

# 8BCF0034.1221B-0

## 1 General information

- Can be used in cable drag chains
- Assembled specifically for use with ACOPOS multi drive systems and B&R servo motors with Y-Tec connectors
- springtec - Innovative connector system for fast and secure connections

## 2 Order data


Model number	Short description	Figure
8BCF0034.1221B-0	EnDat 2.2 cables EnDat 2.2 cable, length 34 m, 1x 4x 0.14 mm <sup>2</sup> + 4x 0.35 mm <sup>2</sup> , 12-pin female springtec EnDat connector, 9-pin male DSUB servo connector, can be used in cable drag chains	

Table 1: 8BCF0034.1221B-0 - Order data

## 3 Technical data

Model number	8BCF0034.1221B-0
<b>General information</b>	
Cable cross section	4x 0.14 mm <sup>2</sup> + 4x 0.35 mm <sup>2</sup>
Durability	Oil resistance per DIN EN 50363-10-2 (VDE 0207-363-10-2) as well as standard cleaning agents and hydraulic oil <sup>1)</sup>
Certification	UL AWM style 20963, 80°C, 30 V, E63216 <sup>1)</sup>
Certifications	
CE	Yes
<b>Cable construction</b>	
Supply lines	
Quantity	4
Wire insulation	Special thermoplastic material
Wire colors	White/Green, brown/green, blue, white
Variant	Tinned copper stranded wire
Cross section	0.35 mm <sup>2</sup>
Shield	No
Stranding	No
Signal line	
Quantity	4
Wire insulation	Polyolefin foam
Wire colors	Yellow, gray, pink, violet
Variant	Tinned copper stranded wire
Cross section	0.14 mm <sup>2</sup>
Shield	No
Stranding	All 4 wires together
Cable stranding	With terminating foil shield
Cable shield	Copper/Tin braiding, optical coverage ≥85%
Outer jacket	
Material	PUR
Color	Green flat
Labeling	B&R 4x0.14 + 4x0.35 FLEX (UL) AWM STYLE 20963 80°C 30 V E63216 <sup>1)</sup>
<b>Connector</b>	
Type	EnDat 12-pin female springtec connector
Mating cycles	<500
Contacts	12
Additional connectors	9-pin male DSUB servo connector Connection cycles: <200 Contacts: 9 Degree of protection per EN 60529: IP20 when connected
Degree of protection per EN 60529	IP66/67 when connected
<b>Electrical properties <sup>1)</sup></b>	
Operating voltage	≤30 V

Table 2: 8BCF0034.1221B-0 - Technical data

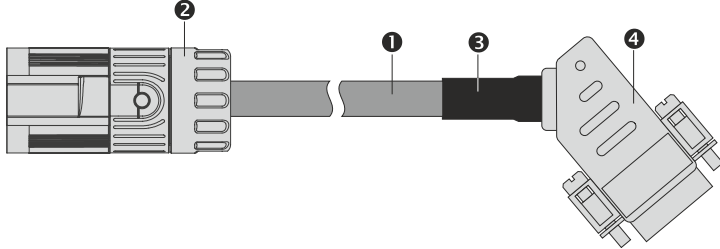
<b>Model number</b>	<b>8BCF0034.1221B-0</b>	
Test voltage		
Wire/Wire		1 kV
Wire/Shield		0.5 kV
Conductor resistance		
Supply lines		≤55 Ω/km
Signal line		≤134 Ω/km
Insulation resistance		>200 MΩ*km
<b>Ambient conditions <sup>1)</sup></b>		
Temperature		
Moving		-20°C to +80°C
Static		-20°C to +80°C
<b>Mechanical properties <sup>1)</sup></b>		
Dimensions		
Length		34 m
Diameter		6 mm ± 0.2 mm
Bend radius		
Single bend		≥19 mm
Moving		≥47 mm
Drag chain data		
Acceleration		≤6 g
Flex cycles <sup>2)</sup>		≥3,000,000
Speed		≤4 m/s
Weight		2 kg

Table 2: 8BCF0034.1221B-0 - Technical data

- 1) Values refer to the raw cable being used.
- 2) Valid at an ambient temperature of 20°C and bend radius of 78 mm.

## 4 Wiring

### 4.1 Construction



Pos.	Description	Note
1	Encoder line	4x 0.14 mm <sup>2</sup> + 4x 0.35 mm <sup>2</sup>
2	12-pin female circular connector	
3	Heat shrink tubing	
4	DSUB housing 45°, metal-plated, 9-pin connector	

Table 3: 8BCF EnDat 2.2 cables - Construction

### 4.2 Pinout

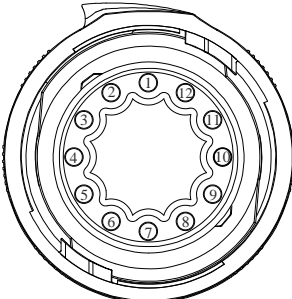
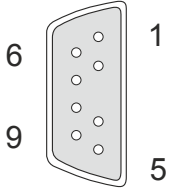
Circular connector	Pin	Description	Function	Pin	DSUB connector
	1	+12 V out	Encoder power supply +12 V	1	
	2	D	Data input	4	
	3	D\	Data inverted	8	
	4	T	Clock output	5	
	5	T\	Clock output inverted	9	
	6	Batt COM	Battery buffer 0 V	7	
	7	COM	Encoder power supply 0 V	6	
	8	---	Coding contact		
	9	---			
	10	---			
	11	---			
	12	Vbatt	Backup battery power supply	2	

Table 4: 8BCF EnDat 2.2 cables - Pinout

### 4.3 Cable diagram

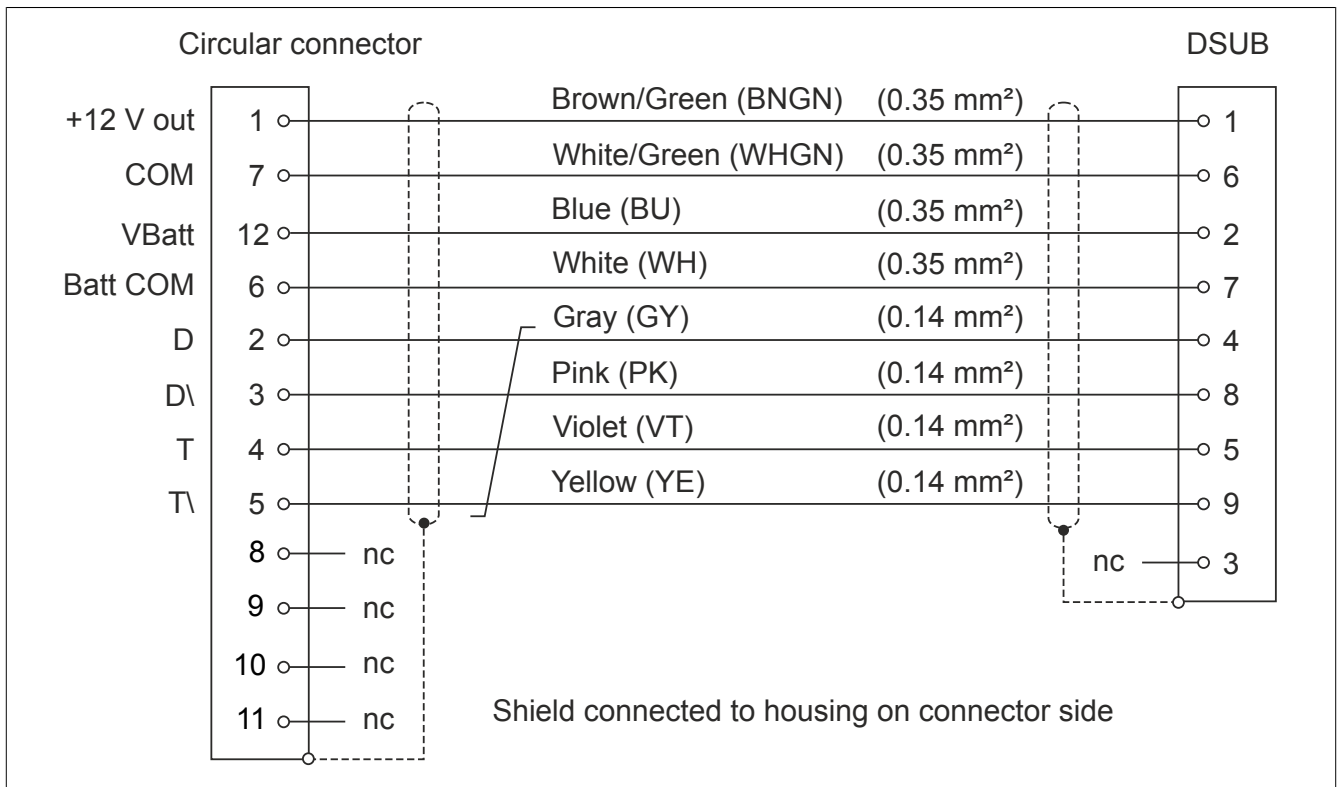


Figure 1: 8BCF EnDat 2.2 cables - Cable diagram