8BCR0010.3121A-0

1 General information

- Extremely flexible
- itec - Innovative connector system for fast and secure connections

2 Order data

Model number	Short description	Figure
	Resolver cables	
8BCR0010.3121A-0	Resolver cable, length 10 m, 3x 2x 24 AWG (19x 0.127), 12-pin female series 615 signal connector, 9-pin male DSUB servo connector	

Table 1: 8BCR0010.3121A-0 - Order data

3 Technical data

Model number	8BCR0010.3121A-0
General information	
Cable cross section	3x 2x 0.22 GN
Durability	Oil resistance per DIN VDE 0281-1 (TM5) (HD 21.1 / DIN EN 60811-1-1/2-1), flame resistance per IEC 60332-1-2 [1)]
Certification	E130266 cURus AWM Style 2637 90°C 30 V and CSA AWM I/II A/B 90°C 30 V, FT1 [1)]
Certifications	
CE	Yes
UL	cULus E225616 Power conversion equipment
Cable construction	
Signal line	
Quantity	6
Wire insulation	PVC
Wire colors	White/Brown, green/yellow, gray/pink
Variant	Tinned copper stranded wire
Cross section	0.22 mm
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	PVC
Color	Green
Labeling	B&R 3x2x0.22 * E130266 cURus AWM STYLE 2637 * AWM I/II A/B 90°C 30 V FT1 * <Batch number> [1)]
Connector	
Type	12-pin female series 615 signal 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)]	
Test voltage	
Wire - Wire	1.5 kV
Wire - Shield	0.8 kV
Conductor resistance	
Signal line	≤86 Ω/km
Insulation resistance	≥20 MΩ*km
Ambient conditions [1)]	
Temperature	
Moving	-20°C to +90°C
Static	-20°C to +90°C

Table 2: 8BCR0010.3121A-0 - Technical data

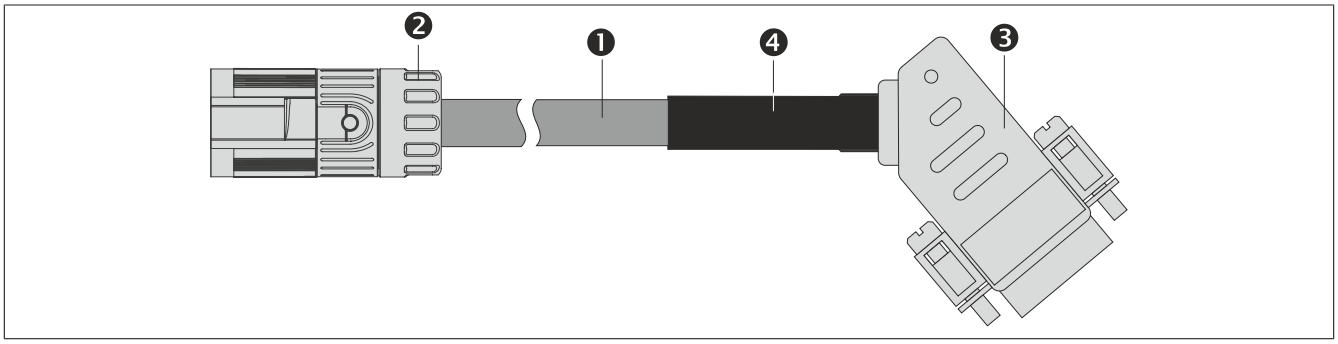
Model number	8BCR0010.3121A-0
Mechanical properties [1]	
Dimensions	
Length	10 m
Diameter	6.3 mm ±0.2 mm
Bend radius	
Single bend	≥26 mm
Moving	≥52 mm
Weight	0.6 kg

Table 2: 8BCR0010.3121A-0 - Technical data

1) Values refer to the raw cable being used.

4 Wiring

4.1 Cable construction



Pos.	Description	Note
1	Encoder line	3x 2x 24 AWG/19
2	12-pin female resolver connector	
3	Heat shrink tubing	
4	DSUB housing 45°, metal-plated, 9-pin male servo connector	

Table 3: Resolver cables - Cable construction

4.2 Pinout

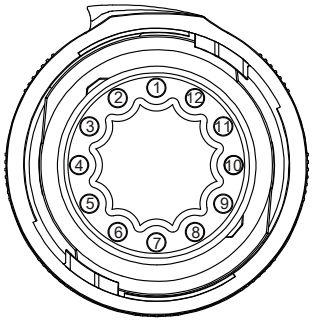
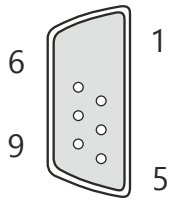
Male connector	Pin	Description	Function	Pin	Male connector
	1	---	Coding contact	---	
	2	---	---	---	
	3	---	---	---	
	4	---	---	---	
	5	---	---	---	
	6	R1	Reference output inverted	9	
	7	---	---	---	
	8	S4	Sine input +	3	
	9	S2	Sine input -	7	
	10	S3	Cosine input +	8	
	11	S1	Cosine input -	4	
	12	R2	Reference output	5	

Table 4: Resolver cables - Pinout

4.3 Cable diagram

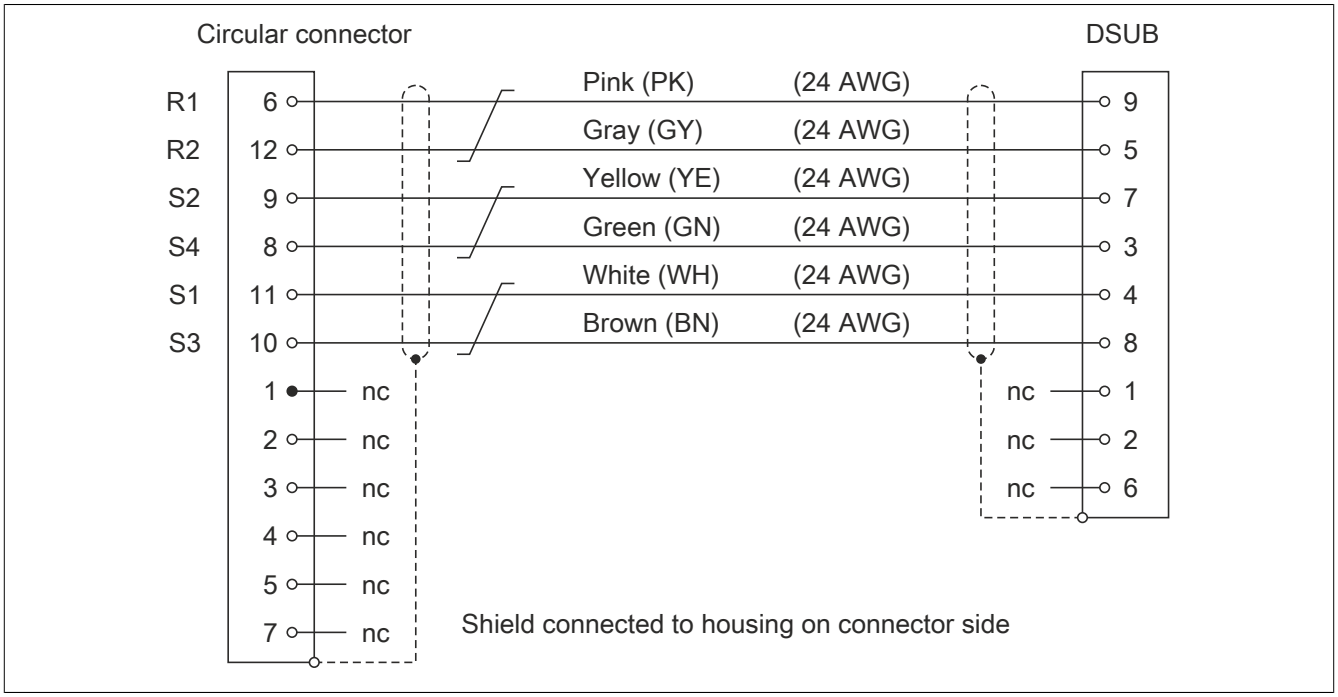


Figure 1: Resolver cables - Cable diagram