

# 8BCR0007.3111A-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                                                                              |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 8BCR0007.3111A-0 | <b>Resolver cables</b><br>ACOPOSmulti resolver cable, length 7 m, 3x 2x 0.22, 12-pin female springtec resolver connector, 9-pin male DSUB servo connector |  |

Table 1: 8BCR0007.3111A-0 - Order data

## 3 Technical data

| Order number                               | 8BCR0007.3111A-0                                                                                                                |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>General information</b>                 |                                                                                                                                 |
| 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 <sup>1)</sup>      |
| Certifications                             |                                                                                                                                 |
| CE                                         | Yes                                                                                                                             |
| UKCA                                       | Yes                                                                                                                             |
| UL                                         | cULus E225616<br>Power conversion equipment                                                                                     |
| <b>Cable construction</b>                  |                                                                                                                                 |
| 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                                                                                                                           |
| <b>Connector</b>                           |                                                                                                                                 |
| Type                                       | 12-pin female speedtec resolver connector                                                                                       |
| Mating cycles                              | <500                                                                                                                            |
| Contacts                                   | 12                                                                                                                              |
| Additional connectors                      | 9-pin male DSUB servo connector<br>Mating cycles: <200<br>Contacts: 9<br>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> |                                                                                                                                 |
| Test voltage                               |                                                                                                                                 |
| Wire - Wire                                | 1.5 kV                                                                                                                          |
| Wire - Shield                              | 0.8 kV                                                                                                                          |
| Conductor resistance                       |                                                                                                                                 |
| Signal line                                | ≤86 Ω/km                                                                                                                        |
| Insulation resistance                      | ≥20 MΩ*km                                                                                                                       |
| <b>Ambient conditions <sup>1)</sup></b>    |                                                                                                                                 |
| Temperature                                |                                                                                                                                 |
| Moving                                     | -20°C to +80°C                                                                                                                  |
| Static                                     | -20°C to +90°C                                                                                                                  |

Table 2: 8BCR0007.3111A-0 - Technical data

| Order number                        | 8BCR0007.3111A-0 |
|-------------------------------------|------------------|
| Mechanical properties <sup>1)</sup> |                  |
| Dimensions                          |                  |
| Length                              | 7 m              |
| Diameter                            | 6.3 mm ±0.2 mm   |
| Bend radius                         |                  |
| Single bend                         | ≥26 mm           |
| Moving                              | ≥52 mm           |
| Weight                              | 0.4 kg           |

Table 2: 8BCR0007.3111A-0 - Technical data

1) Values refer to the raw cable being used.

## 4 Wiring

### 4.1 Design

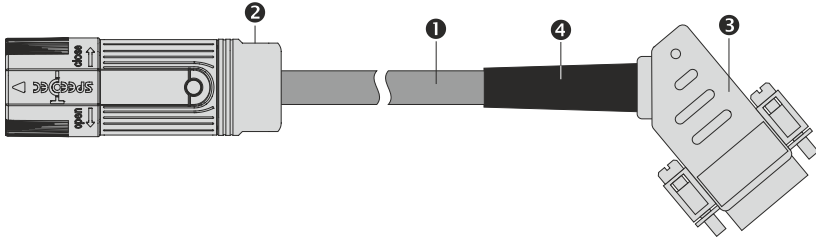
|  |                                       |                             |
|------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|
| Pos.                                                                               | Description                           | Note                        |
| 1                                                                                  | Encoder line                          | 3x 2x 24 AWG                |
| 2                                                                                  | 12-pin female circular connector      | Dimensions: ø 26 x 58 mm    |
| 3                                                                                  | DSUB housing 45°, metal-plated, 9-pin | Dimensions: 31 x 15 x 40 mm |
| 4                                                                                  | Kink protection                       |                             |

Table 3: 8BCR resolver cables - Construction

### 4.2 Pinout

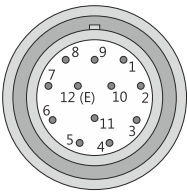
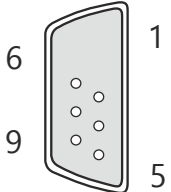
| Circular connector                                                                  | Pin | Description | Function           | Pin | DSUB connector                                                                        |
|-------------------------------------------------------------------------------------|-----|-------------|--------------------|-----|-------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

Table 4: 8BCR resolver cables - Pinout

### 4.3 Cable diagram

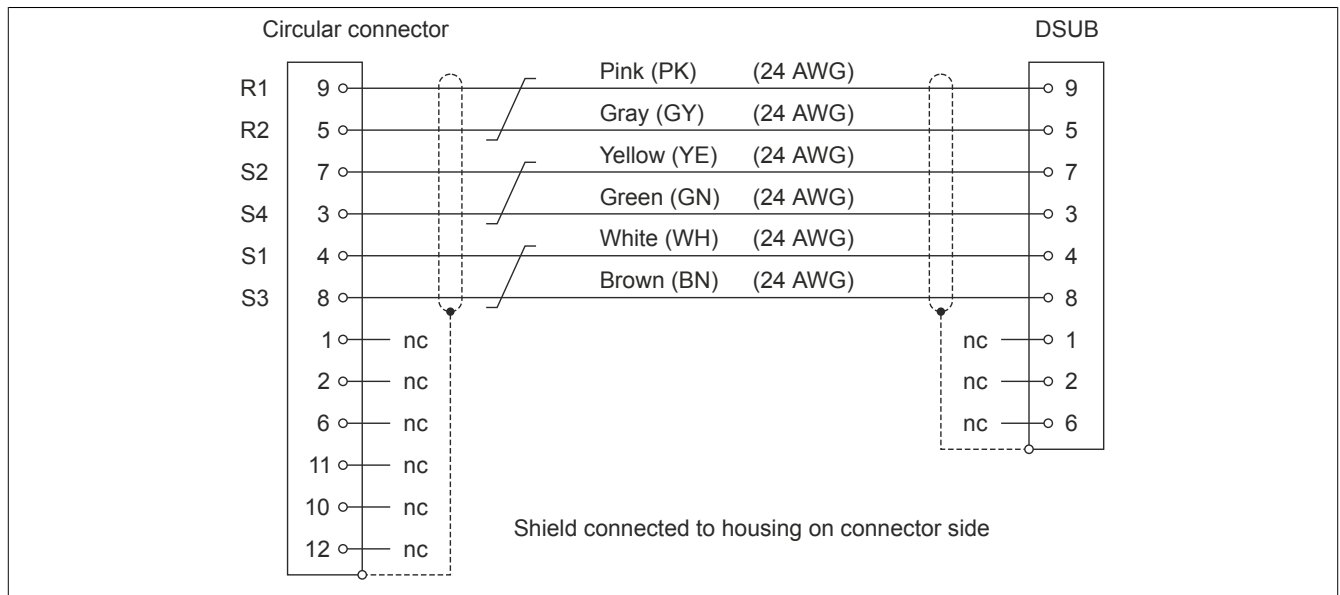


Figure 1: 8BCR resolver cables - Cable diagram