

Passive Splitters

Contents

Balluff BPI passive interface for connecting sensors and actuators with the controller are particularly well suited for adverse conditions and recommended where coolants and lubricants are used. Metal screw inserts ensure optimum media resistance and a fully enclosed housing provides a higher degree of protection as well as better shock and vibration resistance characteristics.

Due to an outstanding design, Balluff BPI passive interfaces can be integrated in all systems and machines. Metal screw inserts also ensure improved fit of the connectors. The BPI can be flexibly mounted on all standard profiles and base plates and the mounting bore holes are centrally positioned. Additional mounting bore holes allow you to mount the BPI on its side.

Flexible mounting is supported by the highly visible LED. The full line of Balluff products includes all styles.

Balluff BPI passive interface – a multi-talent, even under demanding conditions

- Outstanding design
- Fully enclosed housing
- High shock and vibration ratings
- Metal screw inserts
- Flexible mounting options

Product topology			192
Passive splitters	M8	3-pin, 4-pin	193
	M12	4-pin, 5-pin	196
Connectors	M12	8-pin, 12-pin	200
	M23	12-pin, 19-pin	202
Accessories			205



Passive Splitters

Product topology

Passive splitters

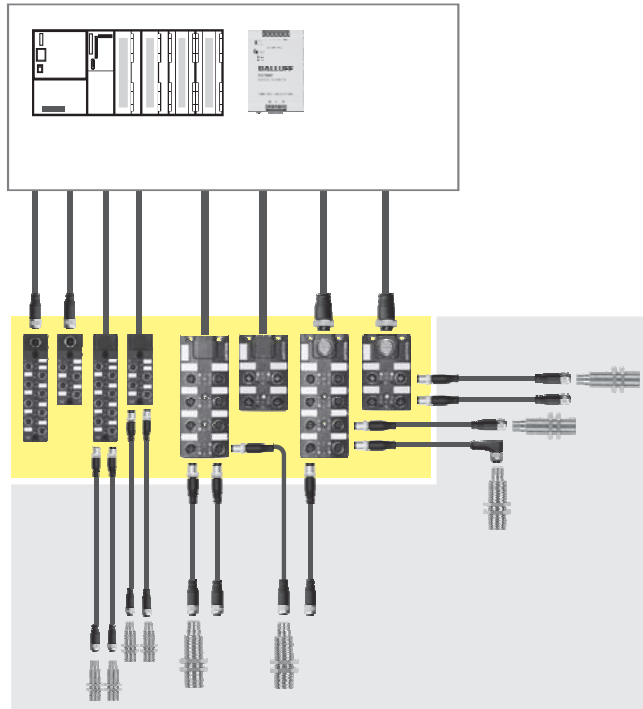
Lightweight and compact M8 and M12 plastic splitter boxes are used wherever space is limited or moving machine members are present. The plastic splitters come either complete or in modular form.

Features

- Customized, versatile and light, usable as M8 or M12 splitters
- Quick assembly and disassembly for transport
- Potential isolation using jumpers

Typical applications for the plastic version

- Assembly and handling machines
- Packaging
- Specialty machine construction



Conventional splitter boxes or wiring directly in the switching cabinet

Use of passive splitter boxes

Assembly time



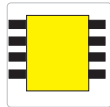
Machines, units and connectivity components are divided into transportable sections and dismantled prior to delivery. **During commissioning, installation times are typically reduced by 60 %.**

Info/Feedback



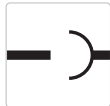
LEDs indicate the status of the unit. **Fewer qualified employees are required.**

Dimension



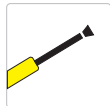
Usually smaller!

Connection technology



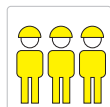
Modular solutions offers clean advantages!

Complexity



Connectors, sensors and other actuators are easy to replace. **Downtimes are reduced.**

Service personnel



Fewer qualified employees are required to maintain the machine



You can significantly reduce your installation and maintenance costs with Balluff splitters.

Passive Splitters

M8, 3-pin, with M12 plug connection, LED



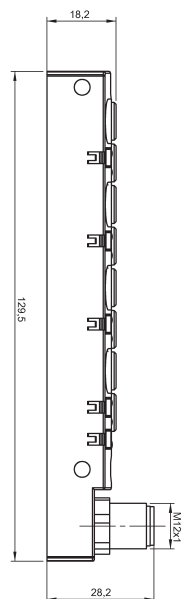
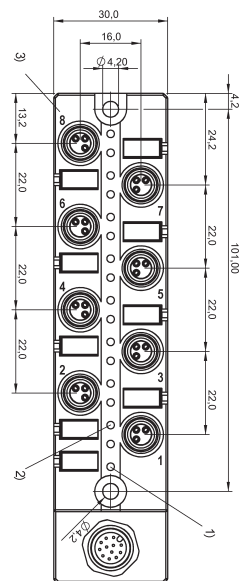
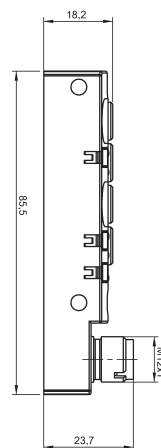
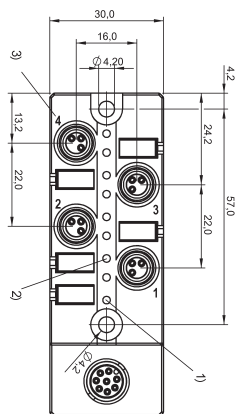
View of female/ male side		
Version	4-way	8-way
Rated power supply U_e	24 V DC	24 V DC
Power supply U_s	10...30 V DC	10...30 V DC
Function indicator	Yes	Yes
Power indicator	Green LED	Green LED
Sensor connection	3-pin female, M8×1	3-pin female, M8×1
Controller connection	Connectors M12	Connectors M12
Number of connections	4	8
Current load capacity	2 A	2 A
Total current	6 A	6 A
Housing material	PBT, GF	PBT, GF
Degree of protection as per IEC 60529	IP 67 (when connected)	IP 67 (when connected)
Ambient temperature range T_a	-5...+60 °C	-5...+60 °C
Version	PNP normally open (NO)	PNP normally open (NO)
Recommended connector - port	BCC M313...	BCC M313...
M12 plug connection	BCC M418...	BCC M41C...

Ordering code

Part number

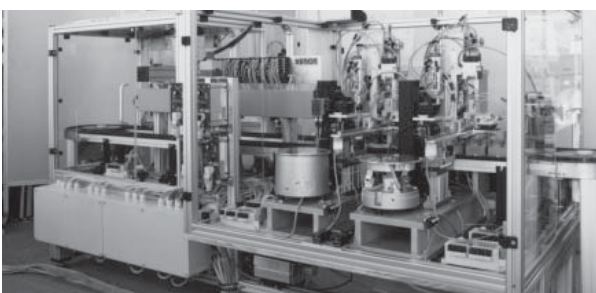
BPI003P
BPI 4M303P-2K-00-SM48T

BPI003T
BPI 8M303P-2K-00-SM4CT



Product topology Passive splitters M8

- Passive splitters
M12
- Connectors
M12
- Connectors
M23
- Accessories

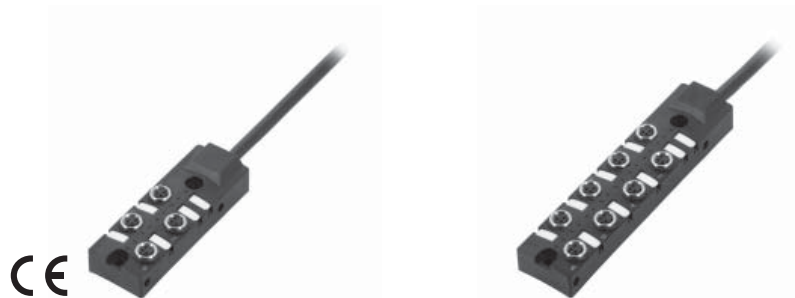




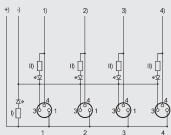
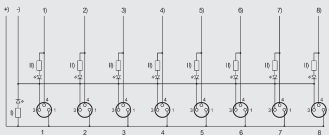


Passive Splitters

M8, 3-pin with cable, LED

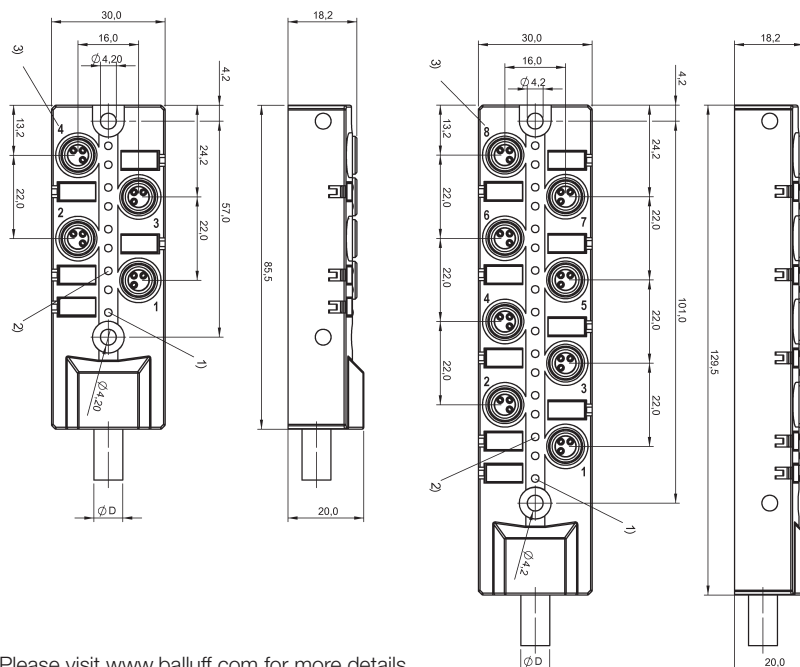
more added value
Small and compact!

M8



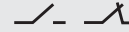
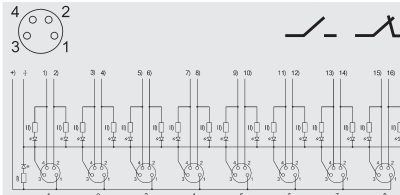
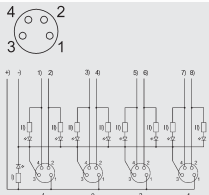
View of female/ male side		
		
Version	4-way	8-way
Rated power supply U_e	24 V DC	24 V DC
Power supply U_s	10...30 V DC	10...30 V DC
Function indicator	Yes	Yes
Power indicator	Green LED	Green LED
Sensor connection	3-pin female, M8×1	3-pin female, M8×1
Controller connection	Permanently connected cable	Permanently connected cable
Number of connections	4	8
Current load capacity	2 A	2 A
Total current	6 A	6 A
Housing material	PBT, GF	PBT, GF
Degree of protection as per IEC 60529	IP 67 (when connected)	IP 67 (when connected)
Ambient temperature range T_a	-5...+60 °C	-5...+60 °C
Version	PNP normally open (NO) 	PNP normally open (NO) 
Recommended connector - port	BCC M313...	BCC M313...

Cable material	Color	Length	Ordering code
			Part number
PUR	Black	3 m	BPI002N BPI 4M303P-2K-00-KPX60-030
PUR	Black	5 m	BPI002P BPI 4M303P-2K-00-KPX60-050
PUR	Black	10 m	BPI002R BPI 4M303P-2K-00-KPX60-100
PUR	Black	15 m	BPI002T BPI 4M303P-2K-00-KPX60-150
			BPI0030 BPI 8M303P-2K-00-KPXA0-030
			BPI0031 BPI 8M303P-2K-00-KPXA0-050
			BPI0032 BPI 8M303P-2K-00-KPXA0-100
			BPI0033 BPI 8M303P-2K-00-KPXA0-150



Passive Splitters

M8, 4-pin with cable, LED



4-way

24 V DC
10...30 V DC
Yes
Green LED
4-pin female, M8×1
Permanently connected cable
4
2 A
6 A
PBT, GF
IP 67 (when connected)
-5...+60 °C
PNP normally open/normally closed (NO/NC) /
BCC M314...

8-way

24 V DC
10...30 V DC
Yes
Green LED
4-pin female, M8×1
Permanently connected cable
8
2 A
6 A
PBT, GF
IP 67 (when connected)
-5...+60 °C
PNP normally open/normally closed (NO/NC) /
BCC M314...

Ordering code

Part number

BPI0038

BPI 4M304P-2K-00-KPXA0-030

BPI0039

BPI 4M304P-2K-00-KPXA0-050

BPI003A

BPI 4M304P-2K-00-KPXA0-100

BPI003C

BPI 4M304P-2K-00-KPXA0-150

BPI003K

BPI 8M304P-2K-00-KPXA0-030

BPI003L

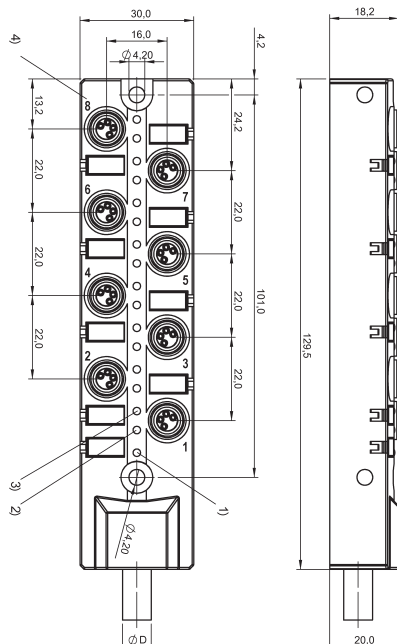
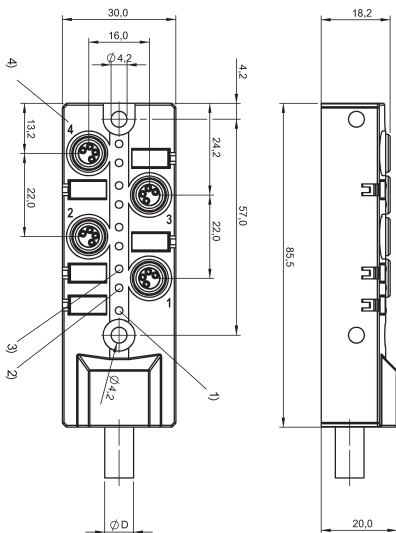
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BPI003M

BPI 8M304P-2K-00-KPXA0-100

BPI003N

BPI 8M304P-2K-00-KPXA0-150



Product topology

Passive splitters M8

- Passive splitters M12
- Connectors M12
- Connectors M23
- Accessories

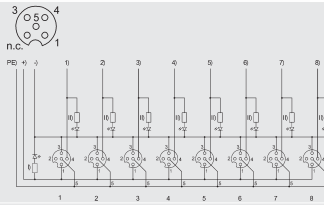
Passive Splitters

M12, 4-pin with cable, LED

M12

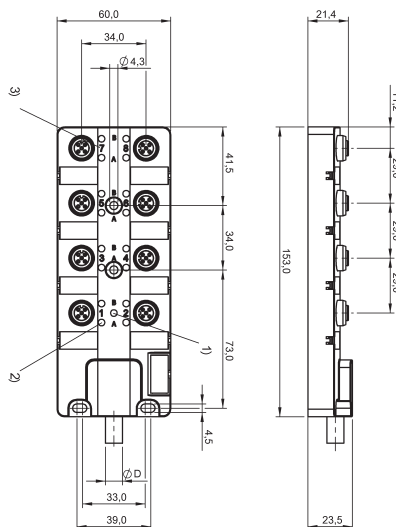


View of female/
male side



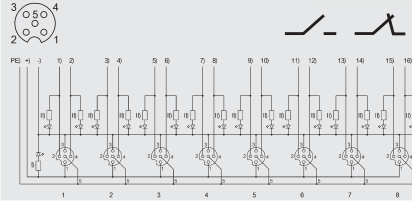
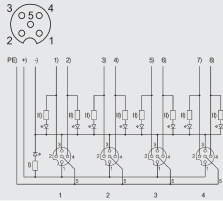
Version	8-way
Rated power supply U_e	24 V DC
Power supply U_s	10...30 V DC
Function indicator	Yes
Power indicator	Green LED
Sensor connection	4-pin female, M12×1
Controller connection	Permanently connected cable
Number of connections	8
Current load capacity	2 A
Total current	6 A
Housing material	PBT, GF
Degree of protection as per IEC 60529	IP 67 (when connected)
Ambient temperature range T_a	-5...+60 °C
Version	PNP normally open (NO) —/—
Recommended connector - port	BCC M414...

Cable material	Color	Length	Ordering code
PUR	Black	3 m	BPI0059 BPI 8M4A4P-2K-00-KPXB0-030
PUR	Black	5 m	BPI005A BPI 8M4A4P-2K-00-KPXB0-050
PUR	Black	10 m	BPI005C BPI 8M4A4P-2K-00-KPXB0-100
PUR	Black	15 m	BPI005E BPI 8M4A4P-2K-00-KPXB0-150



Passive Splitters

M12, 5-pin with cable, LED



4-way

24 V DC
10...30 V DC
Yes
Green LED
5-pin female, M12×1
Permanently connected cable
4
2 A
6 A
PBT, GF
IP 67 (when connected)
-5...+60 °C
PNP normally open/normally closed (NO/NC) /
BCC M415...

8-way

24 V DC
10...30 V DC
Yes
Green LED
5-pin female, M12×1
Permanently connected cable
8
2 A
6 A
PBT, GF
IP 67 (when connected)
-5...+60 °C
PNP normally open/normally closed (NO/NC) /
BCC M415...

Ordering code

Part number

BPI0049

BPI 4M4A5P-2K-00-KPXB0-030

BPI004A

BPI 4M4A5P-2K-00-KPXB0-050

BPI004C

BPI 4M4A5P-2K-00-KPXB0-100

BPI004E

BPI 4M4A5P-2K-00-KPXB0-150

BPI004R

BPI 8M4A5P-2K-00-KPXL0-030

BPI004T

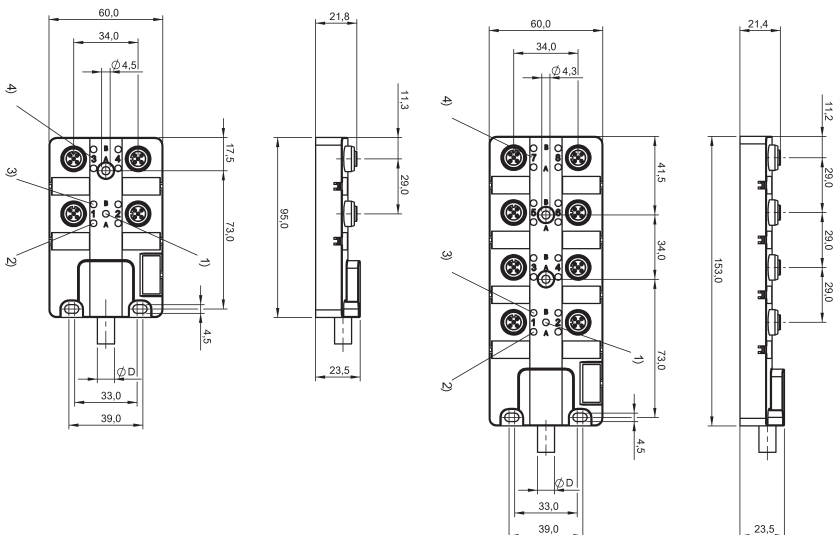
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BPI004U

BPI 8M4A5P-2K-00-KPXL0-100

BPI004W

BPI 8M4A5P-2K-00-KPXL0-150



Product topology

Passive splitters
M8

Passive splitters
M12

Connectors
M12

Connectors
M23

Accessories

Passive Splitters

M12, 4-pin
with M23 plug connection, LED

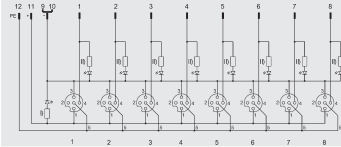
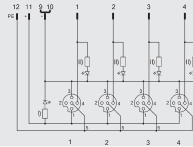
more added value

A robust solution!

M12



View of female/
male side



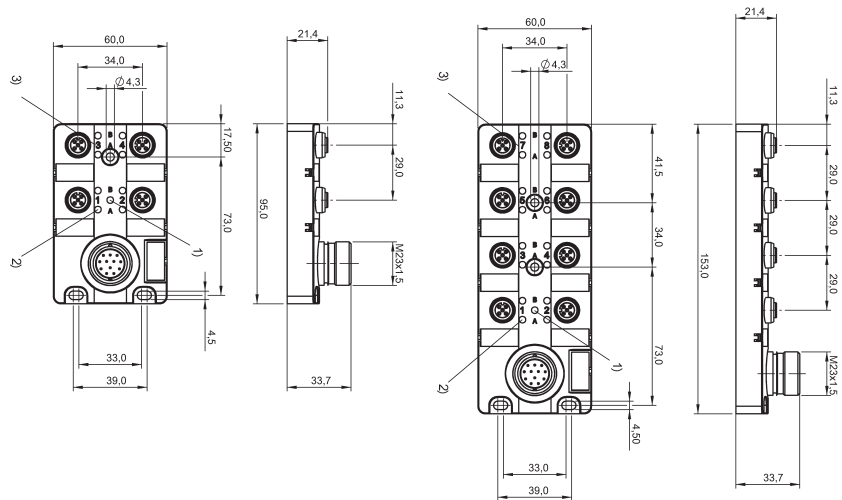
Version	4-way	8-way
Rated power supply U_e	24 V DC	24 V DC
Power supply U_s	10...30 V DC	10...30 V DC
Function indicator	Yes	Yes
Power indicator	Green LED	Green LED
Sensor connection	4-pin female, M12×1	4-pin female, M12×1
Controller connection	M23 connector	M23 connector
Number of connections	4	8
Current load capacity	2 A	2 A
Total current	6 A	6 A
Housing material	PBT, GF	PBT, GF
Degree of protection as per IEC 60529	IP 67 (when connected)	IP 67 (when connected)
Ambient temperature range T_a	-5...+60 °C	-5...+60 °C
Version	PNP normally open (NO) —/—	PNP normally open (NO) —/—
Recommended connector - port	BCCM414	BCCM414
M23 recommended connectors	M23 12-pin BCC M61C..., page 202	M23 12-pin BCC M61C..., page 202

Ordering code

Part number

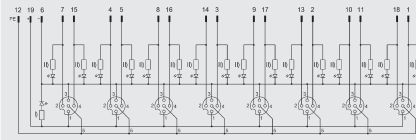
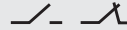
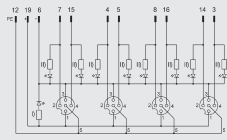
BPI004Y
BPI 4M4A4P-2K-00-SM6CT

BPI0050
BPI 8M4A4P-2K-00-SM6CT



Passive Splitters

M12, 5-pin
with M23 plug connection, LED



4-way

24 V DC

10...30 V DC

Yes

Green LED

5-pin female, M12×1

M23 connector

4

2 A

6 A

PBT, GF

IP 67 (when connected)

-5...+60 °C

PNP normally open/normally closed (NO/NC) /

BCCM415

M23 19-pin BCC M61L..., page 203

8-way

24 V DC

10...30 V DC

Yes

Green LED

5-pin female, M12×1

M23 connector

8

2 A

6 A

PBT, GF

IP 67 (when connected)

-5...+60 °C

PNP normally open/normally closed (NO/NC) /

BCCM415

M23 19-pin BCC M61L..., page 203

Ordering code

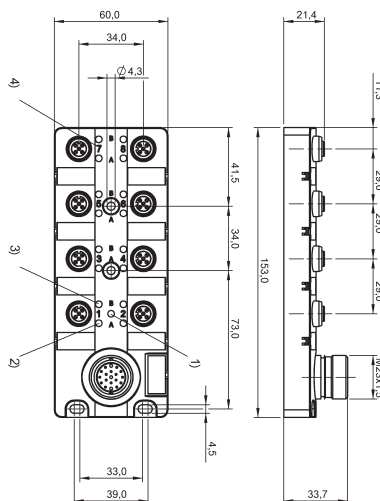
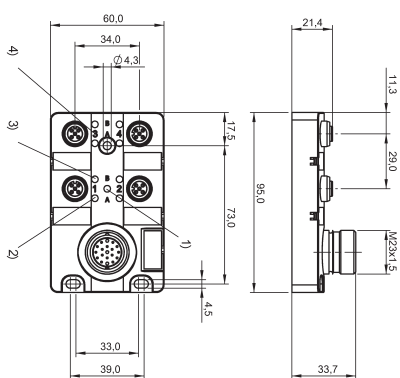
Part number

BPI004Z

BPI 4M4A5P-2K-00-SM6LT

BPI0051

BPI 8M4A5P-2K-00-SM6LT



Product topology

Passive
splitters
M8

**Passive
splitters
M12**

Connectors
M12

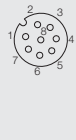

Connector
M23

Accessories

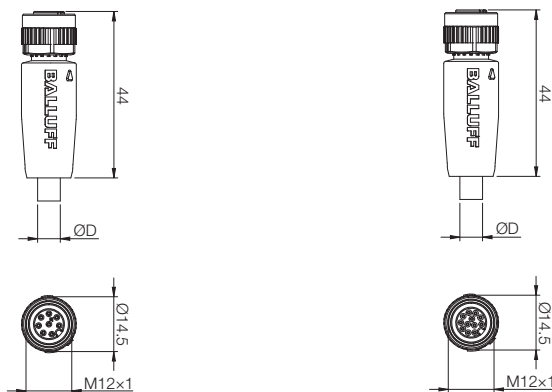
Passive Splitters

M12 female straight connector, 8-pin
M12 female straight connector, 12-pin



View of female/ male side	 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____ 8 _____	 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____ 8 _____ 9 _____ 10 _____ 11 _____ 12 _____
Rated power supply U_e	250 V DC	250 V DC
Power supply U_s	18...30 V DC	18...30 V DC
Cable	Permanently molded PUR/PVC	Permanently molded PUR/PVC
No. of wires × cross-section	8×0.25 mm ²	12×0.25 mm ²
Housing material	PUR	PUR
Degree of protection as per IEC 60529	IP 67	IP 67
Ambient temperature range T_a	-25...+85° C	-25...+85° C
Version	BPI, M8, 3-pin, 4-way	BPI, M8, 3-pin, 8-way, BIC



Cable material	Color	Length	Ordering code	
			Part number	
PUR	Black	2 m	BCC06K1	BCC06KF
			BCC M418-0000-1A-044-PX0825-020	BCC M41C-0000-1A-049-PX0C14-020
PUR	Black	5 m	BCC06K2	BCC06KH
			BCC M418-0000-1A-044-PX0825-050	BCC M41C-0000-1A-049-PX0C14-050
PUR	Black	10 m	BCC06K3	BCC06KJ
			BCC M418-0000-1A-044-PX0825-100	BCC M41C-0000-1A-049-PX0C14-100
PVC	Gray	2 m	BCC06K7	BCC06KK
			BCC M418-0000-1A-044-VX8825-020	BCC M41C-0000-1A-049-VX8C14-020
PVC	Gray	5 m	BCC06K8	BCC06KL
			BCC M418-0000-1A-044-VX8825-050	BCC M41C-0000-1A-049-VX8C14-050
PVC	Gray	10 m	BCC06K9	BCC06KM
			BCC M418-0000-1A-044-VX8825-100	BCC M41C-0000-1A-049-VX8C14-100



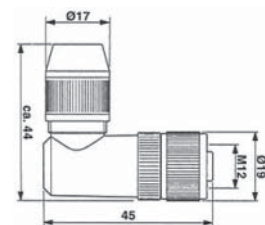
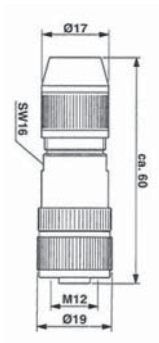
Passive Splitters

M12 female straight and right-angle connector, 8-pin, customized assembly



View of female/ male side	 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____ 8 _____	 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____ 8 _____
Rated power supply U_e	250 V DC	250 V DC
Power supply U_s	18...30 V DC	18...30 V DC
Cable	4...8 mm	4...8 mm
No. of wires × cross-section	8×0.14...0.25 mm ²	8×0.14...0.25 mm ²
Housing material	Brass	Brass
Degree of protection as per IEC 60529	IP 67	IP 67
Ambient temperature range T_a	-25...+85° C	-25...+85° C
Version	BPI, M8, 3-pin, 8-way, BIC	BPI, M8, 3-pin, 8-way, BIC

	Ordering code	
	Part number	
	BCC04MC	BCC050F
	BCC M478-0000-1A-000-43X834-000	BCC M488-0000-1A-000-43X834-000



Product topology

Passive
splitters
M8

Passive
splitters
M12

**Connectors
M12**

Connectors
M23

Accessories

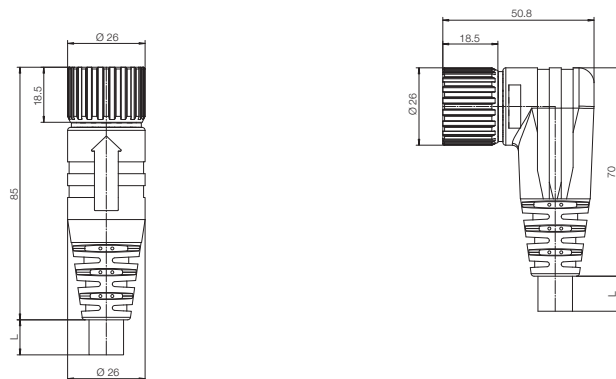
Passive Splitters

M23 female connector, straight or right-angle, 12-pin



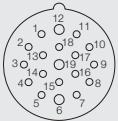
View of female/ male side		
Rated power supply U_e	240 V DC	240 V DC
Power supply U_s	18...30 V DC	18...30 V DC
Cable	Permanently molded PUR	Permanently molded PUR
No. of wires × cross-section	8×0.50 mm ² and 3×1.0 mm ²	8×0.50 mm ² and 3×1.0 mm ²
Housing material	TPU	TPU
Degree of protection as per IEC 60529	IP 67	IP 67
Ambient temperature range T_a	-25...+80° C	-25...+80° C
Version	BPI, M12, 4-pin, 4/8-way	BPI, M12, 4-pin, 4/8-way

Cable material	Color	Length	Ordering code
PUR	Black	2 m	Part number
			BCC06KN BCC06KT
PUR	Black	5 m	BCC M61C-0000-10-065-PX0BP4-020 BCC M62C-0000-10-065-PX0BP4-020
			BCC06KP BCC06KU
PUR	Black	10 m	BCC M61C-0000-10-065-PX0BP4-050 BCC M62C-0000-10-065-PX0BP4-050
			BCC06KR BCC06KW
			BCC M61C-0000-10-065-PX0BP4-100 BCC M62C-0000-10-065-PX0BP4-100



Passive Splitters

M23 female connector, straight or right-angle, 19-pin



120 V DC
18...30 V DC
Permanently molded PUR
16x0.50 mm² and 3x1.0 mm²
TPU
IP 67
-25...+80° C
BPI, M12, 5-pin, 4/8-way

120 V DC
18...30 V DC
Permanently molded PUR
16x0.50 mm² and 3x1.0 mm²
TPU
IP 67
-25...+80° C
BPI, M12, 5-pin, 4/8-way

Ordering code

Part number

BCC06KY

BCC M61L-0000-10-022-PX0LP4-020

BCC06KZ

BCC M61L-0000-10-022-PX0LP4-050

BCC06L0

BCC M61L-0000-10-022-PX0LP4-100

BCC06L1

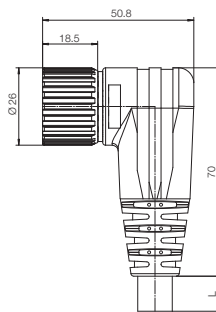
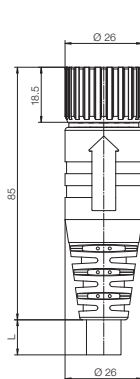
BCC M62L-0000-10-022-PX0LP4-020

BCC06L2

BCC M62L-0000-10-022-PX0LP4-050

BCC06L3

BCC M62L-0000-10-022-PX0LP4-100



Product topology

Passive
splitters
M8

Passive
splitters
M12

Connectors
M12

**Connectors
M23**

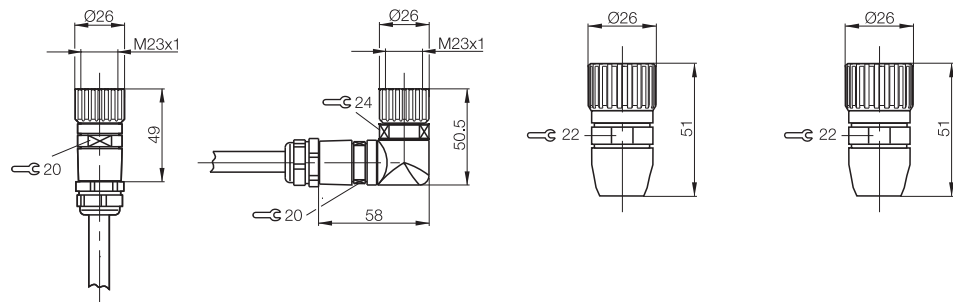
Accessories

Passive Splitters

M23 female connector, straight or right-angle, 19-pin or 12-pin



View of female/ male side				
Description	BKS-S196 Female straight, 19-pin	BKS-S197 Female right-angle, 19-pin	Connector, 19-pin, Female	Connector, 12-pin, Female
Version	8x splitter connection	8x splitter connection	Customized assembly	Customized assembly
Ordering code			BCC00TE	BCC03Y4
Part number			BKS-S87-00	BKS-S264-00
Length	Ordering code	Ordering code		
5 m	Part number	Part number		
Length	Ordering code	Ordering code		
10 m	Part number	Part number		
Length	Ordering code	Ordering code		
20 m	Part number	Part number		
Power supply U_b	18...30 V DC	18...30 V DC	18...30 V DC	18...30 V DC
Cable	Permanently connected PUR	Permanently connected PUR	Max. 10.5 mm	Max. 10.5 mm
Rated operating current I_b	16×0.34 mm ² and 3×0.75 mm ²	16×0.34 mm ² and 3×0.75 mm ²	19×1.0 mm ²	12×1.0 mm ²
Degree of protection as per IEC 60529	IP 67	IP 67	IP 67	IP 67
Ambient temperature range T_a	-20...+80 °C	-20...+80 °C	-40...+125 °C	-40...+125 °C
Housing material	Brass	Brass	Brass	Brass



Marking sleeve

For labeling
connectors



BAM IA-CC-002-01

Assembly wrench

for 12 and 19-pin
M23 connectors








BAM TO-CC-002-M6-4

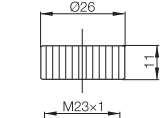
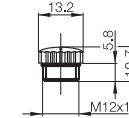
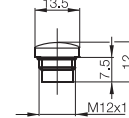
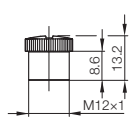
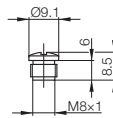
Refer to the chapter
Connectors on
page 259 for more
accessories

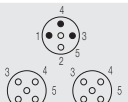

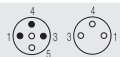
Passive Splitters

Accessories

more added value
Customized components for quick and easy installation of passive splitters!

					
Description	M8 screw plug	M12 screw plug	M12 screw plug	M12 screw plug	M23 screw plug
Version	IP 65 screw plug for unused ports	IP 65 screw plug for unused ports	IP 65 screw plug for unused ports	IP 65 screw plug for unused ports	IP 65 screw plug for unused ports
Ordering code	BAM01C1	BAM01C2	BAM0114	BAM0115	BAM012P
Part number	BAM CS-XA-001-M8-C	BAM CS-XA-002-M12-A	BKS 12-CS-01	BKS 12-CS-02	BKS 23-CS-00
Ambient temperature T_a	-20...+80 °C	-20...+80 °C	-20...+80 °C	-20...+80 °C	-20...+80 °C
Housing material	Plastic	Plastic	Nickel-plated brass	PA 6	Nickel-plated brass



View of female/male side					
Description	Tee	Adapter	Adapter	Screw plug 7/8"	Screw plug 7/8"
Version	M12 male to M12 female 2x 2 signals to one port	M8 male 3-pin to M12 female 3-pin	M12 male 3-pin to M8 female 3-pin	Cover for the power ports	Cover for the power ports
Ordering code	BCC02CL	BCC007W	BCC02CK		
Part number	BKS-S4-TM1-01	BKS-S49-GM1/S4	BKS-S4-GM1-01/S49	BKS-7/8-CS-00-A	BKS-7/8-CS-00-I
Power supply U_B	Max. 24 V DC	Max. 24 V DC	Max. 24 V DC		
Rated operating current I_B	Max. 4 A per contact	Max. 4 A per contact	Max. 4 A per contact		
Degree of protection as per IEC 60529	IP 67	IP 67	IP 67		
Ambient temperature range T_a	-25...+90 °C	-25...+85 °C	-25...+85 °C	-20...+80 °C	-20...+80 °C
Housing material	Nickel-plated Gd-Zn	Nickel-plated Gd-Zn	Nickel-plated Gd-Zn	Nickel-plated brass	Nickel-plated brass



Product topology
Passive splitters
M8
Passive splitters
M12
Connectors
M12
Connectors
M23
Accessories

