

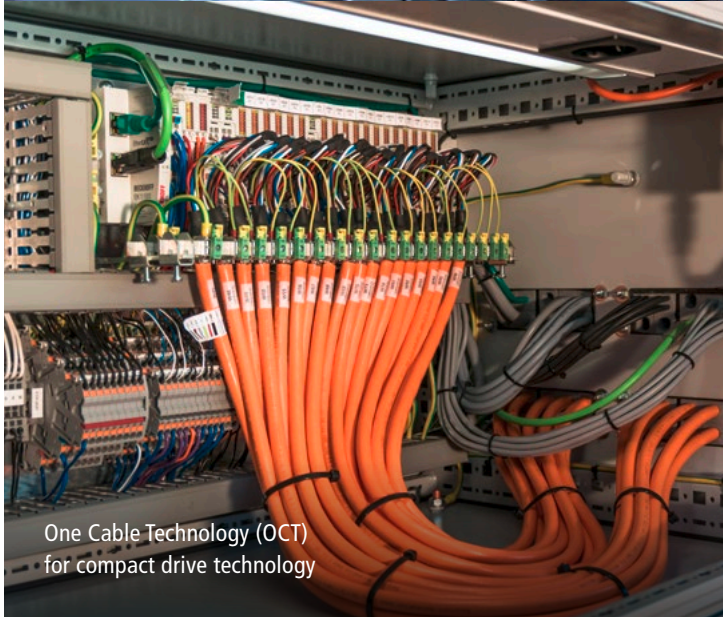
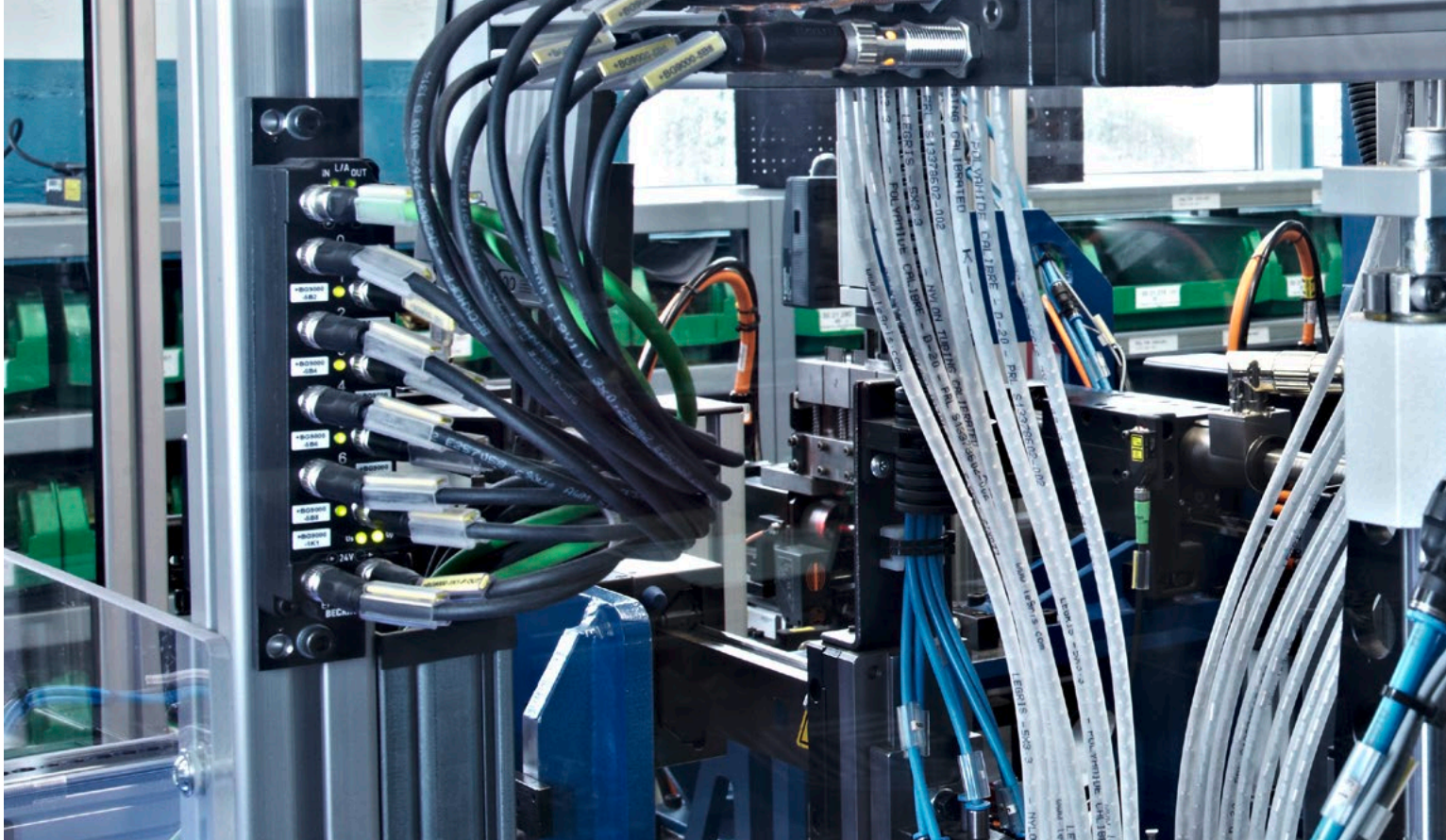
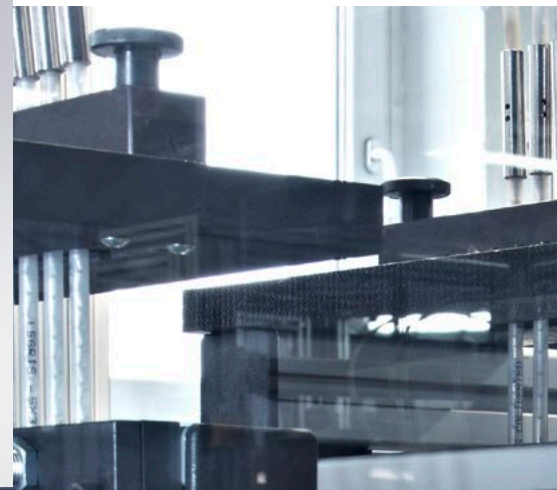
BECKHOFF New Automation Technology

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

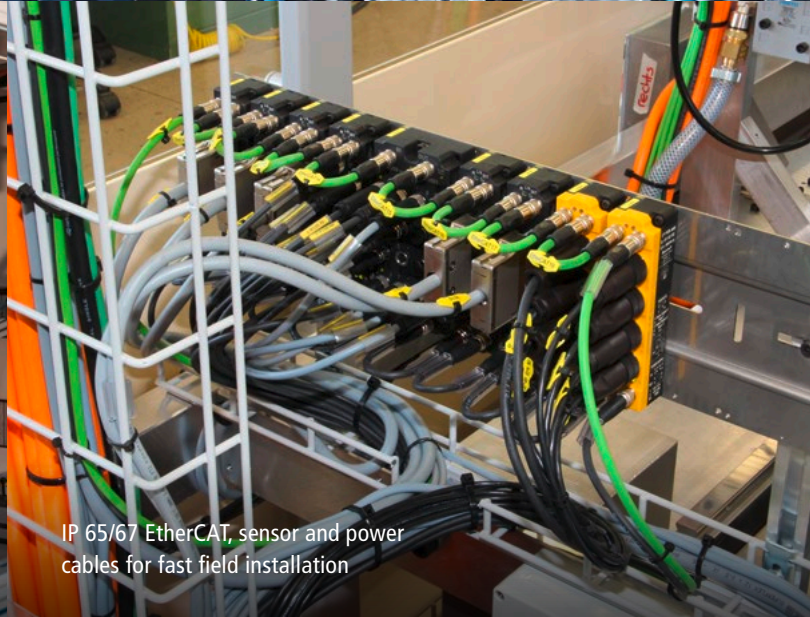


Accessories make all the difference: over 25 years of experience with I/O and motion components

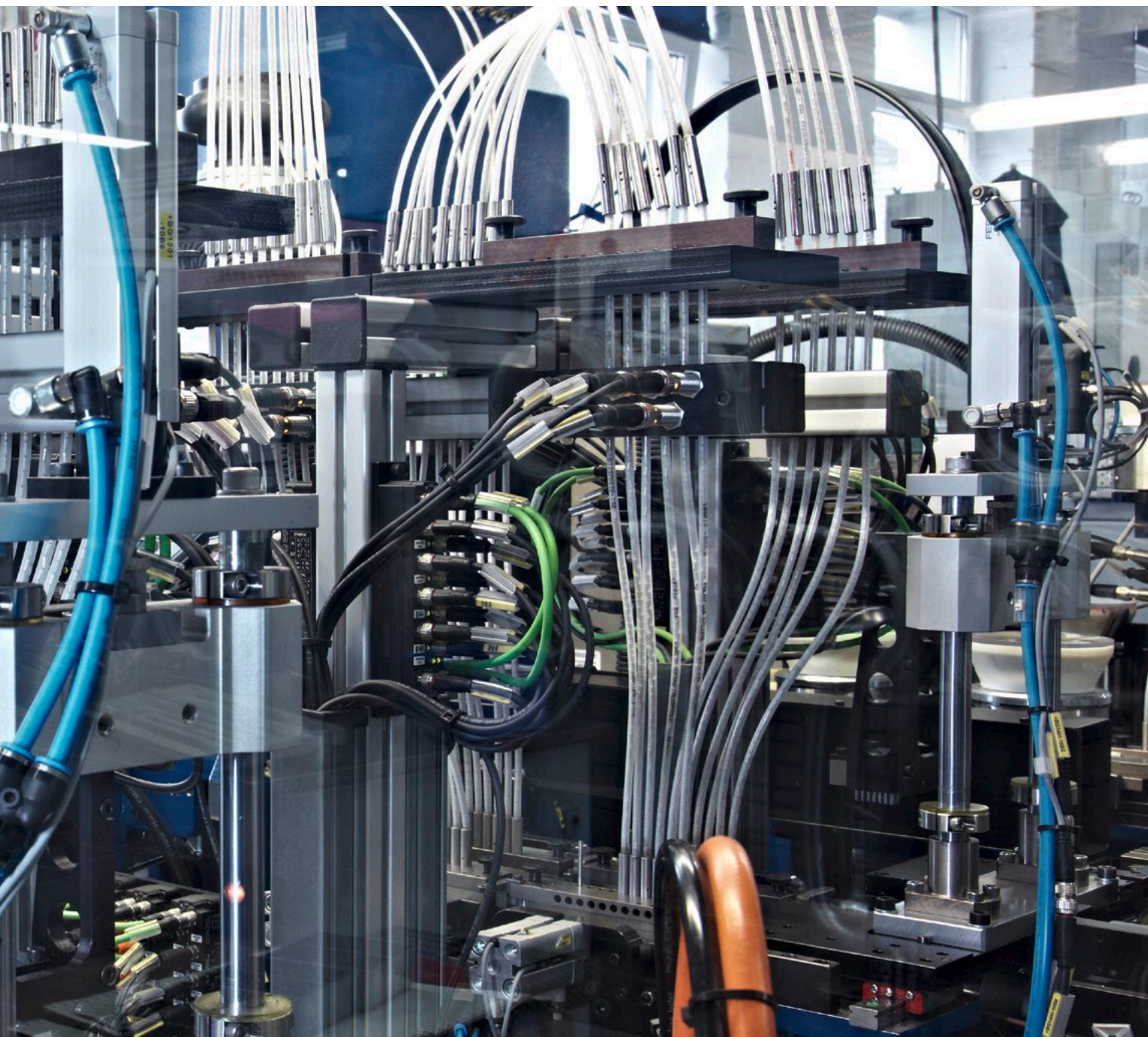
As a specialist in PC-based control technology, Beckhoff has been developing, designing and manufacturing high-quality I/O and motion components for over 25 years. This knowledge is continuously optimised and is reflected among other things in a complete and field-proven range of accessories using which 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.



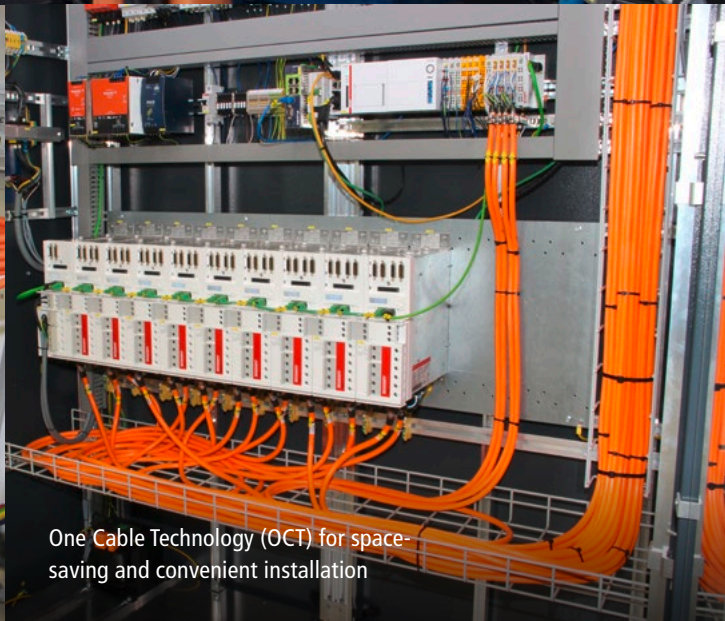
One Cable Technology (OCT) for compact drive technology



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



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

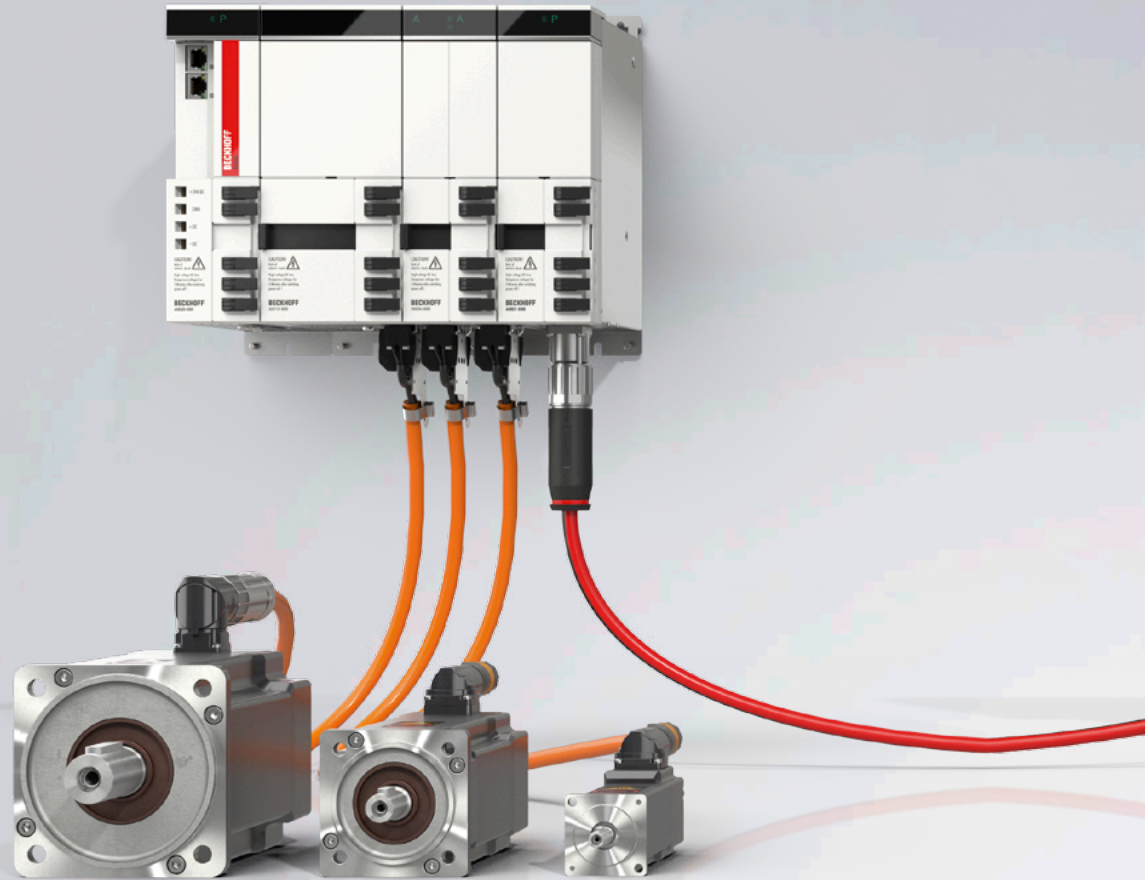


One Cable Technology (OCT) for space-saving and convenient installation

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

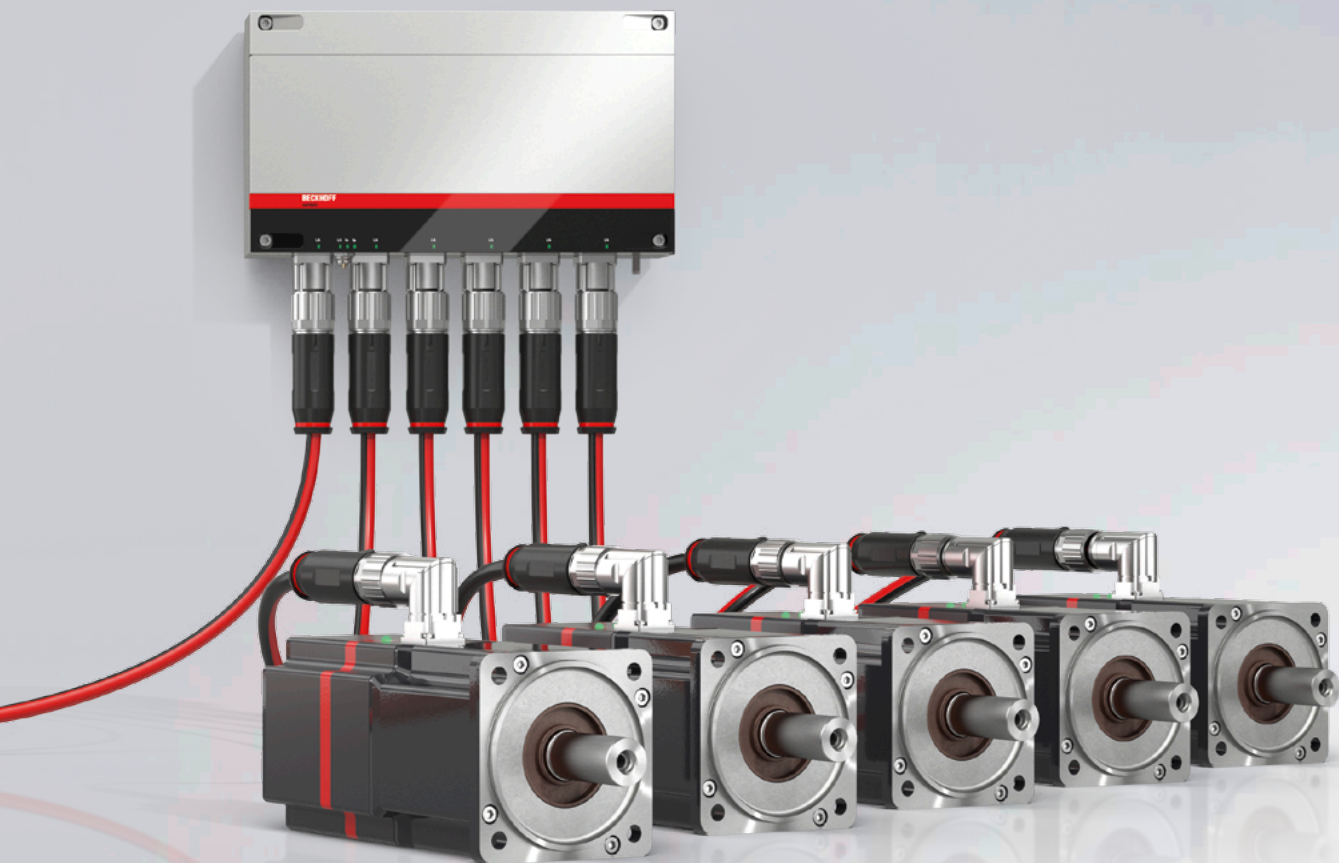
Our customers' requirements are just as varied as the accessory products from Beckhoff. The accessories offer many advantages that result in a direct increase in the efficiency of systems and plants. Apart from the wide range of pre-assembled accessories and accessories for field assembly, custom-tailored 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")

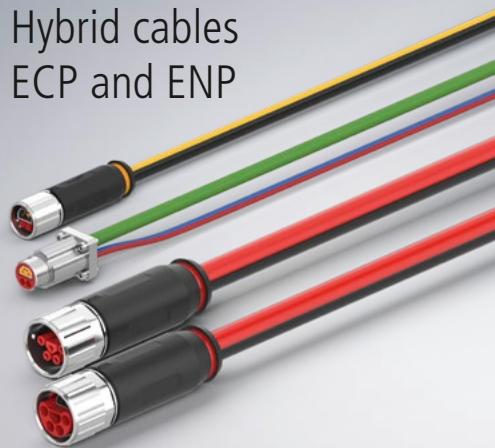


EtherCAT and
fieldbus cables





Hybrid cables
ECP and ENP



Sensor cables



Further accessories

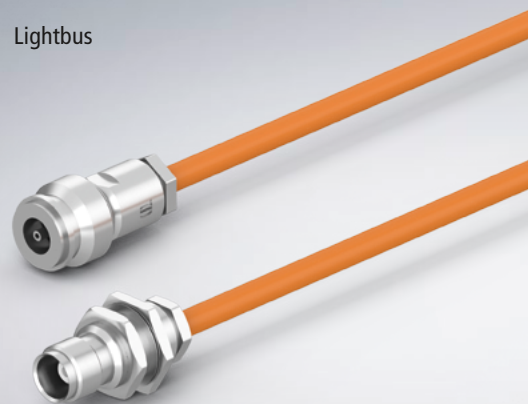


Setting benchmarks: the milestones in the Beckhoff accessories portfolio

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



2015:

EtherCAT P



EtherCAT P



1999:

Fieldbuses and sensor cables



2003:

EtherCAT



2011:

One Cable Technology OCT



2017:

AMP hybrid cables



2018:

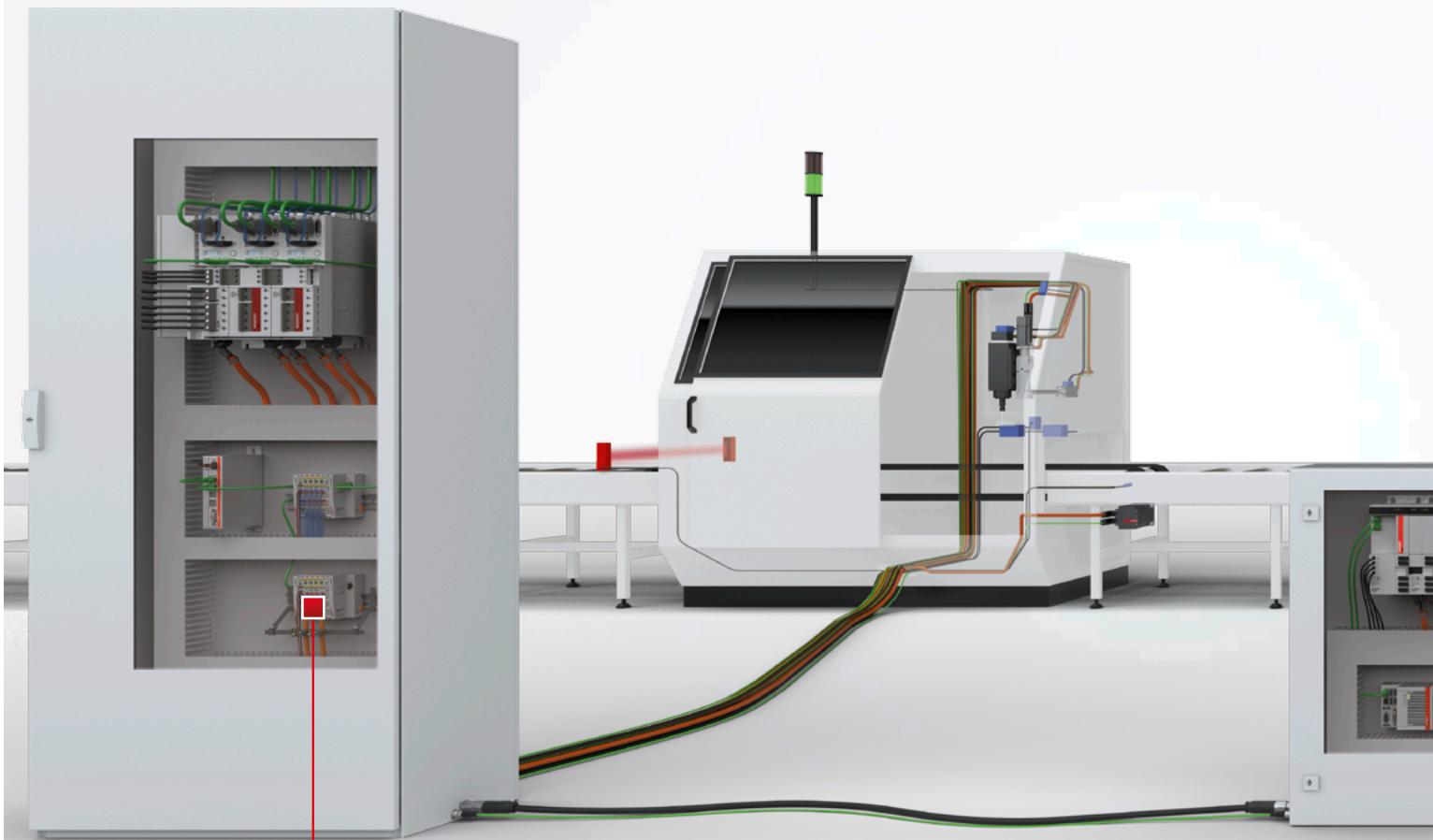
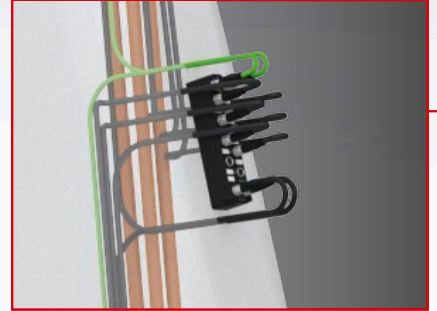
EtherCAT G



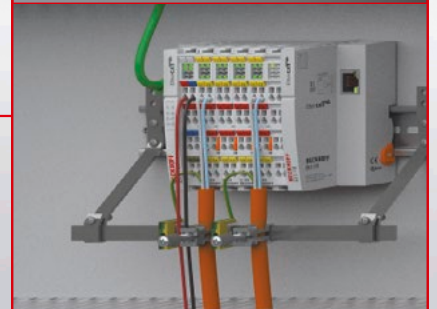
The ideal cabling solution for every system installation

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.

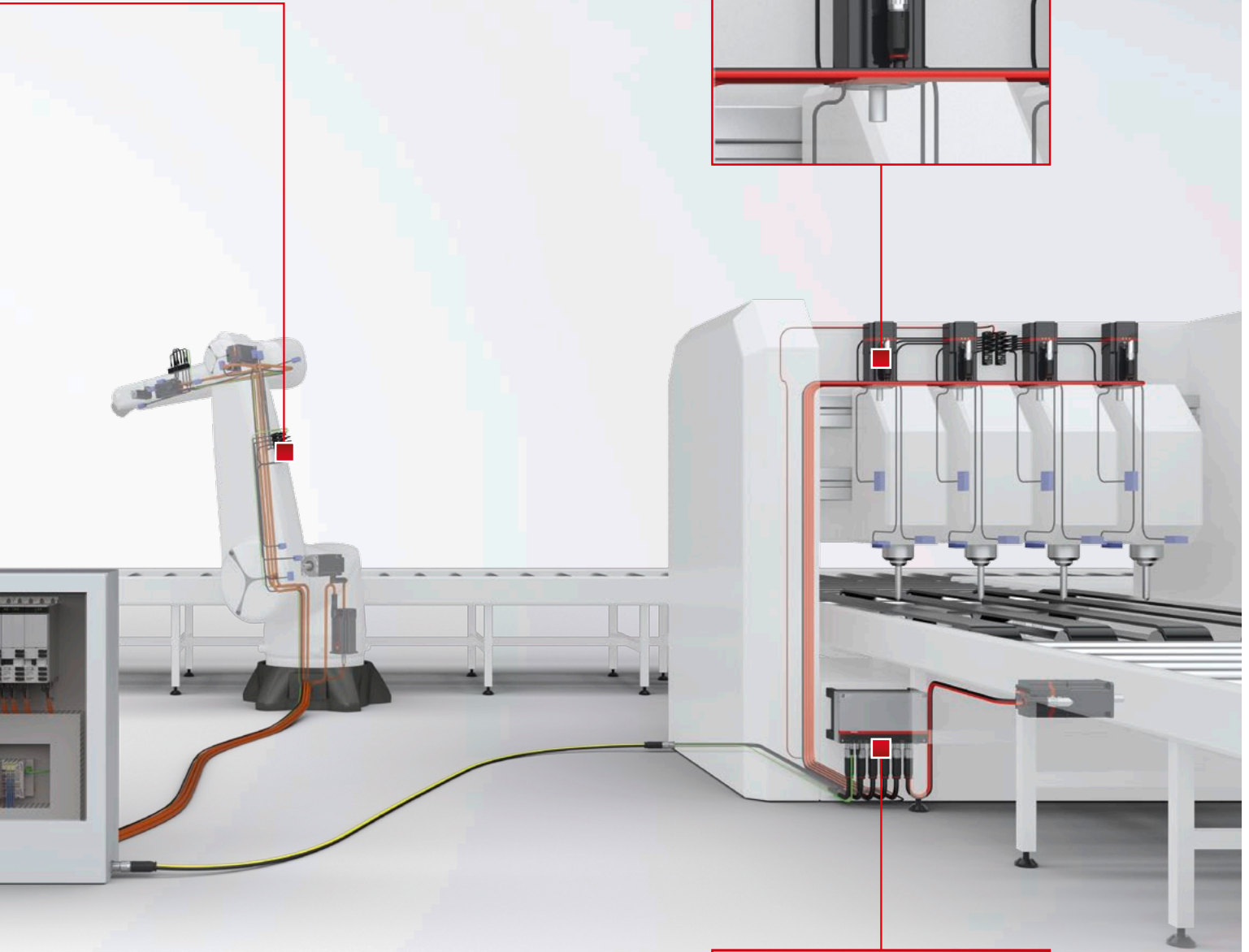
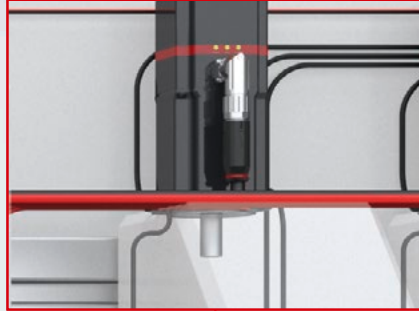
Cables for robot applications to connect IP 65/67 box modules



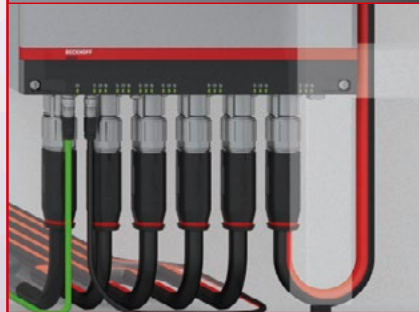
IP 20 shielding connection in a control cabinet



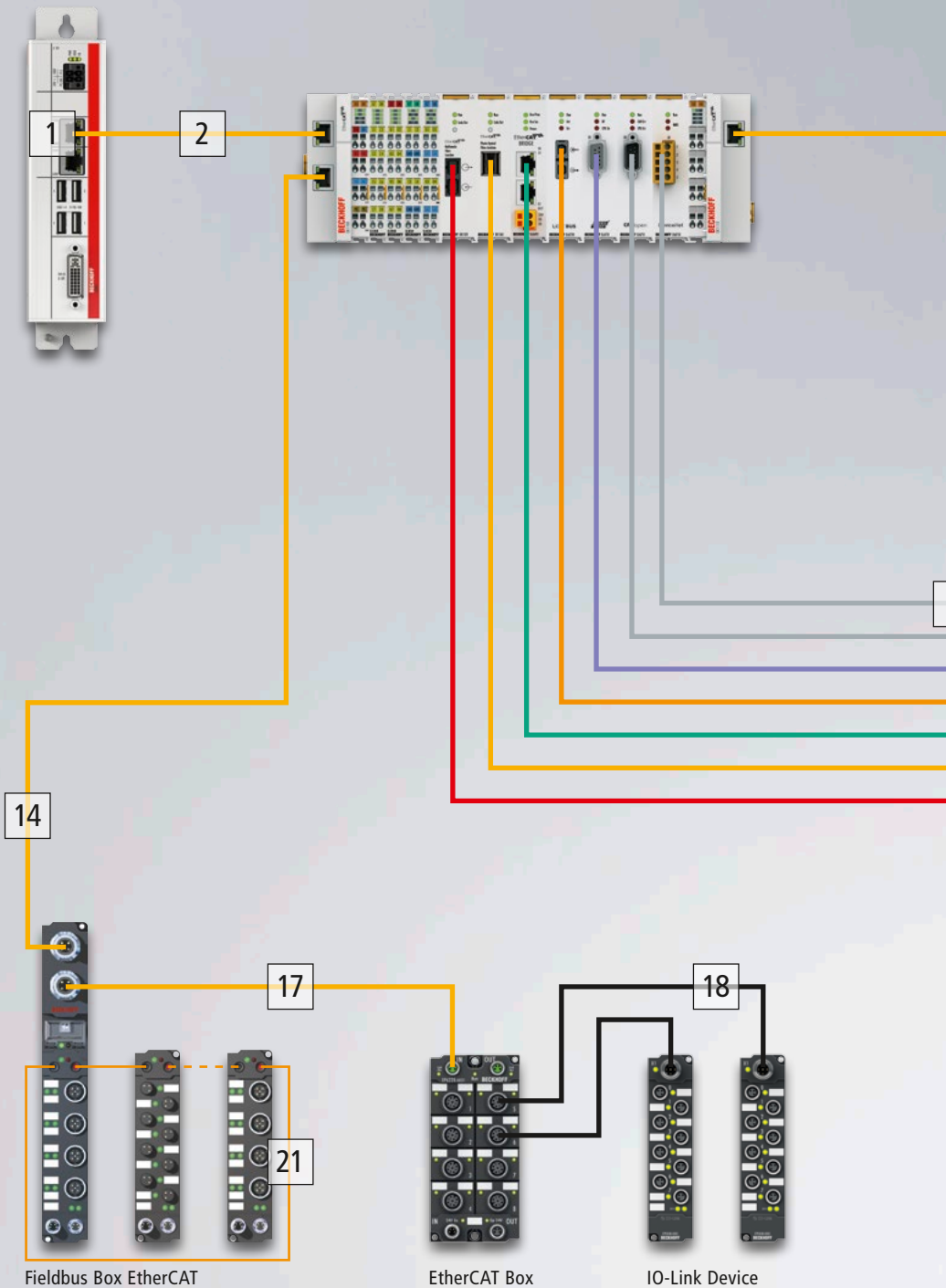
B23 hybrid cable to connect
AMP8000 Servo Drives



Hybrid cables for distributed
data and power transmission



Overview fieldbus accessories



1 ZS1090-0003 | Industrial Ethernet/
EtherCAT, RJ45, plug, straight, IDC,
4-pin, AWG24-22

2 ZB9010 | Industrial Ethernet/EtherCAT
cable, fixed Installation, 1 x 4 x AWG22

3 ZK1090-9191-xxxx | Industrial Ethernet/
EtherCAT patch cable, green, RJ45, plug,
8-pin – RJ45, plug, 8-pin

4 ZS1052-3000 | CANopen/DeviceNet,
open style connector, 5-pin, with
termination resistor

5 ZS1031-3000 | PROFIBUS, D-Sub
connector, 9-pin, with termination resistor

6 Z1000 | Standard connector for
1,000 µm plastic fibre

7 ZS1090-0008 | Connector set for direct
connector assembly for POF cables

8 ZB5200 | DeviceNet cable

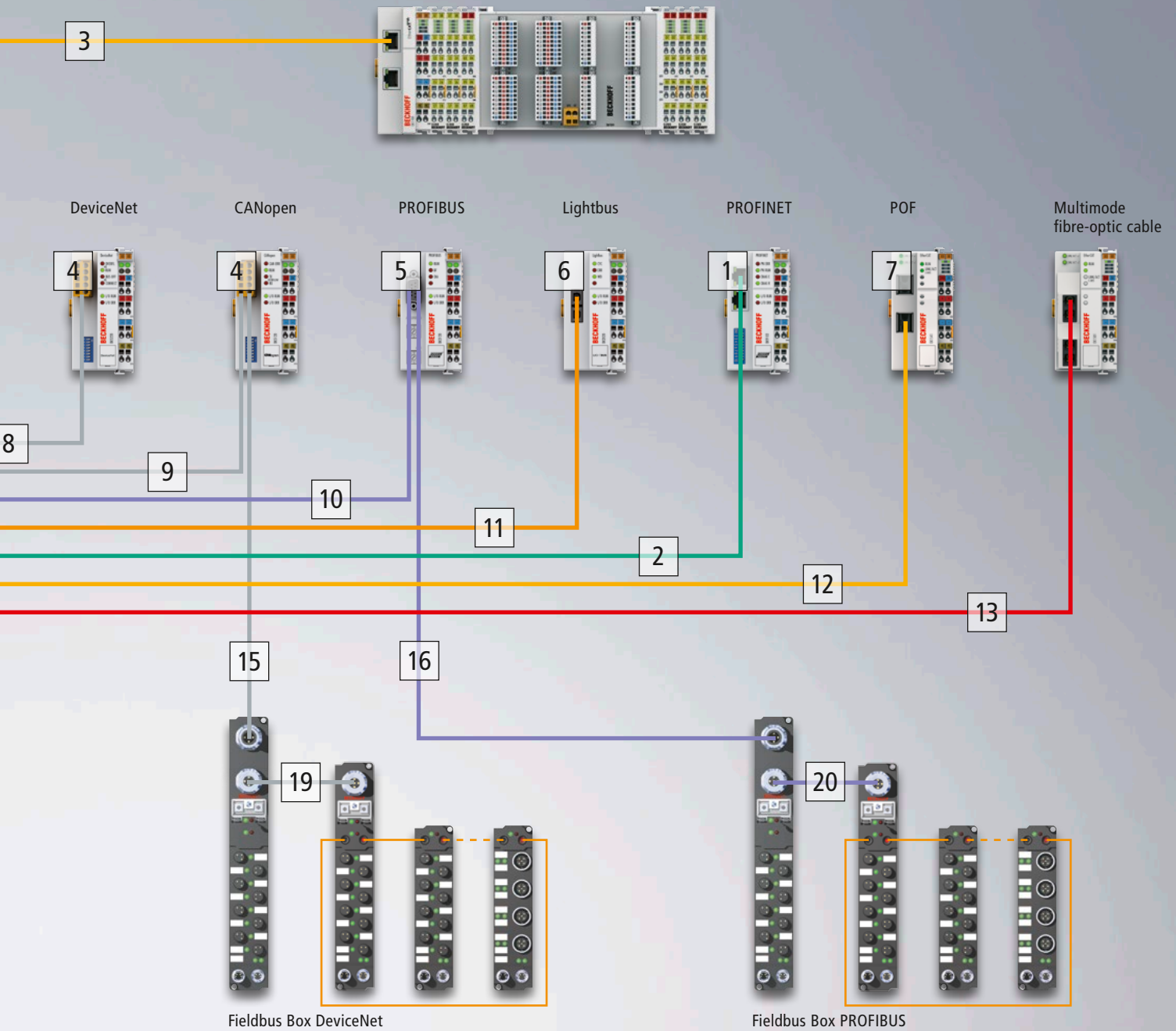
9 ZB5100 | CAN cable

10 ZB3200 | PROFIBUS cable

11 Z1100 | Plastic fibre optic

12 Z1190 | POF fibre-optic duplex cable

13 ZK1090-1001-xxxx | Multimode
fibre-optic cable, SC duplex connector



14 ZK1090-6191-xxxx | Industrial Ethernet/
EtherCAT, M12, male, straight, 4-pin –
RJ45, plug, 4-pin

15 ZK1052-6100-xxxx | CANopen/DeviceNet,
M12, male, straight, 5-pin – open end

16 ZK1031-6100-xxxx | PROFIBUS, M12,
male, straight, 5-pin – open end

17 ZK1090-3161-xxxx | Industrial Ethernet/
EtherCAT, M8, male, straight, 4-pin –
M12, male, straight, 4-pin

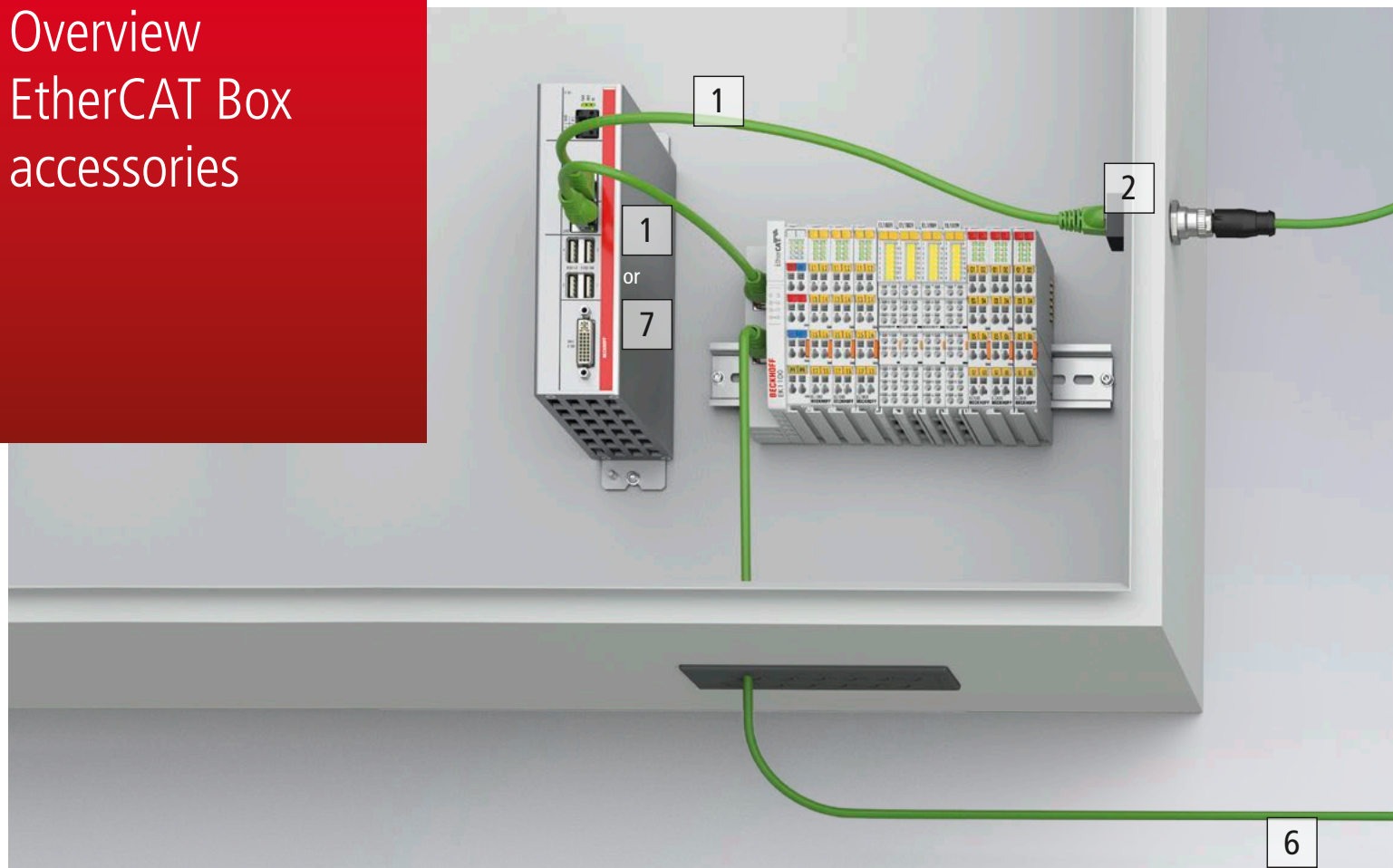
18 ZK2000-5152-xxxx | M12, male, straight,
5-pin – M12, female, straight, 5-pin

19 ZK1052-6152-xxxx | CANopen/DeviceNet,
M12, male, straight, 5-pin – M12, female,
straight, 5-pin

20 ZK1031-6152-xxxx | PROFIBUS, M12,
female, straight, 5-pin – M12, male,
straight, 4-pin

21 ZK1020-0101-xxxx | Pre-assembled
IP-Link cable, drag-chain suitable

Overview EtherCAT Box accessories



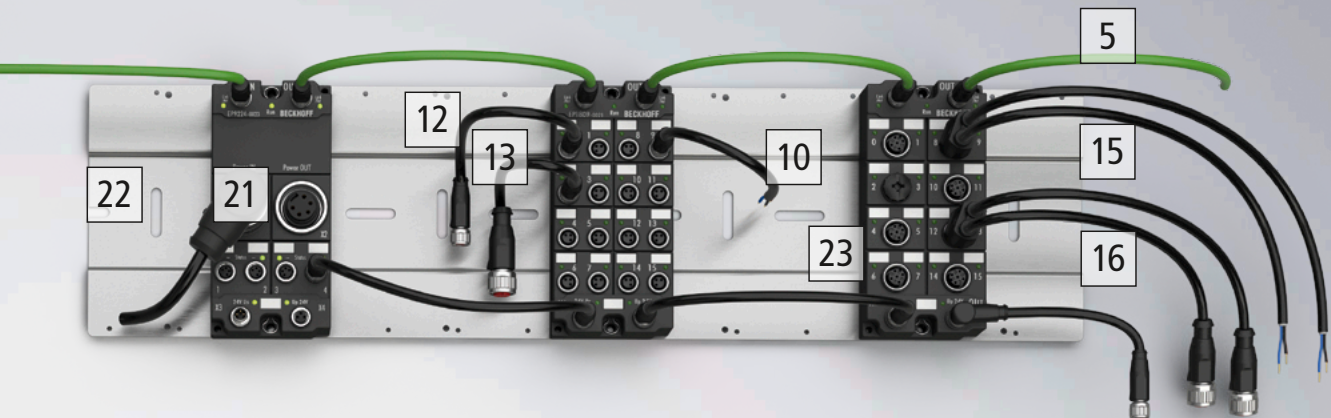
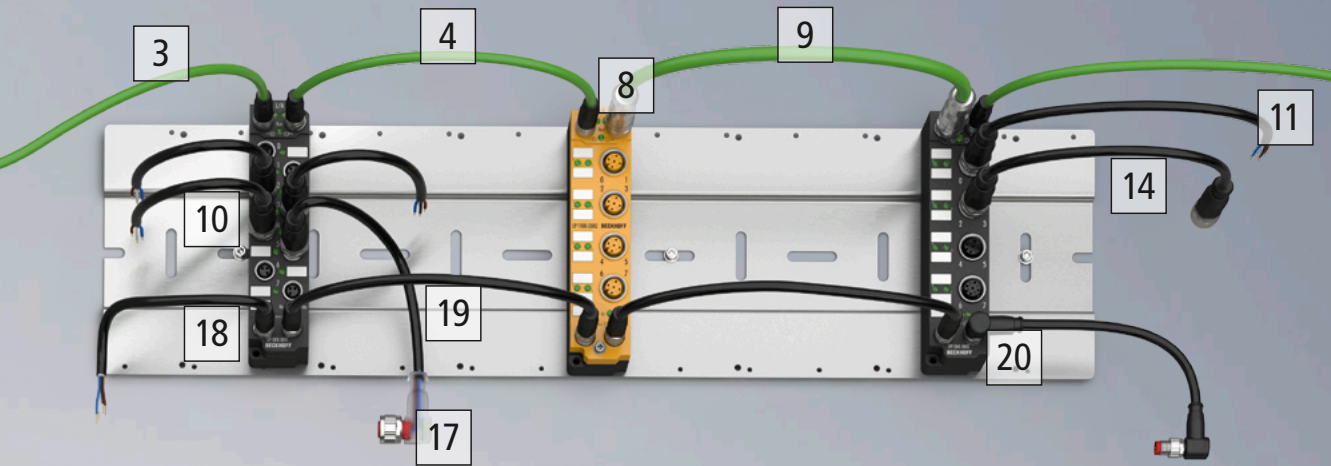
EtherCAT cable

- 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

Assembly

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

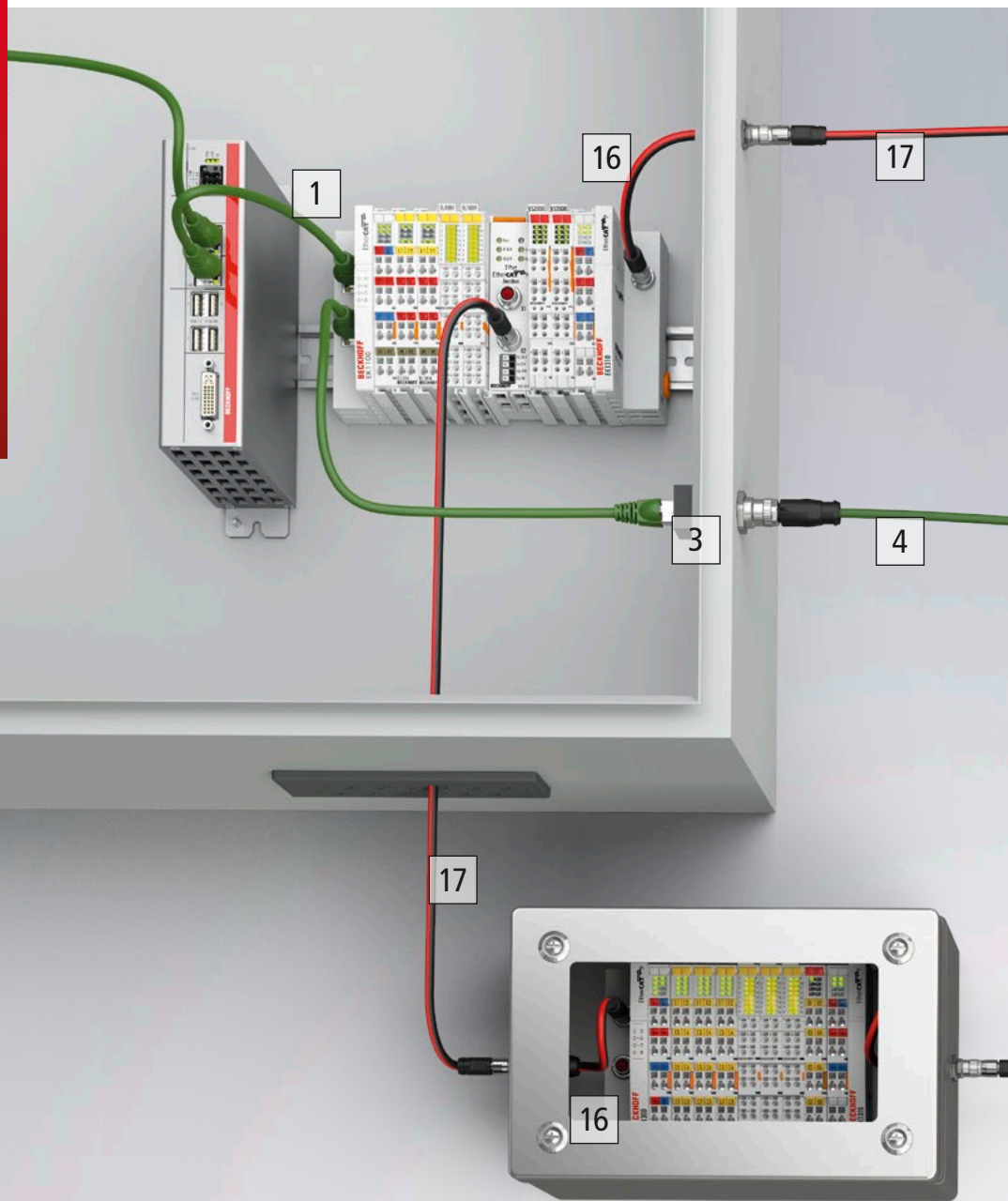
20 ZK2020-3334-xxxx | M8, male, angled, 4-pin – M8, female, angled, 4-pin

21 ZK2030-1400-xxxx | 7/8", female, angled, 5-pin – open end

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

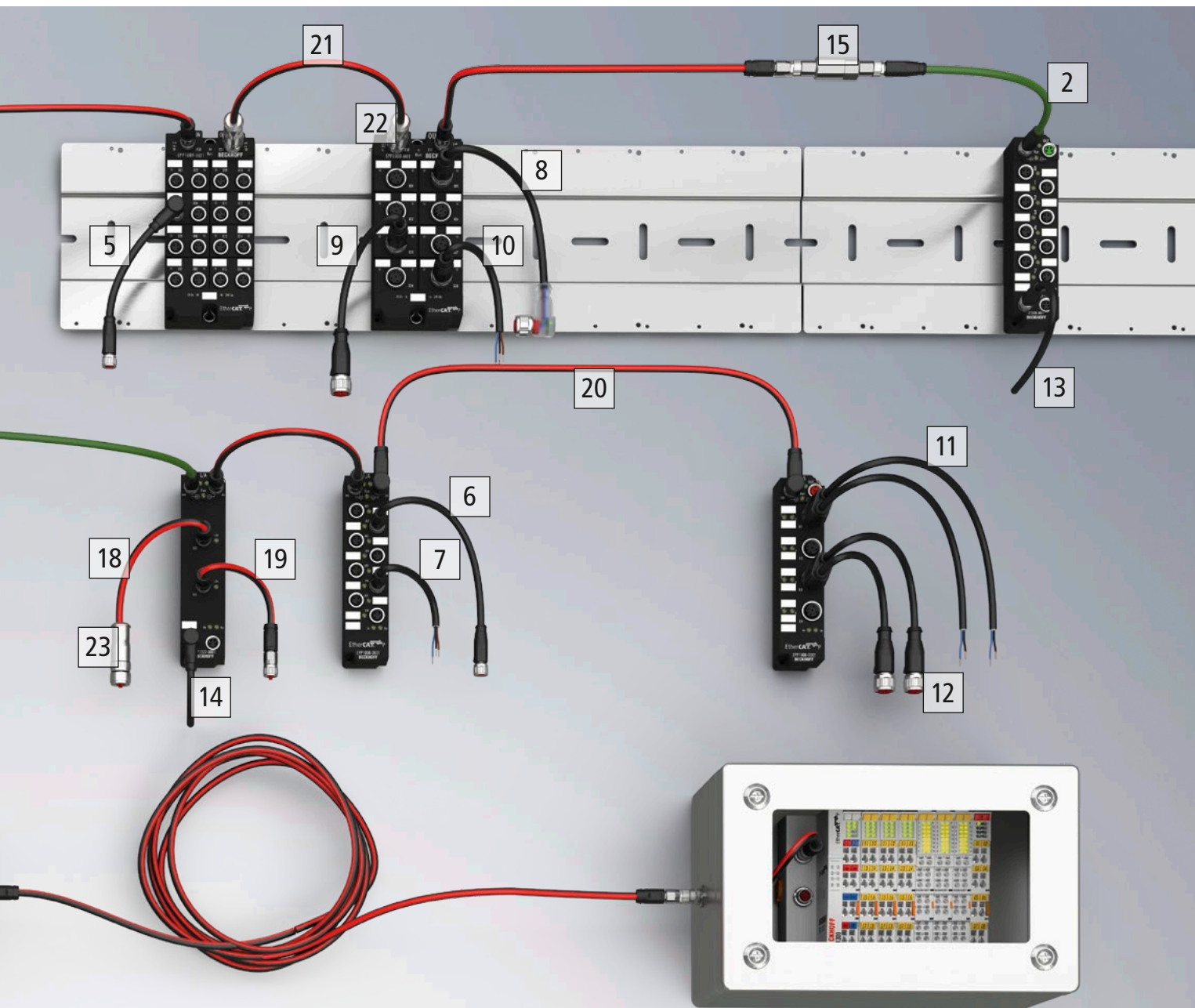
- 1 ZK1090-9191-xxxx | Industrial Ethernet/
EtherCAT patch cable, green, RJ45, plug,
8-pin – RJ45, plug, 8-pin
- 2 ZK1090-3131-xxxx | Industrial Ethernet/
EtherCAT, M8, male, straight, 4-pin – M8,
male, straight, 4-pin
- 3 ZK1090-6292-0000 | Industrial Ethernet/
EtherCAT, M12, flange, female, straight,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

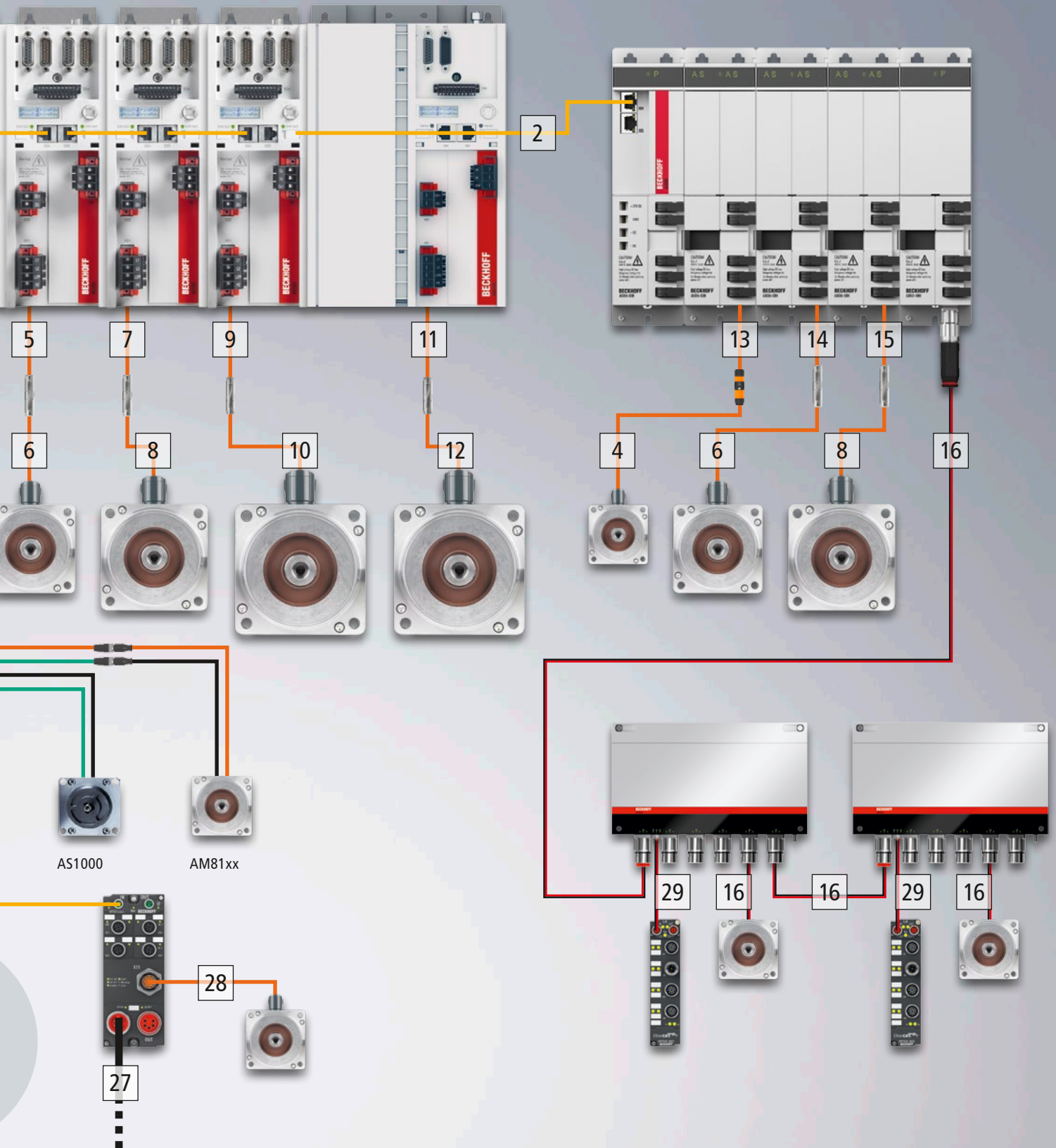
- 20 ZK700x-0303-xxxx | EtherCAT P, M8, male, angled, 4-pin – M8, male, angled, 4-pin

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

-
- 1 ZK1090-9191-xxxx | Industrial Ethernet/
EtherCAT patch cable, green, RJ45, plug,
8-pin – RJ45, plug, 8-pin
 - 2 ZK1093-9191-xxxx | Industrial Ethernet/
EtherCAT patch cable, yellow, RJ45, plug,
8-pin – RJ45, plug, 8-pin
 - 3 ZK4500-8022-xxxx | Motor cables 1 mm²,
PUR, drag-chain suitable, with itec[®] plug
 - 4 ZK4501-8022-xxxx | Motor extension
cables 1 mm², PUR, drag-chain suitable,
with itec[®] plug
 - 5 ZK4500-8023-xxxx | Motor cables
1.5 mm², PUR, drag-chain suitable,
with M23 speedtec[®] plug
 - 6 ZK4501-8023-xxxx | Motor extension
cables 1.5 mm², PUR, drag-chain suitable,
with M23 speedtec[®] plug
 - 7 ZK4500-8024-xxxx | Motor cables
2.5 mm², PUR, drag-chain suitable,
with M23 speedtec[®] plug
 - 8 ZK4501-8024-xxxx | Motor extension
cables 2.5 mm², PUR, drag-chain suitable,
with M23 speedtec[®] plug
 - 9 ZK4500-8025-xxxx | Motor cables 4 mm²,
PUR, drag-chain suitable, with M40
speedtec[®] plug
 - 10 ZK4501-8025-xxxx | Motor extension
cables 4 mm², PUR, drag-chain suitable,
with M40 speedtec[®] plug
 - 11 ZK4500-8027-xxxx | Motor cables
10 mm², PUR, drag-chain suitable,
with M40 speedtec[®] plug
 - 12 ZK4501-8027-xxxx | Motor extension
cables 10 mm², PUR, drag-chain suitable,
with M40 speedtec[®] plug
 - 13 ZK4800-8022-xxxx | Motor cables 1 mm²,
PUR, drag-chain suitable, with itec[®] plug
 - 14 ZK4800-8023-xxxx | Motor cables
1.5 mm², PUR, drag-chain suitable,
with M23 speedtec[®] plug
 - 15 ZK4800-8024-xxxx | Motor cables
2.5 mm², PUR, drag-chain suitable,
with M23 speedtec[®] plug
 - 16 ZK7A26-3031-0xxx | ECP, B23, male,
5+4-pin – ECP, B23, male, 5+4-pin
 - 17 ZK4000-5100-xxxx | ASx000 encoder
cable, M12, plug, straight, male, 5-pin,
A-coded – open end
 - 18 ZK4000-7700-xxxx | AS2000 motor cable,
M12, socket, straight, female, 4-pin,
T-coded – open end
 - 19 ZK4000-6700-xxxx | AS1000 motor cable,
M12, socket, straight, female, 4-pin,
A-coded – open end
 - 20 ZK4704-0411-xxxx | Motor cable, PUR,
drag-chain suitable, with ytec[®] plug to
connect to servo I/Os (IP 20)
 - 21 ZK4724-0410-xxxx | Resolver cable,
PUR, drag-chain suitable, with M12 plug
to connect to servo I/Os
 - 22 ZK1090-3191-xxxx | Industrial Ethernet/
EtherCAT, M8, male, straight, 4-pin –
RJ45, plug, 4-pin

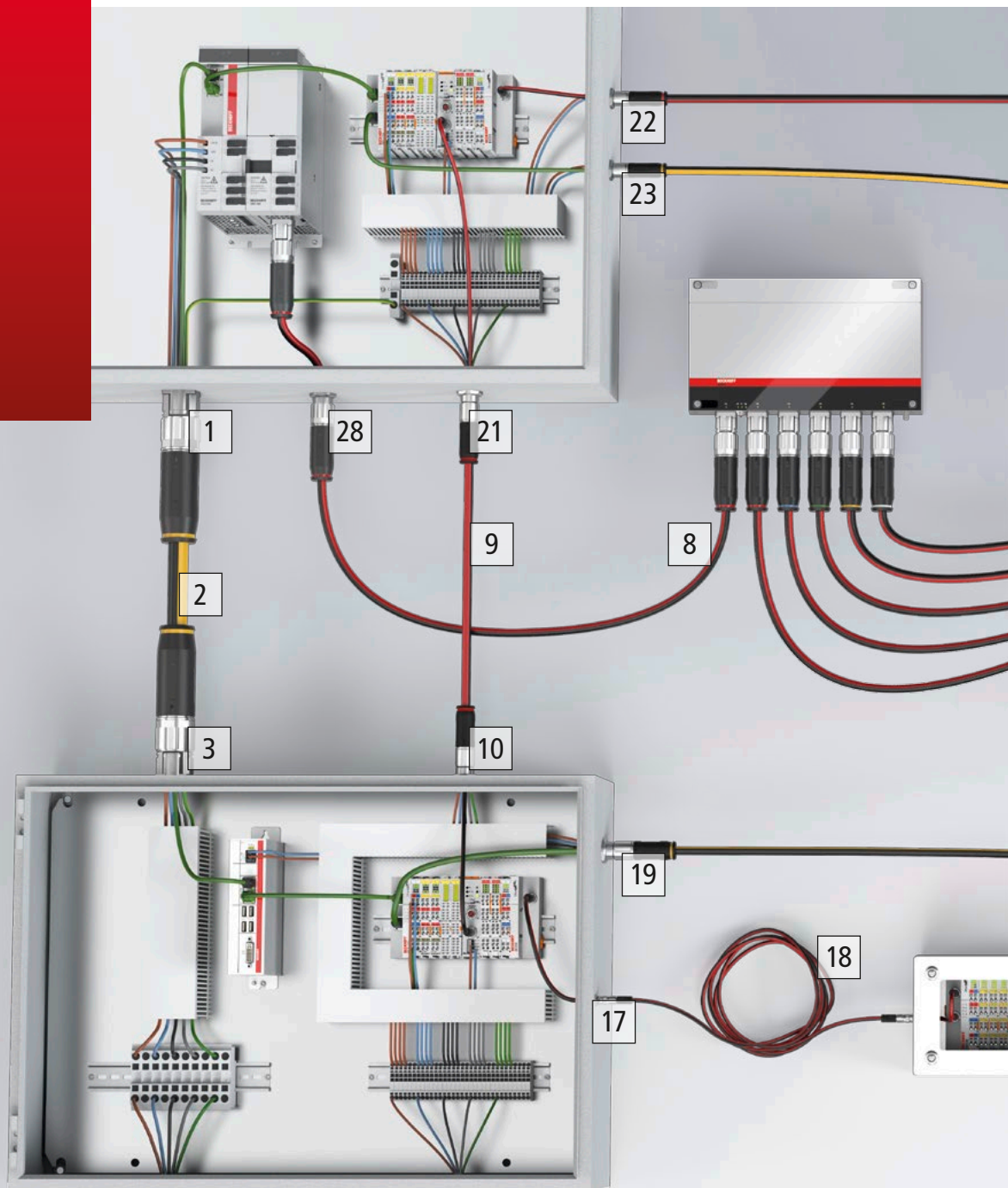


- 23 ZK4704-0421-2 | Motor cable, PUR, drag chain suitable, with itec® plug (OCT) to connect to servo I/Os (IP 20)
- 24 ZB8500 | Clamp strap for shield connection with knurled screw

- 25 ZB8511 | Shield busbar clamp for 5 EtherCAT Terminals/Bus Terminals 12 mm
- 26 ZB8530 | U-clamp terminal
- 27 ZK2030-1200-xxxx | Power cable, 7/8", female, straight, 5-pin – open end

- 28 ZK4701-0401-xxxx | Motor cables, PVC, fixed installation, with itec® plug (OCT) to connect to servo I/Os (IP 20)
- 29 ZK700x-0101-xxxx | EtherCAT P, M8, male, straight, 4-pin – M8, male, straight, 4-pin

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

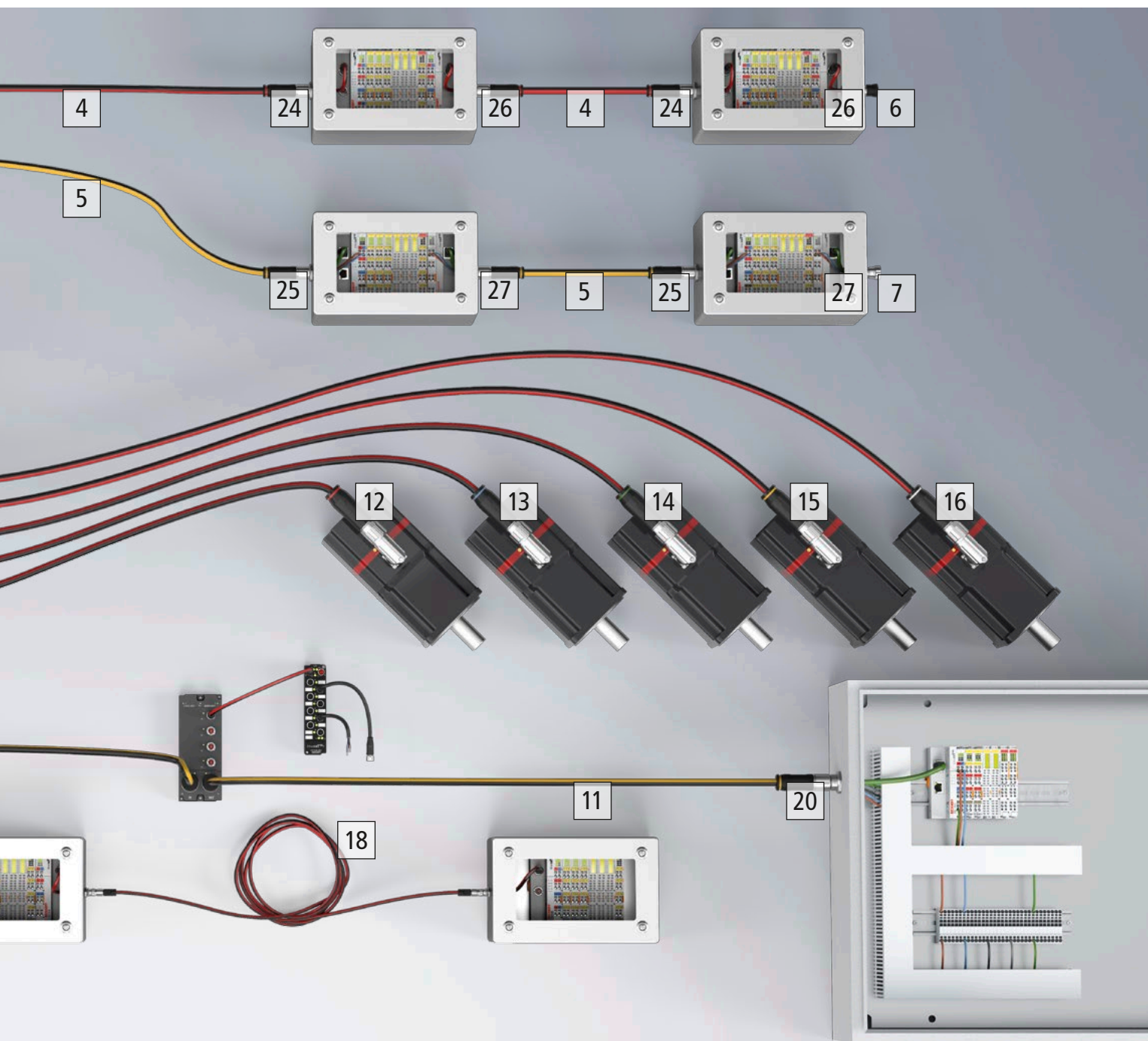
13 ZS7300-B007 | B23, colour coding, blue

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

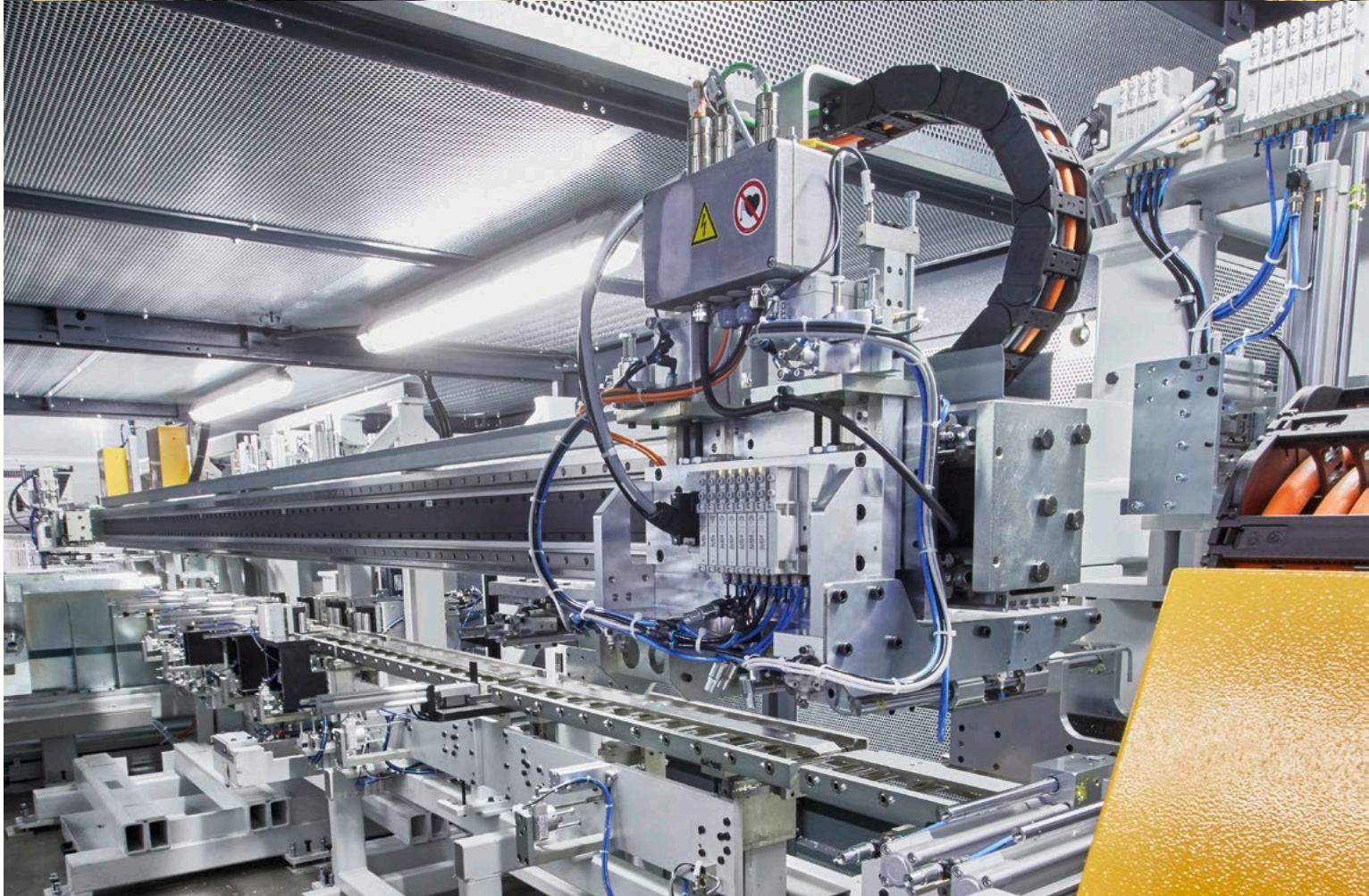
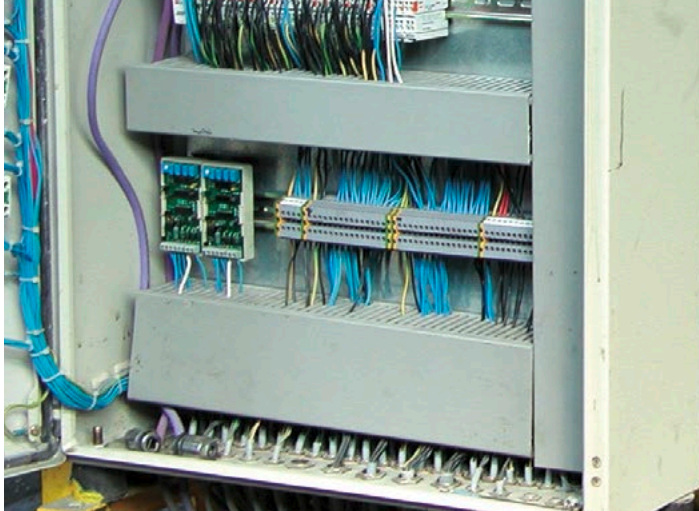
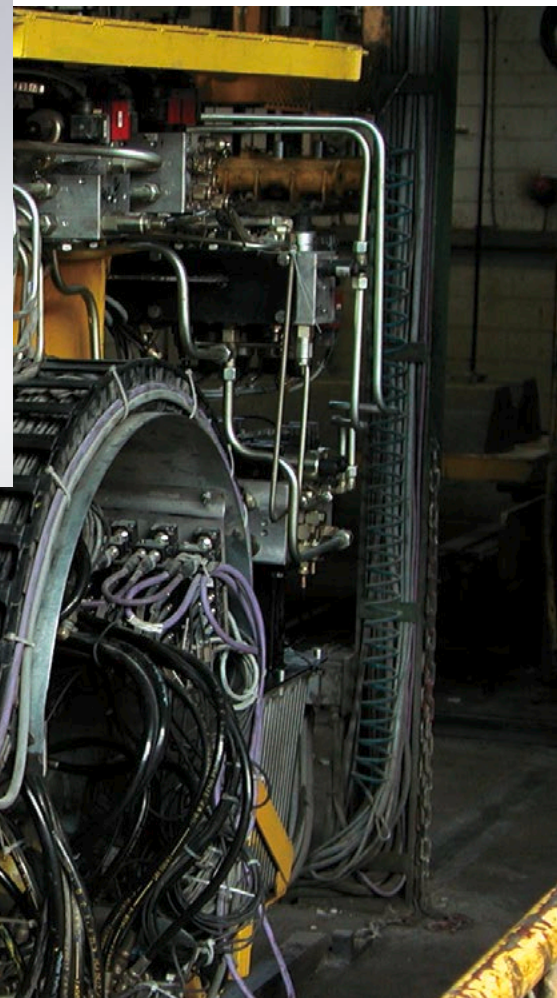
26 ZK7102-BI00-0xxx | ECP, B12, flange, female, front assembly, 2+4-pin – M8, male, straight, 4-pin – open end

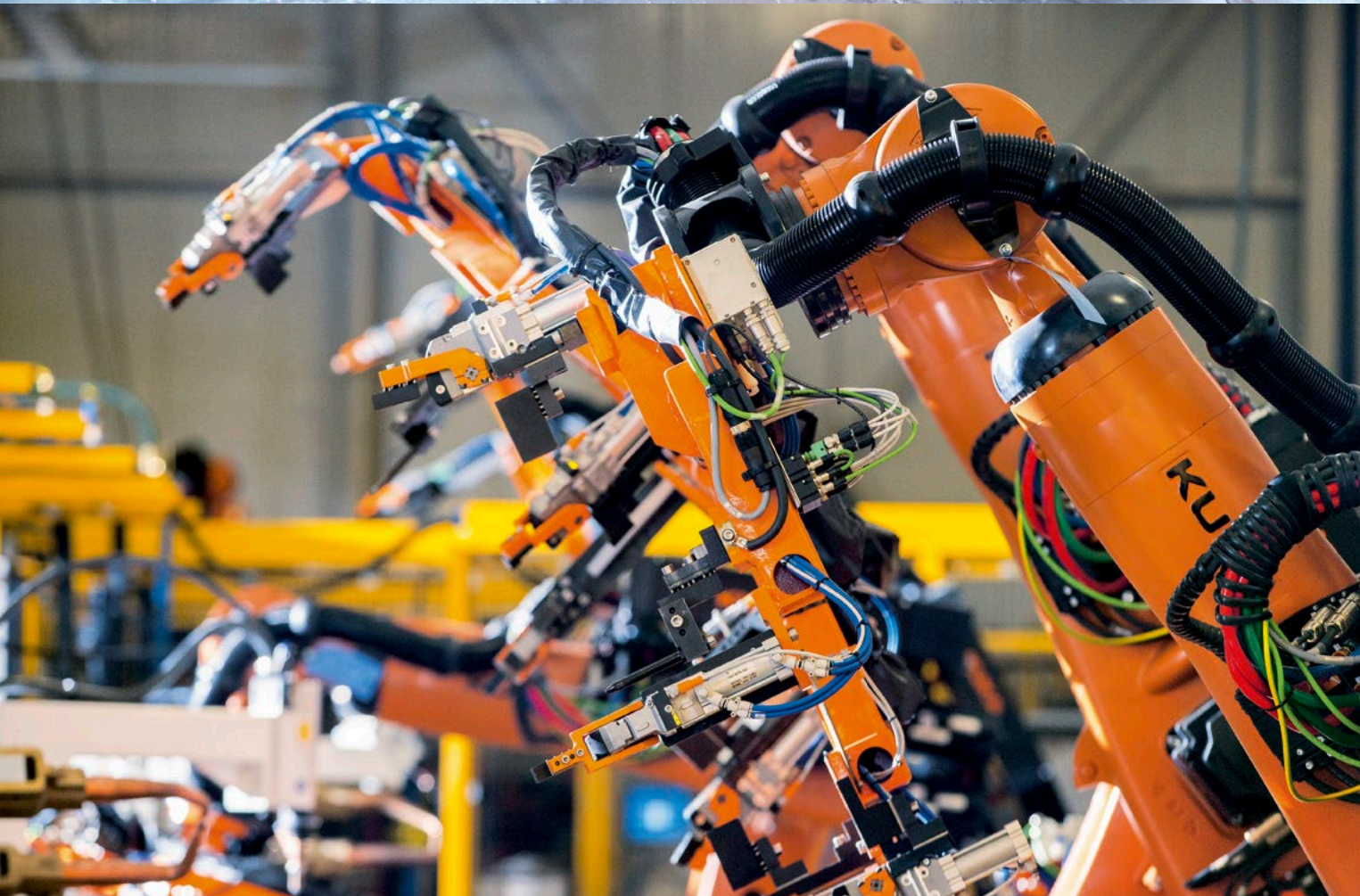
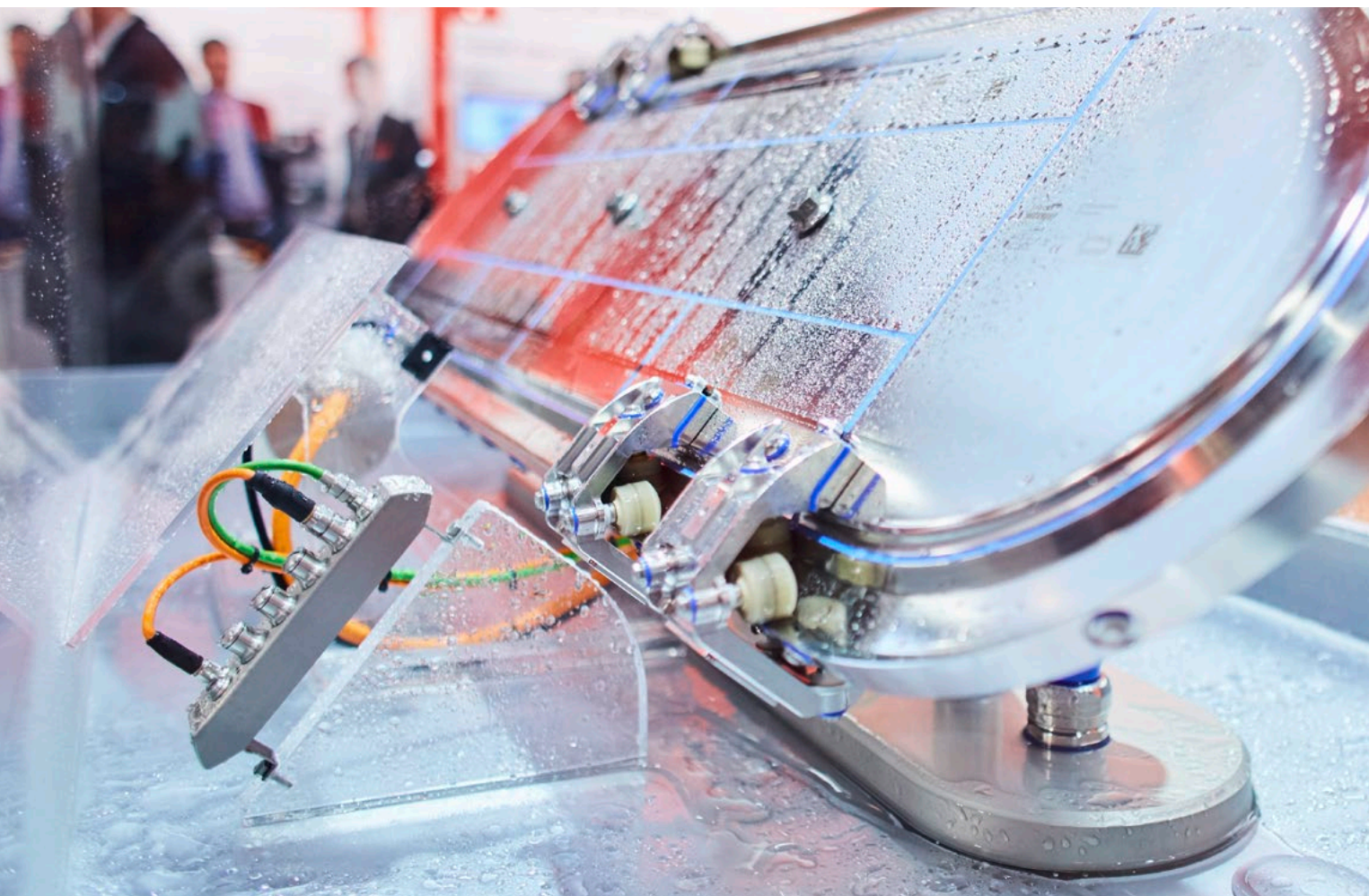
27 ZK7102-BI00-Axxx | ENP, B12, flange, female, front assembly, 2+4-pin – RJ45, plug, 4-pin – open end

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

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