

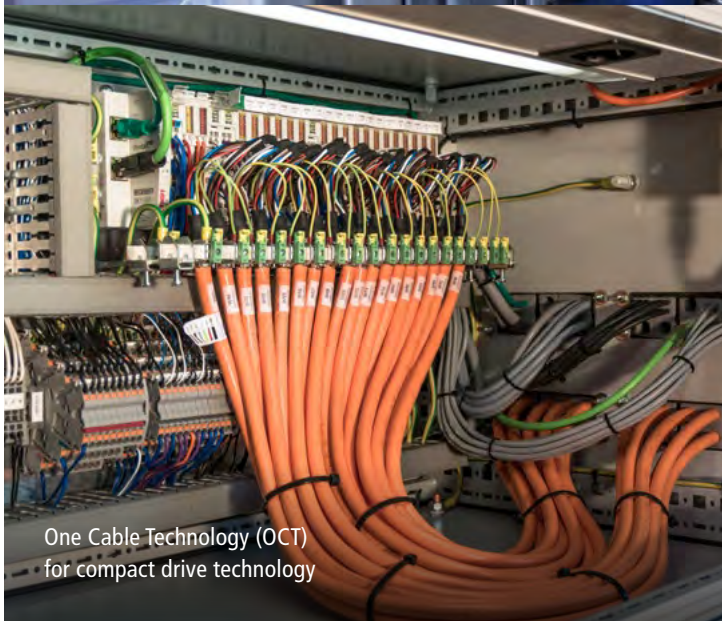
BECKHOFF New Automation Technology

Profound expertise, broad portfolio:
I/O and motion accessories from Beckhoff



Accessories make
all the difference:
over 25 years of
experience with
I/O and motion
components

As a specialist in PC-based control technology, Beckhoff has been developing, designing and manufacturing high-quality I/O and motion components for over 25 years. This knowledge is continuously optimised and is reflected among other things in a complete and field-proven range of accessories using which all I/O and motion solutions can be optimally integrated into the control architecture. With the I/O and motion accessories, customers benefit directly from high-end technology "Made in Germany": from motor and communication cables to sensor, power and hybrid cables.



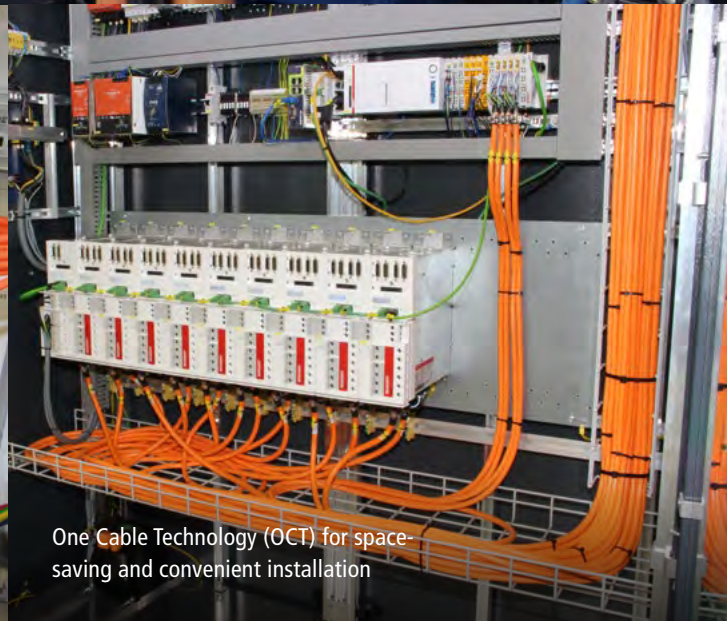
One Cable Technology (OCT)
for compact drive technology



IP 65/67 EtherCAT, sensor and power
cables for fast field installation



Fibre-optic cables with SC duplex connectors
for long transmission distances

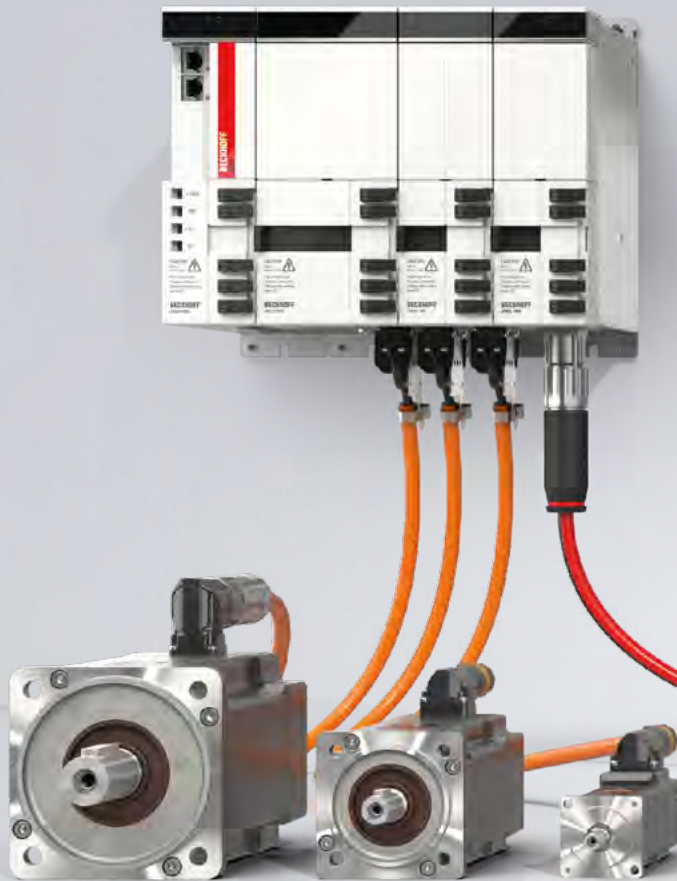


One Cable Technology (OCT) for space-
saving and convenient installation

A technological lead through to the actuator: with the specialist in One Cable Automation

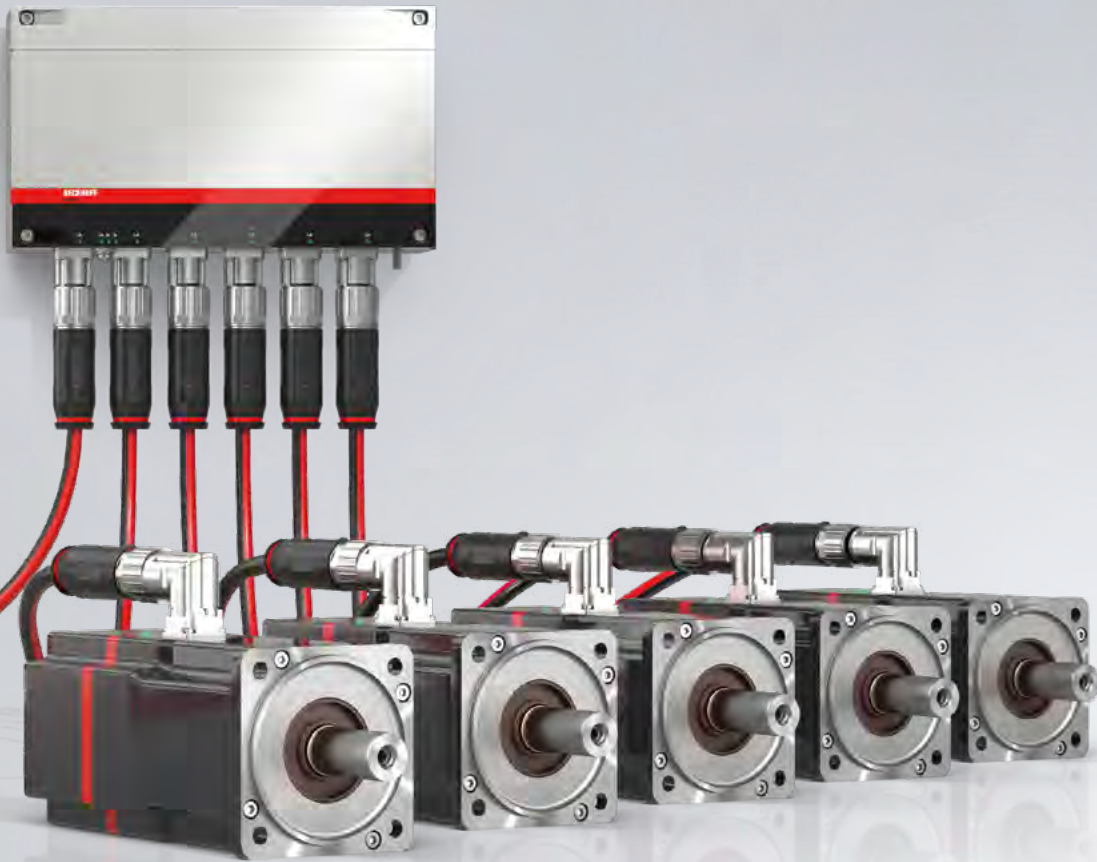
Our customers' requirements are just as varied as the accessory products from Beckhoff. The accessories offer many advantages that result in a direct increase in the efficiency of systems and plants. Apart from the wide range of pre-assembled accessories and accessories for field assembly, custom-tailored connection components are available for special solutions. With the accessories from Beckhoff, users can integrate future-oriented technologies into their systems today and tap into savings potentials with one-cable solutions in hybrid technology.

EtherCAT G/G10 combines the advantages of EtherCAT with speeds of up to 10 Gbit/s in an 8-wire Cat.6 cable.
EtherCAT P combines communication and power in a 4-wire standard Ethernet cable to enable automation without control cabinets. One Cable Technology (OCT) combines power and feedback signals in a standard motor cable for compact drive technology.



The hybrid cable and plug connector portfolio combines communication and power in one component:

- UL approval for the complete range
- reduced time and costs for procurement, storage, installation and maintenance
- compact design: reduced space requirement, smaller system footprint and tidy appearance
- tidy cable routing in smaller cable trays and drag-chains
- fewer connections: significantly reduced risk of failure, fewer sources of error and simplified commissioning
- reliable transmission of data and power, e.g. to fieldbus components and actuators
- reduced weight: reduced gyrating mass of moving parts enables energy savings
- reduced time required to connect individual systems or modules
- reduced logistics effort: less storage space, fewer booking transactions and errors
- only one order number, simplified inventory management
- fast and safe connection of devices through easy-to-handle quick-lock mechanism
- cable prices without hidden charges for copper



- universal connection concept in sizes M8, B12, B17, B23 and B40
- field-assembly plug connectors and raw cables: plug connectors are available for fast installation in the field along with matching cables sold by the metre
- pre-assembled cables: cables with moulded plug connectors are available in special lengths without minimum order quantities
- improved design, high-quality components:
 - ideal for small bending radii and a large number of alternate bending cycles
 - IP 65/67 for use in harsh environmental conditions
 - perfect 360° screen connection for best-possible electromagnetic compatibility
 - sturdy components for higher shock and vibration requirements
 - resistant to higher temperatures
 - increased current carrying capacity of the plug connectors

For all
requirements:
Beckhoff I/O
and motion
accessories



Motor cables



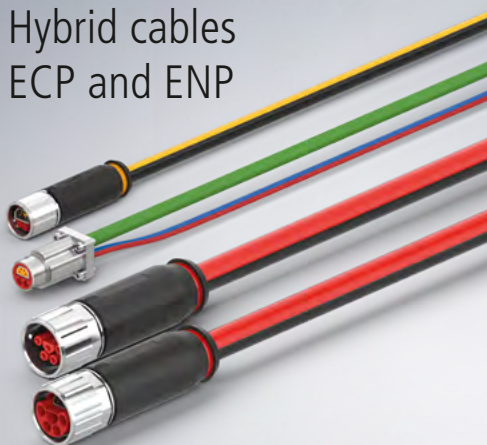
Power cables
(M8 and 7/8")



EtherCAT and
fieldbus cables



Hybrid cables
ECP and ENP



Sensor cables



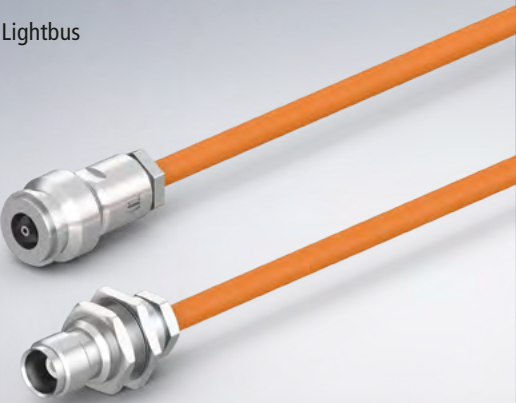
Further accessories



Setting benchmarks: the milestones in the Beckhoff accessories portfolio

For over 25 years Beckhoff has been setting benchmarks in the field of I/O and motion accessories with innovations that became global standards. Best example: the development of the globally established high-speed fieldbus EtherCAT in 2003, the one-cable solution EtherCAT P in 2015 and the AMP hybrid cable in 2017.

1989:
Lightbus



1999:
Fieldbuses and sensor cables



2003:
EtherCAT



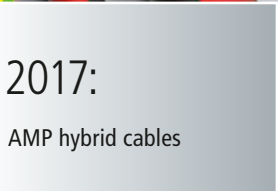
2011:
One Cable Technology OCT



2015:
EtherCAT P



2017:
AMP hybrid cables

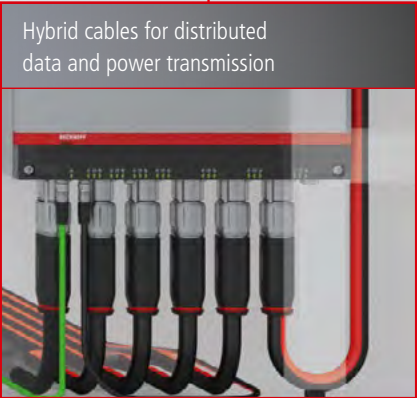
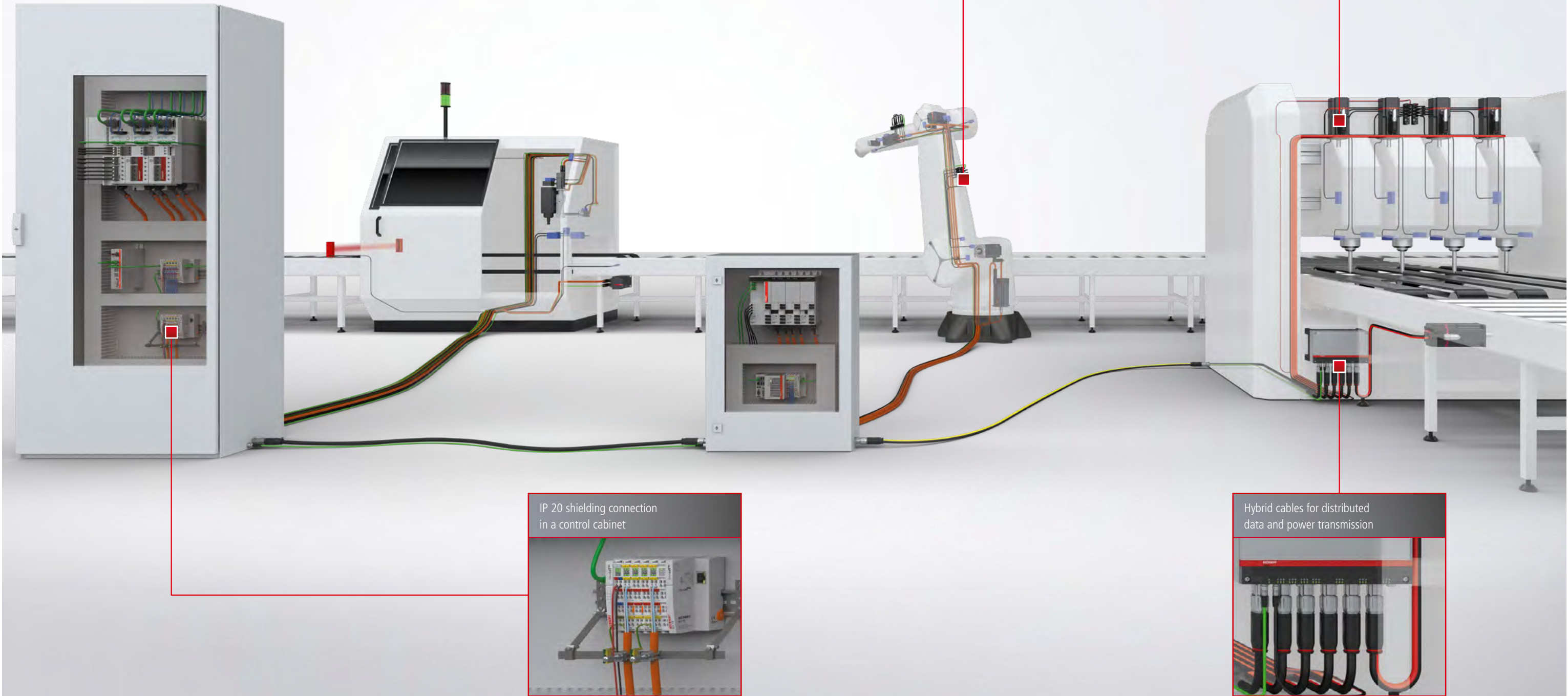
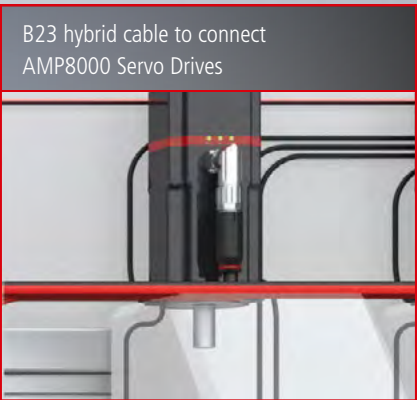
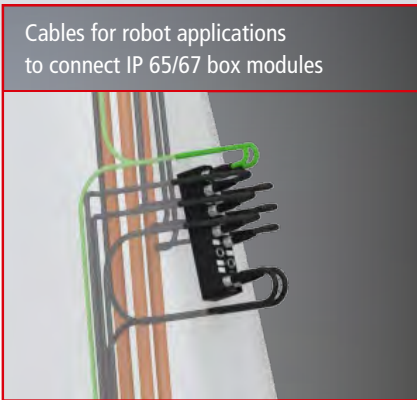


2018:
EtherCAT G

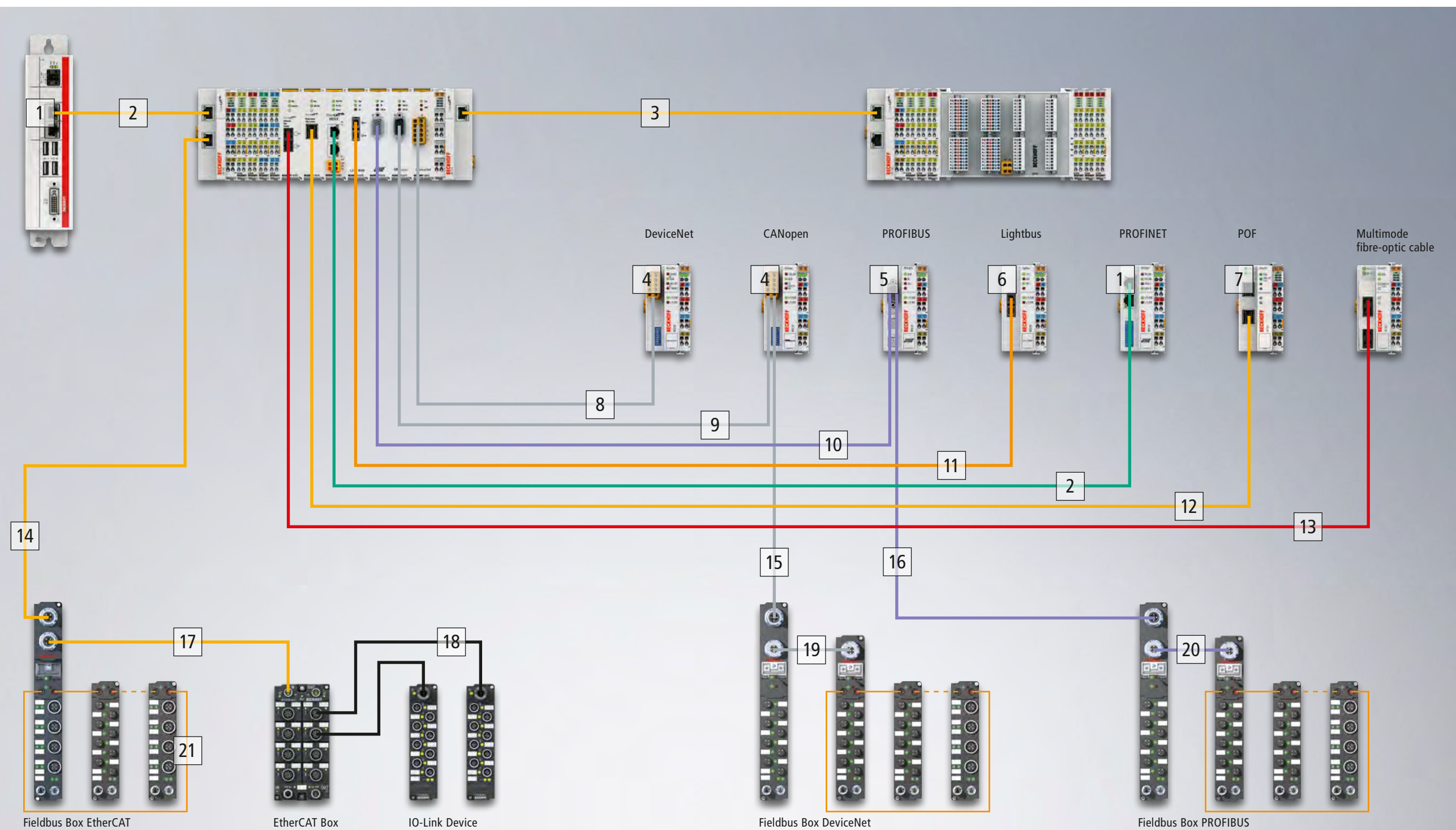


The ideal cabling solution for every system installation

The high amount of cabling required in conventional system installations can be significantly reduced through the use of hybrid cables. These future-proof technologies are ideal for the space-saving, clear and tidy as well as maintenance-friendly routing of data and power cables as well as the connection of sensors and actuators.

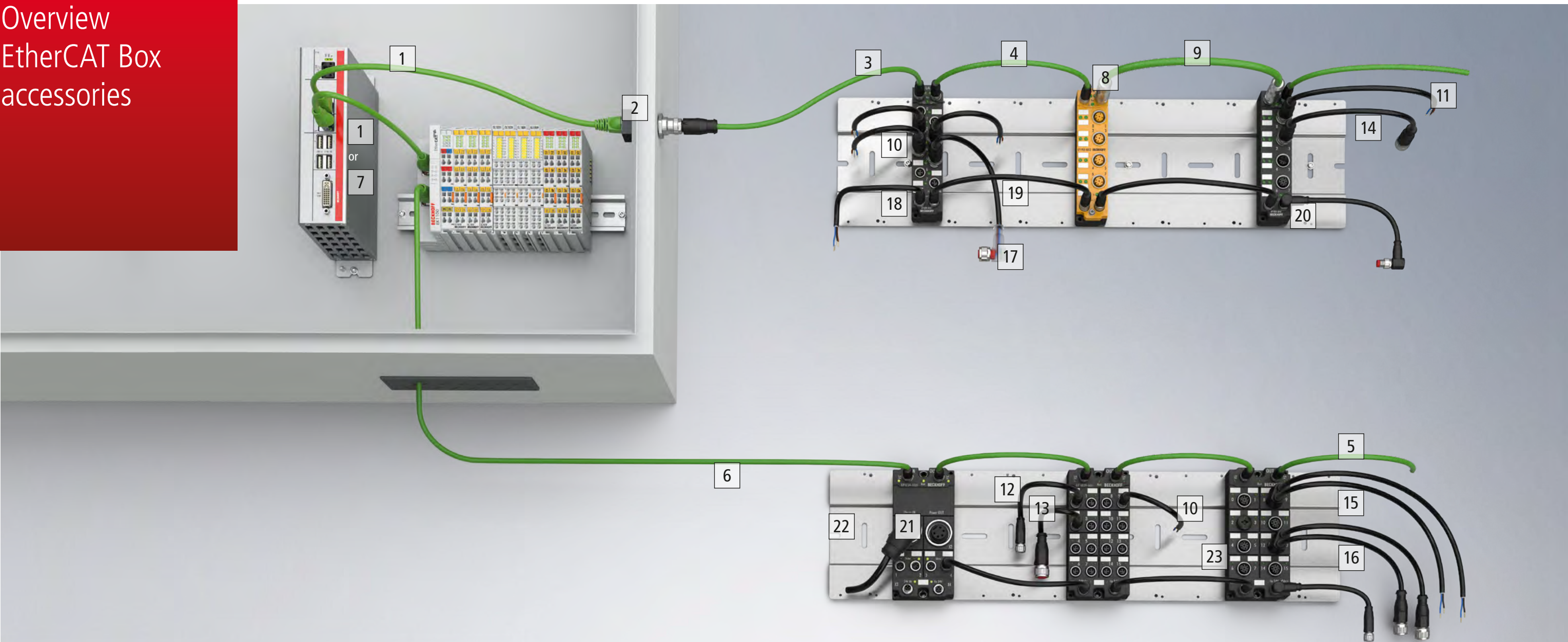


Overview
fieldbus
accessories



- | | | | | | |
|--|--|--|---|---|--|
| <p>1 ZS1090-0003 Industrial Ethernet/ EtherCAT, RJ45, plug, straight, IDC, 4-pin, AWG24-22</p> <p>2 ZB9010 Industrial Ethernet/EtherCAT cable, fixed Installation, 1 x 4 x AWG22</p> <p>3 ZK1090-9191-xxxx Industrial Ethernet/ EtherCAT patch cable, green, RJ45, plug, 8-pin – RJ45, plug, 8-pin</p> | <p>4 ZS1052-3000 CANopen/DeviceNet, open style connector, 5-pin, with termination resistor</p> <p>5 ZS1031-3000 PROFIBUS, D-Sub connector, 9-pin, with termination resistor</p> <p>6 Z1000 Standard connector for 1,000 µm plastic fibre</p> <p>7 ZS1090-0008 Connector set for direct connector assembly for POF cables</p> | <p>8 ZB5200 DeviceNet cable</p> <p>9 ZB5100 CAN cable</p> <p>10 ZB3200 PROFIBUS cable</p> <p>11 Z1100 Plastic fibre optic</p> <p>12 Z1190 POF fibre-optic duplex cable</p> <p>13 ZK1090-1001-xxxx Multimode fibre-optic cable, SC duplex connector</p> | <p>14 ZK1090-6191-xxxx Industrial Ethernet/ EtherCAT, M12, male, straight, 4-pin – RJ45, plug, 4-pin</p> <p>15 ZK1052-6100-xxxx CANopen/DeviceNet, M12, male, straight, 5-pin – open end</p> <p>16 ZK1031-6100-xxxx PROFIBUS, M12, male, straight, 5-pin – open end</p> | <p>17 ZK1090-3161-xxxx Industrial Ethernet/ EtherCAT, M8, male, straight, 4-pin – M12, male, straight, 4-pin</p> <p>18 ZK2000-5152-xxxx M12, male, straight, 5-pin – M12, female, straight, 5-pin</p> <p>19 ZK1052-6152-xxxx CANopen/DeviceNet, M12, male, straight, 5-pin – M12, female, straight, 5-pin</p> | <p>20 ZK1031-6152-xxxx PROFIBUS, M12, female, straight, 5-pin – M12, male, straight, 4-pin</p> <p>21 ZK1020-0101-xxxx Pre-assembled IP-Link cable, drag-chain suitable</p> |
|--|--|--|---|---|--|

Overview
EtherCAT Box
accessories



EtherCAT cable

- 1 ZK1090-9191-xxxx | Industrial Ethernet/ EtherCAT patch cable, green, RJ45, plug, 8-pin – RJ45, plug, 8-pin
- 2 ZK1090-6292-0000 | Industrial Ethernet/ EtherCAT, M12, flange, female, straight, 4-pin – RJ45, female, straight, 4-pin
- 3 ZK1090-3161-xxxx | Industrial Ethernet/ EtherCAT, M8, male, straight, 4-pin – M12, male, straight, 4-pin
- 4 ZK1090-3131-xxxx | Industrial Ethernet/ EtherCAT, M8, male, straight, 4-pin – M8, male, straight, 4-pin
- 5 ZK1090-3100-xxxx | Industrial Ethernet/ EtherCAT, M8, male, straight, 4-pin – open end

- 6 ZK1090-3191-xxxx | Industrial Ethernet/ EtherCAT, M8, male, straight, 4-pin – RJ45, plug, 4-pin
- 7 ZK1093-9191-xxxx | Industrial Ethernet/ EtherCAT patch cable, yellow, RJ45, plug, 8-pin – RJ45, plug, 8-pin
- 8 ZS1090-1006 | Industrial Ethernet/ EtherCAT, M8, male, straight, screw termination, 4-pin
- 9 ZB9020 | Industrial Ethernet/EtherCAT cable, drag-chain suitable, 1 x 4 x AWG22 ZB9032 | Industrial Ethernet/EtherCAT cable, drag-chain suitable, 1 x 4 x AWG26

Sensor cable

- 10 ZK2000-2100-xxxx | M8, male, straight, 3-pin – open end
- 11 ZK2000-6100-xxxx | M12, male, straight, 4-pin – open end
- 12 ZK2000-2122-xxxx | M8, male, straight, 3-pin – M8, female, straight, 3-pin
- 13 ZK2000-2162-xxxx | M8, male, straight, 3-pin – M12, female, straight, 4-pin
- 14 ZK2000-6162-xxxx | M12, male, straight, 4-pin – M12, female, straight, 4-pin
- 15 ZK2000-6500-xxxx | M12, male, straight, 4-pin – DUO: 2 x open end

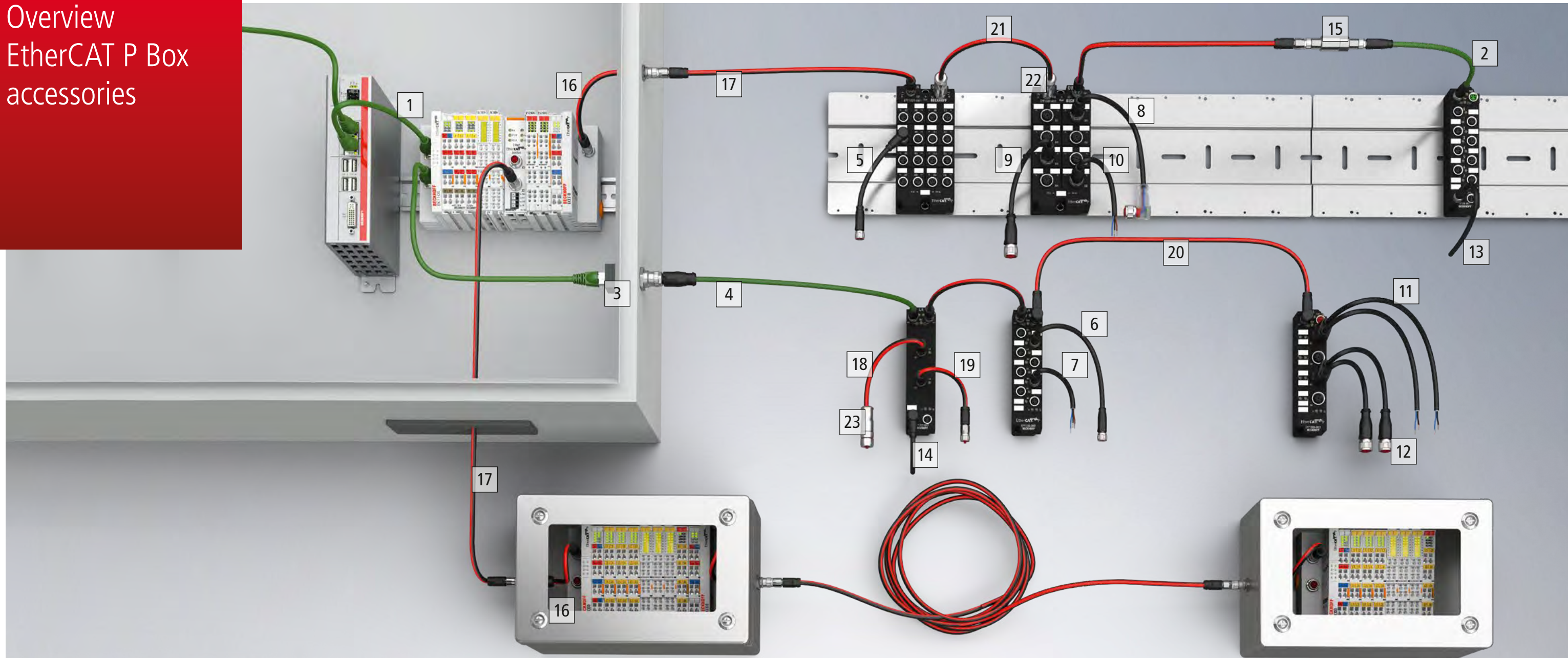
Power cable

- 16 ZK2000-6562-xxxx | M12, male, straight, 4-pin – DUO: 2 x M12, female, straight, 2 x 4-pin
- 17 ZK2002-2124-xxxx | M8, male, straight, 3-pin – M8, LED, female, angled, 3-pin
- 18 ZK2020-3200-xxxx | M8, female, straight, 4-pin – open end
- 19 ZK2020-3132-xxxx | M8, male, straight, 4-pin – M8, female, straight, 4-pin
- 20 ZK2020-3334-xxxx | M8, male, angled, 4-pin – M8, female, angled, 4-pin
- 21 ZK2030-1400-xxxx | 7/8", female, angled, 5-pin – open end

Assembly

- 22 ZS5300-0001 | Mounting plate for EtherCAT Box modules, stainless steel, 500 mm
- 23 ZS5000-0020 | Covering stopper, plastic, with external thread M12

Overview EtherCAT P Box accessories



EtherCAT cable

- 1 ZK1090-9191-xxxx | Industrial Ethernet/ EtherCAT patch cable, green, RJ45, plug, 8-pin – RJ45, plug, 8-pin
- 2 ZK1090-3131-xxxx | Industrial Ethernet/ EtherCAT, M8, male, straight, 4-pin – M8, male, straight, 4-pin
- 3 ZK1090-6292-0000 | Industrial Ethernet/ EtherCAT, M12, flange, female, straight, 4-pin – RJ45, female, straight, 4-pin
- 4 ZK1090-3161-xxxx | Industrial Ethernet/ EtherCAT, M8, male, straight, 4-pin – M12, male, straight, 4-pin

M8 | Sensor cable

- 5 ZK2000-2322-xxxx | M8, male, angled, 3-pin – M8, female, straight, 3-pin
- 6 ZK2000-2122-xxxx | M8, male, straight, 3-pin – M8, female, straight, 3-pin
- 7 ZK2000-2100-xxxx | M8, male, straight, 3-pin – open end

M12 | Sensor cable

- 8 ZK2002-6164-xxxx | M12, male, straight, 4-pin – M12, LED, female, angled, 4-pin
- 9 ZK2000-6162-xxxx | M12, male, straight, 4-pin – M12, female, straight, 4-pin
- 10 ZK2000-6100-xxxx | M12, male, straight, 4-pin – open end
- 11 ZK2000-6500-xxxx | M12, male, straight, 4-pin – DUO: 2 x open end
- 12 ZK2000-6562-xxxx | M12, male, straight, 4-pin – DUO: 2 x M12, female, straight, 2 x 4-pin

M8 | Power cable

- 13 ZK2020-3200-xxxx | M8, female, straight, 4-pin – open end
- 14 ZK2020-3400-xxxx | M8, female, angled, 4-pin – open end

EtherCAT P to EtherCAT

- 15 ZS7000-0005 | EtherCAT P/EtherCAT, cable adapter, passive, M8, female – M8, female

M8 | EtherCAT P cable

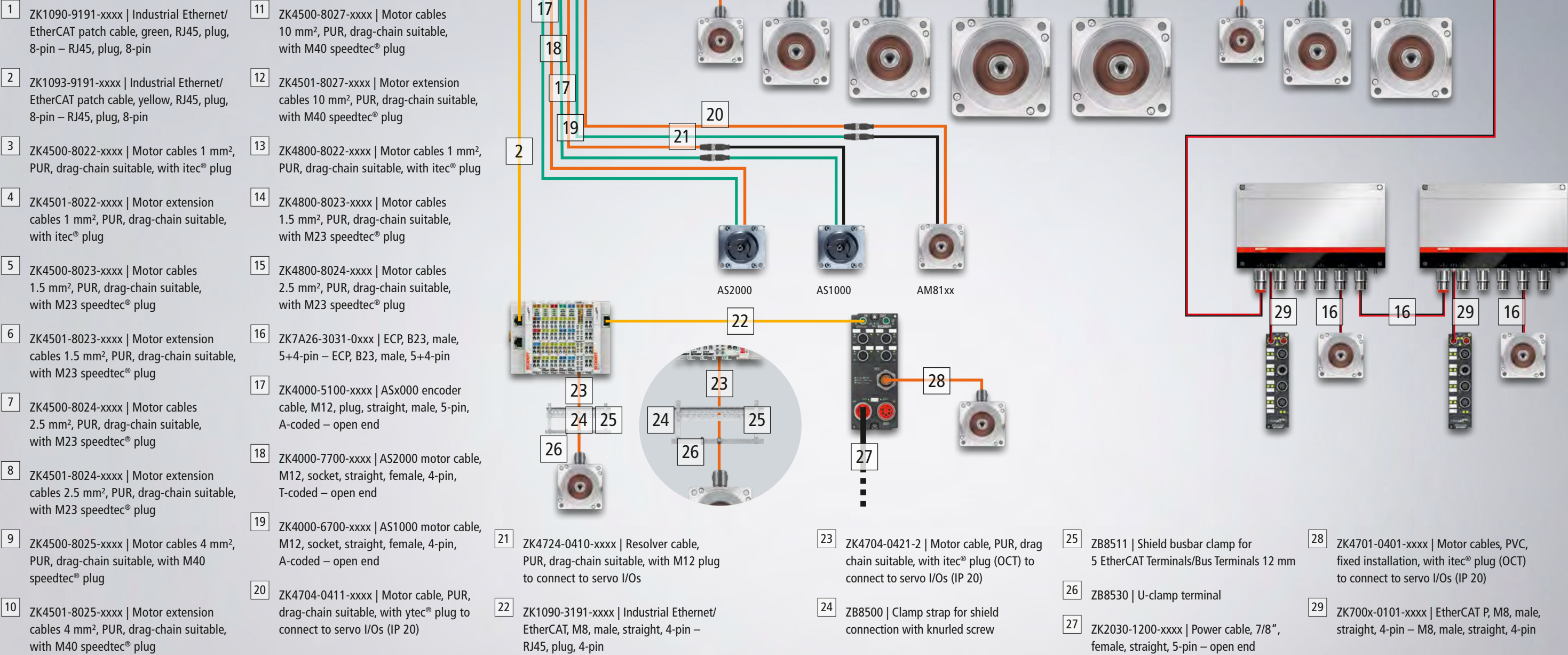
- 16 ZK700x-0105-xxxx | EtherCAT P, M8, male, straight, 4-pin – M8, flange, female, straight, 4-pin
- 17 ZK700x-0101-xxxx | EtherCAT P, M8, male, straight, 4-pin – M8, male, straight, 4-pin
- 18 ZK700x-0100-xxxx | EtherCAT P, M8, male, straight, 4-pin – open end
- 19 ZK700x-0102-xxxx | EtherCAT P, M8, male, straight, 4-pin – M8, female, straight, 4-pin

- 20 ZK700x-0303-xxxx | EtherCAT P, M8, male, angled, 4-pin – M8, male, angled, 4-pin

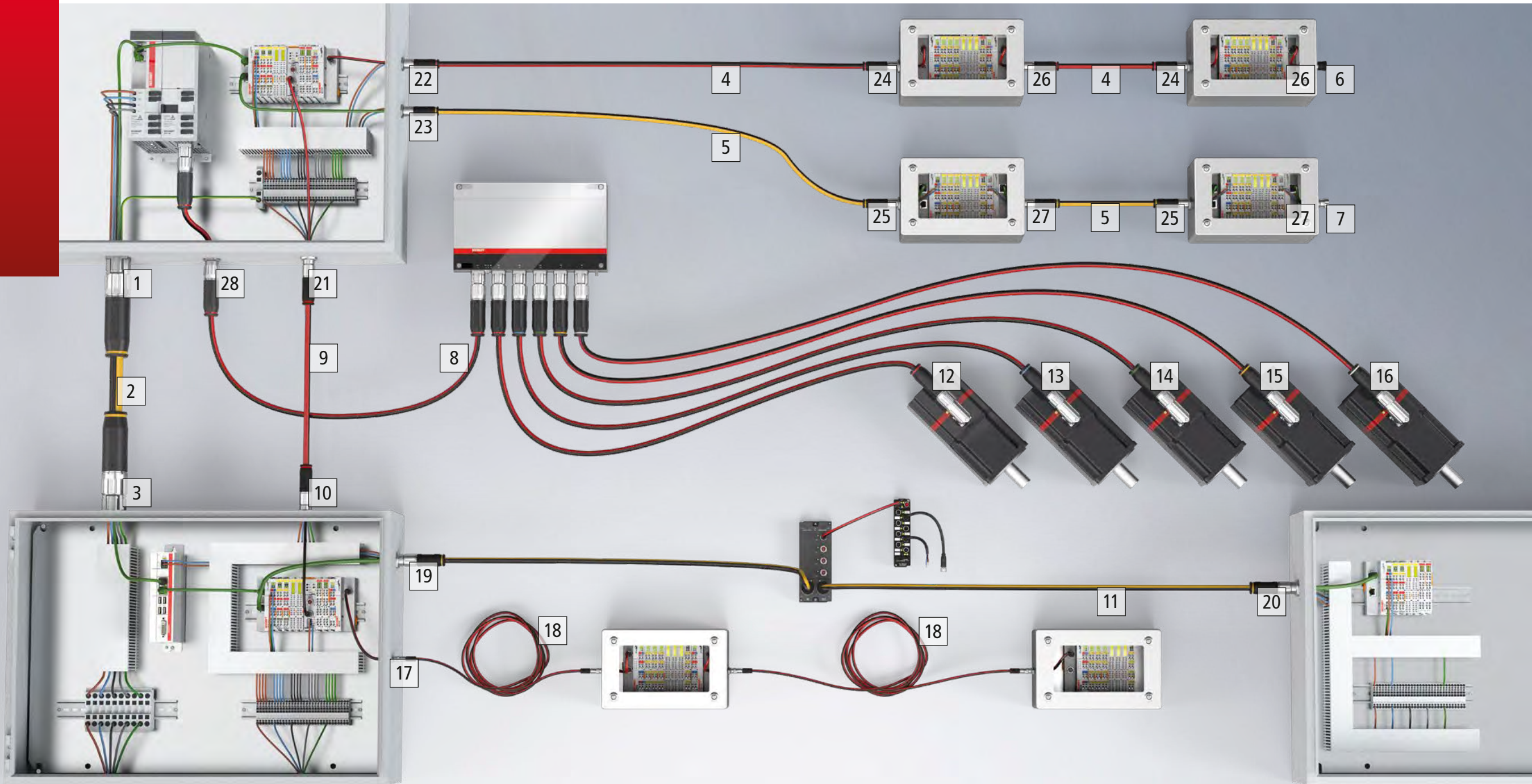
M8 | EtherCAT P, field assembly

- 21 ZB7000 | EtherCAT P cable, drag-chain suitable, 1 x 4 x AWG22 | ZB7001 | EtherCAT P cable, drag-chain suitable, 1 x 4 x AWG24
- 22 ZS7000-0001 | EtherCAT P, M8, male, 4-pin, straight, crimp termination
- 23 ZS7000-0004 | EtherCAT P, M8, female, 4-pin, straight, screw termination

Overview
drive technology
accessories



Overview hybrid cable accessories



- 1

ZK7425-BX00-Axxx | ENP, B40, flange, male, square assembly, 5+4-pin – RJ45, plug, 4-pin – open end
- 2

ZK7425-3031-Axxx | ENP, B40, male, 5+4-pin – ENP, B40, female, 5+4-pin
- 3

ZK7425-BW00-Axxx | ENP, B40, flange, female, square assembly, 5+4-pin – RJ45, plug, 4-pin – open end
- 4

ZK7102-0607-0xxx | ECP, B12, male, 2+4-pin – ECP, B12, female, 2+4-pin
- 5

ZK7102-0607-Axxx | ENP, B12, male 2+4-pin – ENP, B12, female, 2+4-pin
- 6

ZS7100-B001 | B12 protection cap, socket/flange, plastic, black, IP 67
- 7

ZS7100-B002 | B12 protection cap, socket/flange, metal, IP 67
- 8

ZK7A26-3031-0xxx | ECP, B23, male, 5+4-pin – ECP, B23, male, 5+4-pin
- 9

ZK7208-3031-0xxx | ECP, B17, male, 5+4-pin – ECP, B17, male, 5+4-pin
- 10

ZK7208-BY00-0xxx | ECP, B17, flange, female, square assembly, 5+4-pin – M8, male, straight, 4-pin – open end
- 11

ZK7208-3031-Axxx | ENP, B17, male, 5+4-pin – ENP, B17, male, 5+4-pin
- 12

ZS7300-B005 | B23, colour coding, red
- 13

ZS7300-B007 | B23, colour coding, blue
- 14

ZS7300-B008 | B23, colour coding, green
- 15

ZS7300-B006 | B23, colour coding, yellow
- 16

ZS7300-B016 | B23, colour coding, grey
- 17

ZK700x-0105-xxxx | EtherCAT P, M8, male, straight, 4-pin – M8, flange, female, straight, 4-pin
- 18

ZK700x-0101-xxxx | EtherCAT P, M8, male, straight, 4-pin – M8, male, straight, 4-pin
- 19

ZK7208-AW00-Axxx | ENP, B17, flange, female, front assembly, 5+4-pin – RJ45, plug, 4-pin – open end
- 20

ZK7208-AX00-Axxx | ENP, B17, flange, male, front assembly, 5+4-pin – RJ45, plug, 4-pin – open end
- 21

ZK7208-BZ00-0xxx | ECP, B17, flange, male, rear assembly, 5+4-pin – M8, male, straight, 4-pin – open end
- 22

ZK7102-AC00-0xxx | ECP, B12, flange, female, rear assembly, 2+4-pin – M8, male, straight, 4-pin – open end
- 23

ZK7102-AC00-Axxx | ENP, B12, flange, female, rear assembly, 2+4-pin – RJ45, plug, 4-pin – open end
- 24

ZK7102-BJ00-0xxx | ECP, B12, flange, male, front assembly, 2+4-pin – M8, male, straight, 4-pin – open end
- 25

ZK7102-BJ00-Axxx | ENP, B12, flange, male, front assembly, 2+4-pin – RJ45, plug, 4-pin | open end
- 26

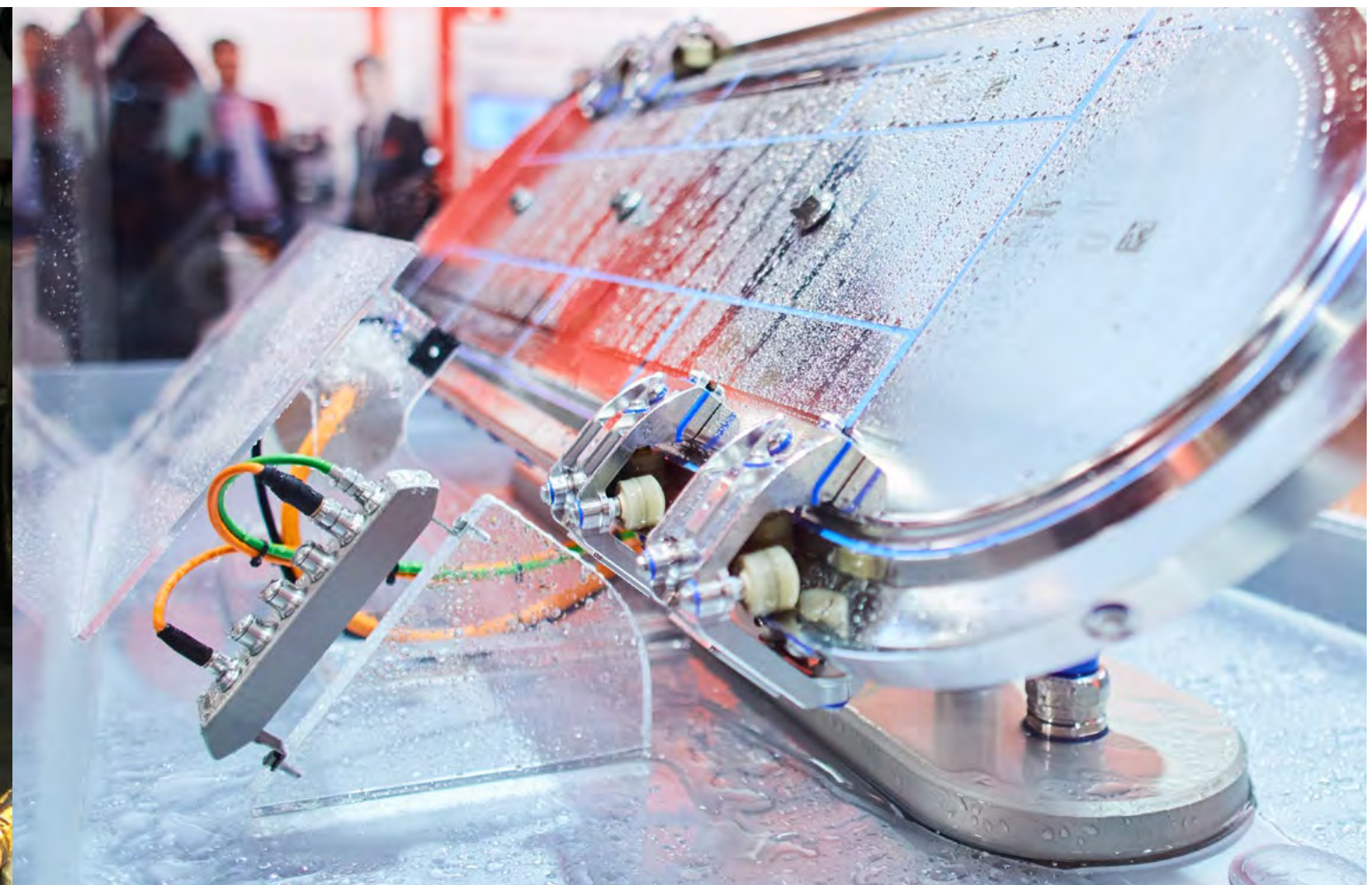
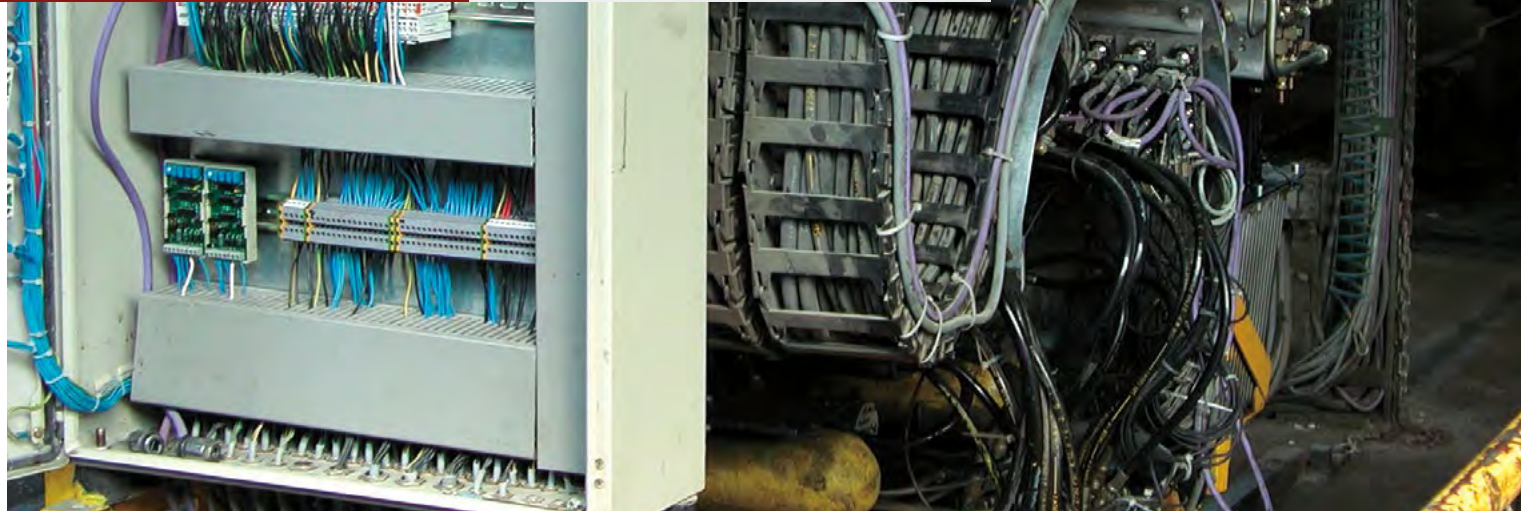
ZK7102-BI00-0xxx | ECP, B12, flange, female, front assembly, 2+4-pin – M8, male, straight, 4-pin – open end
- 27

ZK7102-BI00-Axxx | ENP, B12, flange, female, front assembly, 2+4-pin – RJ45, plug, 4-pin – open end
- 28

ZK7A26-30BY-0xxx | ECP, B23, male, 5+4-pin – ECP, B23, flange, female, rear assembly, 5+4-pin

Application examples

Beckhoff accessories are ideally suited for the most diverse environmental conditions. The cables with IP 65/67 protection are suitable for use in particularly harsh environmental conditions. The IP 69K-protected stainless steel plug connectors in hygienic design are easy to clean and ideal for the food and beverage industry, for example. For use with high dynamic loads, Beckhoff offers – among other things – cables for drag-chain applications as well as torsion-resistant cables for robot applications.





Ensure your lead with I/O and motion accessories from Beckhoff:

► www.beckhoff.com/io-accessories

► www.beckhoff.com/motion-accessories

Beckhoff Automation GmbH & Co. KG

Huelshorstweg 20

33415 Verl

Germany

Phone: + 49 5246 963-0

info@beckhoff.com

www.beckhoff.com

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