

# SERVO MOTOR CABLES



[www.sab-cable.com](http://www.sab-cable.com)



## Content

C  
2

<b>Applications</b> .....	<b>page</b> C/3-4
<b>DESINA® colours</b> .....	C/4
<b>Selection table</b> .....	C/5

### PUR motor connection cables 0.6/1 kV

■ SL 811	PUR motor connection cable with PVC cores 0.6/1 kV .....	C/6
■ SL 813 C	PUR motor connection cable with PVC cores and overall copper screen 0.6/1 kV .....	C/7
■ SL 820	PUR motor connection cable with TPE cores 0.6/1 kV .....	C/8
■ SL 823 C	PUR motor connection cable with TPE cores and overall copper screen 0.6/1 kV .....	C/9
■ SL 801 C	combined TPE/PUR motor connection cable with overall copper screen 0.6/1 kV .....	C/10

### PVC motor connection cables 0.6/1 kV

■ SL 806 C	combined PE/PVC motor connection cable with overall copper screen 0.6/1 kV .....	C/11
■ SL 810	PVC motor connection cable 0.6/1 kV .....	C/12
■ SL 812 C	PVC motor connection cable with overall copper screen 0.6/1 kV .....	C/12


















### Motor feedback cables

■ SL 802 C	TPE/PUR feedback cable with overall copper screen .....	C/13
■ SL 807 C	PE/PVC feedback cable with overall copper screen .....	C/14

### Transmission cables

■ SL 803 C	TPE/PUR transmission cable with overall copper screen .....	C/13
■ SL 808 C	PE/PVC transmission cable with overall copper screen .....	C/14

### Motor connection, feedback and transmission cables with UL recognition, CSA approval

■ SL 860 C	 low capacity PVC motor connection cable with overall copper screen 0.6/1 kV .....	C/15
■ SL 863 C	 low capacity combined PVC motor connection cable with overall copper screen 0.6/1 kV .....	C/16
■ SL 834 C	  low capacity PUR motor connection cable with overall copper screen 0.6/1 kV .....	C/17
■ SL 871 C	  low capacity combined PUR motor connection cable with overall copper screen 0.6/1 kV .....	C/18
■ SL 875 C	  low capacity hybrid motor connection cable with overall copper screen 0.6/1 kV .....	C/19
■ SL 841 C	  combined TPE/PUR motor connection cable with overall copper screen 0.6/1 kV .....	C/20
■ SL 833 C	  PUR motor connection cable with TPE cores and overall copper screen 0.6/1 kV .....	C/21
■ SL 842 C	  TPE/PUR feedback cable with overall copper screen .....	C/22
■ SL 843 C	  TPE/PUR transmission cable with overall copper screen .....	C/22
■ SL 839 C	 PUR transmission cable with overall copper screen .....	C/23

single cable solution

You will find halogen-free motor connection cables 0.6/1 kV in chapter A

## Applications

### ■ Applications combined motor connection cables

These flexible motor connection cables are used for the power supply of motors. Depending on the construction type supply and control conductors are possible. The cables are suitable for high mechanical demands in dry, damp and wet conditions as well as at low temperatures.

#### Exemplary applications:

<b>SL 801 C</b> <b>SL 841 C</b> <b>SL 871 C</b> <b>SL 863 C</b>	Highly flexible cable track applications in industries with intelligent servo drives, e.g. automation technologies, machine construction, construction of industrial robots and plants, motive power, control and manufacturing engineering, in handling systems, car manufacturing industry, in cable tracks on wood-working centres, colour coding acc. to DESINA®
<b>SL 806 C</b>	Flexible applications in industries with intelligent servo drives, e.g. automation technologies, machine construction, construction of industrial robots and plants, motive power, control and manufacturing engineering, in handling systems, car manufacturing industry, in engineered machining centres, optimised combination of supply and control cores in order to supply energy for drives and their temperature monitor respectively for the brake to stop
<b>SL 875 C</b>	All-in-one cable solution with integrated elements for digital signal feedback

C  
3

### ■ Applications motor feedback and transmission cables

Feedback cables are used for controlling motor speed and for giving feedback values. Transmission cables produce transmit control pulses for positioning and procedure characteristics, e.g. connection of speedo, brake and pulse generators.

#### Exemplary applications:

<b>SL 802 C</b> <b>SL 803 C</b> <b>SL 839 C</b> <b>SL 842 C</b> <b>SL 843 C</b> <b>SL 807 C</b> <b>SL 808 C</b>	Highly flexible, mobile connection cables for e.g. speedo, brake, temperature control in motors, for continuously flexible applications in automation technology, control and production engineering, in cable tracks on wood-working machines, machine and industrial plant construction, even with high mechanical demands and in dry, damp and wet conditions, as well as at low temperatures flexible connection cables e.g. for speedo, brake, temperature control in motors, for continuously flexible applications in automation technology, control and product engineering
---	---

### ■ Applications motor connection cables for DNC\* motors 0.6/1 kV

These cables are suitable for the fixed installation and flexible use e.g. in machine and industrial plant construction with average mechanical demand in dry, damp and wet conditions.

#### Exemplary applications:

<b>SL 810</b> <b>SL 811</b> <b>SL 820</b>	Automation technology, control and product engineering, machine and industrial plant construction, motor construction on drive systems
<b>SL 812 C</b> <b>SL 813 C</b>	Automation technology, control and product engineering, machine and industrial plant construction, motor construction, on drive systems, power supply cable between frequency converter and servo motor
<b>SL 823 C</b> <b>SL 833 C</b> <b>SL 860 C</b> <b>SL 834 C</b>	Industries with intelligent servo drives, e.g. automation technology, motive power, control and production engineering, handling systems, car manufacturing industry, cable tracks

\*three-phase shunt motor



**SAB Servo cables are particularly applicable on Siemens and Bosch Rexroth drives and controls.**

## Applications









### ■ DESINA® - DistributEd and Standardized INStAllation technology

DESINA® is an extensive concept for standardizing and distributing fluid and electric installations of machines and plants. A co-operation of machine construction, car manufacturing and supply industries has, furthermore, set up the specification of necessary components.

DESINA® applies already existing solutions such as open bus systems, industrial standards for connectors, etc. By standardizing components, interfaces and connecting systems, e.g. an optical fibre copper hybrid cable, most varying systems can be realised on a physical basis.

The following sheath colours are defined as a function code:

	orange	RAL 2003:	servo cable, screened
	green	RAL 6018:	measuring systems, screened
	violet	RAL 4001:	field bus, hybrid cables
	yellow	RAL 1021:	sensor/actuator cable, unscreened 4 x 0.34 mm <sup>2</sup> copper
	black	RAL 9005:	power cable, unscreened
	grey	RAL 7001:	24 V control cable, unscreened

The sheaths of all cables are to be resistant against industrial lubricants.

■ You will find further information about the safe application of cables in chapter N

# Servo Motor Cables

## Selection table



		Cable type	SL 811	SL 813 C	SL 820	SL 823 C	SL 801 C	SL 806 C	SL 810	SL 812 C	SL 802 C	SL 803 C	SL 807 C	SL 808 C	SL 860 C	SL 863 C	SL 834 C	SL 871 C	SL 875 C	SL 841 C	SL 833 C	SL 842 C	SL 843 C	SL 839 C	
Application	Feedback cable										●		●									●			
	Transmission cable											●		●									●	●	
	Motor connection cable		●	●	●	●			●	●					●		●				●				
	combined motor connection cable						●	●									●		●	●	●				
	Motor connection cable for frequency converters			●	●	●			●	●								●				●			
	suitable for resolvers and shaft encoders											●	●	●	●								●	●	●
	screened			●		●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Temperature range fixed laying*	+90 °C																								
	+70 °C																								
	-30 °C																								
	-40 °C																								
	-50 °C																								
Voltage	Peak operating voltage max. 30 V																								
	Peak operating voltage max. 350 V											●		●				●		●			●		
	Peak operating voltage max. 500 V							●	●		●		●						●			●			
	Nominal voltage U <sub>0</sub> /U 0.6/1 kV		●	●	●	●	●	●	●	●					●	●	●	●	●	●	●	●	●	●	●
	Voltage UL 30 V																								●
	Voltage UL 300 V																							●	●
	Voltage UL 1000 V														●	●	●	●	●	●	●	●	●	●	●
	Voltage CSA 300 V																							●	●
	Voltage CSA 1000 V																							●	●
	Testing voltage 600 V																								●
	Testing voltage 1200 V							●	●			●	●	●	●										
	Testing voltage 1500 V							●	●													●			
	Testing voltage 2000 V											●	●	●	●								●	●	
Testing voltage 3000 V																									
Testing voltage 4000 V		●	●	●	●	●	●	●	●	●					●	●	●	●	●	●	●	●	●	●	
Standards	Fire performance: flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2														●	●	●	●	●	●	●	●	●	●	●
	Fire performance: acc. to UL FT1														●	●	●	●	●	●	●	●	●	●	●
	Fire performance: acc. to CSA FT1																							●	
	Fire performance: acc. to CSA FT1, FT2																								
	UL recognized														●	●	●	●	●	●	●	●	●	●	●
	CSA approval																								
Characteristics	DESINA® colours		●			●	●				●	●				●	●	●	●	●	●	●	●	●	●
	halogen-free				●	●	●				●	●					●	●	●	●	●	●	●	●	●
	PWIS uncritical**				●	●	●				●	●					●	●	●	●	●	●	●	●	●
	low capacity construction														●	●									
	outer sheath surface: low adhesion		●	●	●	●	●				●	●					●	●	●	●	●	●	●	●	●
	very good oil resistance acc. to EN 50363-10-2 + VDE 0207-363-10-2		●	●	●	●	●				●	●			●	●	●	●	●	●	●	●	●	●	●
	Oilrating 60 °C acc. to UL 1581																						●		
	Oilrating 60 °C acc. to UL 758																								●
	Oil resistance acc. to internal standard							●	●	●				●	●										
good resistance against acids, alkalines, solvents, hydraulic liquids etc.		●	●	●	●	●					●	●					●	●	●	●	●	●	●	●	



\*\*PWIS = paint-wetting impairment substances

\*The temperature range for flexible application is mentioned on the corresponding catalogue page

# Servo Motor Cables

## SL 811

PUR motor connection cable with PVC cores 0.6/1 kV

suitable for  
cable tracks

SAB Servo

BRÖCKSKES · D-VIERSEN · SL 811 0,6/1 kV 5 x 1,5 mm<sup>2</sup> CE



Marking for SL 811 08110515:

SAB BRÖCKSKES · D-VIERSEN · SL 811 0,6/1 kV 5 x 1,5 mm<sup>2</sup> CE

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 6
<b>Insulation:</b>	PVC, TI2 acc. to EN 50363-3 + VDE 0207-363-3
<b>Colour code:</b>	black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334 and a green-yellow earth wire
<b>Stranding:</b>	in layers
<b>Wrapping:</b>	non-woven tape
<b>Sheath material:</b>	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with mat surface
<b>Sheath colour:</b>	grey (RAL 7000)

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 0.6/1 kV
<b>Testing voltage:</b>	core/core 4000 V
<b>Min. bending radius</b>	
<i>fixed laying:</i>	4 x d
<i>flexible application:</i>	6 x d
<i>continuously flexible:</i>	10 x d
<b>Radiation resistance:</b>	5 x 10 <sup>7</sup> cJ/kg
<b>Temperature range</b>	
<i>fixed laying:</i>	-40/+70 °C
<i>flexible application:</i>	+5/+70 °C
<b>Oil resistance:</b>	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Chem. resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids etc.
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union, see chapter N „Technical data“

### Outstanding features:



- suitable for cable tracks
- flexible
- rugged sheath
- oil resistant

item no.	no. of cores x cross section n x mm <sup>2</sup>	AWG	largest single wire ø mm	outer-ø ± 5 % mm	copper figure kg/km	cable weight ≈ kg/km
08110415	4 x 1,50	16 / 4c	0,16	9,3	57,6	125
08110425	4 x 2,50	14 / 4c	0,16	11,1	96,0	191
08110440	4 x 4,00	12 / 4c	0,16	12,9	153,6	268
08110460	4 x 6,00	10 / 4c	0,21	14,7	230,4	356
08110470	4 x 10,00	8 / 4c	0,21	18,5	384,0	601
08110480	4 x 16,00	6 / 4c	0,21	21,9	614,4	862
08110490	4 x 25,00	4 / 4c	0,21	26,2	960,0	1297
08110495	4 x 35,00	2 / 4c	0,21	29,5	1344,0	1751
08110496	4 x 50,00	1 / 4c	0,31	35,0	1920,0	2423
08110515	5 x 1,50	16 / 5c	0,16	10,6	72,0	154
08110525	5 x 2,50	14 / 5c	0,16	12,8	120,0	230
08110540	5 x 4,00	12 / 5c	0,16	14,2	192,0	317
08110560	5 x 6,00	10 / 5c	0,21	16,7	288,0	449
08110570	5 x 10,00	8 / 5c	0,21	20,4	480,0	739
08110580	5 x 16,00	6 / 5c	0,21	24,6	768,0	1079
08110590	5 x 25,00	4 / 5c	0,21	28,9	1200,0	1597

Other dimensions and colours are possible on request.

C  
6

# Servo Motor Cables

## SL 813 C

PUR motor connection cable with PVC cores and overall copper screen 0.6/1 kV

suitable for  
cable tracks

SAB Servo

0415 4 x 1,5 mm<sup>2</sup> SL 813 C 0,6/1 kV **DESINA** CE



Marking for SL 813 C 08130415:

SAB BRÖCKSKES · D-VIERSEN · 08130415 4 x 1,5 mm<sup>2</sup> SL 813 C 0,6/1 kV **DESINA** CE

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 6
<b>Insulation:</b>	PVC, TI2 acc. to EN 50363-3 + VDE 0207-363-3
<b>Colour code:</b>	black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334 and a green-yellow earth wire
<b>Stranding:</b>	in layers
<b>Inner sheath:</b>	PVC, TM2 acc. to EN 50363-4-1 + VDE 0207-363-4-1
<b>Screen:</b>	tinned copper braiding
<b>Wrapping:</b>	non-woven tape
<b>Sheath material:</b>	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with mat surface
<b>Sheath colour:</b>	orange (RAL 2003)

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 0.6/1 kV
<b>Testing voltage:</b>	core/core 4000 V core/screen 4000 V
<b>Min. bending radius</b>	
<i>fixed laying:</i>	5 x d
<i>flexible application:</i>	10 x d
<i>continuously flexible:</i>	12 x d
<b>Radiation resistance:</b>	5 x 10 <sup>7</sup> cJ/kg
<b>Temperature range</b>	
<i>fixed laying:</i>	-40/+70 °C
<i>flexible application:</i>	+5/+70 °C
<b>Oil resistance:</b>	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Chem. resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids etc.
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union, see chapter N „Technical data“

### Outstanding features:



- very good EMC characteristics
- suitable for cable tracks
- flexible
- rugged sheath
- oil resistant
- **DESINA®** colours (see page C/4)



for DNC motors  
on frequency converters

item no.	no. of cores x cross section n x mm <sup>2</sup>	AWG	largest single wire ø mm	outer-ø ± 5 % mm	copper figure kg/km	cable weight ≈ kg/km
08130415	4 x 1,50	16 / 4c	0,16	12,4	113,8	228
08130425	4 x 2,50	14 / 4c	0,16	15,4	165,9	345
08130440	4 x 4,00	12 / 4c	0,16	17,0	257,3	449
08130460	4 x 6,00	10 / 4c	0,21	19,2	346,3	594
08130470	4 x 10,00	8 / 4c	0,21	23,0	524,5	877
08130480	4 x 16,00	6 / 4c	0,21	26,4	777,0	1242
08130490	4 x 25,00	4 / 4c	0,21	30,7	1156,8	1763
08130495	4 x 35,00	2 / 4c	0,21	34,0	1574,3	2258
08130496	4 x 50,00	1 / 4c	0,31	39,3	2177,9	3076
08130515	5 x 1,50	16 / 5c	0,16	13,7	139,4	286
08130525	5 x 2,50	14 / 5c	0,16	16,7	222,8	420
08130540	5 x 4,00	12 / 5c	0,16	18,7	306,5	575
08130560	5 x 6,00	10 / 5c	0,21	20,8	422,1	733
08130570	5 x 10,00	8 / 5c	0,21	25,3	638,2	1097
08130580	5 x 16,00	6 / 5c	0,21	28,7	955,6	1524
08130590	5 x 25,00	4 / 5c	0,21	33,4	1427,1	2172
08130595	5 x 35,00	2 / 5c	0,21	37,4	1927,5	2748

Other dimensions and colours are possible on request.

# Servo Motor Cables

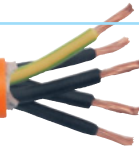
## SL 820

PUR motor connection cable with TPE cores 0.6/1 kV

extremely long  
service life

SAB Servo

BRÖCKSKES · D-VIERSEN · SL 820 0,6/1 kV 4 x 1,5 mm<sup>2</sup> CE



Marking for SL 820 C 08200415:

SAB BRÖCKSKES · D-VIERSEN · SL 820 0,6/1 kV 4 x 1,5 mm<sup>2</sup> CE

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 6
<b>Insulation:</b>	TPE
<b>Colour code:</b>	black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334 and a green-yellow earth wire
<b>Stranding:</b>	in layers
<b>Wrapping:</b>	non-woven tape
<b>Sheath material:</b>	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with mat surface
<b>Sheath colour:</b>	orange (RAL 2003)

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 0.6/1 kV
<b>Testing voltage:</b>	core/core 4000 V
<b>Min. bending radius</b>	
<i>fixed laying:</i>	4 x d
<i>flexible application:</i>	6 x d
<i>continuously flexible:</i>	10 x d
<b>Radiation resistance:</b>	5 x 10 <sup>7</sup> cJ/kg
<b>Temperature range</b>	
<i>fixed laying:</i>	-50/+90 °C
<i>flexible application:</i>	-40/+90 °C
<b>Oil resistance:</b>	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Chem. resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids etc.
<b>Weather resistance:</b>	very good
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union, see chapter N „Technical data“

C  
8

### Outstanding features:



- very high flexibility
- suitable for cable tracks
- oil resistant
- very long service life
- adhesion-free installation
- halogen-free
- PWIS uncritical  
(PWIS = paint-wetting impairment substances)
- flexible at low temperatures



for DNC motors  
on frequency converters

item no.	no. of cores x cross section n x mm <sup>2</sup>	AWG	largest single wire ø mm	outer-ø ± 5 % mm	copper figure kg/km	cable weight ≈ kg/km
08200415	4 x 1,50	16 / 4c	0,16	8,5	57,6	102
08200515	5 x 1,50	16 / 5c	0,16	9,3	72,0	125
08200425	4 x 2,50	14 / 4c	0,16	10,7	96,0	160
08200525	5 x 2,50	14 / 5c	0,16	11,4	120,0	193
08200440	4 x 4,00	12 / 4c	0,16	12,4	153,6	247
08200540	5 x 4,00	12 / 5c	0,16	13,2	192,0	290
08200460	4 x 6,00	10 / 4c	0,21	15,1	230,4	351
08200560	5 x 6,00	10 / 5c	0,21	16,5	288,0	443
08200470	4 x 10,00	8 / 4c	0,21	17,5	384,0	552
08200570	5 x 10,00	8 / 5c	0,21	19,2	480,0	641
08200480	4 x 16,00	6 / 4c	0,21	21,2	614,4	796
08200580	5 x 16,00	6 / 5c	0,21	23,3	768,0	979
08200490	4 x 25,00	4 / 4c	0,21	24,3	960,0	1161
08200590	5 x 25,00	4 / 5c	0,21	26,8	1200,0	1433
08200495	4 x 35,00	2 / 4c	0,21	28,6	1344,0	1588
08200496	4 x 50,00	1 / 4c	0,31	32,3	1920,0	2212

Other dimensions and colours are possible on request.



# Servo Motor Cables

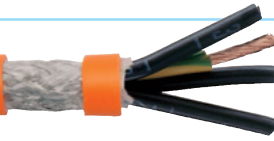
## SL 823 C

PUR motor connection cable with TPE cores and overall copper screen 0.6/1 kV

extremely long  
service life

SAB Servo

SEN · SL 823 C 0,6/1 kV 4 x 1,5 mm<sup>2</sup> **DESINA** CE



Marking for SL 823 C 08230415:

SAB BRÖCKSKES · D-VIERSEN · SL 823 C 0,6/1 kV 4 x 1,5 mm<sup>2</sup> **DESINA** CE

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 6
<b>Insulation:</b>	TPE
<b>Colour code:</b>	black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334 and a green-yellow earth wire
<b>Stranding:</b>	in layers
<b>Wrapping:</b>	two layers of non-woven tape
<b>Screen:</b>	tinned copper braiding
<b>Wrapping:</b>	non-woven tape
<b>Sheath material:</b>	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with mat surface
<b>Sheath colour:</b>	orange (RAL 2003)

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 0.6/1 kV
<b>Testing voltage:</b>	core/core 4000 V core/screen 4000 V
<b>Min. bending radius</b>	
fixed laying:	5 x d
flexible application:	10 x d
continuously flexible:	12 x d
<b>Radiation resistance:</b>	5 x 10 <sup>7</sup> cJ/kg
<b>Temperature range</b>	
fixed laying:	-50/+90 °C
flexible application:	-40/+90 °C
<b>Oil resistance:</b>	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Chem. resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids etc.
<b>Weather resistance:</b>	very good
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union, see chapter N „Technical data“

### Outstanding features:

- very good EMC characteristics
- very high flexibility
- suitable for cable tracks
- oil resistant
- very long service life
- adhesion-free installation
- halogen-free
- PWIS uncritical  
(PWIS = paint-wetting impairment substances)
- flexible at low temperatures
- **DESINA**® colours (see page C/4)



for DNC motors  
on frequency converters

item no.	no. of cores x cross section n x mm <sup>2</sup>	AWG	largest single wire ø mm	outer-ø ± 5 % mm	copper figure kg/km	cable weight ≈ kg/km
08230415	4 x 1,50	16 / 4c	0,16	9,5	95,8	141
08230425	4 x 2,50	14 / 4c	0,16	11,9	147,0	217
08230440	4 x 4,00	12 / 4c	0,16	13,0	210,2	289
08230460	4 x 6,00	10 / 4c	0,21	15,9	300,5	420
08230470	4 x 10,00	8 / 4c	0,21	18,5	489,9	627
08230480	4 x 16,00	6 / 4c	0,21	22,4	751,3	965
08230490	4 x 25,00	4 / 4c	0,21	25,5	1118,2	1363
08230495	4 x 35,00	2 / 4c	0,21	29,5	1533,4	1848
08230496	4 x 50,00	1 / 4c	0,31	34,5	2148,7	2553

Other dimensions and colours are possible on request.

Note: DESINA® is a registered trademark of the German Machine Tool Builders' Association.



www.sab-cable.com

# Servo Motor Cables

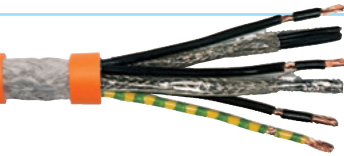
## SL 801 C

combined TPE/PUR motor connection cable with overall copper screen 0.6/1 kV

suitable for  
cable tracks and  
very good EMC

SAB Servo

0,75 mm<sup>2</sup> + 2 x (2 x 0,34 mm<sup>2</sup>) **DESINA** CE



Marking for SL 801 C 08010407:

SAB BRÖCKSKES · D-VIERSEN · SL 801 C 4 x 0,75 mm<sup>2</sup> + 2 x (2 x 0,34 mm<sup>2</sup>) **DESINA** CE

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 6 >0,5 mm <sup>2</sup> with reference to VDE 0812
<b>Insulation:</b>	TPE
<b>Colour code:</b>	black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334 (except 0,34 mm <sup>2</sup> = coloured) and a green-yellow earth wire supply cores: U1, V2, W3 and a green-yellow earth wire control cores: BR1 and BR2
<b>from item no. 08011415:</b>	
<b>Stranding:</b>	control cores 0,34 mm <sup>2</sup> - 2,5 mm <sup>2</sup> twisted to pairs
<b>Screen:</b>	pairs wrapped with alu foil, tinned copper braiding
<b>Wrapping:</b>	pairs with PETP foil
<b>Stranding:</b>	screened control pairs and supply cores twisted together in layers
<b>Wrapping:</b>	non-woven tape
<b>Screen:</b>	tinned copper braiding
<b>Wrapping:</b>	non-woven tape
<b>Sheath material:</b>	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with mat surface
<b>Sheath colour:</b>	orange (RAL 2003)

### Technical data:

<b>Nominal voltage:</b>	supply cores	U <sub>0</sub> /U 0.6/1 kV
<b>Peak operating voltage:</b>	control cores	max. 500 V
<b>Testing voltage:</b>	supply cores	core/core 4000 V core/screen 4000 V
	control cores	core/core 1500 V core/screen 1200 V
<b>Min. bending radius</b>	<i>fixed laying:</i>	5 x d
	<i>flexible application:</i>	10 x d
	<i>continuously flexible:</i>	12 x d
<b>Radiation resistance:</b>		5 x 10 <sup>7</sup> cJ/kg
<b>Temperature range</b>	<i>fixed laying:</i>	-50/+90 °C
	<i>flexible application:</i>	-40/+90 °C
<b>Oil resistance:</b>		very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Chem. resistance:</b>		good against acids, alkalines, solvents, hydraulic liquids etc.
<b>Weather resistance:</b>		very good
<b>Absence of harmful substances:</b>		acc. to RoHS directive of the European Union, see chapter N „Technical data“

C  
10

### Outstanding features:



- very good EMC characteristics
- long service life
- suitable for cable tracks
- adhesion-free installation
- high flexibility
- halogen-free
- PWIS uncritical  
(PWIS = paint-wetting impairment substances)
- flexible at low temperatures
- **DESINA**® colours (see page C/4)



Cable harnessing  
possible on request

item no.	dimension	AWG		largest single wire ø mm	outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
		supply cores	control cores (pairs)				
08010407	4 x 0,75 + 2 x (2 x 0,34)	19 / 4c	22 / 2pr	0,16/0,11	10,5 ± 0,5	115,5	160
08010410	4 x 1,00 + 2 x (2 x 0,75)	18 / 4c	19 / 2pr	0,16	12,0 ± 0,5	154,2	209
08010415	4 x 1,50 + 2 x (2 x 0,75)	16 / 4c	19 / 2pr	0,16	12,2 ± 0,5	174,3	233
08010425	4 x 2,50 + 2 x (2 x 1,00)	14 / 4c	18 / 2pr	0,16	15,0 ± 0,8	236,8	312
08010441	4 x 4,00 + (2 x 1,00) + (2 x 1,50)	12 / 4c	18 / 1pr + 16 / 1pr	0,16	17,8 ± 0,6	349,8	463
08010461	4 x 6,00 + (2 x 1,00) + (2 x 1,50)	10 / 4c	18 / 1pr + 16 / 1pr	0,21/0,16	18,6 ± 0,8	437,6	580
08010471	4 x 10,00 + (2 x 1,00) + (2 x 1,50)	8 / 4c	18 / 1pr + 16 / 1pr	0,21/0,16	22,5 ± 1,0	613,5	792
08010485	4 x 16,00 + 2 x (2 x 1,50)	6 / 4c	16 / 2pr	0,21/0,16	27,6 ± 0,8	880,6	1130
08010490	4 x 25,00 + 2 x (2 x 1,50)	4 / 4c	16 / 2pr	0,21/0,16	28,0 ± 1,0	1237,0	1507
08010495	4 x 35,00 + 2 x (2 x 1,50)	2 / 4c	16 / 2pr	0,21/0,16	32,0 ± 1,0	1647,3	2011
08010496	4 x 50,00 + 2 x (2 x 2,50)	1 / 4c	14 / 2pr	0,21/0,16	38,2 ± 1,0	2324,0	2866
08011415	4 x 1,50 + (2 x 1,50)	16 / 4c	16 / 1pr	0,16	12,5 ± 0,4	161,8	213
08011425	4 x 2,50 + (2 x 1,50)	14 / 4c	16 / 1pr	0,16	13,8 ± 0,4	202,1	266
08011440	4 x 4,00 + (2 x 1,50)	12 / 4c	16 / 1pr	0,16	14,9 ± 0,4	270,4	353
08011460	4 x 6,00 + (2 x 1,50)	10 / 4c	16 / 1pr	0,21/0,16	16,7 ± 1,1	382,5	490
08011470	4 x 10,00 + (2 x 1,50)	8 / 4c	16 / 1pr	0,21/0,16	19,2 ± 1,6	549,4	698
08011480	4 x 16,00 + (2 x 1,50)	6 / 4c	16 / 1pr	0,21/0,16	23,0 ± 1,7	802,2	1008
08011490	4 x 25,00 + (2 x 1,50)	4 / 4c	16 / 1pr	0,21/0,16	26,9 ± 1,0	1171,1	1448
08011495	4 x 35,00 + (2 x 1,50)	2 / 4c	16 / 1pr	0,21/0,16	31,0 ± 1,0	1592,3	2012
08011496	4 x 50,00 + (2 x 1,50)	1 / 4c	16 / 1pr	0,21/0,16	34,8 ± 1,0	2203,3	2695

Other dimensions and colours are possible on request.

Note: SIEMENS® is a registered trademark. It is only used for comparative purposes.  
BOSCH REXROTH® is a registered trademark. It is only used for comparative purposes.  
DESINA® is a registered trademark of the German Machine Tool Builders' Association.



www.sab-cable.com

# Servo Motor Cables

## SL 806 C

combined PE/PVC motor connection cable with overall copper screen 0.6/1 kV

very good  
EMC

SAB Servo



SL 806 C 4 x 0,75 mm<sup>2</sup> + 2 x (2 x 0,34 mm<sup>2</sup>) CE



Marking for SL 806 C 08060407:

SAB BRÖCKSKES · D-VIERSEN · SL 806 C 4 x 0,75 mm<sup>2</sup> + 2 x (2 x 0,34 mm<sup>2</sup>) CE

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 5 < 0,50 mm <sup>2</sup> with reference to VDE 0812
<b>Insulation:</b>	control cores: PE L/MD acc. to EN 50290-2-23 + VDE 0819-103 supply cores: PVC, TI2 acc. to EN 50363-3 + VDE 0207-363-3
<b>Colour code:</b>	black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334 (except 0,34 mm <sup>2</sup> = coloured) and a green-yellow earth wire
<b>Stranding:</b>	control cores 0,34 mm <sup>2</sup> - 1,5 mm <sup>2</sup> twisted to pairs
<b>Screen:</b>	pairs wrapped with alu foil, tinned copper braiding
<b>Wrapping:</b>	pairs with PETP foil
<b>Stranding:</b>	screened control pairs and supply cores twisted together in layers
<b>Wrapping:</b>	non-woven tape
<b>Screen:</b>	tinned copper braiding
<b>Sheath material:</b>	PVC, TM2 acc. to EN 50363-4-1 + VDE 0207-363-4-1
<b>Sheath colour:</b>	grey (RAL 7000)

### Technical data:

<b>Nominal voltage:</b>	supply cores	U <sub>0</sub> /U 0.6/1 kV
<b>Peak operating voltage:</b>	control cores	max. 500 V
<b>Testing voltage:</b>	supply cores	core/core 4000 V core/screen 4000 V
	control cores	core/core 1500 V core/screen 1200 V
<b>Min. bending radius</b>	<i>fixed laying:</i>	5 x d
	<i>flexible application:</i>	10 x d
<b>Radiation resistance:</b>	8 x 10 <sup>7</sup> cJ/kg	
<b>Temperature range</b>	<i>fixed laying:</i>	-30/+70 °C
	<i>flexible application:</i>	-5/+70 °C
<b>Oil resistance:</b>	acc. to internal standard, see chapter N „Technical data“	
<b>Chem. resistance:</b>	see chapter N „Technical data“	
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union, see chapter N „Technical data“	

C  
11

### Outstanding features:



- very good EMC characteristics
- high functionality
- space-saving application
- good handling

item no.	dimension	AWG		largest single wire ø mm	outer-ø ± 10% mm	copper figure kg/km	cable weight ≈ kg/km
		supply cores	control cores (pairs)				
08060407	4 x 0,75 + 2 x (2 x 0,34)	19 / 4c	22 / 2pr	0,21/0,16	12,7	123,0	205
08060415	4 x 1,50 + 2 x (2 x 0,75)	16 / 4c	19 / 2pr	0,26/0,21	14,0	180,6	274
08060425	4 x 2,50 + 2 x (2 x 0,75)	14 / 4c	19 / 2pr	0,26/0,21	15,4	230,2	346
08060440	4 x 4,00 + (2 x 1,00) + (2 x 1,50)	12 / 4c	18 / 1pr + 16 / 1pr	0,31/0,21/0,26	17,2	349,1	473
08060460	4 x 6,00 + (2 x 1,00) + (2 x 1,50)	10 / 4c	18 / 1pr + 16 / 1pr	0,31/0,21/0,26	19,1	429,3	581
08060470	4 x 10,00 + 2 x (2 x 1,00)	8 / 4c	18 / 2pr	0,41/0,21	22,6	595,9	843
08060480	4 x 16,00 + 2 x (2 x 1,50)	6 / 4c	16 / 2pr	0,41/0,21	27,5	860,0	1197
08060490	4 x 25,00 + 2 x (2 x 1,50)	4 / 4c	16 / 2pr	0,41/0,26	31,5	1254,2	1690
08060495	4 x 35,00 + 2 x (2 x 1,50)	2 / 4c	16 / 2pr	0,41/0,26	35,2	1678,3	2340

Other dimensions and colours are possible on request.

# Servo Motor Cables

## SL 810

PVC motor connection cable 0.6/1 kV

## SL 812 C

PVC motor connection cable with overall copper screen 0.6/1 kV

0.6/1 kV

SAB Servo

BRÖCKSKES · D-VIERSEN · SL 810 0,6/1 kV 5 x 1,5 mm<sup>2</sup> CE

Marking for SL 810 08100515:

SAB BRÖCKSKES · D-VIERSEN · SL 810 0,6/1 kV 5 x 1,5 mm<sup>2</sup> CE

BRÖCKSKES · D-VIERSEN · SL 812 C 0,6/1 kV 5 x 1,5 mm<sup>2</sup> CE

Marking for SL 812 C 08120515:

SAB BRÖCKSKES · D-VIERSEN · SL 812 C 0,6/1 kV 5 x 1,5 mm<sup>2</sup> CE



C  
12

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	PVC, T12 acc. to EN 50363-3 + VDE 0207-363-3
<b>Colour code:</b>	black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, green-yellow earth wire from 3 cores
<b>Stranding:</b>	in layers
<b>Sheath material:</b>	PVC, TM2 acc. to EN 50363-4-1 + VDE 0207-363-4-1
<b>Sheath colour:</b>	grey (RAL 7000)
<b>SL 812 C:</b>	PVC inner sheath over the stranding tinned copper braiding, PVC outer sheath in grey (RAL 7000)

### Outstanding features:

- high functionality
- good handling
- SL 812 C: very good EMC characteristics

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 0.6/1 kV	
<b>Testing voltage</b>		
<b>SL 810:</b>	core/core	4000 V
<b>SL 812 C:</b>	core/core	4000 V
	core/screen	4000 V
<b>Min. bending radius</b>	<b>SL 810</b>	<b>SL 812 C</b>
<i>fixed laying:</i>	4 x d	5 x d
<i>flexible application:</i>	6 x d	10 x d
<b>Radiation resistance:</b>	8 x 10 <sup>7</sup> cJ/kg	
<b>Temperature range</b>		
<i>fixed laying:</i>	-40/+70 °C	
<i>flexible application:</i>	+5/+70 °C	
<b>Oil resistance:</b>	acc. to internal standard, see chapter N „Technical data“	
<b>Chem. resistance:</b>	see chapter N „Technical data“	
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union, see chapter N „Technical data“	



for DNC motors  
on frequency converters

### SL 810

item no.	no. of cores x cross section n x mm <sup>2</sup>	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weigh ≈ kg/km
08100415	4 x 1,50	0,26	9,6	57,6	142
08100425	4 x 2,50	0,26	11,4	96,0	210
08100440	4 x 4,00	0,31	13,3	153,6	302
08100460	4 x 6,00	0,31	14,9	230,4	407
08100470	4 x 10,00	0,41	20,7	384,0	752
08100480	4 x 16,00	0,41	24,1	614,4	1069
08100490	4 x 25,00	0,41	29,3	960,0	1662
08100495	4 x 35,00	0,41	32,6	1344,0	2197
08100496	4 x 50,00	0,41	37,2	1920,0	3001
08100515	5 x 1,50	0,26	10,9	72,0	182
08100525	5 x 2,50	0,26	12,5	120,0	257
08100540	5 x 4,00	0,31	14,5	192,0	368
08100560	5 x 6,00	0,31	16,3	288,0	497
08100570	5 x 10,00	0,41	22,6	480,0	915
08100580	5 x 16,00	0,41	26,4	768,0	1309
08100590	5 x 25,00	0,41	32,1	1200,0	2039

Other dimensions and colours are possible on request.

### SL 812 C

item no.	no. of cores x cross section n x mm <sup>2</sup>	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weigh ≈ kg/km
08120415	4 x 1,50	0,26	12,0	111,7	232
08120425	4 x 2,50	0,26	13,4	155,7	301
08120440	4 x 4,00	0,31	15,1	250,8	410
08120460	4 x 6,00	0,31	16,7	328,9	521
08120470	4 x 10,00	0,41	20,9	522,2	827
08120480	4 x 16,00	0,41	24,7	783,4	1175
08120490	4 x 25,00	0,41	29,4	1157,7	1743
08120495	4 x 35,00	0,41	33,2	1565,8	2306
08120496	4 x 50,00	0,41	37,5	2165,5	2800
08120515	5 x 1,50	0,26	12,9	131,5	288
08120525	5 x 2,50	0,26	14,7	206,0	366
08120540	5 x 4,00	0,31	16,7	290,5	491
08120560	5 x 6,00	0,31	18,1	399,2	615
08120570	5 x 10,00	0,41	22,8	645,5	890
08120580	5 x 16,00	0,41	27,0	942,8	1393
08120590	5 x 25,00	0,41	32,3	1419,5	2087

Other dimensions and colours are possible on request.

# Servo Motor Cables

**SL 802 C** TPE/PUR feedback cable with overall copper screen

**SL 803 C** TPE/PUR transmission cable with overall copper screen

suitable for  
cable tracks

SAB Servo

BROCKSKES · D-VIERSEN · SL 802 C 9 x 0,5 mm<sup>2</sup> CE



Marking for SL 802 C 08020050:

SAB BRÖCKSKES · D-VIERSEN · SL 802 C 9 x 0,5 mm<sup>2</sup> CE



4 x 2 x 0,14 mm<sup>2</sup> + 4 x 0,5 mm<sup>2</sup> DESINA CE



Marking for SL 803 C 08030012:

SAB BRÖCKSKES · D-VIERSEN · SL 803 C 4 x 2 x 0,14 mm<sup>2</sup> + 4 x 0,5 mm<sup>2</sup> DESINA CE

## Construction:

<b>Conductor:</b>	bare copper strands with reference to VDE 0812
<b>Insulation:</b>	TPE
<b>Colour code:</b>	coloured
<b>Stranding</b>	
<b>SL 802 C:</b>	in layers
<b>SL 803 C:</b>	in layers or pairwise
	<i>acc. to dimension:</i>
<b>Screen:</b>	pairs with tinned copper wires braided or wrapped
<b>Inner sheath:</b>	TPE
<b>Stranding:</b>	cores/pairs twisted together in layers
<b>Wrapping:</b>	non-woven tape or netting tape
<b>Screen:</b>	tinned copper braiding
<b>Wrapping:</b>	non-woven tape
<b>Sheath material:</b>	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with mat surface
<b>Sheath colour:</b>	<b>SL 802 C:</b> orange (RAL 2003) <b>SL 803 C:</b> green (RAL 6018)

## Technical data:

<b>Peak operating voltage</b>	
<b>SL 802 C:</b>	max. 500 V
<b>SL 803 C:</b>	max. 350 V
<b>Testing voltage:</b>	core/core 2000 V core/screen 1200 V
<b>Min. bending radius</b>	
<i>fixed laying:</i>	5 x d
<i>flexible application:</i>	10 x d
<i>continuously flexible:</i>	12 x d
<b>Radiation resistance:</b>	5 x 10 <sup>7</sup> cJ/kg
<b>Temperature range</b>	
<i>fixed laying:</i>	-50/+90 °C
<i>flexible application:</i>	-40/+90 °C
<b>Oil resistance:</b>	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Chem. resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids etc.
<b>Weather resistance:</b>	very good
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union, see chapter N „Technical data“

C  
13

## Outstanding features:



- very good EMC characteristics
- very high flexibility
- very long service life
- suitable for cable tracks
- adhesion-free installation
- oil resistant
- halogen-free
- PWIS uncritical  
(PWIS = paint-wetting impairment substances)
- flexible at low temperatures
- DESINA® colours (see page C/4)



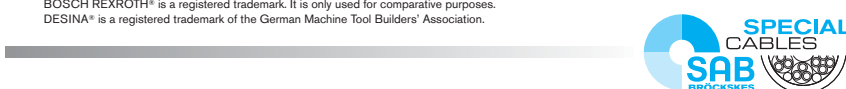
suitable for  
resolvers and shaft encoders

item no.	dimension	sheath colour	largest single wire ø mm	outer-ø ± 10% mm	copper figure kg/km	cable weight ≈ kg/km
motor feedback cable						
08020050	9 x 0,50	orange	0,16	7,8	66,2	97
transmission cable						
08030009	4 x 2 x 0,25 + 2 x 0,50	orange	0,11/0,16	7,8	51,8	81
08030010	4 x 2 x 0,25 + 2 x 1,00	orange	0,11/0,16	7,9	63,3	93
08030160	3 x 2 x 0,25 + 3 x 0,25 + 2 x 1,00	orange	0,11/0,16	7,9	65,8	96
08030040	3 x 2 x 0,25	orange	0,11	6,3	33,2	52
08030060	4 x 2 x 0,14 + (4 x 0,14) D + 4 x 1,00	orange	0,11/0,16	9,7	88,5	135
08030012	4 x 2 x 0,14 + 4 x 0,50	green	0,11/0,16	7,9	54,9	86
08030112	10 x 0,14 + 2 x 0,50	green	0,11/0,16	7,0	44,0	66
08030114	10 x 0,14 + 4 x 0,50	green	0,11/0,16	7,8	55,6	83
08030013	4 x 2 x 0,38 + 4 x 0,50	green	0,11/0,16	8,9	75,9	112
08030020	3 x (2 x 0,14 C) + 2 x 1,00	green	0,11/0,16	8,6	80,6	102
08030022	3 x (2 x 0,14 C) + 2 x (0,50 C)	green	0,11/0,16	8,8	87,6	108
08031050	3 x (2 x 0,14 D) + 4 x 0,14 + 4 x 0,22 + 2 x 0,50	green	0,11	9,5	77,9	121

Other dimensions and colours are possible on request.

Note: SIEMENS® is a registered trademark. It is only used for comparative purposes.  
BOSCH REXROTH® is a registered trademark. It is only used for comparative purposes.  
DESINA® is a registered trademark of the German Machine Tool Builders' Association.

DESINA®  
SIEMENS®



www.sab-cable.com

# Servo Motor Cables



**SL 807 C** PE/PVC feedback cable with overall copper screen

**SL 808 C** PE/PVC transmission cable with overall copper screen



Marking for SL 807 C 08070050:  
SAB BRÖCKSKES · D-VIERSEN · SL 807 C 9 x 0,5 mm² CE



Marking for SL 808 C 08080112:  
SAB BRÖCKSKES · D-VIERSEN · SL 808 C 10 x 0,14 mm² + 2 x 0,5 mm² CE

C  
14

## Construction:

<b>Conductor:</b>	bare copper strands with reference to VDE 0812
<b>Insulation:</b>	PE L/MD acc. to EN 50290-2-23 + VDE 0819-103
<b>Colour code:</b>	coloured
<b>Stranding</b>	in layers
<b>SL 807 C:</b>	in layers or pairwise
	acc. to dimension:
<b>Screen:</b>	pairs screened or wrapped with tinned copper braiding
<b>Wrapping:</b>	PETP foil
<b>Stranding:</b>	cores/pairs twisted together in layers
<b>Wrapping:</b>	PETP foil
<b>Screen:</b>	tinned copper braiding
<b>Sheath material:</b>	PVC, TM2 acc. to EN 50363-4-1 + VDE 0207-363-4-1
<b>Sheath colour:</b>	grey (RAL 7000)

## Technical data:

<b>Peak operating voltage</b>	max. 500 V
<b>SL 807 C:</b>	max. 350 V
<b>SL 808 C:</b>	
<b>Testing voltage:</b>	core/core 2000 V core/screen 1200 V
<b>Min. bending radius</b>	
<i>fixed laying:</i>	5 x d
<i>flexible application:</i>	10 x d
<i>continuously flexible:</i>	12 x d
<b>Radiation resistance:</b>	8 x 10 <sup>7</sup> cJ/kg
<b>Temperature range</b>	
<i>fixed laying:</i>	-30/+70 °C
<i>flexible application:</i>	-5/+70 °C
<b>Oil resistance:</b>	acc. to internal standard, see chapter N „Technical data“
<b>Chem. resistance:</b>	see chapter N „Technical data“
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union, see chapter N „Technical data“

## Outstanding features:



- good EMC characteristics
- high functionality
- space-saving application
- good handling



suitable for  
resolvers and shaft encoders

item no.	dimension	sheath colour	largest single wire ø mm	outer-ø ± 10% mm	copper figure kg/km	cable weight ≈ kg/km
motor feedback cable						
08070050	9 x 0,50	grey	0,21	8,4	68,2	107
transmission cable						
08080009	4 x 2 x 0,25 + 2 x 0,50	grey	0,16/0,21	8,1	53,7	82
08080010	4 x 2 x 0,25 + 2 x 1,00	grey	0,16/0,21	8,4	63,3	93
08080012	4 x 2 x 0,14 + 4 x 0,50	grey	0,11/0,21	8,3	54,9	85
08080112	10 x 0,14 + 2 x 0,50	grey	0,11/0,21	7,4	44,0	73
08080114	10 x 0,14 + 4 x 0,50	grey	0,11/0,21	8,0	57,5	92
08080013	4 x 2 x 0,38 + 4 x 0,50	grey	0,21	10,1	78,7	128
08080020	3 x (2 x 0,14 C) + 2 x 1,00	grey	0,11/0,21	8,2	77,9	100
08080022	3 x (2 x 0,14 C) + 2 x (0,50 C)	grey	0,11/0,21	8,2	81,9	100

Other dimensions and colours are possible on request.

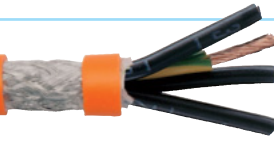
# Servo Motor Cables

## SL 860 C

low capacity PVC motor connection cable with overall copper screen 0.6/1 kV



4 **DESINA** AWM Style 21179 80°C 1000V CE



Marking for SL 860 C 08600415:

SAB BRÜCKSKES · D-VIERSEN · 08600415 4 x 1,5 mm<sup>2</sup> SL 860 C 16 AWG/4c 08601604 **DESINA** AWM Style 21179 80°C 1000V CE

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	special polymer
<b>Colour code:</b>	black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334 and a green-yellow earth wire
<b>Stranding:</b>	specially adjusted layering
<b>Wrapping:</b>	foil
<b>Screen:</b>	tinned copper braiding
<b>Sheath material:</b>	PVC
<b>Sheath colour:</b>	orange (RAL 2003)

### Outstanding features:



- UL recognized
- very good EMC characteristics
- very good stripping
- low capacity construction
- very good oil resistance

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 0.6/1 kV	
<b>Voltage UL:</b>	1000 V	
<b>Testing voltage:</b>	core/core 4000 V	core/screen 4000 V
<b>Min. bending radius</b>		
<i>fixed laying:</i>	5 x d	
<i>flexible application:</i>	10 x d	
<b>Temperature range</b>	<b>DIN VDE</b>	<b>UL:</b> up to +80 °C
<i>fixed laying:</i>	-30/+70 °C	
<i>flexible application:</i>	+0/+70 °C	
<b>Fire performance:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL FT1	
<b>Oil resistance:</b>	very good - TM5 acc. to EN 50363-4-1 + VDE 0207-363-4-1	
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union, see chapter N „Technical data“	

C  
15

item no.	no. of cores x cross section n x mm <sup>2</sup>	AWG	largest single wire ø mm	outer-ø ± 5 % mm	copper figure kg/km	cable weight ≈ kg/km
08600410	4 x 1,00	18 / 4c	0,21	7,7	58,1	95
08600415	4 x 1,50	16 / 4c	0,26	8,5	81,3	116
08600425	4 x 2,50	14 / 4c	0,26	9,3	125,0	159
08600440	4 x 4,00	12 / 4c	0,31	11,9	207,6	262
08600460	4 x 6,00	10 / 4c	0,31	13,6	290,2	354
08600470	4 x 10,00	8 / 4c	0,41	21,4	493,9	618
08600480	4 x 16,00	6 / 4c	0,41	22,2	753,6	919
08600490	4 x 25,00	4 / 4c	0,41	26,0	1130,3	1319
08600495	4 x 35,00	2 / 4c	0,41	29,3	1538,4	1760
08600496	4 x 50,00	1 / 4c	0,41	30,6	2118,8	2430

Other dimensions and colours are possible on request.

Note: DESINA® is a registered trademark of the German Machine Tool Builders' Association.

# Servo Motor Cables

## SL 863 C

low capacity combined PVC motor connection cable with overall copper screen 0.6/1 kV



**DESINA** AWM Style 21179 80°C 1000V CE



Marking for SL 863 C 08631415:

SAB BRÖCKSKES · D-VIERSEN · 08631415 SL 863 C 4 x 1,50 mm<sup>2</sup> + (2 x 1,50 mm<sup>2</sup>) **DESINA** AWM Style 21179 80°C 1000V CE

C  
16

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	special polymer
<b>Colour code:</b>	supply cores: black cores with printing core 1: U/L1/C/L+ core 2: V/L2 core 3: W/L3/D/L- and a green-yellow earth wire control cores: with numbers 5+6
<b>Stranding:</b>	control cores twisted to pairs
<b>Screen:</b>	tinned copper braiding
<b>Wrapping:</b>	PETP foil
<b>Stranding:</b>	screened control pair and supply cores twisted together in layer
<b>Wrapping:</b>	PETP foil
<b>Screen:</b>	tinned copper braiding
<b>Sheath material:</b>	PVC
<b>Sheath colour:</b>	orange (RAL 2003)

### Technical data:

<b>Nominal voltage:</b>	supply cores U <sub>0</sub> /U 0.6/1 kV
<b>Voltage UL:</b>	supply cores 1000 V
<b>Peak operating voltage:</b>	control cores max. 350 V
<b>Voltage UL:</b>	control cores 1000 V
<b>Testing voltage:</b>	supply cores core/core 4000 V core/screen 4000 V control cores core/core 2000 V core/screen 2000 V
<b>Min. bending radius</b>	
<i>fixed laying:</i>	5 x d
<i>flexible application:</i>	10 x d
<b>Temperature range</b>	<b>DIN VDE</b> UL: up to +80 °C
<i>fixed laying:</i>	-30/+70 °C
<i>flexible application:</i>	+0/+70 °C
<b>Fire performance:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL FT1
<b>Oil resistance:</b>	very good - TM5 acc. to EN 50363-4-1 + VDE 0207-363-4-1
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union, see chapter N „Technical data“

### Outstanding features:



- UL recognized
- very good EMC characteristics
- very good stripping
- low capacity construction
- very good oil resistance

**DESINA**  
SIEMENS®

item no.	dimension	AWG		largest single wire ø mm	outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
		supply cores	control cores (pairs)				
08631415	4 x 1,50 + (2 x 1,50)	16 / 4c	16 / 1pr	0,26/0,26	10,4	133,4	178
08631425	4 x 2,50 + (2 x 1,50)	14 / 4c	16 / 1pr	0,26/0,26	12,2	196,7	256
08631440	4 x 4,00 + (2 x 1,50)	12 / 4c	16 / 1pr	0,31/0,26	13,7	260,0	324
08631460	4 x 6,00 + (2 x 1,50)	10 / 4c	16 / 1pr	0,31/0,26	16,2	374,9	472
08631470	4 x 10,00 + (2 x 1,50)	8 / 4c	16 / 1pr	0,41/0,26	18,9	542,3	672
08631480	4 x 16,00 + (2 x 1,50)	6 / 4c	16 / 1pr	0,41/0,26	23,3	802,2	975
08631490	4 x 25,00 + (2 x 1,50)	4 / 4c	16 / 1pr	0,41/0,26	26,7	1178,5	1363
08631495	4 x 35,00 + (2 x 1,50)	2 / 4c	16 / 1pr	0,41/0,26	29,8	1586,4	1789

Other dimensions and colours are possible on request.

Note: SIEMENS® is a registered trademark. It is only used for comparative purposes.  
DESINA® is a registered trademark of the German Machine Tool Builders' Association.



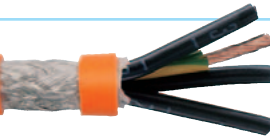
# Servo Motor Cables

## SL 834 C

low capacity PUR motor connection cable with overall copper screen 0.6/1 kV



20235 80°C CSA AWM I/II A/B 80°C 1000V FT1 FT2 CE



Marking for SL 834 C 08340415:

SAB BBRÖCKSKES · D-VIERSEN · 08340415 4 x 1,5 mm<sup>2</sup> SL 834 C 16 AWG/4c 1000V 08341604

DESINA AWM Style 20235 80°C CSA AWM I/II A/B 80°C 1000V FT1 FT2 CE

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 6
<b>Insulation:</b>	special polymer
<b>Colour code:</b>	black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334 and a green-yellow earth wire
<b>Stranding:</b>	in layers
<b>Wrapping:</b>	non-woven tape
<b>Screen:</b>	tinned copper braiding
<b>Sheath material:</b>	PUR
<b>Sheath colour:</b>	orange (RAL 2003)

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 0.6/1 kV	
<b>Voltage UL/CSA:</b>	1000 V	
<b>Testing voltage:</b>	core/core 4000 V	core/screen 4000 V
<b>Min. bending radius</b>		
fixed laying:	5 x d	
flexible application:	10 x d	
continuously flexible:	12 x d	
<b>Temperature range</b>	DIN VDE	UL/CSA: up to +80 °C
fixed laying:	-50/+90 °C	
flexible application:	-40/+90 °C	
<b>Fire performance:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL FT1, CSA FT1, FT2	
<b>Oil resistance:</b>	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2	
<b>Chem. resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids etc.	
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union, see chapter N „Technical data“	

### Outstanding features:



- UL recognized, CSA approval
- low capacity construction
- very good EMC characteristics
- halogen-free
- very high flexibility
- suitable for cable tracks
- very good oil resistance
- very long service life
- adhesion-free installation
- PWIS uncritical  
(PWIS = paint-wetting impairment substances)
- flexible at low temperatures
- DESINA® colours (see page C/4)



for DNC motors  
on frequency converters

item no.	no. of cores x cross section n x mm <sup>2</sup>	AWG	largest single wire ø mm	outer-ø ± 5 % mm	copper figure kg/km	cable weight ≈ kg/km
08340415	4 x 1,50	16 / 4c	0,16	9,0	83,5	126
08340425	4 x 2,50	14 / 4c	0,16	10,8	142,5	195
08340440	4 x 4,00	12 / 4c	0,16	12,4	206,5	270
08340460	4 x 6,00	10 / 4c	0,21	15,4	298,1	398
08340470	4 x 10,00	8 / 4c	0,21	17,6	494,7	604
08340480	4 x 16,00	6 / 4c	0,21	22,7	749,7	953
08340490	4 x 25,00	4 / 4c	0,21	25,6	1119,8	1303
08340495	4 x 35,00	2 / 4c	0,21	28,9	1532,9	1750
08340496	4 x 50,00	1 / 4c	0,31	34,5	2144,5	2486

Other dimensions and colours are possible on request.

Note: DESINA® is a registered trademark of the German Machine Tool Builders' Association.

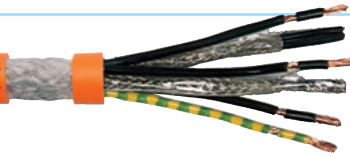
# Servo Motor Cables

## SL 871 C

low capacity combined PUR motor connection cable with overall copper screen 0.6/1 kV



1000V CSA AWM I/II A/B 80°C 300V FT1 FT2 CE



Marking for SL 871 C 08710415:

SAB BRÖCKSKES · D-VIERSEN · SL 871 C 4 x 1,5 mm<sup>2</sup> (1000V) + (2 x 1,5 mm<sup>2</sup>) (300V) 0871-0415

DESINA AWM Style 20235 80°C 1000V CSA AWM I/II A/B 80°C 300V FT1 FT2 CE

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 6 < 0,50 mm <sup>2</sup> with reference to VDE 0812
<b>Insulation:</b>	special polymer
<b>Colour code:</b>	supply cores up to 08710496: black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334 and a green-yellow earth wire supply cores up to 08711415: core 1: U/L1/C/L+, core 2: V/L2, core 3: W/L3/D/L- and a green-yellow earth wire control cores: with 1 control pair: black, white with 2 control pairs: black with numbers 5, 6 and 7, 8
<b>Stranding:</b>	control cores: twisted to pairs
<b>Wrapping:</b>	control cores: non-woven tape
<b>Screen:</b>	control cores: tinned copper braiding
<b>Wrapping:</b>	control cores: non-woven tape
<b>Stranding:</b>	screened control pairs and supply cores twisted together with fillers in layers
<b>Wrapping:</b>	non-woven tape
<b>Screen:</b>	overall copper screen
<b>Wrapping:</b>	non-woven tape
<b>Sheath material:</b>	TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with mat surface
<b>Sheath colour:</b>	orange (RAL 2003)

### Technical data:

<b>Nominal voltage:</b>	supply cores 0.6/1 kV
<b>Peak operating voltage:</b>	control cores max. 350 V
<b>Voltage UL/CSA:</b>	supply cores 1000 V control cores 300 V (from 08711415: 1000 V)
<b>Testing voltage:</b>	supply cores core/core 4000 V core/screen 4000 V control cores core/core 2000 V core/screen 2000 V
<b>Min. bending radius</b>	
<i>fixed laying:</i>	5 x d
<i>flexible application:</i>	10 x d
<i>continuously flexible:</i>	12 x d
<b>Temperature range</b>	<b>DIN VDE</b> UL/CSA: up to +80°C
<i>fixed laying:</i>	-50/+90 °C
<i>flexible application:</i>	-40/+90 °C
<b>Fire performance:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL FT1, CSA FT1, FT2
<b>Oil resistance:</b>	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Chem. resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids etc.
<b>Weather resistance:</b>	very good
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union, see chapter N „Technical data“

C  
18

### Outstanding features:



- low capacity construction
- UL recognized, CSA approval
- very good EMC characteristics
- long service life
- adhesion-free installation
- high flexibility
- suitable for cable tracks
- halogen-free
- PWIS uncritical  
(PWIS = paint-wetting impairment substances)
- flexible at low temperatures
- DESINA® colours (see page C/4)



Cable harnessing possible on request

item no.	dimension	AWG		largest single wire ø mm	outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
		supply cores	control cores (pairs)				
08710407	4 x 0,75 + 2 x (2 x 0,34)	19 / 4c	22 / 2pr	0,16/0,11	11,6 ± 0,5	117,1	168
08710410	4 x 1,00 + 2 x (2 x 0,75)	18 / 4c	19 / 2pr	0,16	11,8 ± 0,5	150,1	201
08710415	4 x 1,50 + 2 x (2 x 0,75)	16 / 4c	19 / 2pr	0,16	12,3 ± 0,5	170,1	224
08710425	4 x 2,50 + 2 x (2 x 1,00)	14 / 4c	18 / 2pr	0,16	14,5 ± 0,8	231,8	320
08710441	4 x 4,00 + (2 x 1,00) + (2 x 1,50)	12 / 4c	18 / 1pr + 16 / 1pr	0,16	17,4 ± 0,6	343,0	458
08710461	4 x 6,00 + (2 x 1,00) + (2 x 1,50)	10 / 4c	18 / 1pr + 16 / 1pr	0,21/0,16	18,9 ± 0,8	432,8	557
08710471	4 x 10,00 + (2 x 1,00) + (2 x 1,50)	8 / 4c	18 / 1pr + 16 / 1pr	0,21/0,16	20,4 ± 1,0	603,7	758
08710485	4 x 16,00 + 2 x (2 x 1,50)	6 / 4c	16 / 2pr	0,21/0,16	26,0 ± 0,8	875,7	1111
08710490	4 x 25,00 + 2 x (2 x 1,50)	4 / 4c	16 / 2pr	0,21/0,16	29,4 ± 0,8	1251,1	1517
08710495	4 x 35,00 + 2 x (2 x 1,50)	2 / 4c	16 / 2pr	0,21/0,16	31,3 ± 0,8	1644,6	1882
08710496	4 x 50,00 + 2 x (2 x 2,50)	1 / 4c	14 / 2pr	0,31/0,16	38,2 ± 0,8	2317,6	2659
08711415	4 x 1,50 + (2 x 1,50)	16 / 4c	16 / 1pr	0,16/0,16	12,0 ± 0,3	159,0	200
08711425	4 x 2,50 + (2 x 1,50)	14 / 4c	16 / 1pr	0,16/0,16	13,0 ± 0,3	204,0	290
08711440	4 x 4,00 + (2 x 1,50)	12 / 4c	16 / 1pr	0,16/0,16	15,0 ± 0,3	259,0	340
08711460	4 x 6,00 + (2 x 1,50)	10 / 4c	16 / 1pr	0,21/0,16	16,6 ± 0,4	377,0	470
08711470	4 x 10,00 + (2 x 1,50)	8 / 4c	16 / 1pr	0,21/0,16	19,5 ± 0,4	566,0	700
08711480	4 x 16,00 + (2 x 1,50)	6 / 4c	16 / 1pr	0,21/0,16	23,0 ± 0,4	814,8	1010
08711490	4 x 25,00 + (2 x 1,50)	4 / 4c	16 / 1pr	0,21/0,16	27,0 ± 0,5	1175,0	1450
08711495	4 x 35,00 + (2 x 1,50)	2 / 4c	16 / 1pr	0,21/0,16	30,0 ± 0,5	1586,0	2160
08711496	4 x 50,00 + (2 x 1,50)	1 / 4c	16 / 1pr	0,26/0,16	34,4 ± 0,5	2192,0	2950

Other dimensions and colours are possible on request.

Note: SIEMENS® is a registered trademark. It is only used for comparative purposes.  
BOSCH REXROTH® is a registered trademark. It is only used for comparative purposes.  
DESINA® is a registered trademark of the German Machine Tool Builders' Association.



# Servo Motor Cables

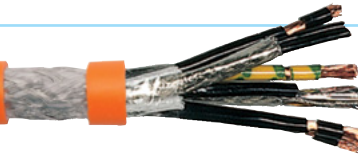
## SL 875 C

low capacity hybrid motor connection cable with overall copper screen 0.6/1 kV

for all-in-one  
cable systems

SAB Servo

0 80°C CSA AWM I/II A/B 80°C 300V FT1 FT2 CE



Marking for SL 875 C 08750105:

SAB BRÖCKSKES · D-VIERSEN · 08750105 SL 875 C 4G1,5 mm<sup>2</sup> (1000V) + (2 x 1,0 mm<sup>2</sup>)C (1000V) + (2 x AWG 22)C (1000V)

DESINA AWM Style 20910 80°C CSA AWM I/II A/B 80°C 300V FT1 FT2 CE

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 6 < 0,50 mm <sup>2</sup> with reference to VDE 0812
<b>Insulation:</b>	special polymer
<b>Colour code:</b>	<b>item 087501 . . .</b> supply cores: black cores with printing core 1: U/L1/C/L+ core 2: V/L2 core 3: W/L3/D/L- and a green-yellow earth wire control cores: black cores with number 5+6 feedback: white, blue <b>item 087505 . . .</b> supply cores: black, blue, brown, green-yellow control cores: white-blue, white-green feedback: white-green, brown-green + gray, pink, yellow, violet
<b>Stranding:</b>	control cores pairwise, <b>item 087501 . . .</b> feedbackcores pairwise <b>item 087505 . . .</b> feedbackcores 0,09 mm <sup>2</sup> pairwise pairs with cores 0,24 mm <sup>2</sup> in layers optimally stranded
<b>Wrapping:</b>	non-woven tape resp. foil
<b>Screen:</b>	elements with tinned copper braiding <b>item 087501 . . .</b> feedbackcores additional alu foil
<b>Wrapping:</b>	non-woven tape resp. foil
<b>Stranding:</b>	screened elements and supply cores in layers optimally stranded
<b>Wrapping:</b>	non-woven tape
<b>Sheath material:</b>	TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with mat surface
<b>Sheath colour:</b>	orange (RAL 2003)

### Technical data:

<b>Nominal voltage:</b>	DIN VDE: supply cores	U <sub>0</sub> /U 0.6/1 kV
<b>Peak operating voltage:</b>	DIN VDE: control cores + feedbackcores	max. 500 V
<b>Voltage:</b>	<b>UL:</b> <b>CSA:</b>	1000 V 1000 V 300 V
<b>Testing voltage:</b>	supply cores + control cores feedbackcores	core/core 4000 V core/screen 4000 V core/core 3000 V core/screen 3000 V
<b>Min. bending radius</b>		
<i>fixed laying:</i>	5 x d	
<i>flexible application:</i>	10 x d	
<i>continuously flexible:</i>	12 x d	
<b>Radiation resistance:</b>	5 x 10 <sup>7</sup> cJ/kg	
<b>Temperature range</b>	DIN VDE	UL/CSA: up to +80 °C
<i>fixed laying:</i>	-50/+90 °C	
<i>flexible application:</i>	-40/+90 °C	
<b>Fire performance:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL FT1, CSA FT1, FT2	
<b>Oil resistance:</b>	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2	
<b>Chem. resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids etc.	
<b>Weather resistance:</b>	very good	
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union, see chapter N „Technical data“	

C  
19

### Outstanding features:



- used as all-in-one cable solution in motor feedback systems
- low capacity construction
- UL recognized, CSA approval
- very good EMC characteristics
- long service life
- adhesion-free installation
- suitable for cable tracks
- halogen-free
- PWIS uncritical  
(PWIS = paint-wetting impairment substances)
- flexible at low temperatures
- DESINA® colours (see page C/4)

item no.	dimension	outer-ø approx. mm	copper figure kg/km	cable weight ≈ kg/km
<b>acc. to SICK HIPERFACE DSL*</b>				
08750101	4 x 0,50 + (2 x 0,34)C + (2 x 26 AWG)C	9,8	85,2	131
08750102	4 x 0,75 + (2 x 0,34)C + (2 x 26 AWG)C	10,0	95,4	139
08750103	4 x 1,00 + (2 x 0,75)C + (2 x 22 AWG)C	11,8	155,2	199
08750104	4 x 1,50 + (2 x 0,75)C + (2 x 22 AWG)C	12,6	176,5	230
08750105	4 x 1,50 + (2 x 1,00)C + (2 x 22 AWG)C	12,8	181,7	237
08750106	4 x 2,50 + (2 x 1,00)C + (2 x 22 AWG)C	13,9	222,0	286
08750107	4 x 4,00 + (2 x 1,00)C + (2 x 22 AWG)C	15,4	292,8	376
08750108	4 x 6,00 + (2 x 1,00)C + (2 x 22 AWG)C	18,1	414,2	520
08750109	4 x 10,00 + (2 x 1,50)C + (2 x 22 AWG)C	20,0	593,3	715
08750110	4 x 16,00 + (2 x 1,50)C + (2 x 22 AWG)C	24,4	851,9	1055
<b>acc. to HEIDENHAIN HMC6*</b>				
08750501	4 x 0,75 + (2 x 0,34)C + (2 x 0,24 + 2 x 2 x 0,09)C	10,8	122,7	163
08750502	4 x 1,50 + (2 x 0,75)C + (2 x 0,24 + 2 x 2 x 0,09)C	12,1	171,1	219
08750503	4 x 2,50 + (2 x 1,00)C + (2 x 0,24 + 2 x 2 x 0,09)C	13,7	224,0	282
08750504	4 x 4,00 + (2 x 1,00)C + (2 x 0,24 + 2 x 2 x 0,09)C	15,4	288,2	359

Other dimensions and colours are possible on request.

Note: SICK HIPERFACE DSL\* is a registered trademark of SICK AG. It is only used for comparative purposes.  
HEIDENHAIN HMC6\* is a registered trademark of Dr. Johannes Heidenhain GmbH.  
It is only used for comparative purposes.

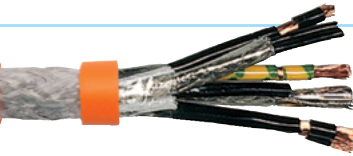
# Servo Motor Cables

## SL 841 C

combined TPE/PUR motor connection cable with overall copper screen 0.6/1 kV



80°C CSA AWM III A/B 80°C 300V FT1 FT2 CE



Marking for SL 841 C 08410407:

SAB BRÖCKSKES · D-VIERSEN · 08410407 SL 841 C 4 x 0,75 mm<sup>2</sup> (1000V) + 2 x (2 x 0,34 mm<sup>2</sup>) (300V)

DESINA AWM Style 20235 80°C CSA AWM III A/B 80°C 300V FT1 FT2 CE

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 6 < 0,50 mm <sup>2</sup> with reference to VDE 0812
<b>Insulation:</b>	TPE
<b>Colour code:</b>	black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334 and a green-yellow earth wire supply cores: * U1, V2, W3 and a green-yellow earth wire control cores: ** BR1 and BR2
<b>from item no. 08411415:</b>	
<b>Stranding:</b>	control cores 0,34 mm <sup>2</sup> - 2,5 mm <sup>2</sup> twisted to pairs
<b>Screen:</b>	pairs wrapped with alu foil, tinned copper braiding
<b>Wrapping:</b>	pairs with PETP foil
<b>Stranding:</b>	screened control pairs and supply cores twisted together in layers
<b>Wrapping:</b>	two layers non-woven tape
<b>Screen:</b>	overall copper screen
<b>Wrapping:</b>	non-woven tape
<b>Sheath material:</b>	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with mat surface
<b>Sheath colour:</b>	orange (RAL 2003)

### Technical data:

<b>Nominal voltage:</b>	supply cores U <sub>0</sub> /U 0.6/1 kV
<b>Peak operating voltage:</b>	control cores max. 350 V
<b>Voltage UL/CSA:</b>	supply cores 1000 V control cores 300 V
<b>Testing voltage:</b>	supply cores core/core 4000 V core/screen 4000 V control cores core/core 2000 V core/screen 2000 V
<b>Min. bending radius</b>	5 x d fixed laying: flexible application: continuously flexible: 10 x d 12 x d
<b>Radiation resistance:</b>	5 x 10 <sup>7</sup> cJ/kg
<b>Temperature range</b>	DIN VDE UL/CSA: up to +80 °C fixed laying: -50/+90 °C flexible application: -40/+90 °C
<b>Fire performance:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL FT1, CSA FT1, FT2
<b>Oil resistance:</b>	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Chem. resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids etc.
<b>Weather resistance:</b>	very good
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union, see chapter N „Technical data“

### Outstanding features:

- UL recognized, CSA approval
- very good EMC characteristics
- long service life
- adhesion-free installation
- high flexibility
- suitable for cable tracks
- halogen-free
- PWIS uncritical  
(PWIS = paint-wetting impairment substances)
- flexible at low temperatures
- DESINA® colours (see page C/4)



Cable harnessing possible on request

item no.	dimension	AWG		largest single wire ø mm	outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
		supply cores	control cores (pairs)				
08410407	4 x 0,75 + 2 x (2 x 0,34)	19 / 4c	22 / 2pr	0,16/0,11	11,6 ± 0,5	117,1	168
08410410	4 x 1,00 + 2 x (2 x 0,75)	18 / 4c	19 / 2pr	0,16	11,8 ± 0,5	150,1	201
08410415	4 x 1,50 + 2 x (2 x 0,75)	16 / 4c	19 / 2pr	0,16	12,3 ± 0,5	170,1	228
08410425	4 x 2,50 + 2 x (2 x 1,00)	14 / 4c	18 / 2pr	0,16	14,5 ± 0,8	231,8	320
08410441	4 x 4,00 + (2 x 1,00) + (2 x 1,50)	12 / 4c	18 / 1pr + 16 / 1pr	0,16	17,4 ± 0,6	343,0	458
08410461	4 x 6,00 + (2 x 1,00) + (2 x 1,50)	10 / 4c	18 / 1pr + 16 / 1pr	0,21/0,16	18,9 ± 0,8	432,8	557
08410471	4 x 10,00 + (2 x 1,00) + (2 x 1,50)	8 / 4c	18 / 1pr + 16 / 1pr	0,21/0,16	20,4 ± 1,0	603,7	736
08410485	4 x 16,00 + 2 x (2 x 1,50)	6 / 4c	16 / 2pr	0,21/0,16	26,0 ± 0,8	875,7	1111
08410490	4 x 25,00 + 2 x (2 x 1,50)	4 / 4c	16 / 2pr	0,21/0,16	29,4 ± 0,8	1251,1	1517
08410495	4 x 35,00 + 2 x (2 x 1,50)	2 / 4c	16 / 2pr	0,21/0,16	31,3 ± 0,8	1644,6	1882
08410496	4 x 50,00 + 2 x (2 x 2,50)	1 / 4c	14 / 2pr	0,31/0,16	38,2 ± 0,8	2317,6	2659
08411415	4 x 1,50 + (2 x 1,50)	16 / 4c	16 / 1pr	0,16	12,5 ± 0,3	159,9	222
08411425	4 x 2,50 + (2 x 1,50)	14 / 4c	16 / 1pr	0,16	13,3 ± 0,4	204,8	285
08411440	4 x 4,00 + (2 x 1,50)	12 / 4c	16 / 1pr	0,16	15,2 ± 0,4	268,8	369
08411460	4 x 6,00 + (2 x 1,50)	10 / 4c	16 / 1pr	0,21/0,16	16,6 ± 1,1	377,5	485
08411470	4 x 10,00 + (2 x 1,50)	8 / 4c	16 / 1pr	0,21/0,16	19,5 ± 1,6	555,8	677
08411480	4 x 16,00 + (2 x 1,50)	6 / 4c	16 / 1pr	0,21/0,16	23,7 ± 1,0	814,8	1019
08411490	4 x 25,00 + (2 x 1,50)	4 / 4c	16 / 1pr	0,21/0,16	27,2 ± 0,7	1175,6	1418
08411495	4 x 35,00 + (2 x 1,50)	2 / 4c	16 / 1pr	0,21/0,16	30,1 ± 1,0	1586,4	1810
08411496	4 x 50,00 + (2 x 1,50)	1 / 4c	16 / 1pr	0,31/0,16	34,4 ± 1,0	2192,4	2463

Other dimensions and colours are possible on request.

Note: SIEMENS® is a registered trademark. It is only used for comparative purposes.  
BOSCH REXROTH® is a registered trademark. It is only used for comparative purposes.  
DESINA® is a registered trademark of the German Machine Tool Builders' Association.



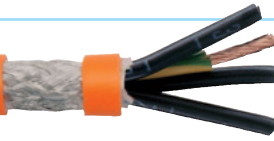
# Servo Motor Cables

## SL 833 C

PUR motor connection cable with TPE cores and overall copper screen 0.6/1 kV



20235 80°C CSA AWM I/II A/B 80°C 1000V FT1 FT2 CE



Marking for SL 833 C 08330415:

SAB BRÖCKSKES · D-VIERSEN · 08330415 4 x 1,5 mm<sup>2</sup> SL 833 C 16 AWG/4c 1000V 08331604

DESINA AWM Style 20235 80°C CSA AWM I/II A/B 80°C 1000V FT1 FT2 CE

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 6
<b>Insulation:</b>	TPE
<b>Colour code:</b>	black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334 and a green-yellow earth wire
<b>Stranding:</b>	in layers
<b>Wrapping:</b>	non-woven tape
<b>Screen:</b>	tinned copper braiding
<b>Sheath material:</b>	PU acc. to UL 758
<b>Sheath colour:</b>	orange (RAL 2003)

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 0.6/1 kV	
<b>Voltage UL/CSA:</b>	1000 V	
<b>Testing voltage:</b>	core/core	4000 V
	core/screen	4000 V
<b>Min. bending radius</b>		
<i>fixed laying:</i>	5 x d	
<i>flexible application:</i>	10 x d	
<i>continuously flexible:</i>	12 x d	
<b>Radiation resistance:</b>	5 x 10 <sup>7</sup> cJ/kg	
<b>Temperature range</b>	<b>DIN VDE</b>	<b>UL/CSA:</b> up to +80 °C
<i>fixed laying:</i>	-50/+80 °C	
<i>flexible application:</i>	-40/+80 °C	
<b>Fire performance:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL FT1, CSA FT1, FT2	
<b>Oil resistance:</b>	very good - oilrating 60 °C acc. to UL 1581	
<b>Chem. resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids etc.	
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union, see chapter N „Technical data“	

### Outstanding features:



- UL recognized, CSA approval
- very good EMC characteristics
- very high flexibility
- suitable for cable tracks
- oil resistant
- very long service life
- adhesion-free installation
- PWIS uncritical  
(PWIS = paint-wetting impairment substances)
- flexible at low temperatures
- DESINA® colours (see page C/4)



for DNC motors  
on frequency converters

item no.	no. of cores x cross section n x mm <sup>2</sup>	AWG	largest single wire ø mm	outer-ø ± 5 % mm	copper figure kg/km	cable weight ≈ kg/km
08330415	4 x 1,50	16 / 4c	0,16	9,1	83,5	126
08330425	4 x 2,50	14 / 4c	0,16	11,0	142,5	192
08330440	4 x 4,00	12 / 4c	0,16	12,5	206,7	273
08330460	4 x 6,00	10 / 4c	0,21	15,5	298,3	399
08330470	4 x 10,00	8 / 4c	0,21	17,8	495,2	605
08330480	4 x 16,00	6 / 4c	0,21	22,8	750,0	951
08330490	4 x 25,00	4 / 4c	0,21	25,7	1120,2	1331
08330495	4 x 35,00	2 / 4c	0,21	29,2	1534,3	1732
08330496	4 x 50,00	1 / 4c	0,31	34,3	2144,0	2428

Other dimensions and colours are possible on request.

DESINA®

Note: DESINA® is a registered trademark of the German Machine Tool Builders' Association.



www.sab-cable.com

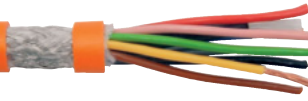
# Servo Motor Cables

**SL 842 C** TPE/PUR feedback cable with overall copper screen

**SL 843 C** TPE/PUR transmission cable with overall copper screen



80°C 300V CSA AWM I/II A/B 80°C 300V FT1 FT2 CE



Marking for SL 842 C 08420050:

SAB BRÖCKSKES · D-VIERSEN · 08420050 9 x 0,5 mm<sup>2</sup> SL 842 C 20 AWG/9c 08422009

AWM-Style 20233 80°C 300V CSA AWM I/II A/B 80°C 300V FT1 FT2 CE

yle 20235 80°C CSA AWM I/II A/B 80°C 300V FT1 CE



Marking for SL 843 C 08431050:

SAB BRÖCKSKES · D-VIERSEN · 08431050 SL 843 C 3 x (2 x 0,14 mm<sup>2</sup> D) + 4 x 0,22 mm<sup>2</sup> + 2 x 0,5 mm<sup>2</sup>

DESINA AWM-Style 20235 80°C CSA AWM I/II A/B 80°C 300V FT1 CE

## Construction:

<b>Conductor:</b>	bare copper strands with reference to VDE 0812
<b>Insulation:</b>	TPE
<b>Colour code:</b>	coloured
<b>Stranding</b>	<b>SL 842 C:</b> in layers <b>SL 843 C:</b> in layers or pairwise
<b>Screen:</b>	acc. to dimension: pairs with tinned copper wires braided or wrapped
<b>Inner sheath:</b>	TPE over screened pairs
<b>Stranding:</b>	cores/pairs twisted together in layers
<b>Wrapping:</b>	one or two layers non-woven tape
<b>Screen:</b>	tinned copper braiding
<b>Wrapping:</b>	non-woven tape
<b>Sheath material:</b>	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with mat surface
<b>Sheath colour</b>	<b>SL 842 C:</b> orange (RAL 2003) <b>SL 843 C:</b> orange (RAL 2003) resp. green (RAL 6018)

## Outstanding features:



- UL recognized, CSA approval
- good EMC characteristics
- high flexibility
- suitable for cable tracks
- oil resistant
- long service life
- adhesion-free installation
- halogen-free
- PWIS uncritical (PWIS = paint-wetting impairment substances)
- DESINA® colours (see page C/4)

## Technical data:

<b>Peak operating voltage</b>		
<b>SL 842 C:</b>	max. 500 V	
<b>SL 843 C:</b>	max. 350 V	
<b>Voltage UL/CSA:</b>	300 V	
<b>Testing voltage:</b>	core/core	2000 V
	core/screen	2000 V
<b>Min. bending radius</b>		
<i>fixed laying:</i>	5 x d	
<i>flexible application:</i>	10 x d	
<i>continuously flexible:</i>	12 x d	
<b>Radiation resistance:</b>	5 x 10 <sup>7</sup> cJ/kg	
<b>Temperature range</b>	<b>DIN VDE</b>	<b>UL/CSA:</b> up to +80 °C
<i>fixed laying:</i>	-50/+90 °C	
<i>flexible application:</i>	-40/+90 °C	
<b>Fire performance</b>	flame retardant and self-extinguishing	
<b>SL 842 C:</b>	acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL FT1, CSA FT1, FT2	
<b>Fire performance</b>	flame retardant and self-extinguishing	
<b>SL 843 C:</b>	acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL/CSA FT1	
<b>Oil resistance:</b>	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2	
<b>Chem. resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids etc.	
<b>Weather resistance:</b>	very good	
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union, see chapter N „Technical data“	



suitable for  
resolvers and shaft encoders

item no.	dimension	sheath colour	largest single wire ø mm	outer-ø approx. mm	copper figure kg/km	cable weight ≈ kg/km
motor feedback cable						
08420050	9 x 0,50	orange	0,16	8,8 ± 0,3	72,6	104
transmission cable						
08430009	4 x 2 x 0,25 + 2 x 0,50	orange	0,11/0,16	8,8 ± 0,3	54,7	92
08430010	4 x 2 x 0,25 + 2 x 1,00	orange	0,11/0,16	8,8 ± 0,3	63,5	96
08430160	3 x (2 x 0,25) D + 3 x 0,25 + 2 x 1,00	orange	0,11/0,16	10,0 ± 0,3	85,6	132
08430040	3 x (2 x 0,25) D	orange	0,11	8,7 ± 0,3	57,7	94
08430060	4 x 2 x 0,14 + (4 x 0,14) D + 4 x 1,0	orange	0,11/0,16	9,8 ± 0,3	88,7	136
08430012	4 x 2 x 0,14 + 4 x 0,50	green	0,11/0,16	9,1 ± 10%	56,9	101
08430112	10 x 0,14 + 2 x 0,50	green	0,11/0,16	8,5 ± 10%	46,8	90
08430114	10 x 0,14 + 4 x 0,50	green	0,11/0,16	9,0 ± 10%	59,5	106
08430006	3 x 2 x 0,25 + 2 x 0,50	green	0,11/0,16	8,7 ± 10%	50,1	89
08430013	4 x 2 x 0,38 + 4 x 0,50	green	0,11/0,16	10,3 ± 10%	80,6	135
08430020	3 x (2 x 0,14) C + 2 x 1,00	green	0,11/0,16	10,0 ± 10%	85,8	127
08430022	3 x (2 x 0,14) C + 2 x (0,50 C)	green	0,11/0,16	10,1 ± 10%	93,0	134
08431050	3 x (2 x 0,14) D + 4 x 0,14 + 4 x 0,22 + 2 x 0,50	green	0,11	10,7 ± 10%	97,9	129
08430070	3 x (2 x 0,14) D + 4 x 0,14 + 2 x 0,50	green	0,11/0,16	10,1 ± 10%	71,5	122
08430310	12 x 0,22	green	0,11	8,5 ± 10%	46,4	86
08430212	2 x 2 x 0,18	green	0,11	6,7 ± 10%	24,2	50
08430214	4 x 2 x 0,18	green	0,11	8,2 ± 10%	34,9	71
08430216	8 x 2 x 0,18	green	0,11	9,7 ± 10%	55,2	104

Note: SIEMENS® is a registered trademark. It is only used for comparative purposes.  
BOSCH REXROTH® is a registered trademark. It is only used for comparative purposes.  
DESINA® is a registered trademark of the German Machine Tool Builders' Association.

Other dimensions and colours are possible on request.

DESINA®  
SIEMENS®



www.sab-cable.com

# Servo Motor Cables

## SL 839 C

PUR transmission cable with overall copper screen



Marking for SL 839 C 08390122:

SAB BRÜCKSKES · D-VIERSEN · 08390122 SL 839 C 12 x 0,22 mm² **DESINA** AWM Style 20236 80°C 30V

Construction:	
<b>Conductor:</b>	tinned copper strands with reference to VDE 0812
<b>Insulation:</b>	special polymer
<b>Colour code:</b>	coloured
	<i>acc. to dimension:</i>
<b>Screen:</b>	pairs wrapped with tinned copper braiding
<b>Inner sheath:</b>	special polymer
<b>Stranding:</b>	cores or pairs
<b>Stranding:</b>	cores/pairs twisted together in layers
<b>Wrapping:</b>	one non-woven tape or non-woven tape and PETP foil
<b>Screen:</b>	tinned copper braiding
<b>Wrapping:</b>	non-woven tape
<b>Sheath material:</b>	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with mat surface or PU acc. to UL 758
<b>Sheath colour:</b>	green (RAL 6018)

Technical data:	
<b>Peak operating voltage:</b>	max. 30 V
<b>Voltage UL:</b>	30 V
<b>Testing voltage:</b>	core/core 600 V core/screen 600 V
<b>Min. bending radius</b>	
fixed laying:	5 x d
flexible application:	10 x d
continuously flexible:	12 x d
<b>Radiation resistance:</b>	5 x 10 <sup>7</sup> cJ/kg
<b>Temperature range</b>	<b>DIN VDE</b> <b>UL:</b> up to +80 °C
fixed laying:	-40/+70 °C
flexible application:	-20/+70 °C
<b>Oil resistance:</b>	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 or oilrating 60 °C acc. to UL 758
<b>Chem. resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids etc.
<b>Weather resistance:</b>	very good
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union, see chapter N „Technical data“

C  
23

**Outstanding features:**

- UL recognized
- good EMC characteristics
- suitable for cable tracks
- flexible installation
- oil resistant
- long service life
- adhesion-free installation
- halogen-free
- PWIS uncritical  
(PWIS = paint-wetting impairment substances)
- **DESINA® colours** (page C/4)

**suitable for  
resolvers and shaft encoders**

### Sheath material TPU acc. to DIN VDE 0282

item no.	dimension	sheath colour	largest single wire ø mm	outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
08390114	3 x (2 x 0,14) D + 2 x (0,50) D	green	0,11/0,16	9,2 ± 0,4	68,2	106
08390214	3 x (2 x 0,14) D + 4 x 0,14 + 2 x 0,50	green	0,11/0,16	9,0 ± 0,4	63,7	101
08391050	3 x (2 x 0,14) D + 4 x 0,14 + 4 x 0,22 + 2 x 0,50	green	0,11/0,16	9,6 ± 0,4	79,0	114
08390138	4 x 2 x 0,38 + 4 x 0,50	green	0,11/0,16	8,8 ± 0,4	72,2	111
08390318	8 x 2 x 0,18	green	0,11	7,8 ± 0,4	48,0	77
08390122	12 x 0,22	green	0,11	6,7 ± 0,4	42,5	66

Other dimensions and colours are possible on request.

### Sheath material PU acc. to UL 758

item no.	dimension	sheath colour	largest single wire ø mm	outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
08390118	4 x 0,18	green	0,11	4,9 ± 0,4	18,9	30
08390218	4 x 2 x 0,18	green	0,11	6,3 ± 0,4	30,8	50
08390115	2 x 2 x 0,15 + 2 x 0,38	green	0,11/0,16	6,9 ± 0,3	46,1	67
08390220	2 x 2 x 0,20 + 2 x 0,38	green	0,11/0,16	6,9 ± 0,3	34,9	61

Other dimensions and colours are possible on request.

Note: DESINA® is a registered trademark of the German Machine Tool Builders' Association.

