

# 8CM004.12-5

## 1 General information

- Can be used in cable drag chains
- Assembled specifically for use with ACOPOS 1640/128M servo drives and B&R servo motors with motor connector size 1.5

## 2 Order data

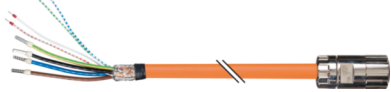
Model number	Short description	Figure
8CM004.12-5	<b>10 mm<sup>2</sup> motor cables</b> Motor cable, length 4 m, 4x 10 mm <sup>2</sup> + 2x 0.75 mm <sup>2</sup> + 2x 1.5 mm <sup>2</sup> , 8-pin female Intercontec motor connector size 1.5, can be used in cable drag chains	

Table 1: 8CM004.12-5 - Order data

## 3 Technical data

Model number	8CM004.12-5
<b>General information</b>	
Cable cross section	4x 10 mm <sup>2</sup> + (2x 0.75 mm <sup>2</sup> )C + (2x 1.5 mm <sup>2</sup> )C
Durability	Oil resistance per HD 22.10 appendix A DIN EN 60811-404 <sup>1)</sup>
Certification	E170315 cRUus AWM STYLE 21223 AWM I/II A/B 80°C 1000 V FT1 <sup>1)</sup>
Certifications	
CE	Yes
UL	cULus E225616 Power conversion equipment
<b>Cable construction</b>	
Power lines	
Quantity	4
Wire insulation	PP
Wire colors	Black, brown, blue, yellow/green
Variant	Tinned copper stranded wire
Cross section	10 mm <sup>2</sup>
Shield	No
Stranding	No
Signal line	
Quantity	4
Wire insulation	pp
Wire colors	White, white/red, white/blue, white/green
Variant	Tinned copper stranded wire
Cross section	2x 0.75 mm <sup>2</sup> + 2x 1.5 mm <sup>2</sup>
Shield	Individually shielded in pairs, tinned copper braiding, optical coverage > 85% and foil shield
Stranding	White with white/red and white/blue with white/green
Cable stranding	With filler elements and foil shield
Cable shield	Tinned copper braiding, optical coverage > 85% and foil shield
Outer jacket	
Material	TPU
Color	Orange, similar to RAL 2003 flat
Labeling	B&R 4 G 10 + (2x0.75)C + (2x1.5)C C E170315 cRU- us AWM STYLE 21223 AWM I/II A/B 80°C 1000 V FT1 <sup>1)</sup>
<b>Connector</b>	
Type	Intercontec 8-pin female motor connector, size 1.5
Mating cycles	<500
Contacts	8 (4 power and 4 signal contacts)
Degree of protection per EN 60529	IP66/67 when connected
<b>Electrical properties <sup>1)</sup></b>	
Operating voltage	Max. 1000 V AC (UL)
Test voltage	
Wire/Wire	4 kV
Wire/Shield	4 kV

Table 2: 8CM004.12-5 - Technical data

Model number	8CM004.12-5
Conductor resistance	
Power lines	≤2 Ω/km
Signal line	0.75 mm <sup>2</sup> : ≤26.7 Ω/km, 1.5 mm <sup>2</sup> : ≤13.7 Ω/km
Insulation resistance	≥500 MΩ*km
Current-carrying capacity per DIN VDE 0298 part 4, table 11	
Wall mounting	64.6 A
Installed in conduit or cable duct	54.6 A
Installed in cable tray	68.3 A
<b>Ambient conditions <sup>1)</sup></b>	
Temperature	
Moving	-20°C to +80°C
Static	-20°C to +90°C
<b>Mechanical properties <sup>1)</sup></b>	
Dimensions	
Length	4 m
Diameter	20.1 mm ±0.4 mm
Bend radius	
Single bend	>62 mm
Moving	>154 mm
Drag chain data	
Acceleration	Max. 50 m/s <sup>2</sup> (depends on the length of the travel path)
Flex cycles <sup>2)</sup>	≥5,000,000
Speed	Max. 300 m/min
Weight	2.2 kg

Table 2: 8CM004.12-5 - Technical data

- 1) Values refer to the raw cable being used.
- 2) At an ambient temperature from -20°C to +60°C.

## 4 Wiring

### 4.1 Cable construction

Pos.	Description	Note
1	Motor line	4x 0.75 mm <sup>2</sup> + 2x 2x 0.34 mm <sup>2</sup> 4x 1.5 mm <sup>2</sup> + 2x 2x 0.75 mm <sup>2</sup> 4x 4 mm <sup>2</sup> + 2x 0.75 mm <sup>2</sup> + 2x 1 mm <sup>2</sup> 4x 10 mm <sup>2</sup> + 2x 0.75 mm <sup>2</sup> + 2x 1.5 mm <sup>2</sup>
2	8-pin female circular connector	
3	Heat shrink tubing	
4	Wire end sleeves	

Table 3: Motor cables - Cable construction

## 4.2 8CMxxx.19-3, 8CMxxx.12-5

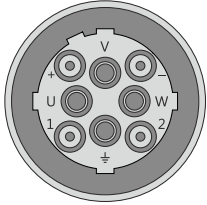
Circular connector	Pin	Description	Function
	U	U	Motor connection U
	$\perp$	PE	Protective ground conductor
	W	W	Motor connection W
	V	V	Motor connection V
	1	T+	Temperature +
	2	T-	Temperature -
	+	B+	Brake +
	-	B-	Brake -

Table 4: 8CMxxx.19-3, 8CMxxx.12-5 motor cables - Pinout

## 4.3 8CMxxx.19-3, 8CMxxx.12-5

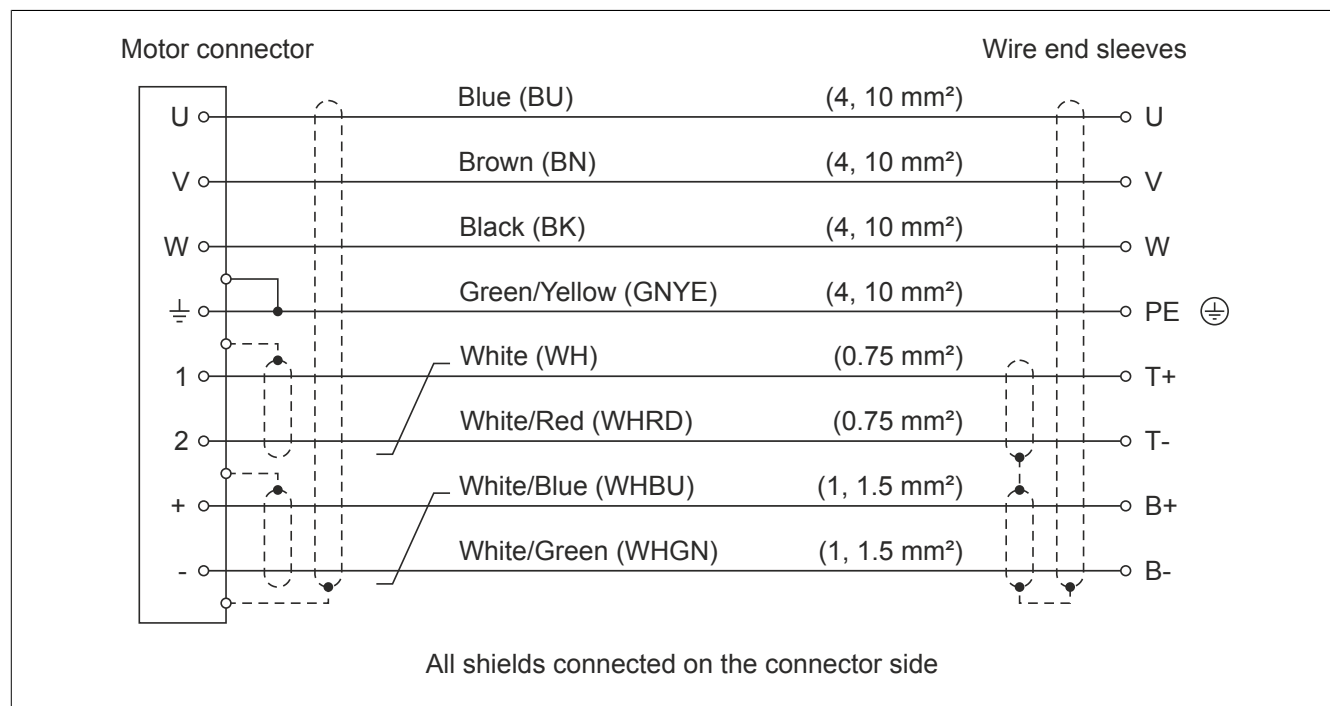


Figure 1: 8CMxxx.19-3, 8CMxxx.12-5 motor cables - Cable diagram