

8CM070.12-3

1 General information

- UL/CSA certified
- Can be used in cable drag chains
- Optimally produced for use with ACOPOS 1180/1320 servo drives and B&R servo motors with motor plug size 1

2 Order data

Model number	Short description	Figure
	4 mm² motor cables	
8CM070.12-3	Motor cable, length 70 m, 4x 4 mm ² + 2x 2x 1 mm ² , 8-pin Intercontec motor connector, can be used in drag chains, UL/CSA listed	

Table 1: 8CM070.12-3 - Order data

3 Technical data

Product ID	8CM070.12-3
General information	
Cable cross section	4x 4 mm ² + 2x 2x 1 mm ²
Durability	Oil resistance according to VDE 0472 part 803 as well as standard hydraulic oil
Listed	UL AWM Style 20234, 80°C, 1000 V, E63216 and CSA AWM I/II A/B, 90°C, 1000 V, FT2 LL46064
Cable structure	
Power lines	
Wire insulation	Special thermoplastic material
Wire colors	Black, brown, blue, yellow/green
Design	Tinned copper litz wire
Diameter	4 mm ²
Shielding	No
Stranding	No
Signal lines	
Wire insulation	Special thermoplastic material
Wire colors	White, white/red, white/blue, white/green
Design	Tinned copper litz wire
Diameter	1 mm ²
Shielding	Separate shielding for pairs, tinned copper mesh, optical coverage >85% and foil banding
Stranding	White with white/red and white/blue with white/green
Cable stranding	With filler elements and foil banding
Cable shielding	Tinned copper mesh, optical coverage >85% and wrapped in isolating film
Outer sheathing	
Material	PUR
Color	Orange, similar to RAL 2003 flat
Labeling	BERNECKER & RAINER 4x4.0+2x2x1.0 FLEX
Electrical characteristics	
Operating voltage	Max. 1000 V
Test voltage	
Wire/Wire	1500 VAC
Wire/Shield	1500 VAC
Conductor resistance	
Power lines	≤0.36 Ω
Signal lines	≤1.33 Ω
Insulation resistance	>2.86 GΩ
Max. current load in accordance with IEC 60364-5-523 by installation type	
Wall mounting	36.4 A
Installed in conduit or cable duct	31.9 A
Installed in cable tray	38.2 A
Environmental conditions	
Temperature	
Moving	-10 to 70°C
Static	-20 to 90°C

Table 2: 8CM070.12-3 - Technical data

Product ID	8CM070.12-3
Mechanical characteristics	
Dimensions	
Length	70 m
Diameter	15.8 mm ±0.5 mm
Flex radius	>118.5 mm
Drag chain data	
Acceleration	<60 m/s ²
Flex cycles	≥3,000,000
Velocity	≤4 m/s
Weight	31.4 kg

Table 2: 8CM070.12-3 - Technical data

4 Wiring

4.1 Motor cable construction

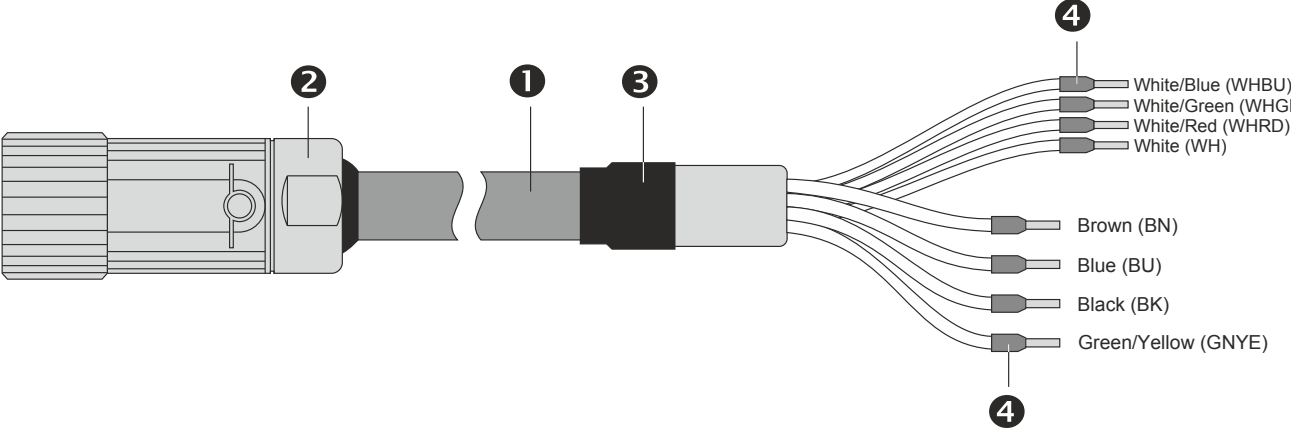
			
Pos.	Pieces	Name	Note
1	1	Motor lines	4x 0.75 mm ² + 2x 2x 0.35 mm ² 4x 1.5 mm ² + 2x 2x 0.75 mm ² 4x 4 mm ² + 2x 2x 1 mm ² 4x 10 mm ² + 2x 2x 1.5 mm ²
2	1	Circular connector	BSTA 108 FR 19 58 0036 000 (for 8CMxxx.12-0, 8CMxxx.12-1) BSTA 108 FR 35 59 0036 000 (for 8CMxxx.12-3) CSTA 264 FR 48 25 0001 000 (for 8CMxxx.12-5)
3	1	Heat shrink tubing	
4	8	Wire end sleeves	

Table 3: Motor cable construction

4.2 8CMxxx.12-0, 8CMxxx.12-1, 8CMxxx.12-3

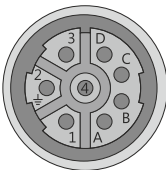
Circular connector	Pin	Name	Function
	1	U	Motor connection U
	2	PE	Protective ground conductor
	3	W	Motor connection W
	4	V	Motor connection V
	A	T+	Temperature +
	B	T-	Temperature -
	C	B+	Brake +
	D	B-	Brake -

Table 4: 8CMxxx.12-0, 8CMxxx.12-1, 8CMxxx.12-3 motor cables - Pinout

4.3 8CMxxx.12-1, 8CMxxx.12-3

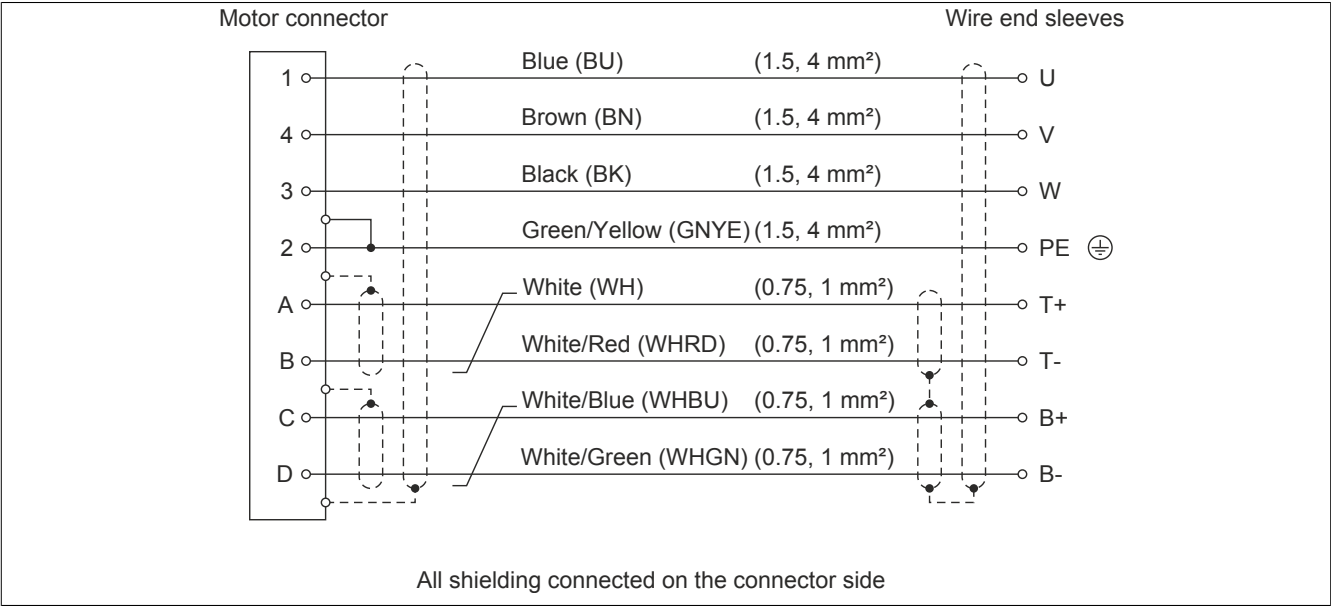


Figure 1: 8CMxxx.12-1, 8CMxxx.12-3 motor cables - Cable diagram