



# CBLS

## SUPERSAX MOTOR CABLES



### CBLS

Preassembled shielded power and feedback (resolver or encoder) cables for SUPERSAX 1000<sup>®</sup>/2000 Axor's brushless servomotors connections. Current rating up to 20 Arms for the power cables with integrated brake control leads. All cables are for mobile usage.

#### STANDARD FEATURES

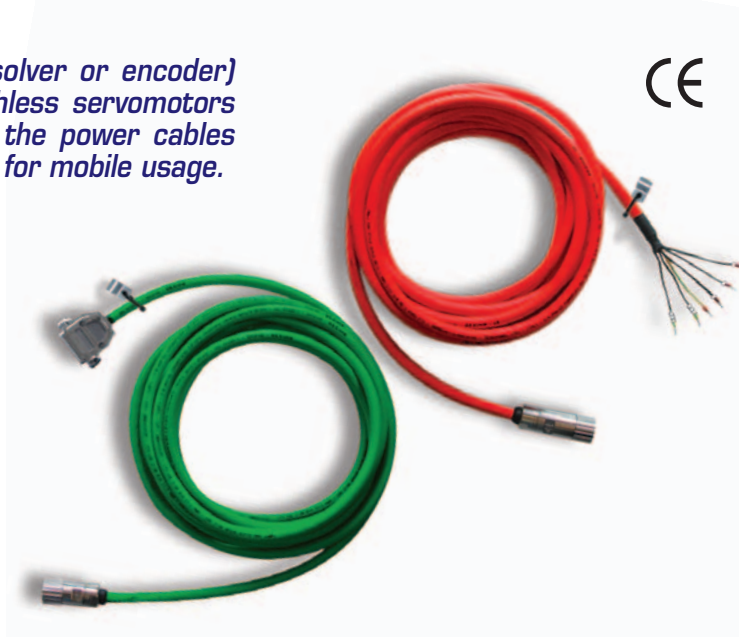
- ✓ External sheathing: PVC (code43)
- ✓ approvals
- ✓ Power cable capacitance: 100 pF/m
- ✓ Resolver cable capacitance: 120 pF/m
- ✓ Encoder cable capacitance: 120 pF/m
- ✓ Operating temperature: -5÷80 °C

#### SPECIFICATIONS

- ✓ Trailing speed: 2m/sec max
- ✓ Acceleration/Dec.: 4m/sec<sup>2</sup> max
- ✓ Operating life: 3 million bending cycles
- ✓ Minimum bending radius: 15x cable diameter

RESOLVER CABLE MODELS	LENGTH (M)	COUPLING WITH DRIVES
CBLSR00-SCRO/SDRO-035	3.5	All types except for: - MCB - MCB Plus
CBLSR00-SCRO/SDRO-050	5	
CBLSR00-SCRO/SDRO-070	7	
CBLSR00-SCRO/SDRO-100	10	
CBLSR00-SCRO/SDRO-150	15	
CBLSR00-SCRO/SDRO-200	20	
CBLSR00-SCRO/SDRO-250	25	
CBLSR00-SCRO/SDRO-300	30	
CBLSR00-SCRO/0000-035	3.5	- MCB - MCB Plus
CBLSR00-SCRO/0000-050	5	
CBLSR00-SCRO/0000-070	7	
CBLSR00-SCRO/0000-100	10	
CBLSR00-SCRO/0000-150	15	
CBLSR00-SCRO/0000-200	20	
CBLSR00-SCRO/0000-250	25	
CBLSR00-SCRO/0000-300	30	

ENCODER CABLE MODELS	LENGTH (M)	COUPLING WITH DRIVES
CBLSE00-SCEO/SDE0-035	3.5	All types except for: - MCB - MCB Plus
CBLSE00-SCEO/SDE0-050	5	
CBLSE00-SCEO/SDE0-070	7	
CBLSE00-SCEO/SDE0-100	10	
CBLSE00-SCEO/SDE0-150	15	
CBLSE00-SCEO/SDE0-200	20	
CBLSE00-SCEO/SDE0-250	25	
CBLSE00-SCEO/SDE0-300	30	
CBLSE00-SCEO/0000-035	3.5	- MCB - MCB Plus
CBLSE00-SCEO/0000-050	5	
CBLSE00-SCEO/0000-070	7	
CBLSE00-SCEO/0000-100	10	
CBLSE00-SCEO/0000-150	15	
CBLSE00-SCEO/0000-200	20	
CBLSE00-SCEO/0000-250	25	
CBLSE00-SCEO/0000-300	30	



#### DESCRIPTION

Complete line of pre-assembled cables for "plug-n-play" connections between SUPERSAX 1000<sup>®</sup>/2000 brushless servomotors and all AXOR's servodrives.

The **CBLS** cables have excellent mechanical characteristics and external shielding for disturbance protection.

AXOR recommends the use of these cables to:

- Avoid improper wiring connections
- Meet CE standards and proper shielding requirements
- Ensure increased system functionality

The **CBLS** cable must be utilized in accordance with the specific service manual of the servodrive with which coupled!

POWER CABLE MODELS	CURRENT RATING* (Arms)	LENGTH (M)	COUPLING WITH DRIVES
CBLSP12-SCPO/0000-035	12	3.5	All types
CBLSP12-SCPO/0000-050	12	5	
CBLSP12-SCPO/0000-070	12	7	
CBLSP12-SCPO/0000-100	12	10	
CBLSP12-SCPO/0000-150	12	15	
CBLSP12-SCPO/0000-200	12	20	
CBLSP12-SCPO/0000-250	12	25°	
CBLSP12-SCPO/0000-300	12	30°	
CBLSP20-SCPO/0000-035	20	3.5	
CBLSP20-SCPO/0000-050	20	5	
CBLSP20-SCPO/0000-070	20	7	
CBLSP20-SCPO/0000-100	20	10	
CBLSP20-SCPO/0000-150	20	15	
CBLSP20-SCPO/0000-200	20	20	
CBLSP20-SCPO/0000-250°	20	25°	
CBLSP20-SCPO/0000-300°	20	30°	

\* = The current rating must be based on the I<sub>o</sub> (Arms) motor current

° = For 25 and 30 m power cable length a 3 Ph choke must be wired into the motor lead. Contact AXOR's technical department for details.

### Motor power cable assembly 12/20 Amp current rating

**SOLDER SIDE VIEW**

**LENGTH**

Ø 11.7 mm x 12 Arms  
Ø 12.7 mm x 20 Arms

**ORANGE CBLSP (12 or 20) SCPO/0000...**

3 ±0,5 m MAX

50 mm

**8 pin**

**SCPO screw power connector**

**CABLE END VIEW**

0000 flying leads

All shields wrapped together and isolated

SCPO pin	FUNCTION	COLOR / MARK
1	MOTOR LEAD U	BLACK 1 / U
4	MOTOR LEAD V	BLACK 3 / V
3	MOTOR LEAD W	BLACK 2 / W
2	GND (±) PE	G Y / —
C	BRAKE (+)	BLACK 6 / BR+
D	BRAKE (-)	BLACK 5 / BR-
A - B	UNCONNECTED	

### Resolver feedback cable assembly

**SOLDER SIDE VIEW**

**LENGTH**

Ø 9 mm

**GREEN CBLSR00 -SCRO/SDRO...**

3 ±0,5 m MAX

50 mm

**12 pin**

**SCRO screw resolver connector**

**SDRO SubD 25 pin resolver connector**

**CABLE END VIEW**

0000 flying leads

All internal shields wrapped together and connected to white wire (EXC-)

External shield is isolated

SCRO pin	FUNCTION	COLOR / MARK	SDRO
4	COS (+)	BLUE / —	24
8	COS (-)	WHITE / —	15
3	SEN (+)	YELLOW / —	23
7	SEN (-)	WHITE / —	14
5	EXC (+)	RED / —	25
9	EXC (-)	WHITE / —	16
2	THERMAL SWITCH/PTC	GREEN / —	4
6	THERMAL SWITCH/PTC	WHITE / —	17
1-10	UNCONNECTED		1-2-3-5-6-7-9
11-12	UNCONNECTED		10-11-12-18
	GND/ OV	All internal shields	19-20-21-22
	PE (±)	External shield	13
			8

### Encoder feedback cable assembly

**SOLDER SIDE VIEW**

**LENGTH**

Ø 10.5 mm

**GREEN CBLSE00 -SCEO/SDEO...**

3 ±0,5 m MAX

50 mm

**17 pin**

**SCEO screw encoder connector**

**SDEO SubD 25 pin encoder connector**

**CABLE END VIEW**

0000 flying leads

External shield is isolated

All internal shields wrapped together and connected to BROWN BLUE wire (GND/OV ENCODER SUPPLY)

SCEO pin	FUNCTION	COLOR / MARK	SDEO
1	UNCONNECTED		9-14-15-16-22-23-24-25
3	+5 V ENCODER SUPPLY	BROWN RED / —	21
4	0 V ENCODER SUPPLY	BROWN BLUE / —	13
	GND/ OV	all internal shields/ —	13
5	CHA	YELLOW / —	5
6	CHA (-)	GREEN / —	18
7	CHB	RED / —	6
8	CHB (-)	ORANGE / —	19
9	CHZ	BLACK / —	7
10	CHZ (-)	BROWN / —	20
11	HALL A = U	GREEN BLACK / —	10
12	HALL A (-) = U (-)	WHITE YELLOW / —	1
13	HALL B (-) = V (-)	WHITE BLACK / —	2
14	HALL B = V	GREEN RED / —	11
15	HALL C = W	BROWN GREY / —	12
16	HALL C (-) = W (-)	BROWN YELLOW / —	3
2	THERMAL SWITCH/PTC	BLUE / —	4
17	THERMAL SWITCH/PTC	GREY / —	17
	PE (±)	EXTERNAL SHIELD	8

**NOTE**

- All shields (internal and external) tied to connector housing
- Unused wires must be isolated
- All cables are provided with U-clips (conductive clamp) the cables shields (screens) must be connected on the drive side to the cabinet metal back plane (connected to ground) removing the outer insulation to expose the overall screen, use U-clips to ensure good ground connection.



**ORDERING CODE**  
Example: **CBLS P 12 - SCPO / 0000 - 100**

**NAME:** Preassembled cables coupling with SSAX1000/2000 servomotors

**TYPE:**  
P= Power cable (orange)  
R= Resolver cable (green)  
E= Commutation encoder cable (green)

**CURRENT RATING:**  
12= Up to 12 Arms  
20= Up to 20 Arms  
00= Feedback cable

**ASSEMBLY MOTOR SIDE:**  
SCPO= Screw power connector  
SCEO= Screw encoder connector  
SCRO= Screw resolver connector

**ASSEMBLY DRIVE SIDE:**  
0000 = Flying leads (no connector)  
SDRO = SubD resolver connector (25 pin)  
SDEO = SubD encoder connector (25 pin)

**LENGTH:**  
035= 3.5 m  
050= 5 m  
070= 7 m  
100= 10 m  
150= 15 m  
200= 20 m  
250= 25 m  
300= 30 m



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