

# ZK7A70-3155-Axxx | B23, ENP cable, PUR, 5 G 4.0 mm<sup>2</sup> + (4 x AWG26), drag-chain suitable, key 3 (user-defined voltage)



B23, plug, straight, female+male, pins 4+PE+4, EtherCAT-coded – RJ45, plug, straight, male, 4-pin – open end, 5-wire



## Plugs

| Electrical data                  | Head A                                                                 | Head B         | Head C |
|----------------------------------|------------------------------------------------------------------------|----------------|--------|
| Rated voltage                    | -                                                                      | 150 V          | -      |
| Rated voltage (Ethernet)         | 60 V DC                                                                | -              | -      |
| Rated current (Ethernet)         | 4 A at 40°C                                                            | -              | -      |
| Rated voltage (power)            | 630 V AC / 850 V DC, 600V AC / DC (UL)                                 | -              | -      |
| Rated current (power)            | 28 A at 45°C                                                           | -              | -      |
| Rated current                    | -                                                                      | 1.5 A          | -      |
| Rated impulse voltage (power)    | 6.0 kV                                                                 | -              | -      |
| Rated impulse voltage (Ethernet) | 1.0 kV                                                                 | -              | -      |
| Dielectric strength              | -                                                                      | 1000 V AC/min. | -      |
| Voltage proof (contact/contact)  | 1.5 kV (power - Ethernet),<br>3.31 kV AC (power), 1.0 kV AC (Ethernet) | -              | -      |

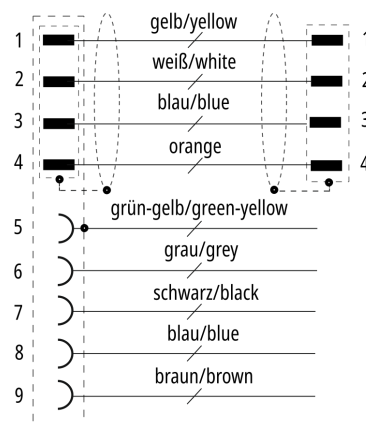
|                                  |                                                                                                                |                                    |          |
|----------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------|----------|
| Shielding                        | -                                                                                                              | yes                                | -        |
| Shielding (Ethernet)             | yes                                                                                                            | -                                  | -        |
| Contact resistance               | < 10 mΩ (signal),<br>< 5 mΩ (power)                                                                            | -                                  | -        |
| Insulation resistance            | ≥ 100 MΩ (according to IEC 60512)                                                                              | ≥ 10 GΩ (according to IEC 60512-2) | -        |
| <b>Mechanical data</b>           |                                                                                                                |                                    |          |
| Installation size                | B23                                                                                                            | RJ45                               | open end |
| Connector type                   | plug                                                                                                           | plug                               | -        |
| Configuration                    | straight                                                                                                       | straight                           | -        |
| Contact type                     | female+male                                                                                                    | male                               | -        |
| Number of positions (face)       | pins 4+PE+4                                                                                                    | 4-pin                              | 5-wire   |
| Coding                           | EtherCAT-coded                                                                                                 | -                                  | -        |
| Mechanical coding                | key 3 (user-defined voltage)                                                                                   | -                                  | -        |
| Wire termination                 | crimp connection                                                                                               | -                                  | -        |
| Mating cycles                    | ≥ 100                                                                                                          | ≥ 750                              | -        |
| Way of locking                   | bayonet                                                                                                        | -                                  | -        |
| Weight                           | 0.100 kg (0.2205 lb)                                                                                           | -                                  | -        |
| Body color                       | black                                                                                                          | black                              | -        |
| Body material                    | TPU, UL 94 HB                                                                                                  | TPU, UL 94 HB                      | -        |
| Coupling nut material            | GD-Zn, Ni                                                                                                      | -                                  | -        |
| Seal                             | NBR, FPM                                                                                                       | -                                  | -        |
| Contact carrier material         | PA 6, UL 94 V0                                                                                                 | PC UL 94 V-0                       | -        |
| Contact carrier color (Ethernet) | yellow                                                                                                         | -                                  | -        |
| Contact carrier color (power)    | red                                                                                                            | -                                  | -        |
| Contact plating                  | Au over Ni                                                                                                     | Ni, Au gal.                        | -        |
| Contact material                 | copper alloy                                                                                                   | CuZn                               | -        |
| <b>Environmental data</b>        |                                                                                                                |                                    |          |
| Shock resistance                 | 50 g (490 m/s <sup>2</sup> ) conforms to IEC 60512-6c, 11 ms; 18 shocks per direction, 3 axes                  | -                                  | -        |
| Vibration resistance             | 5 g (50 m/s <sup>2</sup> ) conforms to IEC 60512-6d, 10 Hz. ... 500 Hz.; 10 cycles per axis; 6 h full duration | -                                  | -        |
| RoHS compliant                   | yes                                                                                                            | yes                                | -        |
| Ambient temperature (operation)  | -30...+80°C, -22...+176°F                                                                                      | -40...+70°C, -40...+158°F          | -        |
| Protection rating                | IP65/67 in screwed condition (according to IEC 60529)                                                          | IP20                               | -        |

|                 |                                |   |   |
|-----------------|--------------------------------|---|---|
| Pollution level | 3/2 (according to IEC 60664-1) | - | - |
| Approvals       | UL                             | - | - |

## Cable

| Electrical data                                 |                                                  |
|-------------------------------------------------|--------------------------------------------------|
| Rated voltage                                   | 600 V/1000 V                                     |
| Operating voltage                               | ≤ 1000 V AC                                      |
| Test voltage                                    | 4000 V                                           |
| Mechanical data                                 |                                                  |
| Cross-section                                   | 5 G 4 mm <sup>2</sup> (AWG12)                    |
| Outer cable diameter                            | 12.1 mm ± 0.3 mm (0.4763" ± 0.0118")             |
| Min. bending radius, moved                      | 7.5 x outer cable diameter                       |
| Min. bending radius, fixed installation         | 4 x outer cable diameter                         |
| Conductor material (power)                      | copper bare                                      |
| Use                                             | drag-chain suitable                              |
| Max. acceleration                               | 80 m/s <sup>2</sup>                              |
| Max. speed                                      | 10 m/s                                           |
| Max. number of cycles                           | 10 million                                       |
| Jacket color                                    | black (similar to RAL9005)                       |
| Material jacket                                 | PUR (polyurethane)                               |
| Wire color code                                 | black 1, black 2, black 3, black 4, green-yellow |
| Wire insulation material                        | TPE (thermoplastic elastomer)                    |
| Printing color                                  | white                                            |
| Environmental data                              |                                                  |
| Operation temperature range, moved              | -40...+90°C, -40...+194°F                        |
| Operation temperature range, fixed installation | -50...+90°C, -58...+194°F                        |
| UV resistance                                   | yes                                              |
| Oil resistance                                  | 168 h 100°C (according to DIN EN 60811-2-1)      |
| Flame-retardant                                 | according to IEC 60332-1, cable flame test, FT1  |
| Halogen-free                                    | yes                                              |
| Silicone-free                                   | yes                                              |
| RoHS compliant                                  | yes                                              |
| CE                                              | yes                                              |
| UL                                              | yes                                              |

## Pin assignment



## Dimensions



|    |          |
|----|----------|
| A1 | 93.60 mm |
|----|----------|

|    |          |
|----|----------|
| A2 | 28.50 mm |
|----|----------|

|    |          |
|----|----------|
| B1 | 43.80 mm |
|----|----------|

## Mechanical coding

Mechanical keying uses defined keyways that only allow insertion and subsequent locking rotation when correctly aligned. For more information, please refer to the [keying guide for correct use](#).

## Notes

- Depending on the cable length (L), the following length tolerances apply:  
0 m...3.0 m: + 100 mm | 3.0...10.0 m: ± 100 mm | ≥ 10.0 m: ± 2%
- Illustrations similar
- Further cable length on request. The last three digits of the ordering information is the cable length in decimeters, e.g. ZKxxxx-xxxx-x020 = cable length 2.00 m
- The design of the pre-assembled cable shown here may differ from the products supplied, despite technically identical specifications.

CE, UL

|    |     |
|----|-----|
| CE | yes |
|----|-----|

| Ordering information | Length |
|----------------------|--------|
|----------------------|--------|

|                  |        |
|------------------|--------|
| ZK7A70-3155-A050 | 5.00 m |
|------------------|--------|

Further length on request



Products marked with a crossed-out wheeled bin shall not be discarded with the normal waste stream. The device is considered as waste electrical and electronic equipment. The national regulations for the disposal of waste electrical and electronic equipment must be observed.

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