

8ECH0005.13140-0

1 General information

- Can be used in cable drag chains
- Extension cable for hybrid motor cable 8CHxxx.12-3 / 8BCHxxxx.1312A-0 / 8ECHxxxx.1312A-0
- speedtec - Innovative connector system for secure connections

Information:

Cable connections with more than five cable extensions connected one after the other are not permitted!

Observe the maximum permissible cable lengths of the respective servo drives!

2 Order data

Order number	Short description	Figure
8ECH0005.13140-0	Motor hybrid cables 4 mm² Cable extension for 4 mm ² hybrid motor cable with speedtec connector size 1, length 5 m, can be used in cable drag chains	

Table 1: 8ECH0005.13140-0 - Order data

3 Technical data

Order number	8ECH0005.13140-0
General information	
Cable cross section	4x 4 mm ² + 2x 1 mm ² + (2x 1x 0.30 mm ² + 2x 2x 0.15 mm ²)
Durability	Oil resistance per EN 60811-2-1 ¹⁾
Certification	E130266 cRUus AWM style 21223, 80°C, 1000 V and CSA C22.2 no. 210 I/II A/B FT1 ¹⁾
Certifications	
CE	Yes
EAC	Yes
Cable construction	
Power lines	
Quantity	4
Wire insulation	PP
Wire colors	Black, brown, blue, yellow/green
Variant	Copper stranded wire
Cross section	4 mm ²
Shield	No
Stranding	No
Supply lines	
Quantity	2
Wire insulation	PP
Wire colors	White/Blue, white/green
Variant	Tinned copper stranded wire
Cross section	1 mm ²
Shield	No
Stranding	No
Signal line	
Quantity	6
Wire insulation	PP
Wire colors	Brown/Green, white/green, gray/pink, yellow/violet
Variant	2x copper stranded wire, 4x tinned copper stranded wire
Cross section	2x 0.30 mm ² , 4x 0.15 mm ²
Shield	Tinned copper braiding, optical coverage >85% and foil shield
Stranding	Brown/Green with white/green, pink with gray and yellow with violet
Cable stranding	With filler elements and foil shield
Cable shield	Tinned copper braiding, optical coverage >85% and foil shield

Table 2: 8ECH0005.13140-0 - Technical data

Order number	8ECH0005.13140-0
Outer jacket	
Material	PUR
Color	Orange, similar to RAL 2003 flat
Labeling	B&R 4x4 + 2x1 + (2x2 26AWG + 2x1x 23AWG) *E130266* cRU-us AWM STYLE 21223* AWM I/II A/B 80°C 1000 V FT1 ¹⁾
Connector	
Type	13-pin female speedtec circular connector
Mating cycles	<500
Contacts	13
Additional connectors	13-pin male coupling Mating cycles: <500 Contacts: 13 Degree of protection per EN 60529: IP66/67 when connected
Degree of protection per EN 60529	IP66/67 when connected
Electrical properties ¹⁾	
Test voltage	
Wire - Wire	4 kV
Wire - Shield	4 kV
Conductor resistance	
Power lines	≤5 Ω/km
Supply lines	≤19.5 Ω/km
Signal line	0.30 mm ² : ≤68 Ω/km, 0.15 mm ² : ≤140 Ω/km
Insulation resistance	≥200 MΩ*km
Current-carrying capacity per DIN VDE 0298 part 4, table 11	
Wall mounting	30 A ²⁾
Installed in conduit or cable duct	30 A ²⁾
Installed in cable tray	30 A ²⁾
Ambient conditions ¹⁾	
Temperature	
Moving	-20°C to +90°C
Static	-20°C to +90°C
Mechanical properties ¹⁾	
Dimensions	
Length	5 m
Diameter	15.7 mm ±0.4 mm
Bend radius	
Single bend	>48 mm
Moving	≥121 mm
Drag chain data	
Acceleration	Max. 50 m/s ² (depends on the length of the travel path)
Flex cycles	≥3,000,000
Velocity	Max. 300 m/min
Weight	1.9 kg

Table 2: 8ECH0005.13140-0 - Technical data

- 1) Values refer to the raw cable being used.
2) Limited to 30 A by the hybrid motor connector.

4 Wiring

4.1 Cable construction

Pos.	Description	Note
1	Hybrid cable	For 8ECHxxxx.13140-0: 4x 4 mm ² + 2x 1 mm ² + (2x 1x 0.30 mm ² + 2x 2x 0.15 mm ²)
2	13-pin female circular connector	
3	13-pin male coupling	

Table 3: Hybrid motor cables - Cable construction

4.2 Pinout

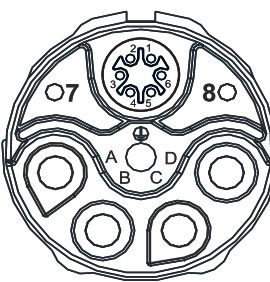
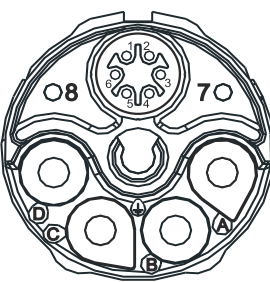
Circular connector	Pin	Description	Function	Pin	Coupling
	6	T\	Clock output inverted	6	
	1	U+	Encoder power supply +12 V	1	
	2	COM	Encoder power supply 0 V	2	
	3	D	Data	3	
	4	D\	Data inverted	4	
	5	T	Clock output	5	
	7	B-	Brake 0 V	7	
	8	B+	Brake +24 V	8	
	A	U	Motor connection U	A	
	B	V	Motor connection V	B	
	C	W	Motor connection W	C	
	D	-	-	D	
	+	PE	Protective ground conductor	+	

Table 4: Hybrid motor cables - Pinout

4.3 Cable diagram

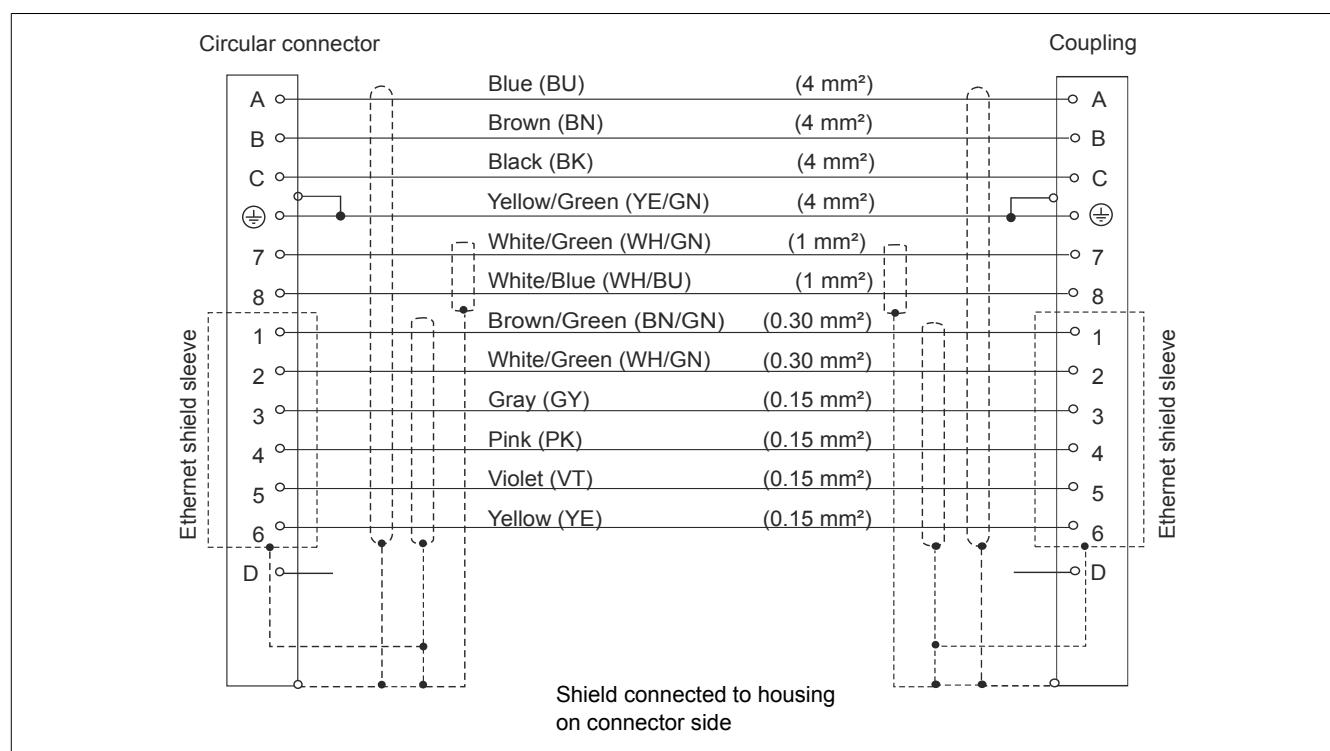


Figure 1: Hybrid motor cables - Cable diagram