

# Accessories Fieldbus Box

## Power cables, sensor cables, connection cables and further accessories

see the EtherCAT Box chapter from page **514**

### Pre-assembled cables

Accessories for fieldbus components include a wide range of cable assemblies. For clarity, the order numbers are listed without cable length information in the following tables. For detailed ordering information referencing the cable length please see the web pages or the price list.

For technical data sheets see ► [www.beckhoff.com/datasheets](http://www.beckhoff.com/datasheets)

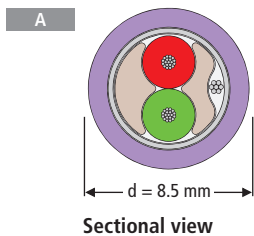
## Accessories PROFIBUS, Modbus, RS232, RS485

### Pre-assembled cables for flexible applications

| Material characteristics |   | Pict. |
|--------------------------|---|-------|
| ZK1031-6xxx-1xxx         | PUR, 2-wire, (2 x 0.25 mm <sup>2</sup> ), shielded, drag-chain suitable, purple | A     |
| Electrical data          |   |       |
| Ratings                  | 160 V (according to IEC 61076-2-101)  |       |
| Material                 | outer cladding PUR, inner insulation polyethylene                               |       |
| Installation             | drag-chain suitable   |       |
| DC resistance            | 54.13 Ω/km  |       |
| Line capacitance         | 28.5 nF/km  |       |
| Nominal impedance        | 150 Ω at 1 MHz  |       |
| Approval                 | UL style 119100 vol. 1 sec. 8, RoHS-compliant, halogen-free, flame-resistant    |       |
| Ordering information     | Cable, pre-assembled with M12 socket (5-pin/straight) to                        | Pict. |
| ZK1031-6200-1xxx         | open end  | B     |
| ZK1031-6251-1xxx         | M12 plug (4-pin/straight)   | C     |
| Ordering information     | Cable, pre-assembled with M12 socket (5-pin/angled) to                          | Pict. |
| ZK1031-6400-1xxx         | open end  | D     |
| ZK1031-6451-1xxx         | M12 plug (4-pin/straight), reverse-keyed  | E     |
| Ordering information     | Cable, pre-assembled with M12 plug (5-pin/straight) to                          | Pict. |
| ZK1031-6100-1xxx         | open end  | F     |
| Ordering information     | Cable, pre-assembled with M12 plug (5-pin/angled) to                            | Pict. |
| ZK1031-6300-1xxx         | open end  | G     |
| ZK1031-6354-1xxx         | M12 plug (5-pin/angled)   | H     |

## Accessories

| Ordering information |  | Pict. |
|----------------------|--|-------|
| ZS1031-2600          | tee-connector, 12 Mbaud (blue ID ring)   | I     |
| ZS1031-2610          | tee-connector, 12 Mbaud for the direct connection to the other tee-connectors (yellow ID ring) | J     |
| ZS1000-2600          | Y-connector, 12 Mbaud (plug, socket)   |       |
| ZS1000-1610          | termination resistor (plug)  | K     |
| ZS1000-0610          | plug for field assembly  | L     |
| ZS1000-0620          | socket for field assembly  | M     |
| ZS1000-0630          | plug for field assembly, angled  | N     |
| ZS1000-0640          | socket for field assembly, angled  | O     |
| ZS1031-6610          | control cabinet feed through M12, plug-coupling  | P     |
| ZB3200               | PROFIBUS cable 12 Mbaud 1 x 2 x 0.64 mm <sup>2</sup>   |       |
| ZB3300               | PROFIBUS cable 12 Mbaud 1 x 2 x 0.64 mm <sup>2</sup> , 5-wires, drag-chain suitable            |       |



Illustrations similar

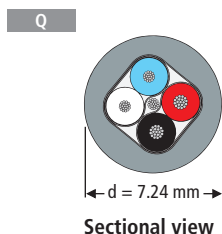
## Accessories CANopen, DeviceNet

### Pre-assembled cables for fixed installation

| Material characteristics |  | Pict. |
|--------------------------|--|-------|
| ZK1052-6xxx-3xxx         | PVC, 4-wire, (4 x 0.32 mm <sup>2</sup> ), shielded, fixed installation, grey | Q     |
| Electrical data          |  |       |
| Ratings                  | 300 V, 80 °C   |       |
| Material                 | outer cladding PVC, inner insulation polyethylene                            |       |
| Supply cable             | black, red   |       |
| Data lead                | blue, white  |       |
| DC resistance            | 54.13 Ω/km   |       |
| Line capacitance         | 37.17 pF/m   |       |
| Nominal impedance        | 126 Ω at 1 MHz   |       |
| Approval                 | UL approval, AWM 2476, 80 °C, 300 V; CSA AWM I/II A/B, 80 °C, 300 V, FT1     |       |
| Ordering information     |  | Pict. |
| ZK1052-6200-3xxx         | Cable, pre-assembled with M12 socket (5-pin/straight) to open end            | R     |
| Ordering information     |  | Pict. |
| ZK1052-6400-3xxx         | Cable, pre-assembled with M12 socket (5-pin/angled) to open end              | S     |
| Ordering information     |  | Pict. |
| ZK1052-6100-3xxx         | Cable, pre-assembled with M12 plug (5-pin/straight) to open end              | T     |
| ZK1052-6152-3xxx         | M12 socket (5-pin/straight)  | U     |
| ZK1052-6154-3xxx         | M12 socket (5-pin/angled)  | V     |
| Ordering information     |  | Pict. |
| ZK1052-6300-3xxx         | Cable, pre-assembled with M12 plug (5-pin/angled) to open end                | W     |
| ZK1052-6354-3xxx         | M12 socket (5-pin/angled)  | X     |

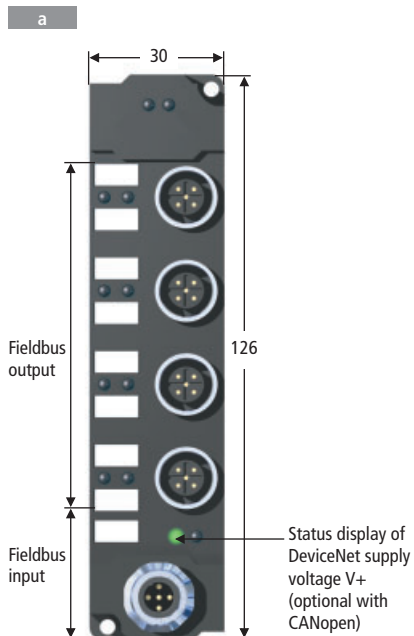
## Accessories

| Ordering information |  | Pict. |
|----------------------|--|-------|
| ZS1052-2600          | Y-connector (plug, socket)                         |       |
| ZS1052-2602          | Y-connector with stub, 1 m (plug, socket)          |       |
| ZS1052-1610          | termination resistor (plug, 120 Ω pin 4–5)         | Y     |
| ZS1052-0620          | straight socket, screw type connection             |       |
| ZS1052-0640          | angled socket, screw type connection               |       |
| ZS1052-0610          | straight plug, screw type connection               |       |
| ZS1052-0630          | angled plug, screw type connection                 |       |
| ZS1052-6610          | control cabinet lead-in M12, plug-coupling         | Z     |
| ZS5052-4500          | distribution box: 1 x 5-pin plug, 4 x 5-pin socket | a     |





Illustrations similar



**Distribution box**

We reserve the right to make technical changes.

| Technical data      |  |
|---------------------|--|
| Fieldbus            | CANopen or DeviceNet                             |
| Bus plug            | M12 plug, 5-pin, screwed                         |
| Data transfer rates | up to 1 Mbaud (CANopen) or 500 kbaud (DeviceNet) |
| Protection class    | IP 67  |
| Temperature range   | 0...+55 °C                                       |

The following stub lines are not to be exceeded:

| Baud rates  | Max. stub length (multidrop) | Max. bus length with multidrop technology (without stubs) |
|-------------|------------------------------|---|
| 1,000 kbaud | 0.3 m                        | 25 m  |
| 500 kBaud   | 1.2 m                        | 60 m  |
| 250 kBaud   | 2.4 m                        | 120 m   |
| 125 kBaud   | 4.8 m                        | 310 m   |

## Accessories IP-Link

### Cordsets

| Ordering information |  |
|----------------------|--|
| ZK1020-0101-0xxx     | pre-assembled IP-Link cable, drag-chain suitable   |
| Z1101                | plastic fibre optic, single core, 1,000 µm with protective PU cladding and Kevlar strain relief, drag-chain suitable |
| Z1103                | plastic fibre optics, 1,000 µm, PUR sheath ø 6 mm, heavy duty, drag-chain suitable                                   |

### Accessories

| Ordering information | Plug                                  | Pict. |
|----------------------|---------------------------------------|-------|
| ZS1020-0010          | plug, unit pack 1                     | b     |
| ZS1021-0010          | plug, unit pack 10                    | b     |
| ZS1022-0010          | IP-Link plug, unit pack 10, clip type | c     |
| ZK1020-0101-1000     | IP-Link jumper                        | d     |

| Ordering information | IP-Link accessories   |
|----------------------|---|
| ZS5300-0003          | mounting plate for Coupler Box, zinc-coated steel sheet, 270 mm |
| ZS5400-0001          | sanding gauge for IP-Link connector                             |
| ZS5400-0010          | abrasive paper P600, 10 sheets                                  |
| ZS1022-0000          | locking device IP-Link, stainless steel                         |



Illustrations similar

## KS2000

### Configuration software KS2000

The KS2000 can be used for parametering modules, local diagnostics, forcing data, monitoring values, updating firmware and programming Beckhoff mini PLCs via TwinCAT. The connection between the fieldbus components and the PC is established via the serial or USB connection cable provided, or via the network and TCP/IP. The KS2000 configuration software for Windows NT/2000/XP/Vista or Windows 7 operating systems has a friendly user interface, making work comfortable and convenient.

| Ordering information |  | Pict. |
|----------------------|--|-------|
| KS2000               | configuration software for project design, commissioning and parameterisation of Beckhoff Fieldbus Box modules and Bus Terminals | e     |

### USB cable for KS2000

The KS2000 cable connects the Fieldbus Box modules with the PC. The USB cable features electrical isolation. Status LEDs indicate whether data are sent or received. On the connected PC the USB cable behaves like a COM port and can therefore be used for all Beckhoff tools using serial communication.

| Ordering information |  | Pict. |
|----------------------|--|-------|
| KS2000-Z3-USB        | connection cable for KS2000 or TwinCAT for serial conversion from USB for Fieldbus Box, length 3 m | f     |

