

General

- Pre-assembled hybrid cable for the straightforward connection of SeGMo positioning drives
- For cabling SeGMo positioning drives with hybrid coupling
 - M17 or M23 hybrid connector with integrated bus element for the power supply and bus communication
 - Easy-to-disconnect quick-release coupling
- For the supply of power to SeGMo positioning drives with plug connection
 - M23 mating connector with screw lock



Features

- High electromagnetic compatibility (EMC housing screening)
- Current carrying capacity according to DIN EN 60512
- Length from 3 m to 20 m

Advantages

- Reduction of the cabling effort
- Can be matched to the related connection situation
- Time-saving during the connection of the SeGMo positioning drives to the SeGMo-Box
- Straightforward electrical disconnection of positioning drives with hybrid connection for maintenance and service work due to quick-release coupling

Right to technical changes and errors reserved.

Type code, cable specification

Type code

BZK	Connector type
	17 Connector size M17
	23 Connector size M23
	Connector 1
	L Flying lead
	S Connector with female contacts
	Connector design
0 Straight, hybrid (electrical power to the positioning drive)	
1 Straight, for the power supply (24 V)	
2 Angled, for the power supply (24 V)	
Design	
N 16 AWG food grade	
U 16 AWG halogen-free	
C 14 AWG cULus recognised	
Cable length	
Length in m (between minimum and maximum length)	
03 3 m minimum length	
20 20 m maximum length	
Connector 2	
V Preassembled (with SeGMo-Box terminals attached)	
L Flying lead	
K Coupling with male contacts	



The following variants are approved for usage for the SeGMo-System as per UL component recognition/ listing E483619:

- **BZK17S0C_V**
- **BZK17S0C_L**
- **BZK17S0C_K**
- **BZK23S0C_V**
- **BZK23S0C_L**
- **BZK23S0C_K**

Cable specifications (design N/U/C)

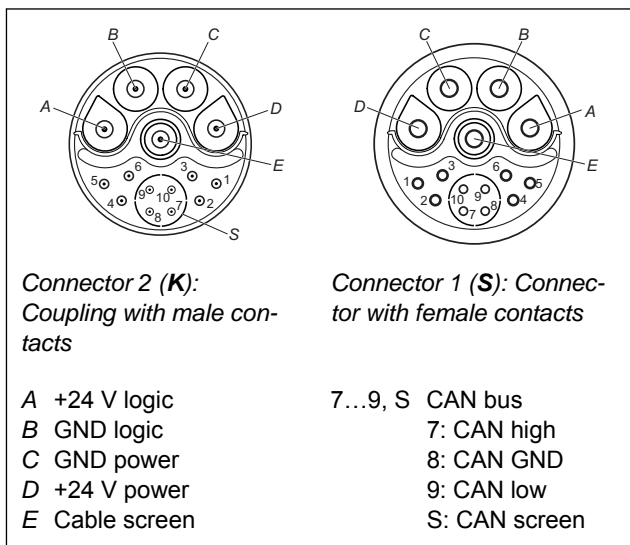
Feature	Design N (food grade)	Design U (halogen-free)	Design C (cULus recognised)
Sheath material	PUR, black, glossy	PUR, black, matt	PUR, black, matt
Cable properties	Screened	Screened	Screened
Suitable for drag chains	Yes	Yes	Yes
Food grade	Yes	No	No
Halogen-free	No	Yes	Yes
Cable diameter (d)	9.5 mm	9.5 mm	9.5 mm
Bending radius	Permanently flexible: 10 × d Fixed routing: 5 × d	Permanently flexible: 15 × d Freely moving: 10 × d Fixed routing: 5 × d	Permanently flexible: 15 × d Freely moving: 10 × d Fixed routing: 5 × d
Peak operating voltage	Max. 350 V CAN bus Max. 30 V DC (logic / power)	Max. 300 V CAN bus Max. 30 V DC (logic / power)	Max. 300 V CAN bus Max. 30 V DC (logic / power)
Temperature range	-40 °C to +80 °C	-40 °C to +80 °C	-40 °C to +80 °C

Cables for positioning drives with type of connection H1/H2/H3

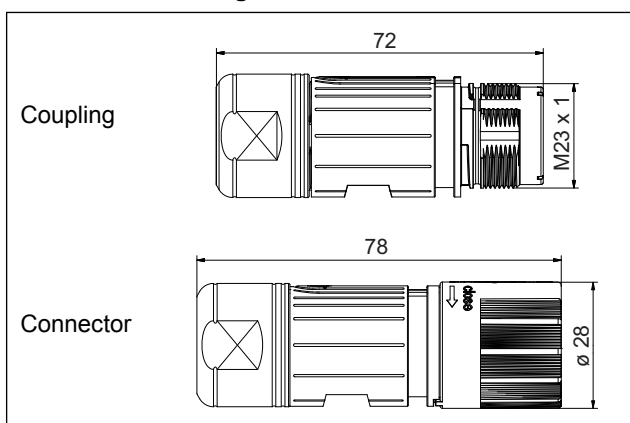
Connector type 23

Technical data – coupling / connector (connector size M23)	
Rated voltage	Max. 30 V AC / DC
Current carrying capacity	According to DIN EN 60512
Contact type (coupling / connector)	Male / female
Housing material coupling / connector	Nickel-plated brass (others upon request)
Union nut material	Nickel-plated brass
Ambient temperature	-20 °C to +130 °C
Degree of protection ⁽¹⁾	IP 66 / IP 67
Mating cycles	> 500
Vibration resistance	≤ 200 m/s ²
Approval	cULus recognised component (no. E247738)

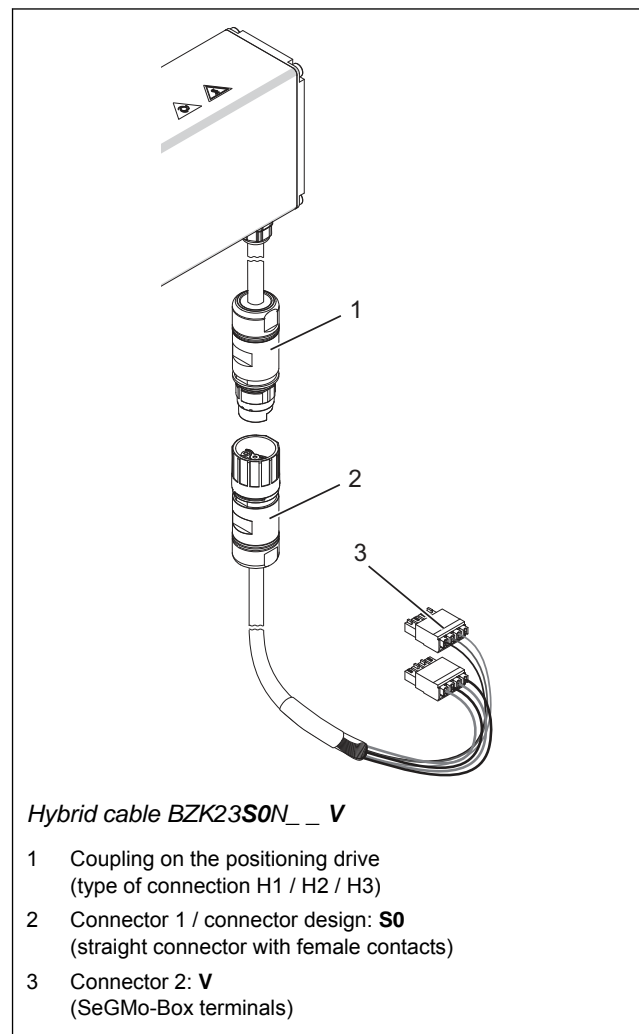
Pin layout



Dimensional drawing – connector



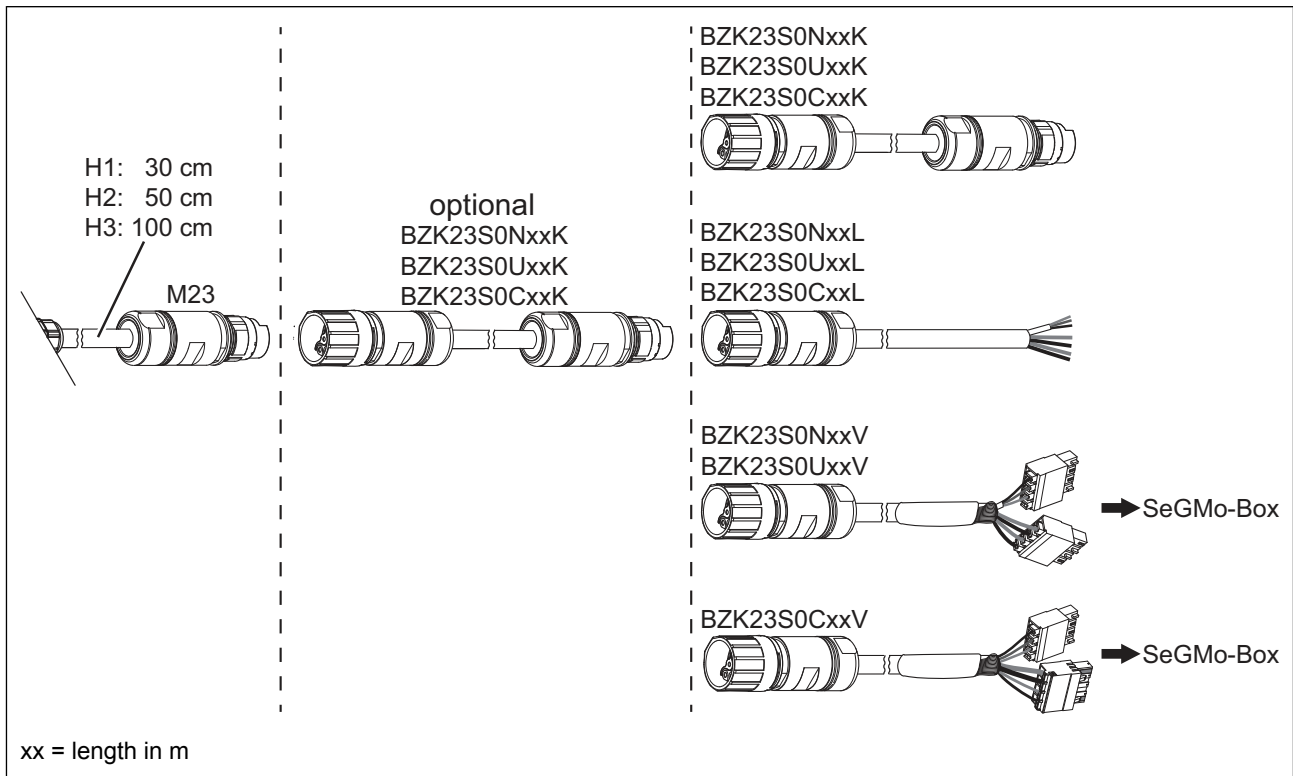
Connection example



⁽¹⁾ In the screwed-in state, according to DIN EN 60529 / DIN 40050

Cables for positioning drives with type of connection H1/H2/H3

Cable variants for positioning drives with type of connection H1 / H2 / H3



Design N / U:
Spring-cage terminals for the SeGMo-Box with design N / U



Design C:
Spring-cage terminals for the SeGMo-Box with design C

Pin layout for connector 2 “V” (pre-assembled) and “L” (flying lead)

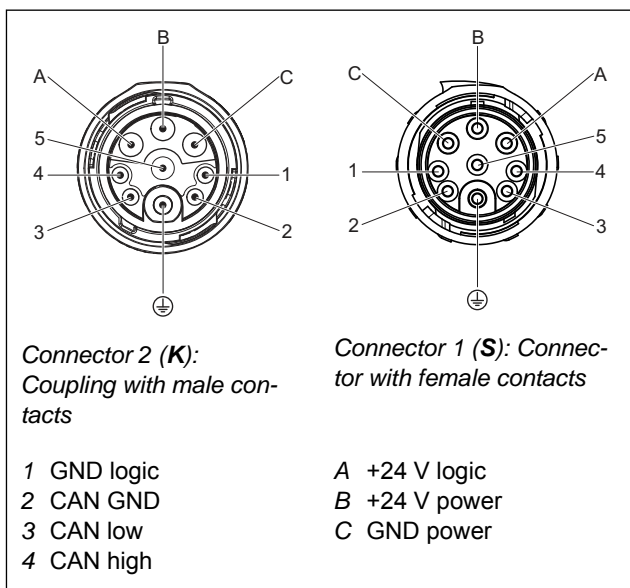
Flying lead (connector 2: L)			Pre-assembled, connection to the SeGMo-Box (connector 2: V)		Signal identifier
Core colour/ core no.	Cross-section design: N/U	Cross-section design: C	4-pole spring-cage terminal (internal positioning drive communication) pin identifier	4-pole spring-cage terminal (positioning drive power supply) pin identifier	
red/1	0.5 mm ²	0.5 mm ²	–	3	+24 V logic
red/2	1.5 mm ²	2.5 mm ²	–	1	+24 V power
black/2	1.5 mm ²	2.5 mm ²	–	2	GND power
black/1	0.5 mm ²	0.5 mm ²	–	4	GND logic
black	0.14 mm ²	0.14 mm ²	1	–	CAN GND
green	0.25 mm ²	0.25 mm ²	3	–	CAN low
yellow	0.25 mm ²	0.25 mm ²	2	–	CAN high
Cable screen			–	–	–
CAN screen			–	–	–

Cables for positioning drives with type of connection HS

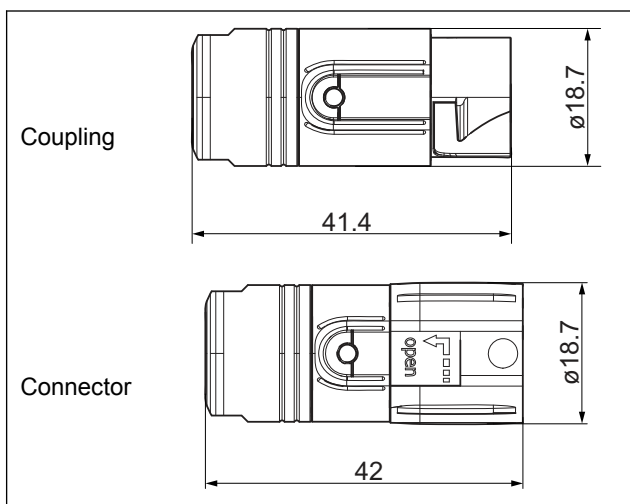
Connector type 17

Technical data – coupling / connector (connector size M17)	
Rated voltage	Max. 30 V AC / DC
Current carrying capacity	According to DIN EN 60512
Contact type (coupling / connector)	Male / female
Housing material coupling / connector	Brass, die-cast zinc and encapsulated in plastic
Ambient temperature	-20 °C to +130 °C
Degree of protection ⁽¹⁾	IP 66 / IP 67
Mating cycles	> 500
Approval	cULus recognised component (no. E247738)

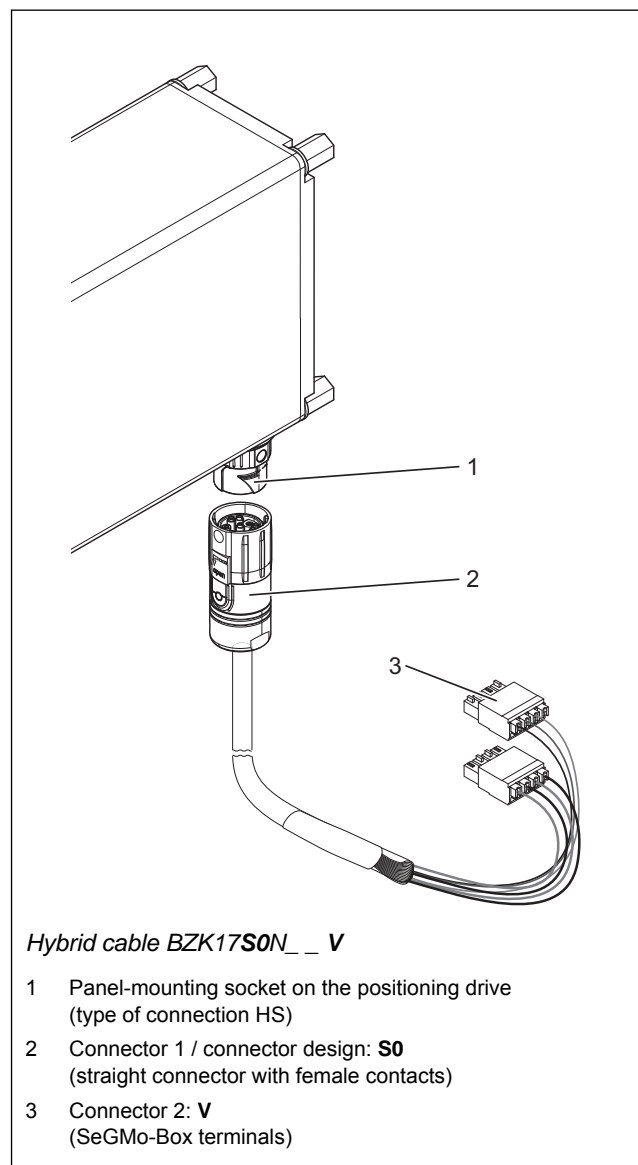
Pin layout



Dimensional drawing – connector



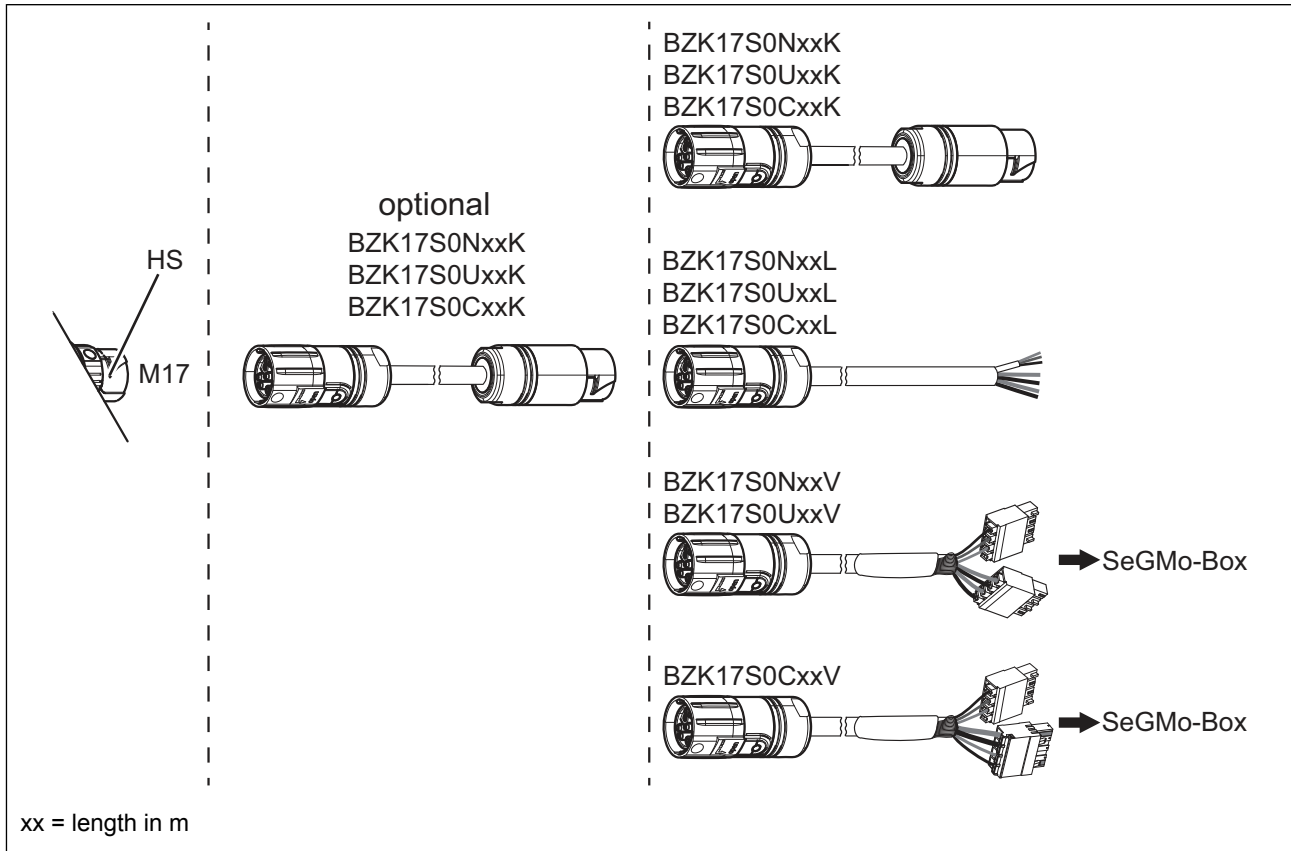
Connection example



⁽¹⁾ In the screwed-in state, according to DIN EN 60529 / DIN 40050

Cables for positioning drives with type of connection HS

Cable variants for positioning drives with type of connection HS



Design N / U:
Spring-cage terminals for the SeGMo-Box with design N / U



Design C:
Spring-cage terminals for the SeGMo-Box with design C

Pin layout for connector 2 “V” (pre-assembled) and “L” (flying lead)

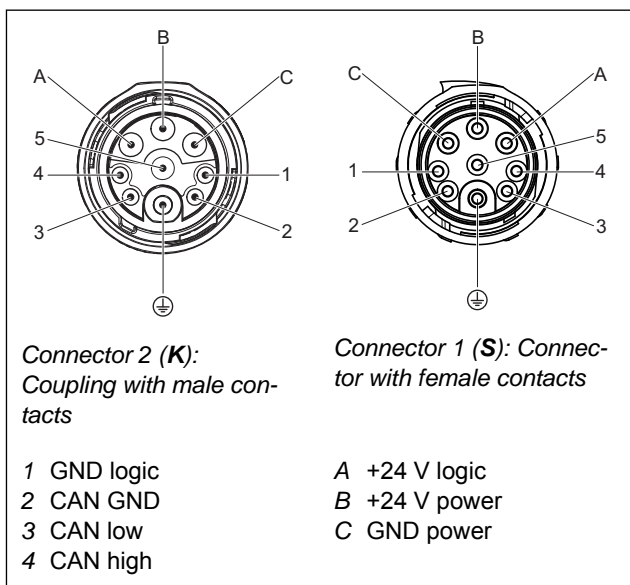
Flying lead (connector 2: L)			Pre-assembled, connection to the SeGMo-Box (connector 2: V)		Signal identifier
Core colour/ core no.	Cross-section design: N/U	Cross-section design: C	4-pole spring-cage terminal (internal positioning drive communication) pin identifier	4-pole spring-cage terminal (positioning drive power supply) pin identifier	
red/1	0.5 mm ²	0.5 mm ²	–	3	+24 V logic
red/2	1.5 mm ²	2.5 mm ²	–	1	+24 V power
black/2	1.5 mm ²	2.5 mm ²	–	2	GND power
black/1	0.5 mm ²	0.5 mm ²	–	4	GND logic
black	0.14 mm ²	0.14 mm ²	1	–	CAN GND
green	0.25 mm ²	0.25 mm ²	3	–	CAN low
yellow	0.25 mm ²	0.25 mm ²	2	–	CAN high
Cable screen			–	–	–
CAN screen			–	–	–

Cables for positioning drives with type of connection S1/S2/S3

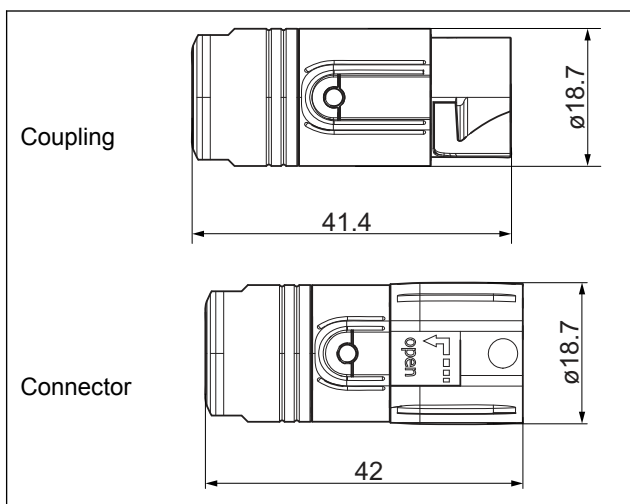
Connector type 17

Technical data – coupling / connector (connector size M17)	
Rated voltage	Max. 30 V AC / DC
Current carrying capacity	According to DIN EN 60512
Contact type (coupling / connector)	Male / female
Housing material coupling / connector	Brass, die-cast zinc and encapsulated in plastic
Ambient temperature	-20 °C to +130 °C
Degree of protection ⁽¹⁾	IP 66 / IP 67
Mating cycles	> 500
Approval	cULus recognised component (no. E247738)

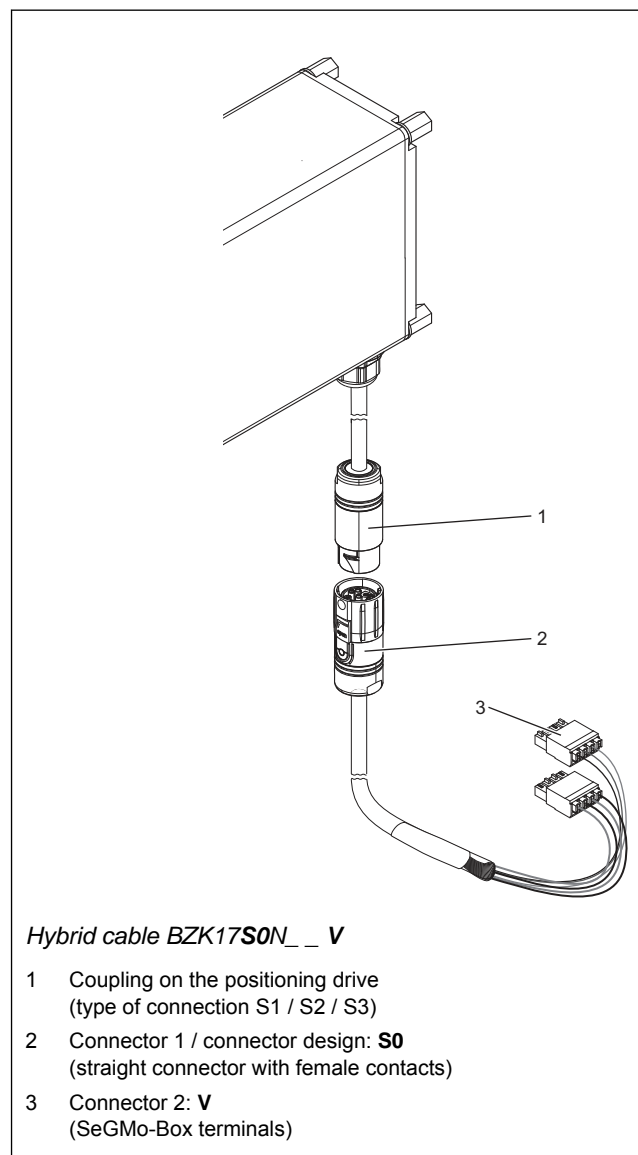
Pin layout



Dimensional drawing – connector



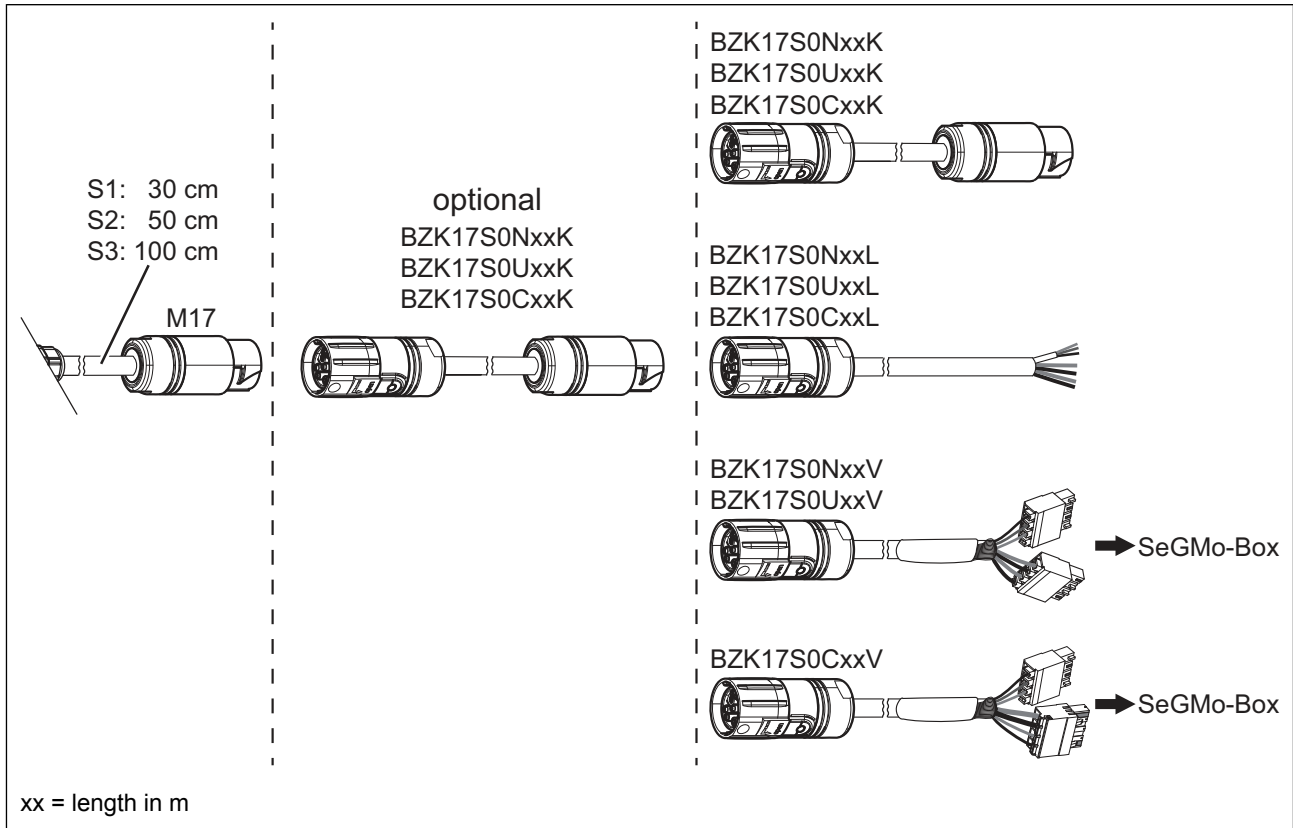
Connection example



⁽¹⁾ In the screwed-in state, according to DIN EN 60529 / DIN 40050

Cables for positioning drives with type of connection S1/S2/S3

Cable variants for positioning drives with type of connection S1 / S2 / S3



Design N / U:
Spring-cage terminals for the SeGMo-Box with design N / U



Design C:
Spring-cage terminals for the SeGMo-Box with design C

Pin layout for connector 2 “V” (pre-assembled) and “L” (flying lead)

Flying lead (connector 2: L)			Pre-assembled, connection to the SeGMo-Box (connector 2: V)		Signal identifier
Core colour/ core no.	Cross-section design: N/U	Cross-section design: C	4-pole spring-cage terminal (internal positioning drive communication) pin identifier	4-pole spring-cage terminal (positioning drive power supply) pin identifier	
red/1	0.5 mm ²	0.5 mm ²	–	3	+24 V logic
red/2	1.5 mm ²	2.5 mm ²	–	1	+24 V power
black/2	1.5 mm ²	2.5 mm ²	–	2	GND power
black/1	0.5 mm ²	0.5 mm ²	–	4	GND logic
black	0.14 mm ²	0.14 mm ²	1	–	CAN GND
green	0.25 mm ²	0.25 mm ²	3	–	CAN low
yellow	0.25 mm ²	0.25 mm ²	2	–	CAN high
Cable screen			–	–	–
CAN screen			–	–	–

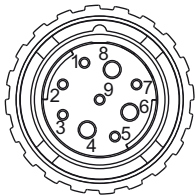
Cables for positioning drives with type of connection ST

Connector type 23

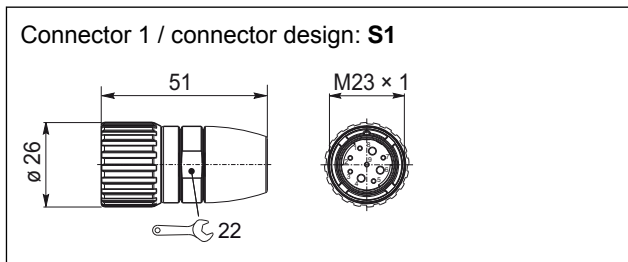
Suitable for the supply of power to SeGMO positioning drives with type of connection ST (connector).

Technical data – mating connector for the power supply (connector size M23)	
Rated voltage	150 V
Maximum connection cross-section	6 × 1.0 mm ² / 3 × 2.5 mm ²
Contact type	Female
Housing material	Metal (GD-Zn / CuZn Ni)
Ambient temperature	-40 °C to +100 °C
Degree of protection ⁽¹⁾	IP 67
Mating cycles	50
Approval	cULus recognised component (no. E153698)

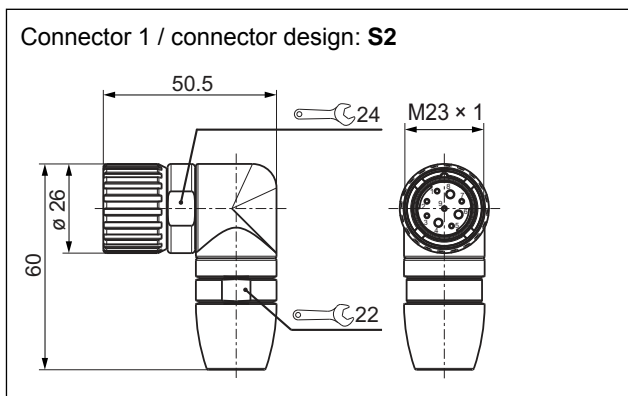
Pin layout

Mating connector power supply	Pin identifier	Signal identifier
M23  Female	1	+ 24 V logic
	2	GND logic
	6	+ 24 V power
	8	GND power
GND cables connected internally in the drive.		

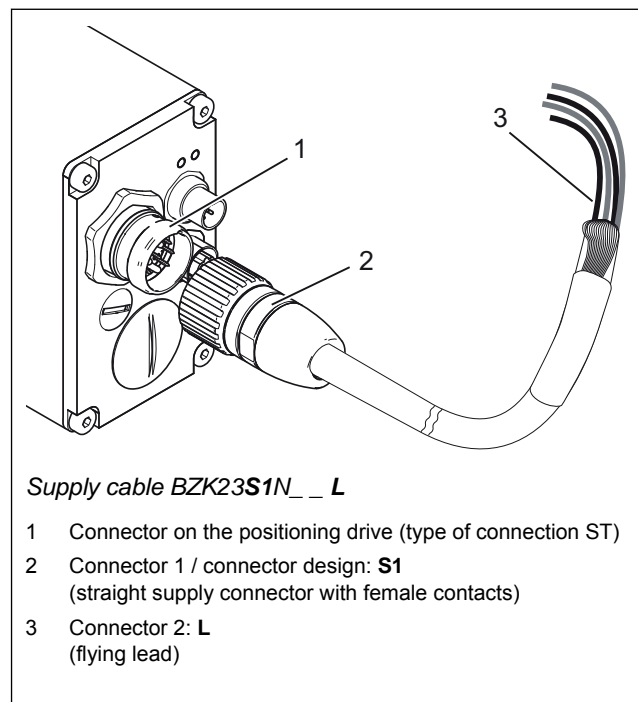
Dimensional drawing – mating connector, straight



Dimensional drawing – mating connector, angled



Connection example



⁽¹⁾ In the screwed-in state, according to DIN EN 60529 / DIN 40050

Cables for positioning drives with type of connection ST

Pin layout for connector 2 "L" (flying lead)

Flying lead (connector 2: L)			Signal identifier
Core colour / core no.	Cross-section Design N/U	Cross-section Design C	
red/1	0.5 mm ²	0.5 mm ²	+24 V logic
red/2	1.5 mm ²	2.5 mm ²	+24 V power
black/2	1.5 mm ²	2.5 mm ²	GND power
black/1	0.5 mm ²	0.5 mm ²	GND logic

Notes:



Lenord, Bauer & Co. GmbH
Dohlenstraße 32
46145 Oberhausen, Germany
Phone: +49 208 9963-0
Fax: +49 208 676292
Internet: www.lenord.com
E-Mail: info@lenord.de

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