parameters possible – please contact us

Subject to change.

Questions about cable carrier cables? Fon: +49 2762 4003-0
kabelschlepp.de

Type selection

TRAXLINE CONTROL 400 C – 600 V – shielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
(5 G 0.5²)	**48664**	8.0	0.104	0.052
(7 G 0.5²)	**48666**	9.3	0.137	0.066
(9 G 0.5²)	**48668**	10.4	0.158	0.090
(12 G 0.5²)	**48670**	12.1	0.211	0.106
(18 G 0.5²)	**48674**	14.5	0.289	0.169
(25 G 0.5²)	**48678**	16.6	0.385	0.223
(30 G 0.5²)	**48679**	18.5	0.482	0.272
(36 G 0.5²)	**48680**	20.4	0.571	0.302
(3 G 0.75²)	**48682**	7.8	0.089	0.045
(4 G 0.75²)	**48070**	8.4	0.107	0.055
(7 G 0.75²)	**48071**	10.4	0.158	0.085
(12 G 0.75²)	**48072**	13.5	0.256	0.151
(18 G 0.75²)	**48073**	15.9	0.345	0.225
(25 G 0.75²)	**48074**	19.0	0.507	0.295
(4 G 1²)	**48075**	9.0	0.125	0.073
(7 G 1²)	**48076**	11.3	0.188	0.115
(12 G 1²)	**48077**	14.3	0.296	0.198
(18 G 1²)	**48078**	17.8	0.456	0.272
(25 G 1²)	**48079**	20.8	0.612	0.357
(4 G 1.5²)	**48080**	9.6	0.152	0.085
(5 G 1.5²)	**48081**	10.4	0.173	0.103
(7 G 1.5²)	**48082**	12.3	0.234	0.148
(12 G 1.5²)	**48083**	17.3	0.422	0.269
(18 G 1.5²)	**48084**	21.7	0.656	0.382
(25 G 1.5²)	**48085**	25.2	0.892	0.503
(30 G 1.5²)	**48086**	27.2	1.015	0.635

Subject to change.

Additional cable types upon request.

kabelschlepp.de

Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE CONTROL 700 – 600 V

Unshielded continuous bending hi-flex PUR control cables

Picture obtainable.

Core insulation
KS-PP
bundled stranding
(> 8 cores)

Outer jacket
KS-PUR
valley-sealed extruded
hi-flex design
extremely abrasion-
resistant

Jacket colour black
ozone-resistant
UV-resistant

Up to 7 million motion cycles!

Up to 500 m travel length!

TSUBAKI KABELSCHLEPP TRAXLINE
cables for cable carriers

Developed for

- systems engineering and mechanical engineering
- crane and conveyor equipment
- monitoring, measuring and control cables
- extremely heavy loads

Properties

- hi-flex design
- oil-resistant
- UV-resistant
- RoHS-conform
- halogen-free
- metermarked
- CFC-free
- silicone-free
- flame-retardant
- ozone-resistant

Design

Conductor:	conductors class 6 of bare copper wires in an optimized hi-flex design
Center element:	type-dependent
Core insulation:	KS-PP
Core identification:	black with white numbers, protective conductor green/yellow
Core stranding:	conductor cores bundled in short pitches with minimal torsion (> 8 cores) conductor cores layered in short pitches with minimal torsion (≤ 8 cores)
Outer jacket:	KS-PUR
Jacket colour:	black

Technical Data

Temperature range while moved:	– 30 to + 90 °C
Minimum bend radius while moved:	$KR_{min} \geq 7.5 \times Ø$
v_{max} supported:	20 m/s
v_{max} gliding:	5 m/s
a_{max}:	50 m/s²
Insulation resistance:	≥ 30 MΩ x km
Rated voltage:	according to VDE 300/500 V according to UL 600 V
Approvals:	UL, cUL, based on VDE

varying parameters possible – please contact us

Subject to change.

kabelschlepp.de
Questions about cable carrier cables? Fon: +49 2762 4003-0

Type selection

TRAXLINE CONTROL 700 – 600 V – unshielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
2 x 0.5²	**45391**	5.8	0.031	0.010
3 G 0.5²	**45392**	6.1	0.038	0.014
4 G 0.5²	**45393**	6.5	0.045	0.020
7 G 0.5²	**45396**	8.1	0.078	0.035
12 G 0.5²	**45400**	10.7	0.137	0.060
15 G 0.5²	**45401**	11.7	0.161	0.072
16 G 0.5²	**45402**	12.0	0.177	0.077
36 G 0.5²	**45412**	17.5	0.375	0.198
3 G 0.75²	**45421**	6.6	0.045	0.023
4 G 0.75²	**45422**	7.2	0.057	0.031
5 G 0.75²	**45423**	7.8	0.070	0.038
7 G 0.75²	**45425**	8.9	0.096	0.053
12 G 0.75²	**45429**	12.1	0.164	0.096
18 G 0.75²	**45431**	14.3	0.241	0.146
25 G 0.75²	**45434**	16.6	0.328	0.209
36 G 0.75²	**45436**	20.2	0.481	0.270
3 G 1²	**45441**	6.9	0.056	0.029
4 G 1²	**45442**	7.6	0.069	0.044
5 G 1²	**45443**	8.2	0.084	0.048
7 G 1²	**45445**	9.4	0.118	0.070
8 G 1²	**45446**	9.9	0.135	0.077
12 G 1²	**45449**	12.7	0.197	0.125
18 G 1²	**45451**	15.4	0.286	0.210
25 G 1²	**45454**	17.9	0.400	0.302

Additional cable types upon request.

Subject to change.

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Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE CONTROL 700 C – 600 V

Shielded continuous bending hi-flex PUR control cables

Picture obtainable.

Core insulation
KS-PP
bundled stranding
(> 8 cores)

Inner jacket
KS-TPE
valley-sealed,
pressure extruded,
hi-flex design

Overall shield
continuous bending hi-flex,
tin-plated copper braiding
for smallest bend radii

Outer jacket
KS-PUR
pressure extruded
hi-flex design
extremely abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Up to 7 million motion cycles!

Up to 500 m travel length!

TSUBAKI KABELSCHLEPP TRAXLINE
cables for cable carriers

Developed for

- systems engineering and mechanical engineering
- crane and conveyor equipment
- monitoring, measuring and control cables
- extremely heavy loads

Properties

- hi-flex design
- oil-resistant
- UV-resistant
- RoHS-conform
- halogen-free
- metermarked
- CFC-free
- silicone-free
- flame-retardant
- ozone-resistant

Design

Conductor:	conductors class 6 of bare copper wires in an optimized hi-flex design
Center element:	type-dependent
Core insulation:	KS-PP
Core identification:	black with white numbers, protective conductor green/yellow
Core stranding:	conductor cores bundled in short pitches with minimal torsion (> 8 cores) conductor cores layered in short pitches with minimal torsion (≤ 8 cores)
Inner jacket:	KS-TPE
Shielding:	coverage nom. 85 %
Outer jacket:	KS-PUR
Jacket colour:	black

Technical Data

Temperature range while moved:	– 30 to + 90 °C
Minimum bend radius while moved:	$KR_{min} \geq 7.5 \times Ø$
v_{max} supported:	20 m/s
v_{max} gliding:	5 m/s
a_{max}:	50 m/s²
Insulation resistance:	≥ 30 MΩ x km
Rated voltage:	according to VDE 300/500 V according to UL 600 V
Approvals:	UL, cUL, based on VDE

varying parameters possible – please contact us

Subject to change.

kabelschlepp.de
Questions about cable carrier cables? Fon: +49 2762 4003-0

Type selection

TRAXLINE CONTROL 700 C – 600 V – shielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
(3 G 0.5²)	**45701**	7.1	0.073	0.036
(4 G 0.5²)	**45702**	7.5	0.081	0.042
(5 G 0.5²)	**45703**	8.0	0.095	0.048
(7 G 0.5²)	**45705**	9.3	0.125	0.064
(12 G 0.5²)	**45709**	12.1	0.199	0.109
(18 G 0.5²)	**45712**	14.5	0.274	0.167
(25 G 0.5²)	**45715**	16.6	0.364	0.212
(3 G 0.75²)	**45721**	7.8	0.085	0.048
(4 G 0.75²)	**45722**	8.4	0.103	0.055
(5 G 0.75²)	**45723**	9.0	0.119	0.066
(7 G 0.75²)	**45725**	10.4	0.152	0.087
(12 G 0.75²)	**45729**	13.5	0.242	0.147
(18 G 0.75²)	**45732**	15.9	0.328	0.222
(25 G 0.75²)	**45735**	19.0	0.482	0.293
(3 G 1²)	**45741**	8.3	0.102	0.059
(4 G 1²)	**45742**	9.0	0.120	0.070
(5 G 1²)	**45743**	9.6	0.137	0.084
(7 G 1²)	**45745**	11.3	0.181	0.106
(12 G 1²)	**45749**	14.3	0.281	0.174
(18 G 1²)	**45752**	17.8	0.496	0.240
(25 G 1²)	**45755**	20.8	0.585	0.332

Additional cable types upon request.

Subject to change.

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Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE POWER 400 – 1 kV

Unshielded continuous bending hi-flex PVC power cables

Picture obtainable.

Core insulation
KS-PP
bundled stranding
(> 8 cores)

Outer jacket
KS-PVC
valley-sealed extruded
hi-flex design
high abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Up to **4 million** motion cycles!

Up to **100 m** travel length!

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

DESINA

Developed for

- systems engineering and mechanical engineering
- crane and conveyor equipment
- power and supply cable
- medium to heavy loads

Properties

- hi-flex design
- oil-resistant
- UV-resistant
- RoHS-conform
- ozone-resistant
- metermarked
- CFC-free
- silicone-free
- flame-retardant
- long distance technology

Design

Conductor:	conductors class 6 of bare copper wires in an optimized hi-flex design
Center element:	type-dependent
Core insulation:	KS-PP
Core identification:	black with white numbers, protective conductor green/yellow
Core stranding:	conductor cores bundled in short pitches with minimal torsion (> 8 cores) conductor cores layered in short pitches with minimal torsion (≤ 8 cores)
Outer jacket:	KS-PVC
Jacket colour:	black (according to DESINA)

Technical Data

Temperature range while moved:	– 5 to + 80 °C
Minimum bend radius while moved:	$KR_{min} \geq 7.5 \times Ø$
v_{max} supported:	5 m/s
v_{max} gliding:	3 m/s
a_{max}:	20 m/s²
Insulation resistance:	≥ 30 MΩ x km
Rated voltage:	according to VDE 0.6/1 kV according to UL 1 kV
Approvals:	UL, cUL, based on VDE

varying parameters possible – please contact us

Subject to change.

Questions about cable carrier cables? Fon: +49 2762 4003-0
kabelschlepp.de

Type selection

TRAXLINE POWER 400 – 1 kV – unshielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
2 x 1,5²	**45200**	6.5	0.060	0.031
3 G 1,5²	**45201**	6.9	0.073	0.045
4 G 1,5²	**45202**	7.9	0.097	0.060
5 G 1,5²	**45203**	9.1	0.125	0.072
7 G 1,5²	**45205**	10.8	0.170	0.105
12 G 1,5²	**45209**	14.5	0.295	0.180
18 G 1,5²	**45211**	18.0	0.437	0.270
20 G 1,5²	**45213**	18.9	0.496	0.303
25 G 1,5²	**45214**	20.9	0.597	0.405
3 G 2,5²	**45221**	8.9	0.122	0.075
4 G 2,5²	**45222**	9.7	0.152	0.100
5 G 2,5²	**45223**	10.8	0.185	0.125
7 G 2,5²	**45225**	12.5	0.244	0.168
12 G 2,5²	**45229**	17.7	0.457	0.300
18 G 2,5²	**45231**	22.2	0.677	0.450
25 G 2,5²	**45234**	24.8	0.906	0.625
4 G 4²	**45242**	11.5	0.237	0.160
5 G 4²	**45243**	12.8	0.288	0.200
7 G 4²	**45245**	14.8	0.397	0.280
4 G 6²	**45252**	13.5	0.357	0.240
5 G 6²	**45253**	14.8	0.433	0.288
7 G 6²	**45254**	17.7	0.604	0.420
4 G 10²	**45262**	16.5	0.523	0.400
5 G 10²	**45263**	18.1	0.632	0.480
4 G 16²	**45272**	20.8	0.877	0.640
4 G 25²	**45282**	25.8	1.294	1.000
4 G 35²	**45292**	29.8	1.763	1.400
4 G 50²	**45302**	34.4	2.470	1.910
4 G 70²	**45312**	40.6	3.493	2.700

Subject to change.

Additional cable types upon request.

kabelschlepp.de

Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE POWER 400 C – 1 kV

Shielded continuous bending hi-flex PVC power cables

Up to **4 million** motion cycles!

Up to **100 m** travel length!

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

Developed for

- systems engineering and mechanical engineering
- crane and conveyor equipment
- power and supply cable
- medium to heavy loads

Properties

- hi-flex design
- oil-resistant
- UV-resistant
- RoHS-conform
- ozone-resistant
- metermarked
- CFC-free
- silicone-free
- flame-retardant
- long distance technology

Core insulation
KS-PP
bundled stranding
(> 8 cores)

Inner jacket
KS-PVC
valley-sealed,
pressure extruded,
hi-flex design

Overall shield
continuous bending
hi-flex, tin-plated
copper braiding
for smallest bend radii

Outer jacket
KS-PVC
pressure extruded
hi-flex design
high abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Design

Conductor:	conductors class 6 of bare copper wires in an optimized hi-flex design
Center element:	type-dependent
Core insulation:	KS-PP
Core identification:	black with white numbers, protective conductor green/yellow
Core stranding:	conductor cores bundled in short pitches with minimal torsion (> 8 cores) conductor cores layered in short pitches with minimal torsion (≤ 8 cores)
Inner jacket:	KS-PVC
Shielding:	coverage nom. 83 %
Outer jacket:	KS-PVC
Jacket colour:	black

Technical Data

Temperature range while moved:	– 5 to + 80 °C
Minimum bend radius while moved:	$KR_{min} \geq 7.5 \times Ø$
v_{max} supported:	5 m/s
v_{max} gliding:	3 m/s
a_{max}:	20 m/s²
Insulation resistance:	≥ 30 MΩ x km
Rated voltage:	according to VDE 0.6/1 kV according to UL 1 kV
Approvals:	UL, cUL, based on VDE

varying parameters possible – please contact us

Picture obtainable.

Subject to change.

Questions about cable carrier cables? Fon: +49 2762 4003-0

kabelschlepp.de

Type selection

TRAXLINE POWER 400 C – 1 kV – shielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
(4 G 1.5²)	**47202**	10.0	0.159	0.104
(4 G 2.5²)	**47222**	11.8	0.224	0.148
(5 G 2.5²)	**47223**	12.9	0.264	0.171
(7 G 2.5²)	**47225**	15.1	0.356	0.235
(4 G 4²)	**47242**	13.7	0.325	0.209
(7 G 4²)	**47245**	17.4	0.523	0.360
(4 G 6²)	**47252**	16.1	0.449	0.307
(4 G 10²)	**47262**	19.6	0.690	0.520
(4 G 16²)	**47272**	24.0	1.062	0.746
(5 G 16²)	**47273**	27.3	1.327	0.904
(4 G 25²)	**47282**	29.2	1.566	1.163
(4 G 35²)	**47292**	34.0	2.129	1.667

Subject to change.

Additional cable types upon request.

kabelschlepp.de

Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE POWER 700 – 1 kV

Unshielded continuous bending hi-flex PUR power cables

Picture obtainable.

Up to 7 million motion cycles!

Up to 500 m travel length!

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

DESINA

Developed for

- systems engineering and mechanical engineering
- crane and conveyor equipment
- power and supply cable
- extremely heavy loads

Properties

- hi-flex design
- oil-resistant
- UV-resistant
- RoHS-conform
- halogen-free
- metermarked
- CFC-free
- silicone-free
- flame-retardant
- ozone-resistant

Design

Conductor:	conductors class 6 of bare copper wires in an optimized hi-flex design
Center element:	type-dependent
Core insulation:	KS-PP
Core identification:	black with white numbers, protective conductor green/yellow
Core stranding:	conductor cores bundled in short pitches with minimal torsion (> 8 cores) conductor cores layered in short pitches with minimal torsion (≤ 8 cores)
Outer jacket:	KS-PUR
Jacket colour:	black (according to DESINA)

Core insulation
KS-PP
bundled stranding
(> 8 cores)

Outer jacket
KS-PUR
valley-sealed extruded
hi-flex design
extremely abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Technical Data

Temperature range while moved:	– 30 to + 90 °C
Minimum bend radius while moved:	$KR_{min} \geq 7.5 \times Ø$
v_{max} supported:	20 m/s
v_{max} gliding:	5 m/s
a_{max}:	50 m/s²
Insulation resistance:	≥ 30 MΩ x km
Rated voltage:	according to VDE 0.6/1 kV according to UL 1 kV
Approvals:	UL, cUL, based on VDE

varying parameters possible – please contact us

Subject to change.

Questions about cable carrier cables? Fon: +49 2762 4003-0

kabelschlepp.de

Type selection

TRAXLINE POWER 700 – 1 kV – unshielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
2 x 1.5²	**45500**	7.5	0.071	0.031
3 G 1.5²	**45501**	7.7	0.084	0.045
4 G 1.5²	**45502**	8.4	0.105	0.058
5 G 1.5²	**45503**	9.1	0.125	0.072
7 G 1.5²	**45505**	10.8	0.171	0.105
12 G 1.5²	**45509**	14.5	0.294	0.195
18 G 1.5²	**45511**	18.0	0.447	0.270
25 G 1.5²	**45514**	20.9	0.596	0.405
36 G 1.5²	**45516**	26.2	0.894	0.540
2 x 2.5²	**45520**	8.4	0.107	0.050
3 G 2.5²	**45521**	8.9	0.122	0.075
4 G 2.5²	**45522**	9.7	0.151	0.108
5 G 2.5²	**45523**	10.8	0.185	0.125
7 G 2.5²	**45525**	12.7	0.254	0.175
12 G 2.5²	**45529**	17.7	0.456	0.300
18 G 2.5²	**45531**	22.2	0.676	0.450
25 G 2.5²	**45534**	24.8	0.904	0.625
36 G 2.5²	**45536**	30.0	1.265	0.900
2 x 4²	**45540**	9.9	0.147	0.080
3 G 4²	**45541**	10.6	0.182	0.120
4 G 4²	**45542**	11.5	0.226	0.154
5 G 4²	**45544**	12.9	0.274	0.240
7 G 4²	**45543**	15.3	0.395	0.268
3 G 6²	**45551**	12.2	0.259	0.173
4 G 6²	**45552**	13.5	0.330	0.240
5 G 6²	**45553**	15.1	0.410	0.288
7 G 6²	**45555**	18.2	0.577	0.403
4 G 10²	**45562**	16.9	0.537	0.384
5 G 10²	**45563**	18.9	0.669	0.500
4 G 16²	**45565**	21.0	0.842	0.640
5 G 16²	**45566**	23.7	1.054	0.800
4 G 25²	**45568**	25.8	1.292	1.000
5 G 25²	**45569**	28.8	1.599	1.200
3 G 35²	**45570**	26.6	1.361	1.008
4 G 35²	**45571**	29.8	1.760	1.344
5 G 35²	**45560**	33.4	2.187	1.750
4 G 50²	**45572**	34.4	2.471	1.920
4 G 70²	**45573**	40.6	3.493	2.700
4 G 95²	**45574**	45.1	4.481	3.800

CABLE + CONNECTOR
can be supplied ready for connection

Subject to change.

Additional cable types upon request.

Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE POWER ONE 700 – 1 kV

Unshielded continuous bending hi-flex PUR single-core cables

Up to **7 million** motion cycles!

Up to **500 m** travel length!

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

DESINA

Developed for

- systems engineering and mechanical engineering
- crane and conveyor equipment
- power and supply cable
- extremely heavy loads

Properties

- hi-flex design
- oil-resistant
- UV-resistant
- RoHS-conform
- halogen-free
- metermarked
- CFC-free
- silicone-free
- flame-retardant
- ozone-resistant

Design

Conductor:	conductors class 6 of bare copper wires in an optimized hi-flex design
Core insulation:	KS-PUR
Core stranding:	single-core
Outer jacket:	KS-PUR
Jacket colour:	black (according to DESINA)

Technical Data

Temperature range while moved:	– 40 to + 90 °C
Minimum bend radius while moved:	$KR_{min} \geq 7.5 \times Ø$
v_{max} supported:	20 m/s
v_{max} gliding:	5 m/s
a_{max}:	50 m/s²
Insulation resistance:	≥ 100 kΩ x km
Rated voltage:	according to VDE 0.6/1 kV according to UL 1 kV
Approvals:	UL, cUL, based on VDE

varying parameters possible – please contact us

Core insulation
KS-PUR
wire bundles
in short pitches

Outer jacket
KS-PUR
pressure extruded
hi-flex design
extremely abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Picture obtainable.

Subject to change.

Questions about cable carrier cables? Fon: +49 2762 4003-0

kabelschlepp.de

Type selection

TRAXLINE POWER ONE 700 – 1 kV – unshielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
1 x 0.25²	**45575**	4.1	0.018	0.002
1 x 0.34²	**45576**	4.2	0.019	0.003
1 x 0.5²	**45577**	4.3	0.021	0.005
1 x 0.75²	**45578**	4.7	0.026	0.007
1 x 1²	**45579**	4.9	0.029	0.010
1 x 1.5²	**45580**	5.4	0.037	0.014
1 x 2.5²	**45581**	6.2	0.053	0.025
1 x 4²	**45582**	6.8	0.072	0.040
1 x 6²	**45583**	7.4	0.094	0.060
1 x 10²	**45584**	8.6	0.141	0.100
1 x 16²	**45585**	9.7	0.201	0.154
1 x 25²	**45586**	11.3	0.293	0.240
1 x 35²	**45587**	13.3	0.406	0.350
1 x 50²	**45588**	15.7	0.577	0.500
1 x 70²	**45589**	17.5	0.802	0.700
1 x 95²	**45590**	19.5	1.008	0.950
1 x 120²	**45591**	21.4	1.268	1.200
1 x 150²	**45592**	24.2	1.595	1.500
1 x 185²	**45593**	26.6	1.949	1.850
1 x 240²	**45594**	30.2	2.537	2.304
1 x 300²	**45595**	34.4	3.160	2.880
1 x 400²	**45596**	40.2	4.096	3.800
1 x 500²	**45597**	42.8	5.262	5.000
1 x 700²	**45598**	49.9	7.405	6.680

Subject to change.

Additional cable types upon request.

Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE POWER ONE 700 PE

Unshielded, continuous bending highly-flexible PUR single-core cables with PE core identification

Picture obtainable.

Up to 7 million motion cycles!

Up to 500 m travel length!

TSUBAKI KABELSCHLEPP TRAXLINE *cables for cable carriers*

Developed for

- systems engineering and mechanical engineering
- crane and conveyor equipment
- power and supply cable
- extremely heavy loads

Properties

- hi-flex design
- oil-resistant
- UV-resistant
- RoHS-conform
- halogen-free
- metermarked
- CFC-free
- silicone-free
- flame-retardant
- ozone-resistant

Design

Conductor:	conductors class 6 of bare copper wires in an optimized hi-flex design
Core insulation:	KS-PUR
Core identification:	green/yellow
Core stranding:	single-core
Outer jacket:	KS-PUR
Jacket colour:	black

Core insulation
KS-PUR
wire bundles
in short pitches

Outer jacket
KS-PUR
pressure extruded
hi-flex design
extremely abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Technical Data

Temperature range while moved:	– 40 to + 90 °C
Minimum bend radius while moved:	$KR_{min} \geq 7.5 \times Ø$
v_{max} supported:	20 m/s
v_{max} gliding:	5 m/s
a_{max}:	50 m/s²
Insulation resistance:	≥ 100 kΩ x km
Rated voltage:	according to VDE 0.6/1 kV according to UL 1 kV
Approvals:	UL, cUL, based on VDE

varying parameters possible – please contact us

Subject to change.

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Questions about cable carrier cables? Fon: +49 2762 4003-0

Type selection

TRAXLINE POWER ONE 700 PE – unshielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
1 G 1.5²	**47580**	5.4	0.037	0.135
1 G 2.5²	**47581**	6.2	0.053	0.025
1 G 4²	**47582**	6.8	0.072	0.040
1 G 6²	**47583**	7.4	0.094	0.060
1 G 10²	**47584**	8.6	0.141	0.100
1 G 16²	**47585**	9.7	0.201	0.154
1 G 25²	**47586**	11.3	0.293	0.213
1 G 35²	**47587**	13.3	0.406	0.302
1 G 50²	**47588**	15.7	0.577	0.434
1 G 70²	**47589**	17.5	0.802	0.700
1 G 95²	**47590**	19.5	1.008	0.950

Subject to change.

Additional cable types upon request.

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Questions about cable carrier cables? Fon: +49 2762 4003-0

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Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE POWER 700 C – 1 kV

Shielded continuous bending hi-flex PUR power cables

Up to **7 million** motion cycles!

Up to **500 m** travel length!

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

Picture obtainable.

Core insulation
KS-PP
bundled stranding
(> 8 cores)

Inner jacket
KS-TPE
valley-sealed,
pressure extruded,
hi-flex design

Overall shield
continuous bending
hi-flex, tin-plated
copper braiding for
smallest bend radii

Outer jacket
KS-PUR
pressure extruded,
hi-flex design, extremely
abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Developed for

- systems engineering and mechanical engineering
- crane and conveyor equipment
- power and supply cable
- extremely heavy loads

Properties

- hi-flex design
- oil-resistant
- UV-resistant
- RoHS-conform
- halogen-free
- metermarked
- CFC-free
- silicone-free
- flame-retardant
- ozone-resistant

Design

Conductor:	conductors class 6 of bare copper wires in an optimized hi-flex design
Center element:	type-dependent
Core insulation:	KS-PP
Core identification:	black with white numbers, protective conductor green/yellow
Core stranding:	conductor cores bundled in short pitches with minimal torsion (> 8 cores) conductor cores layered in short pitches with minimal torsion (≤ 8 cores)
Inner jacket:	KS-TPE
Shielding:	coverage nom. 85 %
Outer jacket:	KS-PUR
Jacket colour:	black

Technical Data

Temperature range while moved:	– 30 to + 90 °C
Minimum bend radius while moved:	$KR_{min} \geq 7.5 \times Ø$
v_{max} supported:	20 m/s
v_{max} gliding:	5 m/s
a_{max}:	50 m/s²
Insulation resistance:	≥ 30 MΩ x km
Rated voltage:	according to VDE 0.6/1 kV according to UL 1 kV
Approvals:	UL, cUL, based on VDE

varying parameters possible – please contact us

Subject to change.

Type selection

TRAXLINE POWER 700 C – 1 kV – shielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
(2 x 1.5²)	**45760**	9.1	0.114	0.064
(3 G 1.5²)	**45761**	9.7	0.134	0.075
(4 G 1.5²)	**45762**	10.5	0.161	0.089
(5 G 1.5²)	**45763**	11.2	0.183	0.108
(7 G 1.5²)	**45765**	12.7	0.235	0.148
(12 G 1.5²)	**45769**	17.3	0.420	0.264
(18 G 1.5²)	**45772**	21.7	0.716	0.362
(25 G 1.5²)	**45775**	25.2	0.852	0.564
(36 G 1.5²)	**45777**	30.0	1.170	0.698
(49 G 1.5²)	**45778**	35.9	1.633	0.950
(3 G 2.5²)	**45780**	11.0	0.179	0.110
(4 G 2.5²)	**45781**	11.8	0.216	0.142
(5 G 2.5²)	**45783**	12.9	0.254	0.170
(7 G 2.5²)	**45785**	15.1	0.365	0.268
(12 G 2.5²)	**45787**	21.6	0.648	0.421
(18 G 2.5²)	**45789**	26.2	0.919	0.607
(20 G 2.5²)	**45790**	26.8	1.003	0.621
(25 G 2.5²)	**45791**	28.8	1.176	0.765
(4 G 4²)	**45801**	13.7	0.313	0.211
(4 G 6²)	**45802**	16.1	0.432	0.298
(4 G 10²)	**45803**	19.6	0.666	0.526
(4 G 16²)	**45804**	24.6	1.100	0.781
(5 G 16²)	**45812**	27.7	1.368	0.904
(4 G 25²)	**45805**	29.2	1.516	1.145
(4 G 35²)	**45806**	34.0	2.060	1.667
(4 G 50²)	**45807**	38.9	2.833	2.306
(4 G 70²)	**45808**	45.6	3.974	3.045
(4 G 95²)	**45809**	50.5	5.056	4.060
(4 G 120²)	**45810**	55.9	6.424	5.128
(4 G 150²)	**45811**	62.5	7.783	6.525

Subject to change.

Additional cable types upon request.

Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE POWER ONE 700 C – 1 kV

Shielded continuous bending hi-flex PUR single-core cables

Picture obtainable.

Core insulation
KS-PUR
wire bundles
in short pitches

Overall shield
continuous bending hi-flex,
tin-plated copper braiding
for smallest bend radii

Outer jacket
KS-PUR
pressure extruded
hi-flex design
extremely abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Up to 7 million motion cycles!

Up to 500 m travel length!

TSUBAKI KABELSCHLEPP TRAXLINE *cables for cable carriers*

Developed for

- systems engineering and mechanical engineering
- crane and conveyor equipment
- power and supply cable
- extremely heavy loads

Properties

- hi-flex design
- oil-resistant
- UV-resistant
- RoHS-conform
- halogen-free
- metermarked
- CFC-free
- silicone-free
- flame-retardant
- ozone-resistant

Design

Conductor:	conductors class 6 of bare copper wires in an optimized hi-flex design
Core insulation:	KS-PUR
Core stranding:	single-core
Shielding:	coverage nom. 85 %
Outer jacket:	KS-PUR
Jacket colour:	black

Technical Data

Temperature range while moved:	– 40 to + 90 °C
Minimum bend radius while moved:	$KR_{min} \geq 7.5 \times Ø$
v_{max} supported:	20 m/s
v_{max} gliding:	5 m/s
a_{max}:	50 m/s²
Insulation resistance:	≥ 100 kΩ x km
Rated voltage:	according to VDE 0.6/1 kV according to UL 1 kV
Approvals:	UL, cUL, based on VDE

varying parameters possible – please contact us

Subject to change.

Type selection

TRAXLINE POWER ONE 700 C – 1 kV – shielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
(1 x 1.5²)	**45814**	6.4	0.055	0.029
(1 x 2.5²)	**45815**	6.8	0.072	0.041
(1 x 4²)	**45816**	7.4	0.093	0.059
(1 x 6²)	**45817**	8.0	0.119	0.071
(1 x 10²)	**45818**	9.2	0.169	0.122
(1 x 16²)	**45819**	10.4	0.236	0.190
(1 x 25²)	**45820**	11.9	0.333	0.289
(1 x 35²)	**45821**	13.9	0.451	0.393
(1 x 50²)	**45822**	16.5	0.651	0.560
(1 x 70²)	**45823**	18.3	0.883	0.873
(1 x 95²)	**45824**	20.3	1.099	1.029
(1 x 120²)	**45825**	22.2	1.373	1.272
(1 x 150²)	**45826**	25.0	1.716	1.578
(1 x 185²)	**45827**	27.4	2.081	1.911
(1 x 240²)	**45828**	31.1	2.685	2.451
(1 x 300²)	**45829**	35.4	3.393	2.997

Subject to change.

Additional cable types upon request.

kabelschlepp.de
Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE DATA 400 C

Shielded continuous bending hi-flex PVC control cables

Picture obtainable.

Core insulation
KS-PP
bundled stranding
(> 8 cores)

Inner jacket
KS-PVC
valley-sealed,
pressure extruded,
hi-flex design

Overall shield
continuous bending hi-flex,
tin-plated copper braiding
for smallest bend radii

Outer jacket
KS-PVC
pressure extruded
hi-flex design
high abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Up to 4 million motion cycles!

Up to 50 m travel length!

TSUBAKI KABELSCHLEPP TRAXLINE
cables for cable carriers

Developed for

- systems engineering and mechanical engineering
- crane and conveyor equipment
- monitoring, measuring and control cables
- medium to heavy loads

Properties

- hi-flex design
- oil-resistant
- UV-resistant
- RoHS-conform
- ozone-resistant
- metermarked
- CFC-free
- silicone-free
- flame-retardant

Design

Conductor:	bare copper wires class 6 in an optimized hi-flex design
Center element:	type-dependent
Core insulation:	KS-PVC
Core identification:	core identification coloured according to DIN 47100
Core stranding:	conductor cores bundled in short pitches with minimal torsion (> 8 cores) conductor cores layered in short pitches with minimal torsion (≤ 8 cores)
Inner jacket:	KS-PVC
Shielding:	coverage nom. 83 %
Outer jacket:	KS-PVC
Jacket colour:	coloured/black

Technical Data

Temperature range while moved:	– 5 to + 80 °C
Minimum bend radius while moved:	$KR_{min} \geq 7.5 \times Ø$
v_{max} supported:	5 m/s
v_{max} gliding:	3 m/s
a_{max}:	20 m/s²
Insulation resistance:	≥ 10 MΩ x km
Rated voltage:	according to VDE 300/500 V according to UL 300 V
Approvals:	UL, cUL, based on VDE

varying parameters possible – please contact us

Subject to change.

Questions about cable carrier cables? Fon: +49 2762 4003-0
kabelschlepp.de

Type selection

TRAXLINE DATA 400 C – shielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
(4 x 0.25²)	**48623**	6.9	0.065	0.029
(8 x 0.25²)	**48627**	9.1	0.109	0.056
(25 x 0.25²)	**48638**	15.3	0.286	0.134
(4 x 0.34²)	**48647**	7.3	0.077	0.041
(5 x 0.34²)	**48648**	7.7	0.085	0.046
(7 x 0.34²)	**48649**	9.0	0.116	0.058

Additional cable types upon request.

Subject to change.

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Questions about cable carrier cables? Fon: +49 2762 4003-0

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Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE DATA 700

Unshielded continuous bending hi-flex PUR control cables

Picture obtainable.

Up to 7 million motion cycles!

Up to 200 m travel length!

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

Developed for

- systems engineering and mechanical engineering
- crane and conveyor equipment
- monitoring, measuring and control cables
- extremely heavy loads

Properties

- hi-flex design
- oil-resistant
- UV-resistant
- RoHS-conform
- halogen-free
- metermarked
- CFC-free
- silicone-free
- flame-retardant
- ozone-resistant

Design

Conductor:	conductors class 6 of bare copper wires in an optimized hi-flex design
Center element:	type-dependent
Core insulation:	KS-PP
Core identification:	core identification coloured according to DIN 47100
Core stranding:	conductor cores bundled in short pitches with minimal torsion (> 8 cores) conductor cores layered in short pitches with minimal torsion (≤ 8 cores)
Outer jacket:	KS-PUR
Jacket colour:	coloured/black

Technical Data

Temperature range while moved:	– 30 to + 90 °C
Minimum bend radius while moved:	$KR_{min} \geq 7.5 \times Ø$
v_{max} supported:	20 m/s
v_{max} gliding:	5 m/s
a_{max}:	50 m/s²
Insulation resistance:	≥ 30 MΩ x km
Rated voltage:	according to VDE 300/500 V, according to UL 300 V
Approvals:	UL, cUL, based on VDE

varying parameters possible – please contact us

Core insulation
KS-PP
bundled stranding
(> 8 cores)

Outer jacket
KS-PUR
valley-sealed extruded
hi-flex design
extremely abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Subject to change.

Type selection

TRAXLINE DATA 700 – unshielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
6 x 0.25²	**45355**	6.8	0.053	0.014
7 x 0.25²	**45356**	7.3	0.061	0.017
8 x 0.25²	**45357**	7.8	0.069	0.019
9 x 0.25²	**45358**	8.2	0.075	0.023
10 x 0.25²	**45359**	8.7	0.085	0.024
12 x 0.25²	**45360**	9.6	0.102	0.029
15 x 0.25²	**45361**	9.8	0.123	0.039
3 x 0.34²	**45372**	5.9	0.040	0.010
4 x 0.34²	**45373**	6.3	0.047	0.014
5 x 0.34²	**45374**	6.7	0.054	0.017
7 x 0.34²	**45376**	7.8	0.072	0.024
8 x 0.34²	**45377**	8.3	0.081	0.027
12 x 0.34²	**45380**	10.5	0.123	0.041
15 x 0.34²	**45382**	10.5	0.146	0.053

Subject to change.

Additional cable types upon request.

kabelschlepp.de

Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE DATA 700 TPi C

Shielded continuous bending hi-flex PUR data cables

Picture obtainable.

Up to 7 million motion cycles!

Up to 200 m travel length!

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

Developed for

- measurement and control equipment
- sensor equipment
- data and signal cables
- extremely heavy loads

Properties

- hi-flex design
- oil-resistant
- UV-stable
- RoHS-conform
- halogen-free
- metermarked
- CFC-free
- silicone-free
- flame-retardant
- ozone-resistant

Design

Conductor:	conductors class 6 of bare copper wires in an optimized hi-flex design
Core insulation:	KS-PP
Core identification:	according to DIN 47100
Core stranding:	cores bundled in pairs in short pitches with minimal torsion
Inner jacket:	KS-TPE
Shielding:	coverage nom. 85 %
Outer jacket:	KS-PUR
Jacket colour:	black

Technical Data

Temperature range while moved:	– 30 to + 90 °C
Minimum bend radius while moved:	$KR_{min} \geq 7.5 \times Ø$
v_{max} supported:	20 m/s
v_{max} gliding:	5 m/s
a_{max}:	50 m/s²
Insulation resistance:	≥ 30 MΩ x km
Rated voltage:	according to VDE 300/500 V according to UL 300 V
Approvals:	UL, cUL, based on VDE

varying parameters possible – please contact us

Core insulation
KS-PP
stranded in pairs

Inner jacket
KS-TPE
valley-sealed,
pressure extruded,
hi-flex design

Overall shield
continuous bending hi-flex,
tin-plated copper braiding
for smallest bend radii

Outer jacket
KS-PUR
pressure extruded
hi-flex design
extremely abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Subject to change.

Type selection

TRAXLINE DATA 700 TPi C – shielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
(1 x 2 x 0.25²)	**45622**	5.4	0.050	0.016
(2 x 2 x 0.25²)	**45623**	7.0	0.061	0.023
(3 x 2 x 0.25²)	**45624**	8.3	0.091	0.037
(4 x 2 x 0.25²)	**45625**	8.8	0.102	0.045
(5 x 2 x 0.25²)	**45626**	9.4	0.118	0.057
(6 x 2 x 0.25²)	**45627**	10.0	0.129	0.061
(8 x 2 x 0.25²)	**45628**	11.7	0.168	0.086
(10 x 2 x 0.25²)	**45629**	12.1	0.179	0.095
(12 x 2 x 0.25²)	**45630**	12.2	0.184	0.100
(16 x 2 x 0.25²)	**45632**	13.6	0.229	0.124
(1 x 2 x 0.5²)	**45634**	7.4	0.071	0.024
(2 x 2 x 0.5²)	**45635**	9.2	0.106	0.050
(3 x 2 x 0.5²)	**45636**	9.8	0.128	0.058
(4 x 2 x 0.5²)	**45637**	10.4	0.144	0.078
(5 x 2 x 0.5²)	**45638**	11.4	0.171	0.091
(6 x 2 x 0.5²)	**45639**	12.2	0.191	0.106
(10 x 2 x 0.5²)	**45641**	15.3	0.287	0.178
(12 x 2 x 0.5²)	**45642**	15.3	0.291	0.204
(14 x 2 x 0.5²)	**45643**	16.2	0.353	0.218
(1 x 2 x 0.75²)	**45646**	7.9	0.085	0.029
(2 x 2 x 0.75²)	**45647**	10.1	0.136	0.068
(4 x 2 x 0.75²)	**45649**	11.5	0.180	0.105
(5 x 2 x 0.75²)	**45650**	12.4	0.216	0.124
(6 x 2 x 0.75²)	**45651**	13.4	0.245	0.155
(8 x 2 x 0.75²)	**45652**	15.9	0.348	0.215
(12 x 2 x 0.75²)	**45654**	17.8	0.433	0.293
(12 x 2 x 1²)	**45665**	19.1	0.502	0.391

Subject to change.

Additional cable types upon request.

kabelschlepp.de
Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE DATA 700 TPi CD / POWER 700 TPi CD – 1 kV

Double-shielded continuous bending hi-flex PUR data cables

Picture obtainable.

Core insulation
KS-PP
stranded in pairs

Pair shield
continuous bending hi-flex,
tin-plated braided copper shield

Inner jacket
KS-TPE
valley-sealed,
pressure extruded,
hi-flex design

Overall shield
continuous bending hi-flex,
tin-plated copper braiding
for smallest bend radii

Outer jacket
KS-PUR
pressure extruded
hi-flex design
extremely abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Up to 7 million motion cycles!

Up to 500 m travel length!

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

Developed for

- measurement and control equipment
- sensor equipment
- data and signal cables
- extremely heavy loads

Properties

- hi-flex design
- oil-resistant
- UV-resistant
- RoHS-conform
- halogen-free
- metermarked
- CFC-free
- silicone-free
- flame-retardant
- ozone-resistant

Design

Conductor:	conductors class 6 of bare copper wires in an optimized hi-flex design
Center element:	type-optimized
Core insulation:	KS-PP
Core identification:	according to DIN 47100 part number 45669, 45679: black with white numbers
Core stranding:	cores bundled in pairs in short pitches with minimal torsion
Inner jacket pairs:	KS-TPE
Inner jacket:	KS-TPE
Shielding:	coverage nom. 85 %
Outer jacket:	KS-PUR
Jacket colour:	black

Technical Data

Temperature range while moved:	– 30 to + 90 °C
Minimum bend radius while moved:	$KR_{min} \geq 7.5 \times Ø$
v_{max} supported:	20 m/s
v_{max} gliding:	5 m/s
a_{max}:	50 m/s²
Insulation resistance:	≥ 30 MΩ x km
Rated voltage:	according to VDE 300/300 V according to UL 300 V part number 45668, 45669, 45679: according to VDE 0.6/1 kV according to UL 1 kV
Approvals:	UL, cUL, based on VDE

varying parameters possible – please contact us

Subject to change.

Type selection

TRAXLINE DATA 700 TPi CD – double-shielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
(3 x (2 x 0.25²))	**45661**	12.4	0.197	0.077
(4 x (2 x 0.5²))	**45662**	15.6	0.326	0.158
(10 x (2 x 0.5²))	**45664**	26.6	0.870	0.335

TRAXLINE POWER 700 TPi CD – 1 kV – double-shielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
(6 x (2 x 1²))	**45668**	22.9	0.658	0.300
(6 x (2 x 1.5²))	**45669**	27.0	0.928	0.437
(10 x (2 x 1.5²))	**45679**	37.5	1.771	0.803

Subject to change.

Additional cable types upon request.

Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE PROFIBUS 700 C

Shielded continuous bending hi-flex Profibus PUR cables

Picture obtainable.

Core insulation
KS-PP/TPE
concentrically stranded

Inner jacket
KS-PP/TPE
valley-sealed, pressure extruded, hi-flex design

Overall shield
continuous bending hi-flex, tin-platedcopper braiding
Coverage: approx. 90 % and foil shield

Outer jacket
KS-PUR
pressure extruded
hi-flex design
extremely abrasion-resistant

Up to **7 million** motion cycles!

Up to **100 m** travel length!

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

DESINA

Developed for

- Profibus applications
- sensor equipment
- data and signal cables
- extremely heavy loads

Properties

- oil-resistant
- UV-stable
- RoHS-conform
- halogen-free
- CFC-free
- silicone-free
- flame-retardant
- ozone-resistant

Design

Conductor:	extremely fine stranded conductors of bare copper wires in an optimized hi-flex design
Center element:	type-optimized
Core insulation:	KS-PP/TPE
Core identification:	coloured, Profibus
Core stranding:	cores type-optimized stranded in short pitches with minimal torsion
Inner jacket:	KS-PP/TPE
Shielding:	coverage 85 %
Outer jacket:	KS-PUR
Jacket colour:	purple (according to DESINA)

Technical Data

Temperature range while moved:	– 20 to + 60 °C
Minimum bend radius while moved:	$KR_{min} \geq 15 \times Ø$
v_{max} supported:	3.5 m/s
v_{max} gliding:	2 m/s
a_{max}:	10 m/s²
Insulation resistance:	≥ 10 MΩ x km
Rated voltage:	according to VDE 300/300 V
Approvals:	UL, based on VDE

varying parameters possible – please contact us

Questions about cable carrier cables? Fon: +49 2762 4003-0
kabelschlepp.de

Subject to change.

Type selection

TRAXLINE PROFIBUS 700 C – shielded

core number x nominal-diameter in mm	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
(1 x 2 x 0.64)	**45690**	8.2	0.065	0.025

Additional cable types upon request.

Subject to change.

kabelschlepp.de

Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE CAN-BUS 700 C

Shielded continuous bending hi-flex and robust PUR bus cables

Picture obtainable.

Up to 7 million motion cycles!

Up to 200 m travel length!

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

DESINA

Developed for

- CAN bus applications
- sensor equipment
- data and signal cables
- extremely heavy loads

Properties

- oil-resistant
- UV-stable
- RoHS-conform
- halogen-free
- CFC-free
- silicone-free
- flame-retardant
- ozone-resistant

Design

Conductor:	extremely fine stranded conductors of bare copper wires in an optimized hi-flex design
Center element:	type-optimized
Core insulation:	KS-PP/TPE
Core identification:	coloured, CAN-BUS
Core stranding:	cores type-optimized stranded in short pitches with minimal torsion
Inner jacket:	KS-PP/TPE
Shielding:	coverage 85 %
Outer jacket:	KS-PUR
Jacket colour:	black with ICC colour identification based on the DESINA colour code

Technical Data

Temperature range while moved:	– 20 to + 80 °C
Minimum bend radius while moved:	$KR_{min} \geq 7.5 \times Ø$ (– 5 to + 70 °C)
v_{max} supported:	3 m/s
v_{max} gliding:	3 m/s
a_{max}:	10 m/s²
Insulation resistance:	≥ 10 MΩ x km
Rated voltage:	according to VDE 300/300 V according to UL 300 V
Approvals:	UL, based on VDE

varying parameters possible – please contact us

Core insulation
KS-PP/TPE
star quad
stranded

Inner jacket
KS-PP/TPE
valley-sealed,
pressure extruded,
hi-flex design

Overall shield
continuous bending hi-flex,
tin-plated copper braiding
for smallest bend radii
Coverage: approx. 85 %

Outer jacket
KS-PUR
pressure extruded
hi-flex design
extremely abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Questions about cable carrier cables? Fon: +49 2762 4003-0
kabelschlepp.de

Subject to change.

Type selection

TRAXLINE CAN-BUS 700 C – shielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
(1 x 2 x 0.5²)	**45670**	8.0	0.085	0.033
(2 x 2 x 0.5²)	**45672**	8.4	0.095	0.044

Additional cable types upon request.

Subject to change.

kabelschlepp.de

Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE USB S 700 C / USB L 700 C

Shielded continuous bending hi-flex USB PUR cables

Picture obtainable.

Up to 7 million motion cycles!

Up to 5 / 10 m travel length!

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

Developed for

- USB applications
- data and image transmission
- transmission lengths up to 5/10 m
- extremely heavy loads

Properties

- oil-resistant
- UV-resistant
- RoHS-conform
- halogen-free
- ozone-resistant
- CFC-free
- silicone-free
- flame-retardant

Design

Conductor:	extremely fine stranded conductors of bare copper wires in an optimized hi-flex design
Center element:	type-optimized
Core insulation:	KS-PP/TPE
Core identification:	coloured, red, black/white, white, green
Core stranding:	cores type-optimized stranded in short pitches with minimal torsion
Shielding:	coverage 85 %
Outer jacket:	KS-PUR
Jacket colour:	purple (according to DESINA)

Technical Data

Temperature range while moved:	– 10 to + 70 °C
Minimum bend radius while moved:	$KR_{min} \geq 10$
v_{max} supported:	3.5 m/s
v_{max} gliding:	2 m/s
a_{max}:	10 m/s²
Insulation resistance:	≥ 10 MΩ x km
Rated voltage:	according to VDE 300 V according to UL 300 V
Transmission length:	nom. 5 m nom. 10 m
Approvals:	UL, based on VDE

varying parameters possible – please contact us

Core insulation
KS-PP/TPE
concentrically stranded

Overall shield
continuous bending hi-flex, tin-plated copper braiding
Coverage: approx. 90 % and foil shield

Outer jacket
KS-PUR
pressure extruded
hi-flex design
UV-resistant
extremely abrasion-resistant

Subject to change.

Type selection

TRAXLINE USB S 700 C

core number x nominal-cross-section in AWG	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
(1 x 2 x 28 AWG + 1 x 2 x 20 AWG)	**45686**	5.2	0.045	0.030

TRAXLINE USB L 700 C

core number x nominal-cross-section in AWG	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
(1 x 2 x 24 AWG + 1 x 2 x 20 AWG)	**45687**	6.0	0.056	0.034

Subject to change.

Additional cable types upon request.

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Questions about cable carrier cables? Fon: +49 2762 4003-0

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Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE INTERBUS 700 C

Shielded continuous bending hi-flex Interbus PUR cables

Picture obtainable.

Core insulation
KS-PP/TPE
concentrically stranded

Inner jacket
KS-PP/TPE
valley-sealed, pressure extruded, hi-flex design

Overall shield
continuous bending hi-flex, tin-plated copper braiding for smallest bend radii
Coverage: approx. 85 %

Outer jacket
KS-PUR
pressure extruded
hi-flex design
UV-resistant
extremely abrasion-resistant

Up to 7 million motion cycles!

Up to 200 m travel length!

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

DESINA

Developed for

- Interbus applications
- sensor equipment
- data and signal cables
- extremely heavy loads

Properties

- oil-resistant
- UV-stable
- RoHS-conform
- halogen-free
- CFC-free
- silicone-free
- flame-retardant
- ozone-resistant

Design

Conductor:	extremely fine stranded conductors of bare copper wires in an optimized hi-flex design
Core insulation:	KS-PP/TPE
Core identification:	coloured, Interbus
Core stranding:	cores type-optimized stranded in short pitches with minimal torsion
Inner jacket:	KS-PP/TPE
Shielding:	coverage 85 %
Outer jacket:	KS-PUR
Jacket colour:	purple (according to DESINA)

Technical Data

Temperature range while moved:	– 30 to + 70 °C
Minimum bend radius while moved:	$KR_{min} \geq 10 \times Ø$
v_{max} supported:	3.5 m/s
v_{max} gliding:	2 m/s
a_{max}:	10 m/s²
Insulation resistance:	≥ 10 MΩ x km
Rated voltage:	according to VDE, Ø 0.25 mm² 30 V Ø 1 mm² 300/300 V according to UL 300 V
Approvals:	UL, based on VDE

varying parameters possible – please contact us

Subject to change.

Type selection

TRAXLINE INTERBUS 700 C – shielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
(3 x 2 x 0.25²)	**45676**	8.3	0.085	0.047

Additional cable types upon request.

Subject to change.

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Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE CAT.5E / CAT.6 700 CD

Double-shielded continuous bending hi-flex CAT.5E / CAT.6 PUR cable

Up to **7 million** motion cycles!

Up to **60 m** travel length!

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

DESINA

Developed for

- computer cables
- sensor equipment
- data and signal cables
- extremely heavy loads

Properties

- oil-resistant
- UV-resistant
- RoHS-conform
- halogen-free
- CFC-free
- silicone-free
- flame-retardant

Design

Conductor:	extremely fine stranded conductors of bare copper wires in an optimized hi-flex design
Core insulation:	KS-PP/TPE
Core identification:	coloured, white/blue, blue, white/orange, orange, white/green, green, white/brown, brown
Core stranding:	cores type-optimized stranded in short pitches with minimal torsion
Shielding:	coverage 85 %
Outer jacket:	KS-PUR
Jacket colour:	green (according to DESINA)

Technical Data

Temperature range while moved:	– 40 to + 80 °C
Minimum bend radius while moved:	$KR_{min} \geq 10 \times Ø$
v_{max} supported:	3 m/s
v_{max} gliding:	3 m/s
a_{max}:	5 m/s²
Insulation resistance:	≥ 10 MΩ x km
Rated voltage:	according to VDE 30 V according to UL 30 V
Approvals:	UL, based on VDE

varying parameters possible – please contact us

Core insulation
KS-PP/TPE
concentrically stranded

Overall double-shielding
continuous bending hi-flex, tin-plated copper braiding
Coverage: approx. 90 % and foil shield

Outer jacket
KS-PUR
pressure extruded
hi-flex design
UV-resistant
extremely abrasion-resistant

Picture obtainable.

Subject to change.

Type selection

TRAXLINE CAT.5E 700 CD – double-shielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
((4 x 2 x 0.15²))	**45693**	7.1	0.055	0.030

TRAXLINE CAT.6 700 CD – double-shielded

core number x nominal-cross-section in AWG	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
((4 x 2 x AWG 26))	**45684**	7.8	0.065	0.034

Additional cable types upon request.

Subject to change.

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Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE KOAX 700 CD

Double-shielded continuous bending hi-flex PUR data cables

Picture obtainable.

Coax cable
flexible,
continuous bending hi-flex

Core insulation
KS-PP/TPE
concentrically
stranded

Element shield
continuous bending hi-flex
copper braiding
– see type/design

Overall shield
continuous bending hi-flex,
tin-plated copper braiding
for smallest bend radii
Coverage: approx. 90 %

Outer jacket
KS-PP
pressure extruded
hi-flex design
extremely abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Up to 2 million motion cycles!

Up to 50 m travel length!

TSUBAKI KABELSCHLEPP TRAXLINE *cables for cable carriers*

Developed for

- image transmission
- sensor equipment
- data and signal cables
- extremely heavy loads

Properties

- oil-resistant
- UV-resistant
- RoHS-conform
- flame-retardant
- CFC-free
- silicone-free
- halogen-free

Design

Conductor:	conductors class 6 of bare copper wires in an optimized hi-flex design
Core insulation:	type dependent
Core identification:	black with white numbers
Core stranding:	optimized stranding with maximum flexural strength
Shielding:	part number 45694: coverage 90 %
Outer jacket:	KS-PUR
Jacket colour:	black

Technical Data

Temperature range while moved:	– 20 to + 60 °C
Minimum bend radius while moved:	$KR_{min} \geq 10 \times Ø$
v_{max} supported:	3.5 m/s
v_{max} gliding:	3.5 m/s
a_{max}:	10 m/s²
Rated voltage:	type dependent
Approvals:	type dependent

varying parameters possible – please contact us

Subject to change.

Questions about cable carrier cables? Fon: +49 2762 4003-0
kabelschlepp.de

Type selection

TRAXLINE KOAX 700 CD – 50 Ohm – double-shielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
(1 x (1HF50)) 50 Ohm	**45680**	5.6	0.059	0.021
(3 x (1HF50)) 50 Ohm	**45683**	11.8	0.140	0.063
(5 x (1HF50)) 50 Ohm	**45685**	14.0	0.230	0.099

TRAXLINE KOAX 700 CD – 75 Ohm – double-shielded

core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
(1 x (1HF75)) 75 Ohm	**45691**	5.6	0.060	0.022
(3 x (1HF75)) 75 Ohm	**45694**	11.8	0.142	0.065
(5 x (1HF75)) 75 Ohm	**45695**	14.0	0.234	0.102

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Questions about cable carrier cables? Fon: +49 2762 4003-0

Subject to change.

Additional cable types upon request.

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Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE FOC 700

Continuous bending hi-flex multi-mode glass fiber optic cable

Picture obtainable.

Fiber-optic cable glass
flexible, continuous bending hi-flex, aramid fiber protection

Core insulation KS-PP/TPE
concentrically stranded

Outer jacket KS-PUR
pressure extruded
hi-flex design
UV-resistant
extremely abrasion-resistant

Jacket colour black
ozone-resistant
UV-resistant

Up to 7 million motion cycles!

Up to 500 m travel length!

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

CE

Developed for

- light signal transmission
- sensor equipment
- data and signal cables
- extremely heavy loads

Properties

- halogen-free
- Multimode 1300 nm
- RoHS-conform
- absolutely EMC safety
- CFC-free
- silicone-free
- flame-retardant
- metal-free

Design

Conductor:	glass
Conductor insulation:	KS-PP/TPE
Conductor identification:	coloured, colour coded
Conductor stranding:	concentrically around center element
Outer jacket:	KS-PUR
Jacket colour:	black

Technical Data

Temperature range while moved:	– 30 to + 90 °C
Minimum bend radius while moved:	$KR_{min} \geq 7.5 \times Ø$
v_{max} supported:	3.5 m/s
v_{max} gliding:	3.5 m/s
a_{max}:	10 m/s²
Approvals:	IEC 60794 IEC 61300

varying parameters possible – please contact us

Subject to change.

Type selection

TRAXLINE FOC 700

number of conductors x nominal-cross-section in µm	part number	max. Ø mm	cable weight kg/m
6G50/125	**45696**	13.4	0.140
6G62.5/125	**45697**	13.4	0.140
12G50/125	**45698**	13.4	0.140
12G62.5/125	**45699**	13.4	0.140

Additional cable types upon request.

Subject to change.

kabelschlepp.de

Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE SYSTEM S 700 C

Shielded continuous bending hi-flex PUR signal cables

Picture obtainable.

Core insulation
KS-PP/TPE
hybrid stranded

Element shield
continuous bending hi-flex, in-plated braided copper shield with the option of foil shield – see type/design

Overall shield
continuous bending hi-flex, tin-plated copper braiding for smallest bend radii
Coverage: approx. 80 %

Outer jacket
KS-PUR
pressure extruded
hi-flex design
UV-resistant
extremely abrasion-resistant

Up to **5 million** motion cycles!

Up to **50 m** travel length

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

DESINA

Developed for

- KS alternative to OEM standards
- long transmission distances
- servo drives
- extremely heavy loads

Properties

- oil-resistant
- UV-resistant
- RoHS-conform
- halogen-free
- CFC-free
- silicone-free
- flame-retardant
- DESINA

Design

Conductor:	extra-fine wire conductor made from bare or tin-plated copper wires, design-optimized for maximum flexural strength
Center element:	type-optimized
Core insulation:	KS-PP/TPE
Core identification:	according to OEM specifications (type-dependent)
Core stranding:	cores type-optimized stranded in short pitches with minimal torsion
Shielding:	coverage 80/85 % (type-dependent)
Outer jacket:	KS-PUR
Jacket colour:	green (according to DESINA)

Technical Data

Temperature range while moved:	– 30 to + 90 °C
Minimum bend radius while moved*:	$KR_{min} \geq 7.5 \times Ø$
v_{max} supported:	5 m/s
v_{max} gliding:	5 m/s
a_{max}:	50 m/s²
Insulation resistance:	≥ 10 MΩ x km
Rated voltage:	OEM type-dependent
Approvals:	UL or UL/CSA (type-dependent), based on VDE

varying parameters possible – please contact us

Questions about cable carrier cables? Fon: +49 2762 4003-0
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Subject to change.

Type selection

TRAXLINE SYSTEM S 700 C – shielded

KS alternative to OEM standard	core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
6FX8008 1BD11	(8 x 2 x 0.18²)	**46100**	8.7	0.100	0.054
6FX8008 1DC00	(2 x 2 x 0.25² + 1 x 2 x 0.38²)	**46104**	7.0	0.72	0.041
6FX8008 1BD21	(4 x 2 x 0.38² + 4 x 0.5²)	**46105**	9.3	0.115	0.083
6FX8008 1BD31	(3 x (2 x 0.14²) + 2 x (0.5²))	**46110**	10.0	0.125	0.074
6FX8008 1BD41	(3 (2 x 0.14²) + 4 x 0.14² + 2 x 0.5²)	**46115**	9.5	0.105	0.066
6FX8008 1BD51	(3 x (2 x 0.14²) + 2 x 0.5² + 4 x 0.14² + 4 x 0.22²)	**46120**	10.4	0.135	0.075
6FX8008 1BD61	(4 x 2 x 0.18²)	**46125**	6.9	0.061	0.035
6FX8008 1BD71	(2 x 2 x 0.18²)	**46130**	5.3	0.035	0.024
6FX8008 1BD81	(12 x 0.22²)	**46135**	8.5	0.098	0.065

KS alternative to OEM standard	core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
INK 0448	(4 x 2 x 0.25² + 2 x 0.5²)	**46400**	9.1	0.100	0.051
INK 0209	(4 x 2 x 0.25² + 2 x 1²)	**46410**	9.1	0.120	0.064
INK 0280	(3 x 0.25² + 3 x (2 x 0.25²) + 2 x 1²)	**46412**	11.5	0.160	0.084
INK 0532	(4 x 2 x 0.14² + 4 x 1² + (4 x 0.14²))	**46415**	10.3	0.120	0.081

KS alternative to OEM standard	core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
–	(4 x 2 x 0,14² + 4 x 0.5²)	**46505**	8.4	0.095	0.052

KS alternative to OEM standard	core number x nominal-cross-section in mm²	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
–	(5 x 2 x 0,14² + 2 x 0.5²)	**46090**	9.0	0.105	0.072

Subject to change.

Additional cable types upon request.

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Questions about cable carrier cables? Fon: +49 2762 4003-0

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Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE SYSTEM M 700 C

Shielded continuous bending hi-flex PUR motor/servo drive cables

Picture obtainable.

Core insulation
KS-PP/TPE
hybrid stranded

Element shield
continuous bending hi-flex, in-plated braided copper shield with the option of foil shield – see type/design

Overall shield
continuous bending hi-flex, tin-plated copper braiding for smallest bend radii
Coverage: approx. 80 %

Outer jacket
KS-PUR
pressure extruded
hi-flex design
UV-resistant
extremely abrasion-resistant

Up to 5 million motion cycles!

Up to 50 m travel length

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

DESINA

Developed for

- KS alternative to OEM standards
- long transmission distances
- motors/servo drives
- extremely heavy loads

Properties

- oil-resistant
- UV-resistant
- RoHS-conform
- halogen-free
- CFC-free
- silicone-free
- flame-retardant
- DESINA

Design

Conductor:	finely stranded conductors of bare copper wires in an optimized hi-flex design
Center element:	NEW – OEM types-optimized
Core insulation:	KS-PP/TPE
Core identification:	according to OEM specifications (type-dependent)
Core stranding:	cores type-optimized stranded in short pitches with minimal torsion
Shielding:	coverage 80/85 % (type-dependent)
Outer jacket:	KS-PUR
Jacket colour:	orange (according to DESINA)

Technical Data

Temperature range while moved:	– 30 to + 90 °C
Minimum bend radius while moved*:	≤ 16 mm²: KR_{min} ≥ 7.5 x Ø ≥ 25 mm²: KR_{min} ≥ 10 x Ø
v_{max} supported:	5 m/s
v_{max} gliding:	5 m/s
a_{max}:	50 m/s²
Insulation resistance:	≥ 10 MΩ x km
Rated voltage:	type-dependent
Approvals:	UL, cUL or UL/CSA (type-dependent), based on VDE

varying parameters possible – please contact us

Subject to change.

Type selection

TRAXLINE SYSTEM M 700 C – shielded

KS alternative to OEM standard	type KS / construction	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
6FX8008 1BB11	(4 G 1.5²)	**46200**	9.4	0.144	0.080
6FX8008 1BB21	(4 G 2.5²)	**46205**	10.9	0.209	0.120
6FX8008 1BB31	(4 G 4²)	**46210**	12.2	0.275	0.195
6FX8008 1BB41	(4 G 6²)	**46215**	14.7	0.439	0.296
6FX8008 1BB51	(4 G 10²)	**46220**	18.1	0.660	0.445
6FX8008 1BB61	(4 G 16²)	**46225**	21.9	1.025	0.730
6FX8008 1BB25	(4 G 25²)	**46230**	25.2	1.225	1.100
6FX8008 1BB35	(4 G 35²)	**46235**	28.9	1.685	1.522
6FX8008 1BB50	(4 G 50²)	**46240**	33.4	2.405	2.165
6FX8008 1BA11	(4 G 1,5² + (2 x 1.5²))	**46150**	11.9	0.233	0.136
6FX8008 1BA21	(4 G 2,5² + (2 x 1.5²))	**46155**	13.7	0.313	0.187
6FX8008 1BA31	(4 G 4² + (2 x 1.5²))	**46160**	15.1	0.416	0.268
6FX8008 1BA41	(4 G 6² + (2 x 1.5²))	**46165**	17.1	0.546	0.358
6FX8008 1BA51	(4 G 10² + (2 x 1.5²))	**46170**	19.7	0.757	0.515
6FX8008 1BA61	(4 G 16² + (2 x 1.5²))	**46175**	24.7	1.074	0.802
6FX8008 1BA25	(4 G 25² + (2 x 1.5²))	**46250**	27.9	1.460	1.144
6FX8008 1BA35	(4 G 35² + (2 x 1.5²))	**46255**	32.0	1.890	1.850
6FX8008 1BA50	(4 G 50² + (2 x 1.5²))	**46260**	35.8	2.690	2.540

KS alternative to OEM standard	type KS / construction	part number	max. Ø mm	cable weight kg/m	copper weight kg/m
INK 0653	(4 G 1²2 + 2 x (2 x 0.75²))	**46300**	12.7	0.225	0.136
INK 0650	(4 G 1.5² + 2 x (2 x 0.75²))	**46305**	12.7	0.255	0.170
	(4 G 2.5² + 2 x (2 x 1²))	**46315**	15.8	0.370	0.229
	(4 G 4² + (2 x 1²) + (2 x 1.5²))	**46323**	17.5	0.475	0.328
INK 0604	(4 G 6² + (2 x 1²) + (2 x 1,5²))	**46330**	18.6	0.570	0.445
INK 0605	(4 G 10² + (2 x 1.5²) + (2 x 1²))	**46345**	23.3	0.875	0.626
INK 0606	(4 G 16² + 2 x (2 x 1.5²))	**46350**	26.5	1.170	0.922
INK 0607	(4 G 25² + 2 x (2 x 1.5²))	**46355**	30.8	1.590	1.280
INK 0667	(4 G 35² + 2 x (2 x 1.5²))	**46360**	32.8	2.080	1.621
INK 0668	(4 G 50² + 2 x (2 x 1.5²))	**46365**	37.3	3.000	2.600

Subject to change.

Additional cable types upon request.

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Questions about cable carrier cables? Fon: +49 2762 4003-0

TRAXLINE pre-assembled OEM high flex cables

You need connection-ready harnessed **bus cables**?
Or harnessed **signal- or power cables** for drives –
in accordance to OEM specifications?

Simply order by quoting just the **OEM order number and cable length**, and wait for your original **TRAXLINE** quality goods to arrive.

Connection-ready harnessed cables

- easy to order with just order number and cable length
- in accordance to OEM specifications
- Just-in-time delivery of three work days
- **no minimum order quantities**
- **individual cable lengths without surcharge**
- checked and monitored for reliable connection

Properties of the **TRAXLINE** cables:

Subject to change.

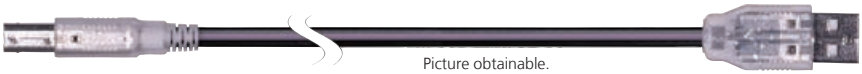
TRAXLINE USB 700 C pre-assembled

Shielded continuous bending hi-flex USB PUR cable

Properties of the TRAXLINE cables:

- UV-resistant
- CFC-free
- Minimum bend radius 10 x Ø
- halogen-free
- flame-retardant
- Approvals: UL, based on VDE, RoHS conform

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers



Picture obtainable.

cable type	approx. diameter mm	minimum bend radius moved KR_{min}
USB S 700 C – type A/B	5.2	10 x Ø
USB L 700 C – type A/B	6.0	10 x Ø

Smaller bend radii are possible in many cases – contact us about options.

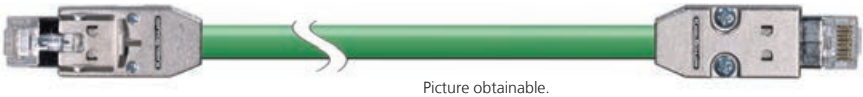
TRAXLINE CAT.5E / CAT.6 700 CD pre-assembled

Shielded continuous bending hi-flex CAT.5E / CAT.6 PUR cable

Properties of the TRAXLINE cables:

- UV-stable
- CFC-free
- Minimum bend radius 7.5 x Ø
- halogen-free
- flame-retardant
- Approvals: UL, based on VDE, RoHS conform

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers



Picture obtainable.

cable type	approx. diameter mm	minimum bend radius moved KR_{min}
CAT.5E 8-stranded straight	7.1	10 x Ø
CAT.5E 8-stranded cross-over	7.1	10 x Ø
CAT.6 8-stranded straight	7.8	10 x Ø
CAT.6 8-stranded cross-over	7.8	10 x Ø

Smaller bend radii are possible in many cases – contact us about options.

Subject to change.

TRAXLINE pre-assembled PUR signal cables

Cables with connections compatible with the OEM standards

Properties of the TRAXLINE cables:

- UV-resistant
- CFC-free
- Minimum bend radius 7.5 x Ø
- halogen-free
- flame-retardant
- Approvals: UL, CSA, based on VDE, RoHS conform

Signal basic cables

PUR design

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

KS alternative to OEM standard	approx. diameter mm	minimum bend radius moved KR_{min}
6FX8002 2AD00	9.5	7.5 x Ø
6FX8002 2CA31	10.1	7.5 x Ø
6FX8002 2CA51	9.5	7.5 x Ø
6FX8002 2CA61	9.5	7.5 x Ø
6FX8002 2CF02	9.5	7.5 x Ø
6FX8002 2CH00	9.5	7.5 x Ø
6FX8002 2EQ00	10.1	7.5 x Ø
6FX8002 2EQ10	10.1	7.5 x Ø

Varying parameters possible – contact us about options.

Signal extension cables

PUR design

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

KS alternative to OEM standard	approx. diameter mm	minimum bend radius moved KR_{min}
6FX8002 2AD04	9.5	7.5 x Ø
6FX8002 2CA34	10.1	7.5 x Ø
6FX8002 2CA54	9.5	7.5 x Ø
6FX8002 2CB54	9.3	7.5 x Ø
6FX8002 2CF04	9.5	7.5 x Ø
6FX8002 2EQ14	10.1	7.5 x Ø

Varying parameters possible – contact us about options.

Subject to change.

TRAXLINE pre-assembled PUR power cables

Cables with connections compatible with the OEM standards

Properties of the TRAXLINE cables:

- UV-resistant
- CFC-free
- Minimum bend radius 7.5 x Ø
- halogen-free
- flame-retardant
- Approvals: UL, CSA, based on VDE, RoHS conform

Power basic cables without brake wires

PUR design

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

Picture obtainable.

KS alternative to OEM standard	approx. diameter mm	minimum bend radius moved KR_{min}
6FX8002 5CA01	10.4	7.5 x Ø
6FX8002 5CA11	11.7	7.5 x Ø
6FX8002 5CA21	10.4	7.5 x Ø
6FX8002 5CA31	11.7	7.5 x Ø
6FX8002 5CA41	13.5	7.5 x Ø
6FX8002 5CA51	16.3	7.5 x Ø
6FX8002 5CA61	19.7	7.5 x Ø

Varying parameters possible – contact us about options.

Power extension cables without brake wires

PUR design

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

Picture obtainable.

KS alternative to OEM standard	approx. diameter mm	minimum bend radius moved KR_{min}
6FX8002 5CA05	10.4	7.5 x Ø
6FX8002 5CA15	11.7	7.5 x Ø
6FX8002 5CA28	10.4	7.5 x Ø
6FX8002 5CA38	11.7	7.5 x Ø
6FX8002 5CA48	13.5	7.5 x Ø
6FX8002 5CA58	16.3	7.5 x Ø
6FX8002 5CA68	19.7	7.5 x Ø

Varying parameters possible – contact us about options.

Subject to change.

TRAXLINE pre-assembled PUR power cables

Cables with connections compatible with the OEM standards

Properties of the TRAXLINE cables:

- UV-resistant
- CFC-free
- Minimum bend radius 7.5 x Ø
- halogen-free
- flame-retardant
- Approvals: UL, CSA, based on VDE, RoHS conform

Power basic cables with brake wires

PUR design

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

Picture obtainable.

KS alternative to OEM standard	approx. diameter mm	minimum bend radius moved KR_{min}
6FX8002 5DA01	12.6	7.5 x Ø
6FX8002 5DA11	14.0	7.5 x Ø
6FX8002 5DA21	12.6	7.5 x Ø
6FX8002 5DA31	14.0	7.5 x Ø

Varying parameters possible – contact us about options.

Power extension cables with brake wires

PUR design

TSUBAKI KABELSCHLEPP TRAXLINE cables for cable carriers

Picture obtainable.

KS alternative to OEM standard	approx. diameter mm	minimum bend radius moved KR_{min}
6FX8002 5DA05	12.6	7.5 x Ø
6FX8002 5DA15	14.0	7.5 x Ø
6FX8002 5DA28	12.6	7.5 x Ø
6FX8002 5DA38	14.0	7.5 x Ø

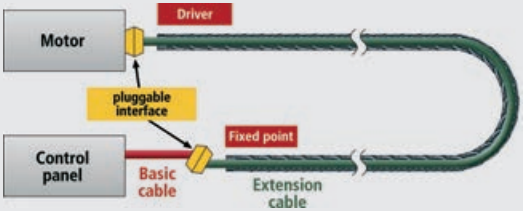
Varying parameters possible – contact us about options.

Extension cables

In addition to connection-ready harnessed basic cables, **extension cables** are also available.

These are available as **signal and power cables** for drives – according to OEM specifications.

Simply order by quoting just the **order number and cable length**, and wait for your original TRAXLINE quality goods to arrive.



Subject to change.

Application parameters TRAXLINE cables

Application parameters*	CONTROL 200/200 C	DATA / CONTROL 400/400 C	POWER 400/400 C	CONTROL / POWER 700/700 C	SYSTEM S 700 SYSTEM M 700
Acceleration a	up to 10 m/s²	up to 20 m/s²	up to 20 m/s²	up to 50 m/s²	up to 50 m/s²
Speed v, self-supporting	up to 3.5 m/s²	up to 5 m/s²	up to 5 m/s²	up to 20 m/s²	up to 5 m/s²
Speed v, gliding	up to 2 m/s²	up to 3.5 m/s²	up to 3.5 m/s²	up to 5 m/s²	up to 5 m/s²
Travel length recommended application areas	up to 25 m	up to 100 m	up to 100 m	up to 500 m	up to 50 m
DESINA	subject to cable type	subject to cable type	subject to cable type	subject to cable type	subject to cable type
Cold-resistant	•	•	•	•••	••
Minimum bend radius, unshielded	KR_{min} ≥ 10 x Ø	KR_{min} ≥ 7.5 x Ø	KR_{min} ≥ 7.5 x Ø	KR_{min} ≥ 7.5 x Ø	–
Minimum bend radius, shielded	KR_{min} ≥ 10 x Ø	KR_{min} ≥ 7.5 x Ø	KR_{min} ≥ 7.5 x Ø	KR_{min} ≥ 7.5 x Ø	subject to cable type
UL-Approval	+	+	+	+	+
Combined UL/CSA-Approval	subject to cable type	subject to cable type	+	+	subject to cable type
Operating temperature range	- 5 to + 80 °C	- 5 to + 80 °C	- 5 to + 80 °C	- 30 to + 90 °C	subject to cable type to
UV-resistance	+	+	+	• jacket coloured ••• jacket black	• jacket coloured ••• jacket black
OEM specification	–	–	–	–	+
CFC-free	+	+	+	+	+
flame-retardant	+	+	+	+	+
halogen-free	–	–	–	+	+
oil-resistant	+	+	+	+	+
silicone-free	+	+	+	+	+

+ Yes – No • suitable •• well suitable ••• very well suitable

* Recommended values for the design of KABELSCHLEPP cable carrier systems.

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Electrical load capacity

Cross section	PVC		PUR		PUR Single cores	
0.75 mm²	12 A	DIN VDE 0298-4 page 33, chart 11, column 5			15 A	DIN VDE 0298-4 page 33, chart 11, column 2
1 mm²	15 A				19 A	
1.5 mm²	18 A		23 A	DIN VDE 0298-4 page 23, chart 6, column 5	24 A	
2.5 mm²	26 A		32 A		32 A	
4 mm²	34 A		42 A		42 A	
6 mm²	44 A		54 A		54 A	
10 mm²	61 A		75 A		73 A	
16 mm²	82 A		100 A		98 A	
25 mm²	108 A		127 A		141 A	DIN VDE 0298-4 page 23, chart 6, column 7
35 mm²	135 A		158 A		176 A	
50 mm²	168 A		192 A		216 A	
70 mm²	207 A		246 A		279 A	
95 mm²	250 A		298 A		342 A	
120 mm²	292 A		346 A		400 A	
150 mm²	335 A		399 A		464 A	
185 mm²	382 A		456 A		533 A	
240 mm²	453 A		538 A		634 A	
300 mm²	523 A		621 A		736 A	
400 mm²					868 A	
500 mm²					998 A	
700 mm²					1240 A	

These values are extracted from DIN VDE 0298-4. The laying procedure „Continuous flexible/moving in a cable carrier“ is not standardized. Due to this fact these values are for orientation only. Please observe reduction factors for cumulation of cables and varying ambient temperatures while selecting cables. Please observe additional standards which will be security-relevant for the application.

All data in this publication are to be used as guidelines for planning purposes only. In particular, we do not guarantee that the products supplied suit the users application. It is the customer's responsibility to verify that our products fit the users application specifications.

Conversion factors for different ambient temperatures

	Permitted/recommended operating temperature at conductor					
	40 °C	60 °C	70 °C	80 °C	85 °C	90 °C
Ambient temperatures in °C	Conversion factors, must be applied to the loading capacity information!					
10	1.73	1.29	1.22	1.18	1.17	1.15
15	1.58	1.22	1.17	1.14	1.13	1.12
20	1.41	1.15	1.12	1.10	1.09	1.08
25	1.22	1.08	1.06	1.05	1.04	1.04
30	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**
35	0.71	0.91	0.94	0.95	0.95	0.96
40	–	0.82	0.87	0.89	0.90	0.91
45	–	0.71	0.79	0.84	0.85	0.87
50	–	0.58	0.71	0.77	–	0.82
55	–	0.41	0.61	0.71	–	0.76
60	–	–	0.50	0.63	–	0.71
65	–	–	0.35	0.55	–	0.65
70	–	–	–	0.45	–	0.58
75	–	–	–	0.32	–	0.50
80	–	–	–	–	–	0.41
85	–	–	–	–	–	0.29
90	–	–	–	–	–	–
95	–	–	–	–	–	–

Subject to change.

Colour codes, copper surcharge, AWG table

DIN 47100 colour code

1 white	11 grey-pink	21 white-blue	31 green-blue	41 grey-black
2 brown	12 red-blue	22 brown-blue	32 yellow-blue	42 pink-black
3 green	13 white-green	23 white-red	33 green-red	43 blue-black
4 yellow	14 brown-green	24 brown-red	34 yellow-red	44 red-black
5 grey	15 white-yellow	25 white-black	35 green-black	
6 pink	16 yellow-brown	26 brown-black	36 yellow-black	
7 blue	17 white-grey	27 grey-green	37 grey-blue	
8 red	18 grey-brown	28 yellow-grey	38 pink-blue	
9 black	19 white-pink	29 pink-green	39 grey-red	
10 purple	20 pink-brown	30 yellow-pink	40 pink-red	

The first colour describes the base colour of the core insulation, the second colour that of the printed ring.

Copper wire dimensions according to AWG

AWG-No.	Cross section mm²	Diameter mm	AWG-No.	Cross section mm²	Diameter mm
500	254	20.7	**16**	1.31	1.29
400	203	18.9	**17**	1.04	1.15
350	178	17.3	**18**	0.823	1.024
300	152	16	**19**	0.653	0.912
250	127	14.6	**20**	0.519	0.812
4/0	107.2	11.68	**21**	0.412	0.723
3/0	85	10.4	**22**	0.325	0.644
2/0	67.5	9.27	**23**	0.259	0.573
0	53.4	8.25	**24**	0.205	0.511
1	42.4	7.35	**25**	0.163	0.455
2	33.6	6.54	**26**	0.128	0.405
3	26.7	5.83	**27**	0.102	0.361
4	21.2	5.19	**28**	0.0804	0.321
5	16.8	4.62	**29**	0.0646	0.286
6	13.3	4.11	**30**	0.0503	0.255
7	10.6	3.67	**31**	0.04	0.227
8	8.366	3.26	**32**	0.032	0.202
9	6.63	2.91	**33**	0.0252	0.18
10	5.26	2.59	**34**	0.04	0.16
11	4.15	2.3	**35**	0.0161	0.143
12	3.3	2.05	**36**	0.0123	0.127
13	2.62	1.83	**37**	0.01	0.113
14	2.08	1.63	**38**	0.00795	0.101
15	1.65	1.45	**39**	0.00632	0.0897

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Subject to change.

Calculation of the copper surcharge

The copper contained in cables is already calculated into the sales price at € 150.00/100 kg (copper basis).

The current price of copper, the German DEL quotation, rises and falls on a daily basis. The difference between the copper basis and the daily quotation is calculated and added to the cable price (copper surcharge).

The formula for calculating the copper surcharge (€/m):

$$\frac{\textbf{Copper weight}\ (\text{kg/m})\ \textbf{x}\ (\textbf{(DEL quote}\ (€/100\ \text{kg})\ \textbf{+ 1 \% procurement costs) – copper basis}\ (€/100\ \text{kg})\textbf{)}}{\textbf{100}}$$

DEL quotation

The DEL quotation (Deutsches Elektrolytkupfer für Leitzwecke / German Electrolytic Copper for Conductor Purposes) is a market quotation for copper used in cables with a purity of over 95.5 %.

Copper basis

Is the proportional value of copper already included in the cable price. This is € 150.00/100 kg copper for all **TRAXLINE** cables.

Copper weight

The copper weight is the weight of the copper in a cable. This can vary greatly depending on the cross-section and the number of cores used, and is specified in kilograms per meter (kg/m).

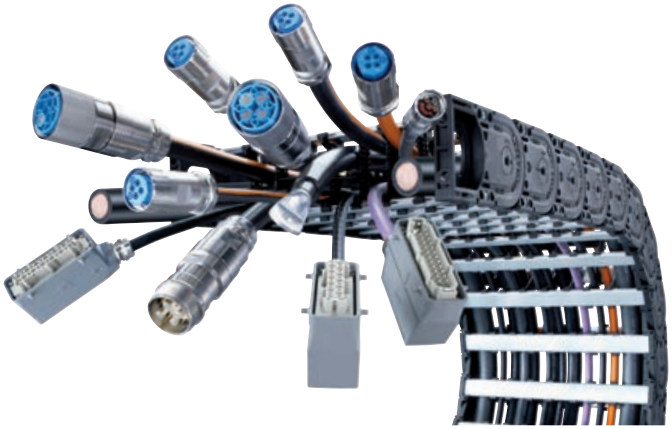
Example:

Copper weight:	0.152 kg/m
DEL notation:	€ 300.00/100 kg
Copper base:	€ 150.00/100 kg

Rebates and discounts do not apply to the copper surcharge.
The copper surcharge is indicated separately in our invoices.

$$\frac{0.152\ \text{kg/m} \times ((€\ 300.00/100\ \text{kg} + €\ 3.00/100\ \text{kg}) – €\ 150.00/100\ \text{kg})}{100}$$

= € 0.23/m copper surcharge per meter of cable



Subject to change.

Definitions

Definition	Description	Example
Design	number of cores x nominal cross-section in mm²	3 G 1.5²
Design AWG	American Wire Gauge	18AWG/2c
Shielding	without	4 G 1.5²
	total	(4 G 1.5²)
	total and pair	(4 x (2 x 0.5²))
	total and pair and single element	((2 x 0.75²) + 2 x (1²))
DESINA	decentral and standardized installation technology on machine tools	
Flame-retardant	according to UL or equal specification	
Halogen-free	according to VDE 0282-13 attachment C	700 Series
Oil-resistant	for special applications	see application parameters
UV-resistant	without any restriction	outer jacket: black / black + ICC
UV-stable	time restriction possible	outer jacket: coloured
Stranding	core stranding in bundle technology	5 x 5 x 2.5² = 25 x 2.5²
	core stranding mixed, in hybrid technology	((4 G 50²) + 2 x (2 x 1.5²))
	core stranding in layer design	7 x 1.5²
	core stranding in pairs	(8 x 2 x 0.75²)

Abbreviations

Abbreviation	Description	Note
C	total shield with Copper-braid	optical coverage
D	double-shielded	CD identification
Ø max.	maximum outer diameter	see type selection
EMV	electromagnetic compatibility	use shielded cables
FOC	fiber-optic cables – fiber/diameter	e.g. 6G62.5/125
KS-PUR	special KABELSCHLEPP compound	e.g. 11 Y
KS-TPE-E	Thermoplastic Polyester Elastomer	12 Y
KS-PP/TPE	special KABELSCHLEPP compound	e.g. 9 Y
KS-PVC	special KABELSCHLEPP PVC compound	Y
UL/CSA	USA/Canada approval	

Subject to change.

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Questions about cable carrier cables? Fon: +49 2762 4003-0

Chemical resistance

Chemical product	Resistance					
	CONTROL 200	CONTROL/POWER 400	CONTROL/POWER 700	DATA 700	CONTROL/POWER 700 C	SYSTEM 700 C
Inorganic chemicals / aqueous solutions, neutral						
Water	✓	✓	✓	✓	✓	✓
Common salt (10 %)	✓	✓	✓	✓	✓	✓
Sodium sulphate (10 %)	✓	✓	✓	✓	✓	✓
Aqueous solutions, alkaline						
Soda (10 %)	✓	✓	✓	✓	✓	✓
Aqueous solutions, acidic						
Aqueous solutions, oxidising	◆	◆	✓	✓	✓	✓
Hydrogen peroxide (3 %)	✓	✓	✓	✓	✓	✓
Potassium permanganate (2 %)	✓	✓	✓	✓	✓	✓
Inorganic acids						
Concentrated hydrochloric acid	–	–	–	–	–	
Hydrochloric acid (10 %)	✓	✓	✓	✓	✓	✓
Concentrated sulphuric acid	–	–	✓	✓	✓	✓
Sulphuric acid (10 %)	✓	✓	✓	✓	✓	✓
Concentrated nitric acid	–	–	✓	✓	✓	✓
Nitric acid (10 %)	o	o	✓	✓	✓	✓
Inorganic alkalis						
Concentrated sodium hydroxide	–	–	✓	✓	✓	✓
Sodium hydroxide (10 %)	✓	✓	✓	✓	✓	✓
Concentrated caustic potash solution	–	–	✓	✓	✓	✓
Caustic potash solution (10 %)	✓	✓	✓	✓	✓	✓
Concentrated ammonia	o	o	✓	✓	✓	✓
Ammonia (10 %)	✓	✓	✓	✓	✓	✓
Organic chemicals / organic acids						
Concentrated acetic acid	–	–	✓	✓	✓	✓
Acetic acid (10 % in H_2O)	✓	✓	✓	✓	✓	✓
Tartaric acid (10 % in H_2O)	✓	✓	✓	✓	✓	✓
Citric acid (10 % in H_2O)	–	–	–	–	–	
Ketones						
Acetone	–	–	–	–	–	
Methyl ethyl ketone (MEK)	–	–	–	–	–	
Alcohols						
Ethyl alcohol (white spirits)	–	–	o	o	o	
Isopropyl alcohol	–	–	✓	✓	✓	✓
Diethylene glycol	o	o	✓	✓	✓	✓
Aromatics						
Toluene	–	–	–	–	–	
Xylene	–	–	–	–	–	
Fuels						
Petrol	–	–	✓	✓	✓	✓
Diesel	o	o	✓	✓	✓	✓
Kerosene	–	–	✓	✓	✓	✓
Synthetic oils / lubricating oil						
ASTM oil #2	✓	✓	✓	✓	✓	✓
Hydraulic fluid						
Based on mineral oil	–	–	✓	✓	✓	✓
Based on glycol	–	–	✓	✓	✓	✓
Based on synthetic ester	–	–	◆	◆	◆	
Vegetable oils						
Rapeseed oil	o	o	✓	✓	✓	✓
Olive oil	o	o	✓	✓	✓	✓
Soybean oil	o	o	✓	✓	✓	✓
Other						
Seawater	✓	✓	✓	✓	✓	✓

✓ = resistant – = not resistant o = short-term resistance ◆ = no data

Subject to change.

You don't know just how good a cable is until you see it in the carrier

Nothing proves the excellent performance of our products better than an uncompromising test

The following test set-ups were used as the basis for the indicated motion cycles:

TRAXLINE Series 200

Test KS VL – 1 200

Travel length:	**13.8 m**	Speed:	**2 m/s**
Acceleration:	**2.2 m/s²**	Radius:	**10 x cable diameter**

Result: over two million cycles

TRAXLINE Series 400

Test KS VL – 2 400

Travel length:	**17.4 m**	Speed:	**2.6 m/s**
Acceleration:	**2.2 m/s²**	Radius:	**7.5 x cable diameter**

Result: over four million cycles

TRAXLINE Series 700

Test KS VL – 3 700

Travel length:	**28.3 m**	Speed:	**3 m/s**
Acceleration:	**2.2 m/s²**	Radius:	**7.5 x cable diameter**

Result: over seven million cycles

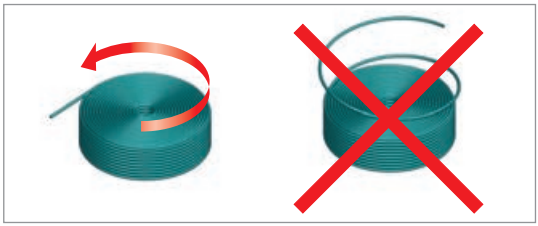
With a TRAXLINE cable from KABELSCHLEPP, you play it safe!

Subject to change.

Installing cables into the cable carrier

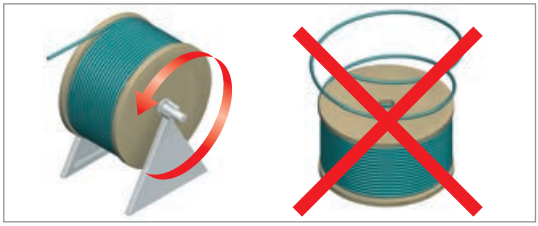
Do not cut ring-coiled cables

When cutting cables prior to installation into the cable carrier, ring-coiled cables must be unspooled tangentially and not be pulled in loops off the top.



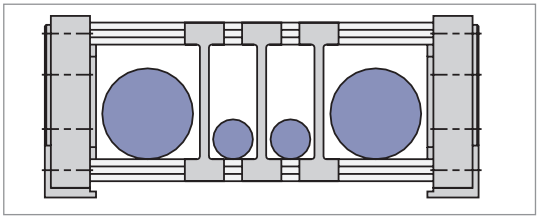
Uncoil cables from reels torsion-free

When cutting cables prior to installation into the cable carrier, drum-coiled cables must be unreeled, twist- and torsion-free.

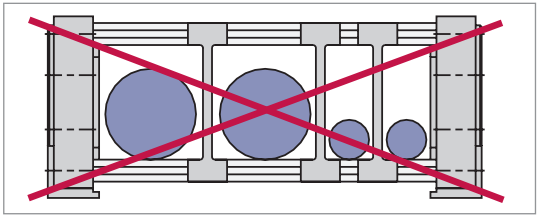


Weight distribution inside the carrier cavity

When inserting the cables into the cable carrier, the cable weight is to be symmetrically distributed within the cavity width to assure maximum cycle life of the cable carrier and reduce the likelihood of cable carrier twist or tilt during operation.



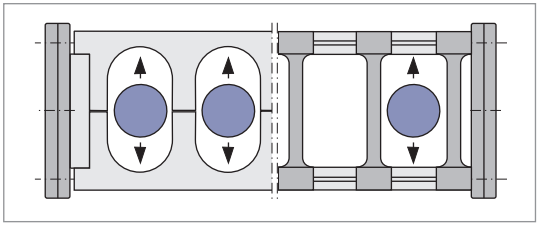
■ Right weight distribution



■ False weight distribution

Cable length

A change in the length of the cables after installation can be balanced out in the carrier loop. Thus, the cables must move freely inside the cable carrier at sufficient length and torsion-free.



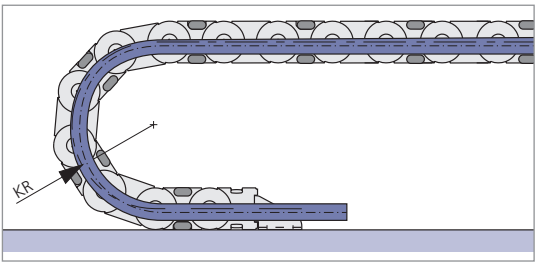
Subject to change.

Installing cables into the carrier

The cables must be inserted into the carrier system in a way to allow them to move independently through the carrier's bend radius.

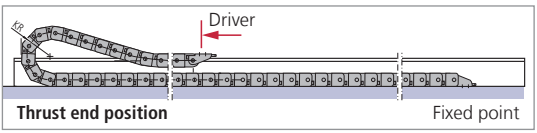
How to do it:

- Always allow sufficient clearance between the dividers and within the cable carrier cavity area.
- Insert cables tension-free.
- Never tie-wrap or fasten cables onto the carrier links or cross bars!



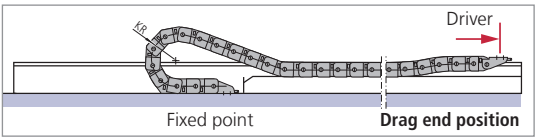
Strain relief at the driven end of the carrier

After positioning the driven end (moving end) in the **retracted position** the cables are strain-relieved at the moving end.



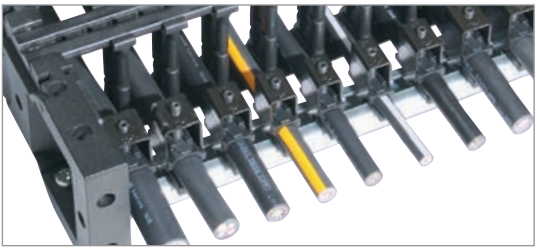
Correct cable length inside the carrier

After repositioning the driven end (moving end) in the carrier's **extended position** the cables are checked for tension-free length in the carrier loop and if necessary, pushed further into the carrier.



Strain relief at the fixed end of the carrier

At this tension-free „installation length", the cables are then strain-relieved at the carrier's fixed point.



Subject to change.

TRAXLINE cable scout

Cable dimensioning for your cable carrier application

Inquiring party:
Company: _____
Contact person: _____
Telephone: _____
E-mail: _____
ZIP code: _____ Town: _____
Street address: _____

Cable application:
Is the cable being used in a cable carrier?
☐ yes ☐ no

Number of cables:
_____ **please attach cable list**

Carrier application:
Machine type: _____
Carrier type: _____
Free installation height H (mm): _____ Bend radius of carrier KR (mm): _____

Operational parameters:
Travel length L_S (m): _____ Speed v (m/s): _____
Acceleration a (m/s²): _____ approx. number of cycles (per year): _____

Cable design:
No. of cores: _____ Core cross-section: _____

Shielding:
☐ unshielded ☐ shielded ☐ doubled shielded

Purchases & delivery:
approx. requirements per yea (m): _____ Lot size (m): _____
☐ coil ☐ reel
Desired date for 1st delivery: _____ Length of 1st delivery: _____
I would like a sample of a similar TRAXLINE part no.: _____

Core identification:
☐ numbers + 1x gn/ye ☐ colour acc. to DIN 47100

Voltage:
Rated voltage U (V): _____

Capacitance:
core/core c (nF/m): _____ core/shield c (nF/m): _____

Operating conditions:
Operating temperature range: T_{min} (°C): _____ T_{max} (°C): _____
Ambient conditions:
☐ indoor application ☐ outdoor application
Chemical resistance: _____
UV radiation: _____
other radiation: _____

Approvals:
☐ UL ☐ UL/CSA other _____

Other:
_____
_____
_____

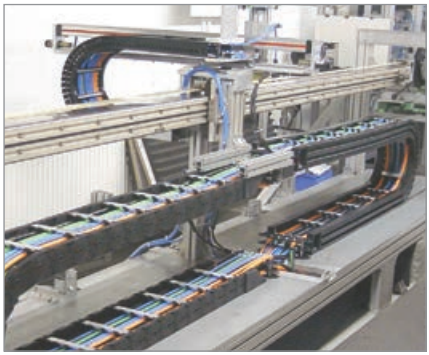
Subject to change.

Application examples

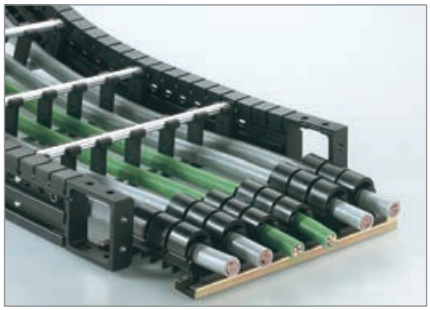
- TOTALTRAX – the system solution for time-saving final assembly and short rework

- Complete systems with a total weight of up to 10+ tons
- Customer inspection, if desired, at the factory
- Special packaging and transportation logistics for delivery to the construction site
- Up to 50 % time saving during final assembly

- MC-crane cable with cable package, SZL strain relief driven-end plate and sea-watertight AL-guide channel for worldwide use in port cranes



- High-speed test stand
- Durability tests exceeding 25 million cycles



- Optimized SZL-strain relief for long cable life – safe, compact, easy-to-assemble

- 125 m travel length: carrier fully harnessed with **TRAXLINE** Series 700

Subject to change.

Questions about cable carrier cables? Fon: +49 2762 4003-0

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Questions about cable carrier cables? Fon: +49 2762 4003-0

Definitions

Oil-resistant
The term „oil-resistant" means the chemical resistance of cables that are used in an environment where they are continuously exposed to oil or lubricants. Tests are carried out using approx. 55 oils and lubricants.

UV-resistant
The UV-resistance describes the resistance of the cable jacket to premature aging of the material due to sunlight. In addition, TRAXLINE cables are also weather-resistant.

CFC-free
Chlorofluorocarbons
Due to the very detrimental effects of CFCs on the environment, and in particular on the ozone layer, we do not use them either in the manufacture of our products or in the products themselves.

Flame-retardant
Flame-retardant describes the fire behavior of cables tested according to IEC 60331. Flame retardant is a characteristic of the materials used in the insulation according to which it only catches fire after a delay when it is subjected to an open flame, and extinguishes itself when the flame is removed.

Silicone-free
The silicones used in cables are a very serious problem when applying paint, because if a surface contains silicone, paints and lacquers will not adhere to it properly. That is why all of our cables are generally silicone-free.

RoHS-compliant
Restriction of the use of certain hazardous substances in electrical and electronic equipment.
In particular, the use of lead, mercury and cadmium should be strictly limited.

Halogen-free
No materials such as chlorine, fluorine, iodine or bromide are used in our cables, because in the event of a fire corrosive gases would form hydrochloric acid, hydrofluoric acid, etc., thus greatly extending the scope of damage.

Profibus
This field bus was developed in Germany in 1989, and today is the most widespread bus of its type worldwide. It is used equally extensively in both production automation and process automation. We make a distinction between two types:

Profibus DP (Decentralized Periphery)
Sensors and actuators are controlled by a central controller. Data rates of up to 12 Mbit/s are possible.

Profibus PA (Process Automation)
Is used in process engineering and process technology. The data transfer rate is only 31.25 kbit/s.

Interbus
Is a field bus developed by the German company Phoenix Contact. The Interbus bus system is widely used in the automotive industry. The standard data transfer rate is 500 kBit/s.

Subject to change.

Definitions

CAN-BUS

Is a bus system developed by Bosch. The CAN bus was developed for use in vehicles. Its data transfer capabilities are thus very large over short distances, but decrease greatly as the distance increases. The data transfer rate up to 40 m is 1 Mbit/s. Variants of the CAN bus:

CAN open – Primarily used in Europe.
DeviceNet – Primarily used in the USA. Developed by Allen-Bradley.

USB

Universal Serial Bus
A serial bus developed by Intel that connects a PC with external devices. USB 2.0 achieves a data rate of 480 Mbit/s, which gives it an advantage over the industrial bus systems, but because it transfers data only in packets, it is less suitable for time-critical applications.

FOC

Fiber-optic cables
Electric signals are converted by an optocoupler into light pulses, transferred via the fiber-optic cable and then converted back. The transfer rate is larger than for all comparable copper cables, and furthermore the cables are not subject to electromagnetic influences, and thus particularly suitable for industrial environments. The data transfer rate at 1300 nm/km is up to 10 Gbit/s. The fiber-optic cables can be made of plastic (POF) or glass.

Cable carrier suitability

Cable carrier suitability designates the characteristic of a cable to be moved continuously in a cable carrier. This characteristic is present if the cable can withstand more than one million motion cycles. All of the cables offered in our catalog are cable carrier suitable.

Servo cable

Servo cables designate cables that, in addition to the electric power required for the drive, can also transmit the signals generated by the servo controller. These measurements are made by means of an encoder such as a resolver, an incremental encoder or an absolute encoder.

Center element

The center element serves to fill the cavity that is present with an extruded jacket. This center element must be able to hold the stranded assembly securely in position. It is one of the essential elements of our TRAXLINE cables.

Rated voltage

The rated voltage designates the working range of the cable as defined by standards. The permissible voltage may differ depending on the approval.

Insulation resistance

The insulating materials used oppose the flow of electric current with a very high resistance. This is inversely proportional to the cable length. The insulation resistance is a measure of the quality of the insulating material between two conductors or between a conductor and a shield.

Temperature range

The temperature range designates the range in which the cables can be moved in a cable carrier. It is dependent on the insulating materials employed in the cable. Use outside of the specified temperature spectrum will result in significant damage to the cable.

Subject to change.

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Questions about cable carrier cables? Fon: +49 2762 4003-0

Definitions

ICC

Integrated Colour Code
Part-extruded colour code based on the DESINA colour code. Cable types are easy to distinguish, thus greater safety and shorter assembly times.

TOTALTRAX

Pre-assembled cable carrier systems.
Ready-to-connect cable carrier complete systems with system guarantee.

Approvals

Our cables feature extensive approvals: here are a few examples of the possibilities for KABELSCHLEPP TRAXLINE cables:

UL – Underwriters Labotories
Required approval for use in the US market.

CSA – Canadian Standarts Association
Required approval for use in the Canadian market.

CE – Conformité Européenne
The cable conforms with the EU directives for use and sales.

Technical plastics

Insulating materials
The insulating materials used in our TRAXLINE cables can be subdivided into the following groups:

PVC – polyvinyl chloride
The material most often used in the cable industry. Plasticizers, stabilizers, masterbatches and other additives are added to form an individual mix, i.e. KS-PVC. Operating temperature: from – 5 °C to + 80 °C

PUR – polyurethane
Besides a significantly higher notch toughness, polyurethane is also more resistant to chemicals. Its very good flexibility at low temperature makes this material excellent for outdoor applications. Operating temperature: from – 30 °C to + 90 °C

PP – polypropylene
Because of its very high dielectric strength, polypropylene is a very good insulating material. In combination with PUR insulation it is thus possible to produce cables that are excellent for use in cable carriers. Operating temperature: from – 30 °C to + 90 °C

CAT cables

Unlike with normal data cables, with a Cat cable the transfer parameters are always specified, and therefore the damping and frequency of transfer are clearly defined.

CAT.5

Frequency of transfer:	100 MHz
Damping:	22 dB
NEXT (min. at 100 MHz):	32.3 dB

CAT.5E

Frequency of transfer:	100 MHz
Damping:	22 dB
NEXT (min. at 100 MHz):	35.3 dB

CAT.6

Frequency of transfer:	250 MHz
Damping:	19.8 dB
NEXT (min. at 100 MHz):	44.3 dB

Ethernet

Ethernet is a defined standard for data transfer in networks (LANs). At present the transfer rates are up to 100 Mbit/s.

Subject to change.

Overview as per part numbers

part no.	page	part no.	page	part no.	page	part no.	page	part no.	page	part no.	page
45200	25	45511	29	45641	43	45791	35	47222	27	47724	15
45201	25	45514	29	45642	43	45801	35	47223	27	47727	15
45202	25	45516	29	45643	43	45802	35	47225	27	48040	17
45203	25	45520	29	45646	43	45803	35	47242	27	48041	17
45205	25	45521	29	45647	43	45804	35	47245	27	48042	17
45209	25	45522	29	45649	43	45805	35	47252	27	48043	17
45211	25	45523	29	45650	43	45806	35	47262	27	48044	17
45213	25	45525	29	45651	43	45807	35	47272	27	48045	17
45214	25	45529	29	45652	43	45808	35	47273	27	48046	17
45221	25	45531	29	45654	43	45809	35	47282	27	48047	17
45222	25	45534	29	45661	45	45810	35	47292	27	48048	17
45223	25	45536	29	45662	45	45811	35	47351	13	48049	17
45225	25	45540	29	45664	45	45812	35	47352	13	48050	17
45229	25	45541	29	45665	43	45814	37	47354	13	48051	17
45231	25	45542	29	45668	45	45815	37	47356	13	48052	17
45234	25	45543	29	45669	45	45816	37	47364	13	48053	17
45242	25	45544	29	45670	49	45817	37	47367	13	48054	17
45243	25	45551	29	45672	49	45818	37	47372	13	48055	17
45245	25	45552	29	45676	53	45819	37	47373	13	48056	17
45252	25	45553	29	45679	45	45820	37	47376	13	48057	17
45253	25	45555	29	45680	57	45821	37	47380	13	48058	17
45254	25	45560	29	45683	57	45822	37	47384	13	48059	17
45262	25	45562	29	45684	55	45823	37	47387	13	48060	17
45263	25	45563	29	45685	57	45824	37	47393	13	48070	19
45272	25	45565	29	45686	51	45825	37	47396	13	48071	19
45282	25	45566	29	45687	51	45826	37	47400	13	48072	19
45292	25	45568	29	45690	47	45827	37	47404	13	48073	19
45302	25	45569	29	45691	57	45828	37	47407	13	48074	19
45312	25	45570	29	45693	55	45829	37	47413	13	48075	19
45355	41	45571	29	45694	57	46090	61	47414	13	48076	19
45356	41	45572	29	45695	57	46100	61	47416	13	48077	19
45357	41	45573	29	45696	59	46104	61	47420	13	48078	19
45358	41	45574	29	45697	59	46105	61	47424	13	48079	19
45359	41	45575	31	45698	59	46110	61	47427	13	48080	19
45360	41	45576	31	45699	59	46115	61	47433	13	48081	19
45361	41	45577	31	45701	23	46120	61	47580	33	48082	19
45372	41	45578	31	45702	23	46125	61	47581	33	48083	19
45373	41	45579	31	45703	23	46130	61	47582	33	48084	19
45374	41	45580	31	45705	23	46135	61	47583	33	48085	19
45376	41	45581	31	45709	23	46150	63	47584	33	48086	19
45377	41	45582	31	45712	23	46155	63	47585	33	48110	17
45380	41	45583	31	45715	23	46160	63	47586	33	48111	17
45382	41	45584	31	45721	23	46165	63	47587	33	48112	17
45391	21	45585	31	45722	23	46170	63	47588	33	48113	17
45392	21	45586	31	45723	23	46175	63	47589	33	48115	17
45393	21	45587	31	45725	23	46200	63	47590	33	48119	17
45396	21	45588	31	45729	23	46205	63	47651	15	48121	17
45400	21	45589	31	45732	23	46210	63	47652	15	48124	17
45401	21	45590	31	45735	23	46215	63	47653	15	48125	17
45402	21	45591	31	45741	23	46220	63	47654	15	48126	17
45412	21	45592	31	45742	23	46225	63	47656	15	48128	17
45421	21	45593	31	45743	23	46230	63	47660	15	48373	17
45422	21	45594	31	45745	23	46235	63	47664	15	48580	17
45423	21	45595	31	45749	23	46240	63	47667	15	48623	39
45425	21	45596	31	45752	23	46250	63	47672	15	48627	39
45429	21	45597	31	45755	23	46255	63	47673	15	48638	39
45431	21	45598	31	45760	35	46260	63	47674	15	48647	39
45434	21	45622	43	45761	35	46300	63	47676	15	48648	39
45436	21	45623	43	45762	35	46305	63	47680	15	48649	39
45441	21	45624	43	45763	35	46315	63	47684	15	48664	19
45442	21	45625	43	45765	35	46323	63	47687	15	48666	19
45443	21	45626	43	45769	35	46330	63	47692	15	48668	19
45445	21	45627	43	45772	35	46345	63	47693	15	48670	19
45446	21	45628	43	45775	35	46350	63	47694	15	48674	19
45449	21	45629	43	45777	35	46355	63	47696	15	48678	19
45451	21	45630	43	45778	35	46360	63	47700	15	48679	19
45454	21	45632	43	45780	35	46365	63	47704	15	48680	19
45500	29	45634	43	45781	35	46400	61	47707	15	48682	19
45501	29	45635	43	45783	35	46410	61	47712	15		
45502	29	45636	43	45785	35	46412	61	47713	15		
45503	29	45637	43	45787	35	46415	61	47714	15		
45505	29	45638	43	45789	35	46505	61	47716	15		
45509	29	45639	43	45790	35	47202	27	47720	15		

Subject to change.

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Questions about cable carrier cables? Fon: +49 2762 4003-0

Innovation in Motion

TSUBAKI

KABELSCHLEPP

CABLE CARRIER SYSTEMS
Cable carriers made of steel and plastic
QUANTUM cable and hose carrier system
PROTUM cable and hose carrier system
ROBOTRAX cable and hose carrier system

TRAXLINE CABLES FOR MOTION
Continuous bending hi-flex cables for cable carriers
TOTALTRAX complete turn-key carrier systems
Pre-assembled cables

GUIDEWAY PROTECTION SYSTEMS
Telescopic covers
Link apron covers
Way wipers
Conical spring covers
Bellows
Protective devices

CONVEYOR SYSTEMS
Hinged belt conveyors
Scraper conveyors
Belt conveyors

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