8CR011.12-1

1 General information

- Can be used in cable drag chains
- Assembled specifically for use with ACOPOS servo drives and B&R servo motors

2 Order data

Model number	Short description	Figure
	Resolver cables	
8CR011.12-1	Resolver cable, length 11 m, 3x 2x 24 AWG (19x 0.127), 12-pin female Intercontec resolver connector, 9-pin male DSUB servo connector, can be used in cable drag chains	

Table 1: 8CR011.12-1 - Order data

3 Technical data

Model number	8CR011.12-1
General information	
Cable cross section	3x 2x 24 19 AWG
Durability	Oil resistance per VDE 0472 Part 803 as well as standard hydraulic oils [1]
Certification	UL AWM Style 20671, 90°C, 30 V, E63216 and CSA AWM, 90°C, 30 V, I/II A/B FT1 LL46064 [1]
Certifications	
CE	Yes
UL	cULus E225616 Power conversion equipment
Cable construction	
Signal line	
Quantity	6
Wire insulation	Special thermoplastic material
Wire colors	White/Brown, green/yellow, gray/pink
Variant	Tinned copper stranded wire
Cross section	24 AWG / 19 AWG
Shield	No
Stranding	White with brown, green with yellow, gray with pink
Cable stranding	The 3 pairs together covered by foil shield
Cable shield	Copper braiding, optical coverage ≥ 90% and foil shield
Outer jacket	
Material	PUR
Color	Green, similar to RAL 6018 flat
Labeling	BERNECKER + RAINER 3x2x24 AWG FLEX UL AWM STYLE 20671 90°C 30 V E63216 CSA AWM 90°C 30 V I/II A/B FT1 LL46064 [1]
Connector	
Type	12-pin female Intercontec resolver connector
Mating cycles	<500
Contacts	12
Additional connectors	9-pin male DSUB servo connector Mating cycles: <200 Contacts: 9 Degree of protection per EN 60529: IP20 when connected
Degree of protection per EN 60529	IP66/67 when connected
Electrical properties [1]	
Operating voltage	≤30 V_{eff}
Test voltage	
Wire/Wire	1.5 kV
Wire/Shield	0.8 kV
Conductor resistance	
Signal line	≤86 Ω/km
Insulation resistance	>200 MΩ*km
Ambient conditions [1]	
Temperature	
Moving	-20°C to 80°C
Static	-20°C to 90°C

Table 2: 8CR011.12-1 - Technical data

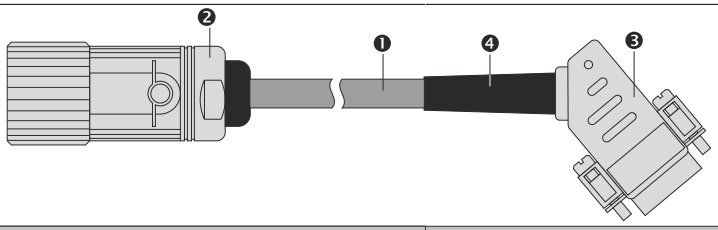
Model number	8CR011.12-1
Mechanical properties [1]	
Dimensions	
Length	11 m
Diameter	6.5 mm ±0.2 mm
Bend radius	
Single bend	≥20 mm
Moving	≥50 mm
Drag chain data	
Acceleration	≤6 g
Flex cycles [2]	>3,000,000
Velocity	≤4 m/s
Weight	0.8 kg

Table 2: 8CR011.12-1 - Technical data

1) Values refer to the raw cable being used.
2) At an ambient temperature of 20°C and bend radius of 65 mm.

4 Wiring

4.1 Construction of the resolver cable



Pos.	Description	Note
1	Encoder line	3x 2x 24 AWG/19
2	12-pin female circular connector	Dimensions: ø 26 x 55 mm
3	DSUB housing 45°, metal-plated, 9-pin male connector	Dimensions: 31 x 15 x 40 mm
4	Kink protection	

Table 3: Resolver cables - Construction

4.2 Pinout

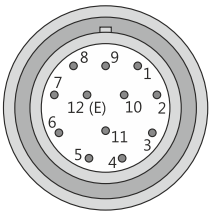
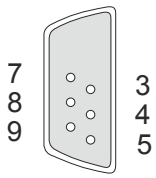
Circular connector	Pin	Description	Function	Pin	DSUB connector
	1	---			
	2	---			
	3	S4	Sine input +	3	
	4	S1	Cosine input -	4	
	5	Ref	Reference output +	5	
	6	---			
	7	Cos\	Sine input -	7	
	8	Sin\	Cosine input +	8	
	9	Ref\	Reference output -	9	
	10	---			
	11	---			
	12	---			

Table 4: Resolver cables - Pinout

4.3 Cable diagram

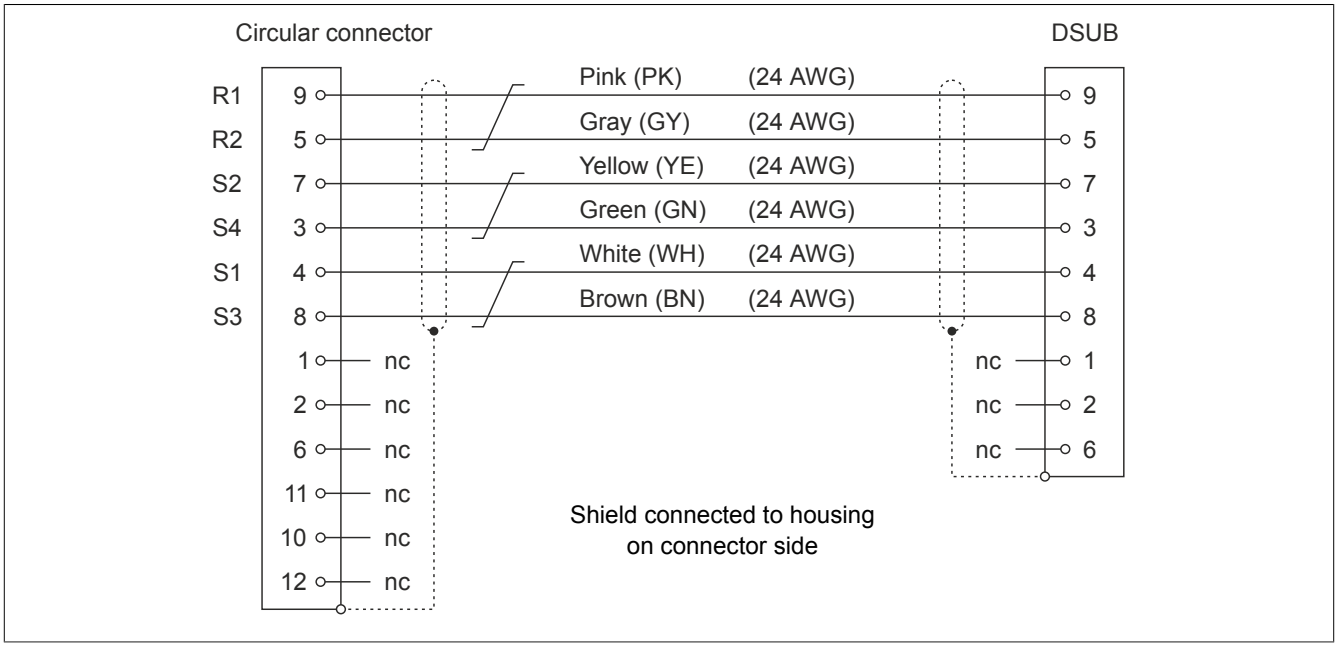


Figure 1: Resolver cables - Cable diagram