

Cable-Set



Standard Cable-Set



**Product
Manual**

UL: 12-01



Product Manual - Standard Plugs

UL: 12-02



Product Manual - Standard Motor-, Systems-, Signal cables

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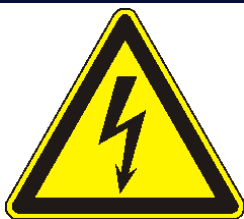
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Thank you for your confidence in choosing our products.

These operating instructions are intended to provide an overview of the technical data and features of our products.

Please read the operating instructions completely before operating the product.

Should you have any questions, please contact your nearest service representative.



Improper application of this product in combination with dangerous high voltage can lead to serious injury or death.



Damage can also occur to motors or other products. Therefore, we request that you strictly observe our safety and installation instructions.

Safety Precautions

We assume that as an expert, you are familiar with and will observe all of the relevant safety regulations, especially in accordance with VDE 0100, VDE 0113, VDE 0160, EN 50178, the accident prevention regulations of the employer's liability insurance company and the DIN regulations.

Additionally, it is imperative that all relevant European Union Safety Directives be observed.

Depending on the type and location of the installation, additional regulations, e.g. UL, DIN, must also be fully observed.

If our products are operated in connection with components from other manufacturers, their operating instructions are also subject to be strictly observed.

1.1 Description

All cable-sets are optimally configured for our line of servo products.

The characteristics of the cables include: low adhesion, halogen free and flame-retardant, according to the requirements of DIN VDE 0482, oil resistant, according to DIN VDE 0473 section 811 and as resistant as possible to grease, coolants and lubricants.

The utilization of the cables does not limit itself only to rigid drives, but can also be employed in drag chain applications and for motion drive systems.

Note that all equipment performance measurements such as CE and EMC were conducted employing our cables.

All cable-sets are printed with:

Outer Sheath Color	In Accordance to Standard DESINA	Printed with:			
		Cable Type	Company Name	Manufacturer Code	Cable Type
blue	-	X...X	X...X	XX	XX
green	X	X...X	X...X	XX	XX
violet	X	X...X	X...X	XX	XX
orange	X	X...X	X...X	XX	XX

2.1 Motor Cable Set Standard

- Model Code

Standard							
Marking	a	b	c	d	e	f	g
Type:	KK	Mx	XXXX	X/X	.XXX	- XX.X	/ X

Marking	Description	
a	KK	= Cable Set
b	M	= Motor
	MB	= Motor and Brake - connection
c	Motor Code:	
	GM2n	= AC G, AC M2n, AC MHx...
	RPM	= AC R, AC Mn
d	Motor - Size	
	0/2	= Size 0 up to 2
	3	= Size 3
	4	= Size 4
e	Drive code	
	.631	= for Servo Drive 631
	.638	= for Servo Drive 638
	.K	= for Compact
f	.R	= for Rack
	Standard cable length (without plugs)	
	- 02.0	= 2,0 m cable length
	- 05.0	= 5,0 m cable length
g	- 10.0	= 10,0 m cable length
	Outer sheath color code	
	/ B	= Blue (Standard - Design)

● Motor Cable Set Low cost



Cable- data: KMB BG0/2-B-LC

- Sheath color Blue
- Core design (4*1,5)+S
- Bending radius minimum (stationary) 85mm
- (permanent cyclic bend) 131mm
- Temperature - range (stationary) -30°C...+70°C
- (permanent cyclic bend) -

Motor-mating plug data: S MB GM2nRn 0/3-C

- Degree of protection (stuck) IP67
- Temperature - range -40°C...+130°C

Motor side with plug / Drive side core cable ends

Cable application for:

Model code	Item number	Length	Motor	Size	Drive	Comment
KK M GM2n 0/2.631 - 02.0 - LC	MK.1032.0020	2m	AC G,	01	631	without brake
KK M GM2n 0/2.631 - 05.0 - LC	MK.1032.0050	5m	AC M2n	0		
KK M GM2n 0/2.631 - 10.0 - LC	MK.1032.0100	10m				
KK M GM2n 0/2.638 - 02.0 - LC	MK.1034.0020	2m	AC G,	01	638	without brake
KK M GM2n 0/2.638 - 05.0 - LC	MK.1034.0050	5m	AC M2n	0		
KK M GM2n 0/2.638 - 10.0 - LC	MK.1034.0100	10m				

● Motor Cable Set standard (motor size 0 - 2)



Cable- data: KMB BG0/2-B

- Sheath color Blue
- Core design (4*1,5+(2*0,5)+S)+S
- Bending radius minimum (stationary) 80mm
- (permanent cyclic bend) 127mm
- Temperature - range (stationary) -40°C...+80°C
- (permanent cyclic bend) -25°C...+80°C

Motor-mating plug data: S MB GM2nRn 0/3-C

- Degree of protection (stuck) IP67
- Temperature-range -40°C...+130°C

Motor side with plug / Drive side core cable ends

Cable application for:

Model code	Item number	Length	Motor	Size	Drive	Comment
KK MB GM2nRn 0/2.631 - 02.0 - B	MK.1016.0020	2m	AC G	01	631	
KK MB GM2nRn 0/2.631 - 05.0 - B	MK.1016.0050	5m	AC M2n	0 - 2		
KK MB GM2nRn 0/2.631 - 10.0 - B	MK.1016.0100	10m				
KK MB GM2nRn 0/2.K - 02.0 / B	MK.6400.0020	2m	AC G,	01	635	
KK MB GM2nRn 0/2.K - 05.0 / B	MK.6400.0050	5m	AC M2n	0 - 2	637x	
KK MB GM2nRn 0/2.K - 10.0 / B	MK.6400.0100	10m	AC MHx	1 - 2	(Compact)	
KK MB GM2n 0/2.638 - 02.0 / B	MK.6800.0020	2m	AC G,	01	638	
KK MB GM2n 0/2.638 - 05.0 / B	MK.6800.0050	5m	AC M2n	0 - 2		
KK MB GM2n 0/2.638 - 10.0 / B	MK.6800.0100	10m	AC MHx	1 - 2		

Motor side with plug / Rack side Faston - plug

Cable application for:

Model code	Item number	Length	Motor	Size	Drive	Comment
KK MB GM2nRn 0/2.R - 02.0 / B	MK.0400.0020	2m	AC G,	01	635	
KK MB GM2nRn 0/2.R - 05.0 / B	MK.0400.0050	5m	AC M2n,	0 - 2	637x	
KK MB GM2nRn 0/2.R - 10.0 / B	MK.0400.0100	10m	AC MHx	1 - 2	(plug-in)	

● **Motor Cable Set standard (motor size 3)**



Cable- data:		KMB BG3-B
➤ Sheath color		Blue
➤ Core design		(4*2,5+(2*1,0)+S)+S
➤ Bending radius minimum (stationary)		106mm
➤ Bending radius minimum (permanent cyclic bend)		163mm
➤ Temperature range (stationary)		-40°C...+80°C
➤ Temperature range (permanent cyclic bend)		-25°C...+80°C

Motor-mating plug data:		S MB GM2nRn 0/3-C
➤ Degree of protection (stuck)		IP67
➤ Temperature - range		-40°C...+130°C

Motor side with plug / Drive side core cable ends

Cable application for:

Model code	Item number	Length	Motor	Size	Drive	Comment
KK MB M2nRn 3.K - 02.0 / B	MK.6401.0020	2m	AC M2n	3	635	
KK MB M2nRn 3.K - 05.0 / B	MK.6401.0050	5m	AC MHx	3	637x	
KK MB M2nRn 3.K - 10.0 / B	MK.6401.0100	10m			(Compact)	

Motor side with plug / Rack side Faston - plug

Cable application for:

Model code	Item number	Length	Motor	Size	Drive	Comment
KK MB GM2nRn 3.R - 02.0 / B	MK.0401.0020	2m	AC M2n	3	635	
KK MB GM2nRn 3.R - 05.0 / B	MK.0401.0050	5m	AC MHx	3	637x	
KK MB GM2nRn 3.R - 10.0 / B	MK.0401.0100	10m			(Plug-in)	

● **Motor Cable Set standard (motor size 4)**



Cable- data:		KMB BG4-B
➤ Sheath color		Blue
➤ Core design		(4*6,0+(2*1,0)+S)+S 125mm
➤ Bending radius minimum (stationary)		199mm
➤ Bending radius minimum (permanent cyclic bend)		-50°C...+90°C
➤ Temperature range (stationary)		-30°C...+80°C
➤ Temperature range (permanent cyclic bend)		

Motor-mating plug data:		SMB R BG 4
➤ Degree of protection (stuck)		IP67
➤ Temperature - range		-40°C...+130°C

Motor side with plug / Drive side core cable ends

Cable application for:

Model code	Item number	Length	Motor	Size	Drive	Comment
KK MB R4.K - 02.0 / B	MK.6304.0020	2m	AC R	4	635	
KK MB R4.K - 05.0 / B	MK.6304.0050	5m			637x	
KK MB R4.K - 10.0 / B	MK.6304.0100	10m			(Compact)	

Motor side with plug / Rack side Faston - plug

Cable application for:

Model code	Item number	Length	Motor	Size	Drive	Comment
KK MB R4.R - 02.0 / B	MK.6304.4020	2m	AC R	4	635	
KK MB R4.R - 05.0 / B	MK.6304.4050	5m			637x	
KK MB R4.R - 10.0 / B	MK.6304.4100	10m			(Plug-in)	

2.2 Motor Cable Set UL – design

- Model Code

Standard								
Marking	a	b	c	d	e	f	g	h
Type:	KK	-M	-XX	-XXX	-XXX	-X	-X	-XXX.X

Marking	Description		
a	KK	=	Cable Set
b	-M	=	Motor
c	-NX	=	Motor code: NX – Motor series
	-EX	=	ÊX – Motor series
d	-02M	=	Motor - Size: Size NX1 at NX2 - Molex plug design
	-06S	=	Size NX2 at NX6 plug design
	-06P	=	Size EX3 at EX6 with ATEX-Metric-Gland
	-08S	=	Size NX8 plug design
	-08P	=	Size EX8 with ATEX-Metric-Gland
	-08K	=	Size NX8 with terminal box
e	-631	=	Drive Type: for Servo Drive 631
	-638	=	for Servo Drive 638
	-630	=	for Servo Drive 635, 637, 637+, 637f
	-890	=	for Servo Drive 890
f	-0	=	Drive design: for Servo Drive 631
	-K	=	for Compact
	-R	=	for Rack
g	-R	=	Prefabricated side: Drive side
	-M	=	Motor side
	-B	=	Both ends
h		=	Cable length: (without plug)
	-002.0	=	2,0 m Cable length
	-005.0	=	5,0 m Cable length
	-010.0	=	10,0 m Cable length

● **Motor Cable Set UL - design (Motor size 2 - 6)**



Cable- data:		KMB BG0/2-O-ULCSA
➤ Sheath color		Orange
➤ Core design		(4x1,5+((2x0,75+S)+(2x0,34))+S
➤ Bending radius minimum (stationary)		59mm
➤ (permanent cyclic bend)		128mm
➤ Temperature range (stationary)		-50°C...+80°C
➤ (permanent cyclic bend)		-40°C...+80°C
Motor-mating plug data:		S MB GM2nRn 0/3-C
➤ Degree of protection (stuck)		IP67
➤ Temperature - range		-40°C...+130°C

Motor side with plug / Drive side core cable ends

Cable application for:

Model code	Item number	Length	Motor	Size	Drive	Comment
KK-M-NX-06S-631-O-B-002.0	MK.1029.0020	2m	NX	2 - 6	631	
KK-M-NX-06S-631-O-B-005.0	MK.1029.0050	5m				
KK-M-NX-06S-631-O-B-010.0	MK.1029.0100	10m				
KK-M-NX-06S-630-K-B-002.0	MK.6920.0020	2m	NX	2 - 6	630 (Compact)	
KK-M-NX-06S-630-K-B-005.0	MK.6920.0050	5m				
KK-M-NX-06S-630-K-B-010.0	MK.6920.0100	10m				
KK-M-NX-06S-638-K-B-002.0	MK.6810.0020	2m	NX	2 - 6	638	
KK-M-NX-06S-638-K-B-005.0	MK.6810.0050	5m				
KK-M-NX-06S-638-K-B-010.0	MK.6810.0100	10m				
KK-M-NX-06S-890-K-B-002.0	MK.6980.0020	2m	NX	2 - 6	890	
KK-M-NX-06S-890-K-B-005.0	MK.6980.0050	5m				
KK-M-NX-06S-890-K-B-010.0	MK.6980.0100	10m				

Motor side with plug / Rack side Faston - plug

Cable application for:

Model code	Item number	Length	Motor	Size	Drive	Comment
KK-M-NX-06S-630-R-B-002.0	MK.6921.0020	2m	NX	2 - 6	630 (Plug-in)	
KK-M-NX-06S-630-R-B-005.0	MK.6921.0050	5m				
KK-M-NX-06S-630-R-B-010.0	MK.6921.0100	10m				

● **Motor Cable Set UL - design (Motor size 8)**



Cable- data:		KMB BG3-O-ULCSA
➤ Sheath color		Orange
➤ Core design		(4x2,5+((2x1,0+S)+(2x0,34))+S
➤ Bending radius minimum (stationary)		67mm
➤ Bending radius minimum (permanent cyclic bend)		108mm
➤ Temperature range (stationary)		-50°C...+80°C
➤ Temperature range (permanent cyclic bend)		-40°C...+80°C
Motor-mating plug data:		S MB GM2nRn 0/3-C
➤ Degree of protection (stuck)		IP67
➤ Temperature - range		-40°C...+130°C

Motor side with plug / Drive side core cable ends

Cable application for:

Model code	Item number	Length	Motor	Size	Drive	Comment
KK-M-NX-08S-630-K-B-002.0	MK.6930.0020	2m	NX	8	630 (Compact)	
KK-M-NX-08S-630-K-B-005.0	MK.6930.0050	5m				
KK-M-NX-08S-630-K-B-010.0	MK.6930.0100	10m				
KK-M-NX-08S-890-K-B-002.0	MK.6990.0020	2m	NX	8	890	
KK-M-NX-08S-890-K-B-005.0	MK.6990.0050	5m				
KK-M-NX-08S-890-K-B-010.0	MK.6990.0100	10m				

Motor side with plug / Rack side Faston - plug

Cable application for:

Model code	Item number	Length	Motor	Size	Drive	Comment
KK-M-NX-08S-630-R-B-002.0	MK.6921.0020	2m	NX	8	630 (Plug-in)	
KK-M-NX-08S-630-R-B-005.0	MK.6921.0050	5m				
KK-M-NX-08S-630-R-B-010.0	MK.6921.0100	10m				



- **ATEX – Motor Cable Set UL - design (Motor size 8)**



Cable- data:

KMB BG3-O-ULCSA

- | | |
|--|---------------------------------|
| ➤ Sheath color | Orange |
| ➤ Core design | (4x2,5+((2x0,75+S)+(2x0,34))+S) |
| ➤ Bending radius minimum (stationary)
(permanent cyclic bend) | 59mm
128mm |
| ➤ Temperature range (stationary)
(permanent cyclic bend) | -50°C...+80°C
-40°C...+80°C |

Motor; ATEX-Metric-Gland

Motor side and Drive side with core cable ends

Cable application for:

Model code	Item number	Length	Motor	Size	Drive	Comment
KK-M-EX-08P-630-K-B-002.0	MK.6914.0020	2m	EX	8	630 (Compact)	
KK-M-EX-08P-630-K-B-005.0	MK.6914.0050	5m				
KK-M-EX-08P-630-K-B-010.0	MK.6914.0100	10m				
KK-M-EX-08P-638-K-B-002.0	MK.6821.0020	2m	EX	8	638	
KK-M-EX-08P-638-K-B-005.0	MK.6821.0050	5m				
KK-M-EX-08P-638-K-B-010.0	MK.6821.0100	10m				
KK-M-EX-08P-890-K-B-002.0	MK.6984.0020	2m	EX	8	890	
KK-M-EX-08P-890-K-B-005.0	MK.6984.0050	5m				
KK-M-EX-08P-890-K-B-010.0	MK.6984.0100	10m				

Motor side core cable ends / Rack side Faston - plug

Cable application for:

Model code	Item number	Length	Motor	Size	Drive	Comment
KK-M-EX-08P-630-R-B-002.0	MK.6916.0020	2m	EX	8	630 (Plug-in)	
KK-M-EX-08P-630-R-B-005.0	MK.6916.0050	5m				
KK-M-EX-08P-630-R-B-010.0	MK.6916.0100	10m				

3.1 Feedback Cable Set standard

- Model Code

Standard					
Marking	a	b	c	d	e
Type:	KK	XX	XXXXXX	- XX.X	/ X

Marking	Description	
a	KK	= Cable Set
b	RT H	= Feedback system = Resolver + Thermo = HIPERFACE®
c	GMR MH	Motor code: = AC G, AC Mn, AC M2n, AC R = AC MHx
d	- 02.0 - 05.0 - 10.0	= Standard cable length (without plug)) = 2,0 m Cable length = 5,0 m Cable length = 10,0 m Cable length
e	/ B	Outer sheath color code = Blue (standard - design)

● Resolver Cable Set Low cost



Cable- data:	KIR-B-LC
➤ Sheath color	Blue
➤ Core design	$(3 \times (2 \times 0,14) + S + (2 \times 0,14)) + S$
➤ Bending radius minimum (stationary)	56mm
➤ Bending radius minimum (permanent cyclic bend)	82mm
➤ Temperature range (stationary)	-30°C...70°C
➤ Temperature range (permanent cyclic bend)	-
SUB - D 09 plug data:	SUB D - 09 S/M
➤ Connector	9 pole male
➤ Hood	Metallized plastic
Motor-mating plug data:	SIR
➤ Degree of protection (stuck)	IP67
➤ Temperature - range	-40°C...+130°C

Motor side with plug / Drive side SUB – D 09 S/M

Cable application for:

Model code	Item number	Length	Motor	Size	Drive	Comment
KK RT GMR - 02.0 / B - LC	RK.6310.0020	2m	AC G	all	630	outer sheath
KK RT GMR - 05.0 / B - LC	RK.6310.0050	5m	AC M2n		(all)	PVC
KK RT GMR - 10.0 / B - LC	RK.6310.0100	10m	AC R			

● Resolver Cable Set / HIPERFACE® - Cable Set



Cable- data:	KIR-B
➤ Sheath color	Blue
➤ Core design	$(3 \times (2 \times 0,14) + S + (2 \times 0,14)) + S$
➤ Bending radius minimum (stationary)	54mm
➤ Bending radius minimum (permanent cyclic bend)	86mm
➤ Temperature range (stationary)	-50°C...+90°C
➤ Temperature range (permanent cyclic bend)	-30°C...+80°C
SUB - D 09 Stecker Daten:	SUB D - 09 S/M
➤ Connector	9 pole male
➤ Hood	Metallized plastic
Motor-mating plug data:	SIR
➤ Degree of protection (stuck)	IP67
➤ Temperature - range	-40°C...+130°C

Motor side with plug / Drive side SUB – D 09 S/M

Cable application for:

Model code	Item number	Length	Motor	Size	Drive	Comment
KK RT GMR - 02.0 / B	RK.6300.0020	2m	AC G	all	630	outer sheath
KK RT GMR - 05.0 / B	RK.6300.0050	5m	AC M2n		(all)	PUR
KK RT GMR - 10.0 / B	RK.6300.0100	10m	AC R			
KK H MH - 02.0 / B	RK.8630.0020	2m	AC MHx	all	637+	outer sheath
KK H MH - 05.0 / B	RK.8630.0050	5m			637f	PUR
KK H MH - 10.0 / B	RK.8630.0100	10m			638	

3.2 Feedback Cable Set UL - design

- Model Code

Standard							
Kennung	a	b	c	d	e	f	g
Typ:	KK	-XX	-XX	-XXX	-XXX	-X	-XXX.X

Kennung	Beschreibung	
a	KK	= Cable Set
b	-E1 -RE -HF	= Feedback Type: EnDat® Resolver HIPERFACE®
c	-NX -EX	= Motor code: NX – Motor series EX – Motor series
d	-0AS -02M -06P	= Motor - Size: All Size with plugs Size NX1 at NX2 - Molex plug design Size EX3 at EX8 with ATEX-Metric-Gland
e	-630 -890	= Drive Type: for Servo Drive 631, 635, 637, 637+, 637f, 638 for Servo Drive 890
f	-R -M -B	= Prefabricated side Drive side Motor side Both ends
g	-002.0 -005.0 -010.0	= Cable length: (without plug) 2,0m Cable length 5,0m Cable length 10,0m Cable length

● Resolver Cable Set / HIPERFACE® Cable set UL - design



Cable- data:	KIR-G-UL
➤ Sheath color	Green
➤ Core design	(3*(2*0,25)+S+(2*0,5))+S
➤ Bending radius minimum (stationary)	66mm
(permanent cyclic bend)	105mm
➤ Temperature range (stationary)	-50°C...+90°C
(permanent cyclic bend)	-30°C...+80°C

SUB - D 09 or D15 plug data:	
➤ Connector	9pole or 15pole male
➤ Hood	Metal

Motor-mating plug data:	SIR
➤ Degree of protection (stuck)	IP67
➤ Temperature - range	-40°C...+130°C

Motor side with plug / Drive side SUB – D 09 S/V

Cable application for:

Model code	Item number	Length	Motor	Size	Drive	Comment
KK-RE-NX-0AS-630-B-002.0 / G	RK.6920.0020	2m	NX	all with plug-design	630	
KK-RE-NX-0AS-630-B-005.0 / G	RK.6920.0050	5m				
KK-RE-NX-0AS-630-B-010.0 / G	RK.6920.0100	10m				
KK-HF-NX-0AS-630-B-002.0 / G	RK.8930.0020	2m	NX with HIPERFACE	alle	637+ 637f 638	
KK-HF-NX-0AS-630-B-005.0 / G	RK.8930.0050	5m				
KK-HF-NX-0AS-630-B-010.0 / G	RK.8930.0100	10m				

Motor side core cable ends (ATEX-Metric-Gland) / Drive side SUB – D 09 S/V

Cable application for:

Model code	Item number	Length	Motor	Size	Drive	Comment
KK-RE-EX-06P-630-B-002.0	RK.6960.0020	2m	EX	3 - 8	630	
KK-RE-EX-06P-630-B-005.0	RK.6960.0050	5m				
KK-RE-EX-06P-630-B-010.0	RK.6960.0100	10m				

Motor side with plug / Drive side SUB – D 15 S/V

Cable application for:

Model code	Item number	Length	Motor	Size	Drive	Comment
KK-RE-NX-0AS-890-B-002.0	RK.6980.0020	2m	NX	alle	890	
KK-RE-NX-0AS-890-B-005.0	RK.6980.0050	5m				
KK-RE-NX-0AS-890-B-010.0	RK.6980.0020	10m				

4.1 Standard Communication Cable Set

- Model Code

Marking	Standard				
	a	b	c	d	e
Typ:	Kn	XX	XXXXXXXX	- XX.X	

Marking	Description	
a	Kn	= Cable Set
b	PC	= PC - connecting side
c	637+/631 /D	= Drive – connecting side = Drive 631 / 637+ / 637f / 638 = Drive 635, 637
d	- 02.0 - 03.0 - 05.0	= Cable length (without plug) = 2m Cable length = 3m Cable length = 5m Cable length
e		= Color code = Black (Standard - design)

- Communication Cable Set (PC / Servo Drive 631/637+/637f/638)


Cable- data:

- Sheath color Black
- Core design (ribbon cable) 4*0,14

SUB - D 09 plug data:

- Connector 9 pole female
- Hood Metallized plastic

RJ 10 Stecker Daten:

- Connector 4-pole modular Jack

PC - side SUB – D 09 B/M / Drive Side RJ 10

Cable application for:

Model code	Item number	Length	Servoregler	Bemerkung
Kn PC 637+ / 631 - 03.0	KK.5004.0003	2m	631 / 637+	
Kn PC 637+ / 631 - 05.0	KK.5004.0004	3m	637f / 638	

- Communication Cable Set (PC / Servo Drive 635/637)


Cable- data:

- Mantelfarbe Black
- Adernaufbau 3*0,14

SUB - D 09 plug data:

- Connector 9 pole female
- Hood Metallized plastic

Lemo Stecker Daten:

- Connector 3-pole

PC - side SUB – D 09 B/M / Drive side Lemo

Cable application for:

Model code	Item number	Length	Drive	Comment
Kn PC/D - 02.0	KK.5004.0001	2m	635	
Kn PC/D - 05.0	KK.5004.0002	3m	637	

5.1 Standard I / O – Cable Set

- Model Code

Standard					
Marking	a	b	c	d	e
Type:	KK	XXXXXXXX	XXXX	- XX.X	/ X

Marking	Description				
a	KK	=	Cable Set		
b	EA	=	Input Output		
	DER/D6R	=	Drive 637 (637+, 637f, 638)		
c	X200	=	Regler - Schnittstelle: Schnittstelle X200		
	.X10	=	Schnittstelle X10 (Control I/O)		
d		=	Cable length (without plug)		
	- 02.0	=	2m Cable length		
	- 05.0	=	5m Cable length		
	- 10.0	=	10m Cable length		
e		=	Color code		
	/ G	=	Green (UL - design)		

- I / O – Cable Set (EAE / X200)

Cable- data:

- Sheath color Green
- Core design (24*0,14+2*0,25)+S
- Bending radius minimum 108mm

SUB - D 26 HD plug data:

- Connector 26 pole male
- Hood Metal

Cable ends:

core cable ends

Core cable ends / Drive side SUB - D 26 HD S/V

Cable application for:

Model code	Item number	Length	Drive	Comment
KK EA X200 - 2.0 / G	KK.0020.7020	2m	637 / 637+ 637f / 638	
KK EA X200 - 5.0 / G	KK.0020.7050	5m		
KK EA X200 - 10.0 / G	KK.0020.7100	10m		

- I / O – Cable Set (EA5 / X10)

Cable- data:

- Sheath color Green
- Core design (24*0,14+2*0,25)+S
- Bending radius minimum 108mm

SUB - D 25 plug data:

- Connector 25 pole male
- Hood Metal

Cable ends:

core cable ends

Core cable ends / Drive side SUB - D 25 S/V

Cable application for:

Model code	Item number	Length	Drive	Comment
KK DER/D6R.X10-E - 2.0 / G	KK.5100.6020	2m	635	
KK DER/D6R.X10-E - 5.0 / G	KK.5100.6050	5m	637 / 637+	
KK DER/D6R.X10-E - 10.0 / G	KK.5100.6100	10m	637f / 638	

6.1 Incremental – Cable Set

• Model Code

Standard					
Marking	a	b	c	d	e
Type:	KK I	XXXX	XXXXXXXX	- XX.X	/ X

Marking	Description	
a	KK I	= Incremental Cable Set
b	631	= Servo Drive 631
	DG 60	= Rotary encoder
c	X40/X41	= Drive - Interface: Interface 631
	X40	= Interface 635, 637, 637+, 637f, 638
d		= Cable length (without plug)
	- 02.0	= 2m Cable length
	- 05.0	= 5m Cable length
	- 10.0	= 10m Cable length
e		= Color code
	/ B	= Black
	/ B	= Blue

• Incremental Cable Set (Encoder / Drive 631 - X40/X41)

Cable- data: K INKR-B

- Sheath color Blue
- Core design (4*2*0*0,14)
- Bending radius minimum 67mm

Incremental-plug data:

- Degree of protection (stuck) IP67
- Temperature - range -40°C...+130°C

RJ 45 plug data:

- Anschluss 8-pole modular Jack

Encoder side circular connector / Drive side RJ 45

Cable application for:

Model code	Item number	Length	Drive	Comment
KK I 631.X40/41 - 02.0 / B	KK.6310.0702	2m	631	
KK I 631.X40/41 - 05.0 / B	KK.6310.0705	5m		
KK I 631.X40/41 - 10.0 / B	KK.6310.0710	10m		

• Incremental Cable Set (Encoder / Drive 635/637'Serie - X40)

Cable- data: K INKR-B

- Sheath color Blue
- Core design (4*2*0*0,14)
- Bending radius minimum 67mm

Inkremental-Stecker Daten:

- Degree of protection (stuck) IP67
- Temperature - range -40°C...+130°C

SUB - D 09 plug data:

- Connector 9 pole female
- Hood Metallized plastic

Encoder side circular connector / Drive side SUB - D 09 B/M

Cable application for:

Model code	Item number	Length	Drive	Comment
KK I DG 60 - X40 - 02.0 / B	KK.0022.1104	2m	635 637 / 637+ 637f / 638	
KK I DG 60 - X40 - 05.0 / B	KK.0022.1105	5m		
KK I DG 60 - X40 - 10.0 / B	KK.0022.1110	10m		

7.1 Standard IBT Cable Set

- Model Code

Standard					
Marking	a	b	c	d	e
Typ:	KK	XXXXXXXX	XXXXXXX	- XX.X	- X

Marking	Description	
a	KK	= Cable Set
b	631.CAN	= Servo Drive 631 with CAN-Interface
	CAN	= Servo Drive 635, 637'series, 638 with CAN-Interface
	PC	= PC - Interface
c	IBTT-CAN	= Operator Terminal CAN - Interface
	IBTT.W-X3	= Operator Terminal - Interface
d	- 02.0	= Cable length (without plug)
	- 05.0	= 2m Cable length
	- 10.0	= 5m Cable length
		= 10m Cable length
e	- B	= Color code
	- V	= Blue
		= Violet

- IBT Cable Set (IBT / Drive 631)

Cable- data: K CAN-V-630-UL000

- Sheath color Violet
- Core design (2*2*0,14)+S
- Bending radius minimum 61mm

SUB - D 09 plug data:

- Connector 9 pole female
- Hood Metallized plastic

RJ 45 Stecker Daten:

- Connector 8-pole modular Jack

IBT - side SUB - D 09 B/M / Drive side RJ 45

Cable application for:

Model code	Item number	Length	Drive	Comment
KK 631.CAN / IBTT-CAN - 02.0 - V	KK.6310.0802	2m	631	
KK 631.CAN / IBTT-CAN - 05.0 - V	KK.6310.0805	5m		
KK 631.CAN / IBTT-CAN - 10.0 - V	KK.6310.0810	10m		

- IBT Cable Set (IBT / Drive 635/637'series/638)

Cable- data: K CAN-V-630-UL000

- Sheath color Violet
- Core design (2*2*0,14)+S
- Bending radius minimum 61mm

SUB - D 09 plug data:

- Connector 9 pole female
- Hood Metallized plastic

SUB - D 09 plug data:

- Connector 9 pole male
- Hood Metallized plastic

IBT - Seitig SUB - D 09 B/M / Reglerseitig SUB - D 09 S/M

Cable application for:

Model code	Item number	Length	Drive	Comment
KK CAN / IBTT-CAN - 02.0 - V	KK.5106.1301	2m	635	
KK CAN / IBTT-CAN - 05.0 - V	KK.5106.1305	5m	637/637+	
KK CAN / IBTT-CAN - 10.0 - V	KK.5106.1310	10m	637f/638	

- IBT Cable Set (IBT / PC)

Cable- data: KIR-B

- Sheath color Blue
- Core design (3*(2*0,14)+S+(2*0,14))+S
- Bending radius minimum 86mm

SUB - D 25 Stecker Daten:

- Connector 25 pole female
- Hood Metallized plastic

SUB - D 09 plug data:

- Connector 9 pole female
- Hood Metallized plastic

IBT - side SUB - D 25 S/M / PC - side SUB - D 09 B/M

Cable application for:

Model code	Item number	Length	Drive	Comment
KK PC / IBTT.W - X3 - 02.0 - B	KK.5106.1502	2m	630	

[illegible]

Version	Modification	Chapter	Date	Name	Comment
V0104	-	-	24.06.2004	N. Dreilich	NEW
V0204	Release Version	-	19.07.2004	N. Dreilich	
V0305	complete. revised SSD Drives	-	17.01.2005	N. Dreilich	Logos
V0406	completion cables for the new 638 Servo Drive	all	19.10.2006	N. Dreilich	

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