8BCE0005.3111A-0

1 General information

- Extremely flexible
- Assembled specifically for use with ACOPOSmulti drive systems and B&R servo motors
- speedtec - Innovative connector system for secure connections

2 Order data

Order number	Short description	Figure
	EnDat 2.1 cables	
8BCE0005.3111A-0	ACOPOSmulti EnDat 2.1 cable, length 5 m, 10x 0.14 mm² + 2x 0.5 mm², 17-pin female speedtec EnDat connector, 15-pin male DSUB servo connector	

Table 1: 8BCE0005.3111A-0 - Order data

3 Technical data

Order number	8BCE0005.3111A-0
General information	
Cable cross section	5x 2x 0.14 mm² + 1x 2x 0.50 mm²
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 cRUus AWM STYLE 2637 and AWM I/II A/B 90°C 30 V FT1 [1)]
Certifications	
CE	Yes
UKCA	Yes
UL	cULus E225616 Power conversion equipment
Cable construction	
Supply lines	
Quantity	2
Wire insulation	PVC
Wire colors	White/Green, white/red
Variant	Tinned copper stranded wire
Cross section	0.5 mm²
Shield	No
Stranding	White/Red with white/green and filler elements
Signal line	
Quantity	10
Wire insulation	PVC
Wire colors	Blue, brown, yellow, gray, green, pink, red, black, violet, white
Variant	Tinned copper stranded wire
Cross section	0.14 mm²
Shield	No
Stranding	Green with brown, gray with yellow, white with violet, black with red, pink with blue
Cable stranding	With terminating foil shield
Cable shield	Copper braiding, optical coverage >85% and foil shield
Outer jacket	
Material	PVC
Color	Green
Labeling	B&R 5x2x0.14 + 1x2x0.5 * E130266 cURus AWM STYLE 2637 * AWM I/II A/B 90°C 30 V FT1 * <Batch number> [1)]
Connector	
Type	17-pin female speedtec EnDat connector
Mating cycles	<500
Contacts	17
Additional connectors	15-pin male DSUB servo connector Mating cycles: <200 Contacts: 15 Degree of protection per EN 60529: IP20 when connected
Degree of protection per EN 60529	IP66/67 when connected

Table 2: 8BCE0005.3111A-0 - Technical data

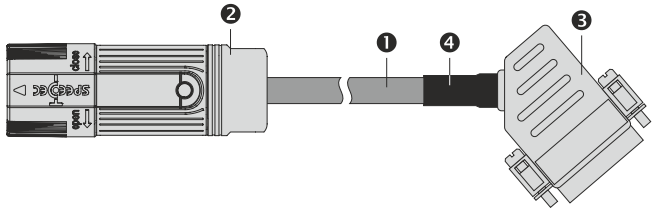
Order number	8BCE0005.3111A-0
Electrical properties [1]	
Test voltage	
Wire - Wire	1 kV
Wire - Shield	0.8 kV
Conductor resistance	
Supply lines	≤40 Ω/km
Signal line	≤140 Ω/km
Insulation resistance	≥20 MΩ*km
Ambient conditions [1]	
Temperature	
Moving	-20°C to +80°C
Static	-20°C to +90°C
Mechanical properties [1]	
Dimensions	
Length	5 m
Diameter	7.6 mm ±0.2 mm
Bend radius	
Single bend	≥31 mm
Moving	≥62 mm
Weight	0.4 kg

Table 2: 8BCE0005.3111A-0 - Technical data

1) Values refer to the raw cable being used.

4 Wiring

4.1 Construction



Pos.	Description	Note
1	Encoder cable	5x 2x 0.14 mm² + 2x 0.5 mm²
2	17-pin female circular connector	Dimensions: ø 26 x 58 mm
3	DSUB housing 45°, metal-plated, 15-pin	Dimensions: 31 x 15 x 40 mm
4	Heat shrink tubing	

Table 3: 8BCE EnDat 2.1 cables - Construction

4.2 Pinout

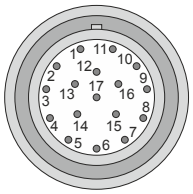
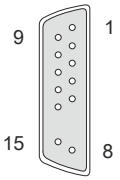
Circular connector	Pin	Description	Function	Pin	DSUB connector
	15	A	Channel A	1	
	10	COM (1, 3 - 9, 11, 13 - 15)	Encoder power supply 0 V	2	
	12	B	Channel B	3	
	7	+5 V out / 0.25 A	Encoder power supply +5 V	4	
	14	D	Data input	5	
	8	T	Clock output	8	
	16	A\	Channel A inverted	9	
	4	Sense COM	Sense input 0 V	10	
	13	B\	Channel B inverted	11	
	1	Sense +5 V	Sense input +5 V	12	
	17	D\	Data inverted	13	
	9	T\	Clock output inverted	15	

Table 4: 8BCE EnDat 2.1 cables - Pinout

4.3 Cable diagram

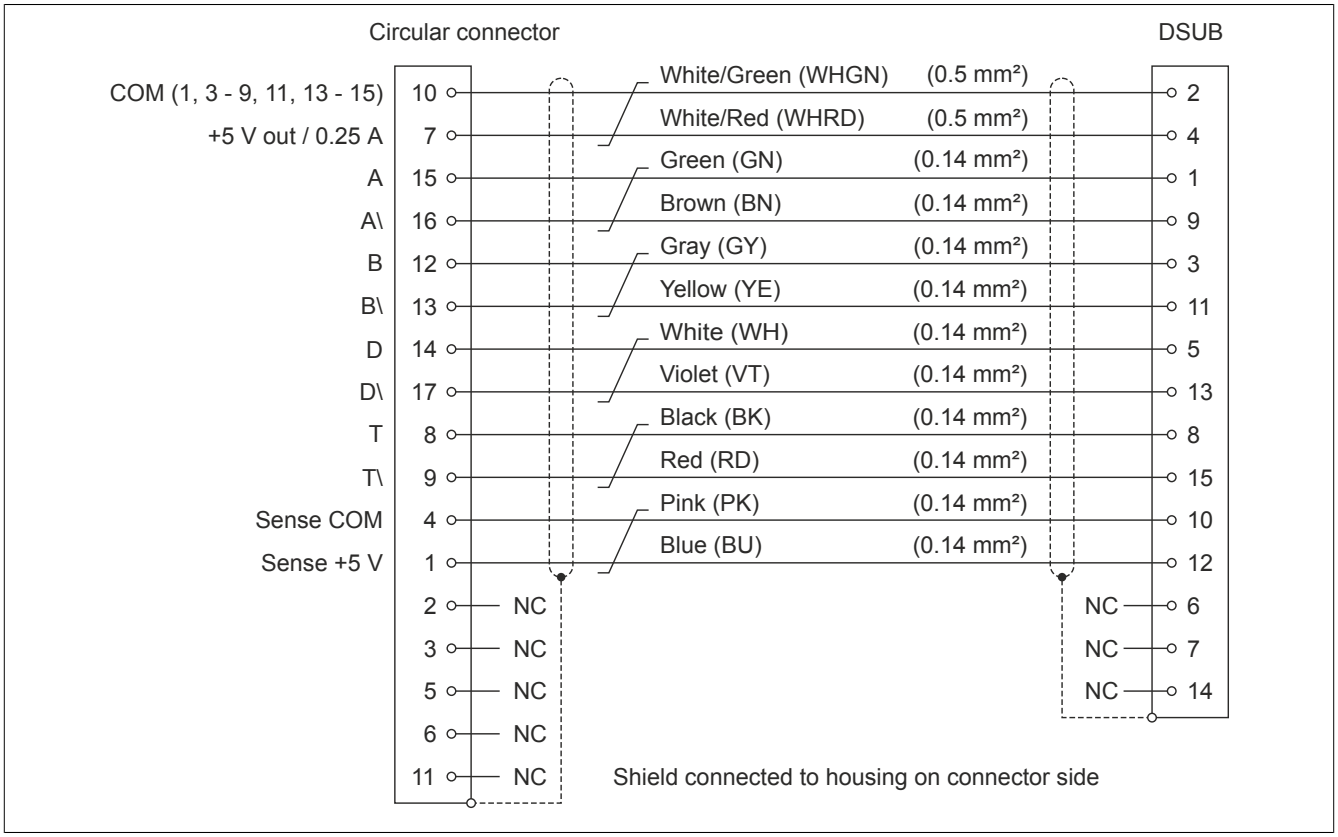


Figure 1: 8BCE EnDat 2.1 cables - Cable diagram