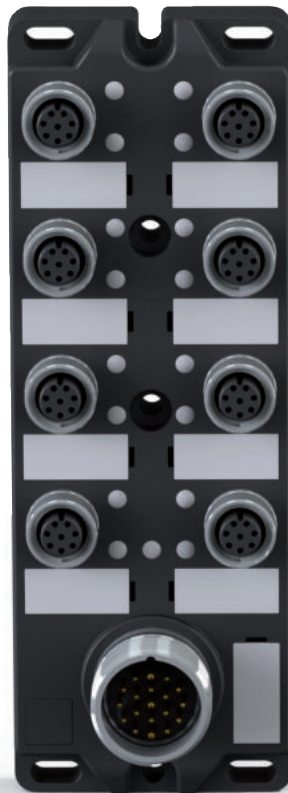




Passive distribution box BC series



BC series passive distribution box

Description

The new **BC series passive distribution box** from Pizzato can be used to connect safety devices with 8-pole M12 male connector in series. This makes it possible to group various input/output signals in one single 19-pole or 12-pole connection or with an M23 connector, which is then connected to the control device. Grouping the connections in a single box makes wiring faster and tidier, thereby avoiding the need to lay multiple lines. In addition, it's easier to replace devices if needed. This solution improves power distribution compared to the typical series connection, so more NG/NS series devices can be connected. The BC series distribution box is provided with a strong, compact, sealed housing. It's waterproof and withstands vibrations or shock, and has a diagnostics' LED that shows the state of the connected device.

Main features

AVAILABLE
END OF 2023



Status LED:
Display of the diagnostics output



Available variants:

- Version with 8 connectors (8 x M12 – 8-pole)
- Version with 4 connectors (4 x M12 – 8-pole)

Protection degree IP67:
Developed for indoor and outdoor industrial applications



Various variants for I/O:

- M23 connector
- 19-pole cable (2 x 0.75 mm² + 17 x 0.34 mm²)
- 12-pole cable (12 x 0.5 mm²)

Power and signals:

- Improves the power distribution on connected devices without voltage drops
- Signal for door open and lock/unlock for each connected device



Code structure

BC 1Z4A1A1FTK

Design and material of the housing

1	Technopolymer housing 54 x 115 mm
2	Technopolymer housing 54 x 152 mm

Type and number of inputs

4A	4 inputs, M12 female connector, 8-pole
8A	8 inputs, M12 female connector, 8-pole

Type of distribution of the input signals on the devices

1	One common input I3/IE1 for all devices
2	Independently connected inputs I3/IE1 (only for variant with 4 device connections)

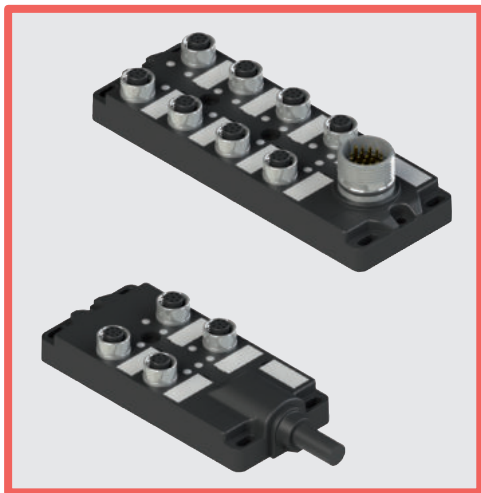
Connection type

K	Integrated connectors
2	Cable length: 2 m
5	Cable length: 5 m
10	Cable length: 10 m

Direction of the output connection and cable or connector type

FT	Front output, M23 connector, 19-pole
AF	Axial output, PVC cable 12 x 0.5 mm ²
AL	Axial output, PVC cable, 2 x 0.75 mm ² + 17 x 0.34 mm ²

BC series passive distribution box



Main features

- Technopolymer housing
- Protection degree up to IP67
- Various models available for I/O: M23 connector, 19-pole cable, 12-pole cable
- Versions with 4 or 8 M12 connectors available
- Integrated signalling LEDs

Quality marks:



Technical data

Housing

Housing made of glass fibre reinforced technopolymer, self-extinguishing and shock-proof
 Protection degree: IP65 acc. to EN 60529
 IP67 acc. to EN 60529

General data

Ambient temperature: -20°C ... +50°C
 Storage temperature: -40°C ... +75°C
 Tightening torque, body: 2 ... 3Nm
 Tightening torque, connectors: 0.6 ... 0.8 Nm

General electrical data

Rated operating voltage U_e : 24 Vdc
 Rated insulation voltage U_i : 30 Vac / 36 Vdc
 External protection fuse: 10 A type gG
 Maximum operating current M12 connector, 8-pole: 2 A

Electrical data of distribution box with 4 M12 connectors

Maximum operating current with 12-pole cable: 5 A x 0.5 mm² (20 AWG), the currents are per conductor

Electrical data of distribution box with 8 M12 connectors

Maximum operating current with 19-pole cable: 8 A x 0.75 mm² (19 AWG) + 4 A x 0.34 mm² (22 AWG), the currents are per conductor

Maximum operating current M23 connector, 19-pole: 8 A pin 6 and pin 19, 4 A all other pins, currents apply per pin

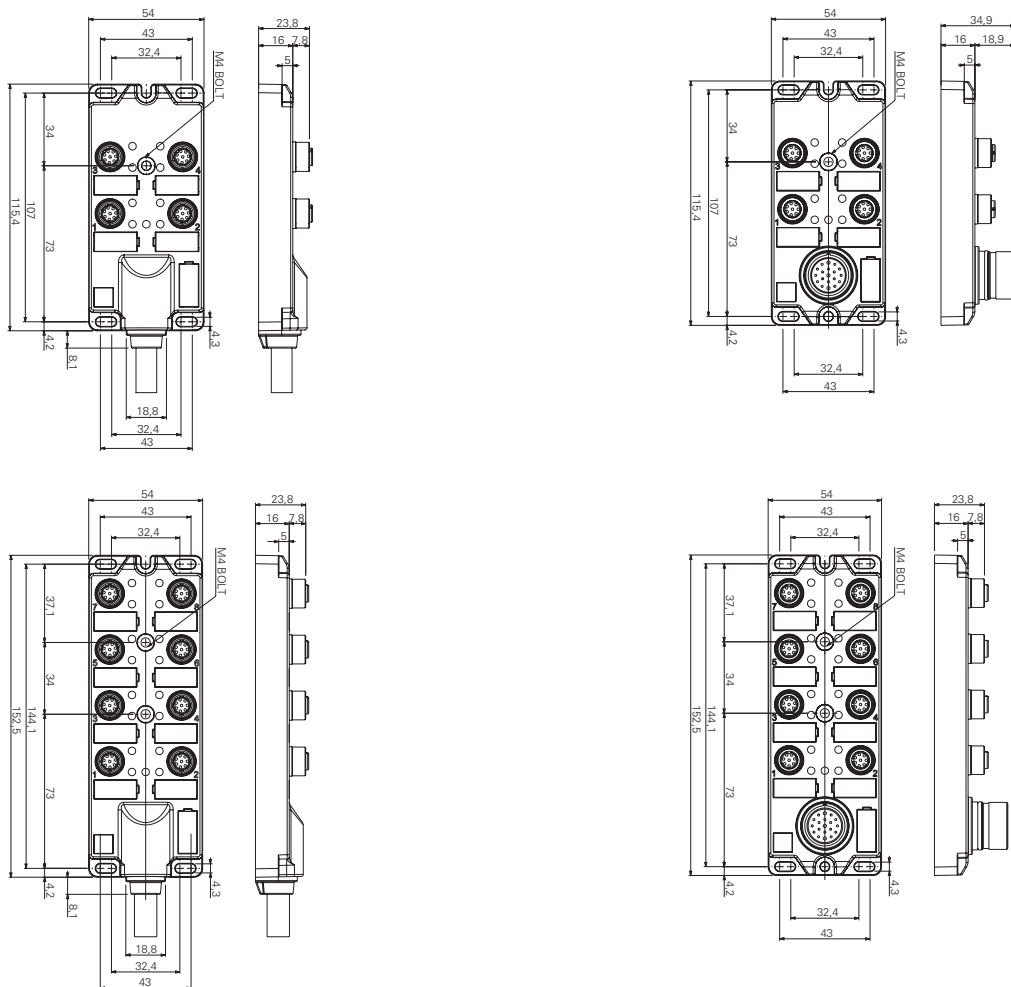
In compliance with standards:

EN 60947-1, EN 60529, EN 61000-6-2, EN 61000-6-3, EN IEC 63000.

Compliance with the requirements of:

RoHS Directive 2011/65/EU.

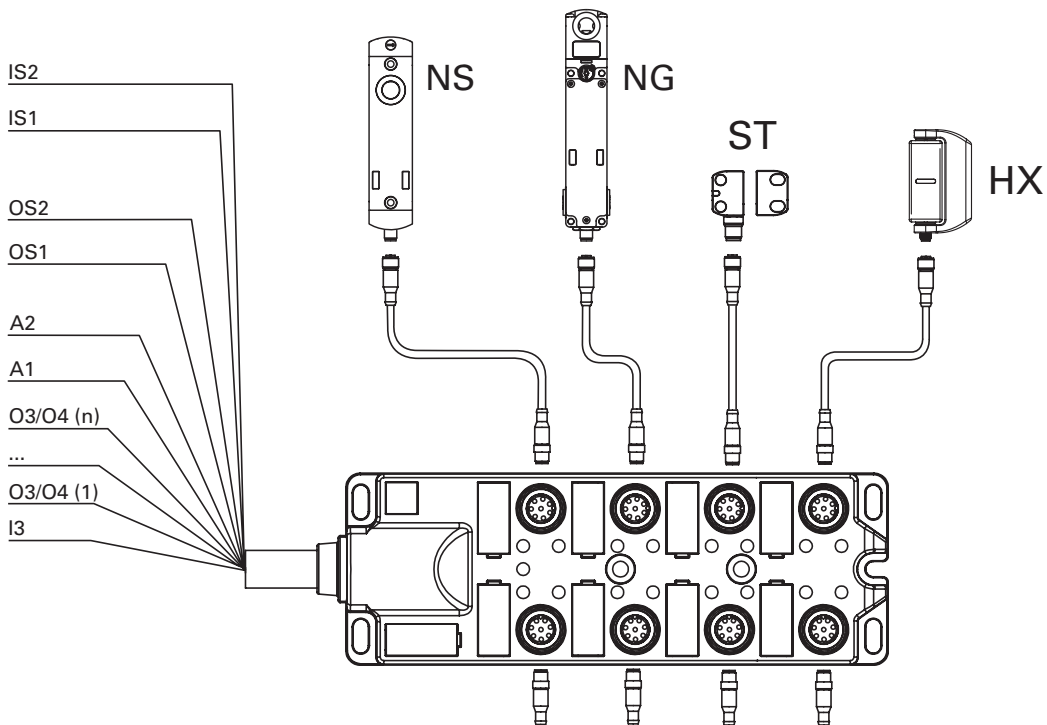
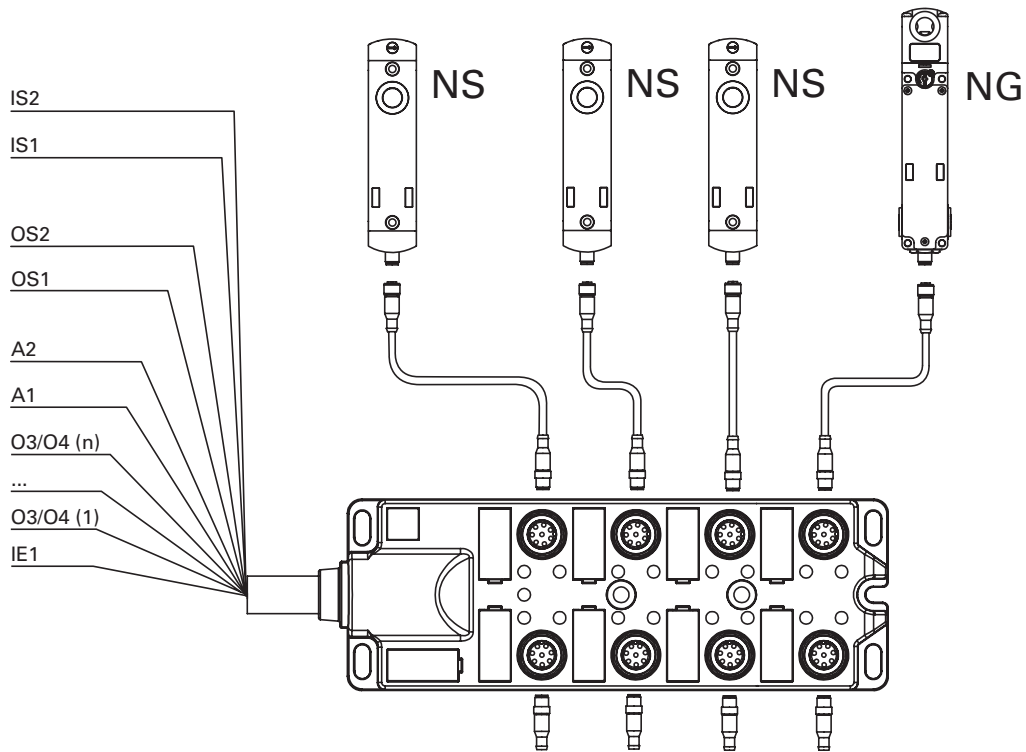
Dimensional drawings



All values in the drawings are in mm



Connection example for the devices



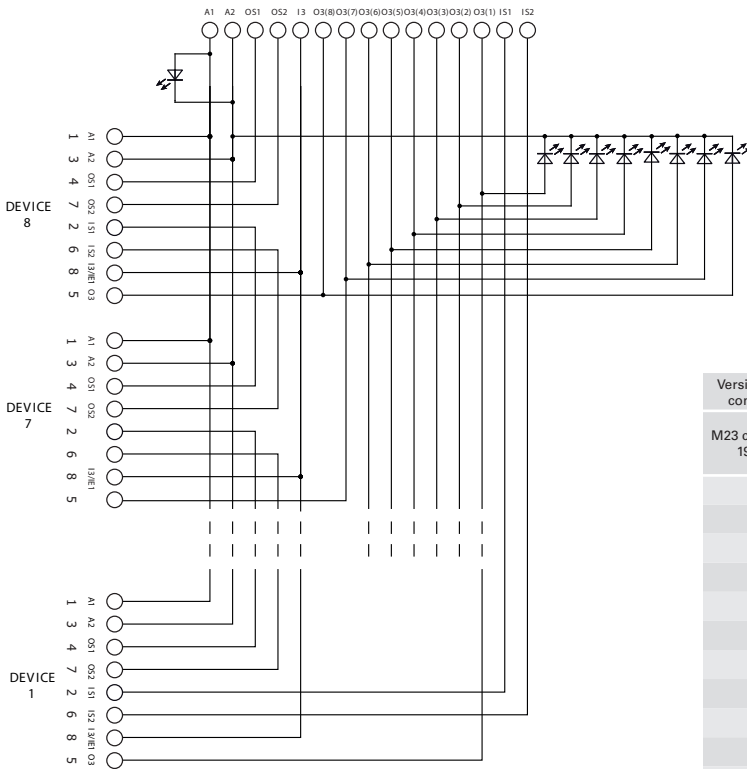
Note: Outputs O3/O4 indicate the "Guard closed" state (O3) for the devices of the ST and HX series, while they indicate the "Guard closed and locked" state (O4) for the devices of the NS and NG series.

Note: A VF CY104P0 terminating plug must be connected on all M12 connectors that are not connected to a device.

BC series passive distribution box

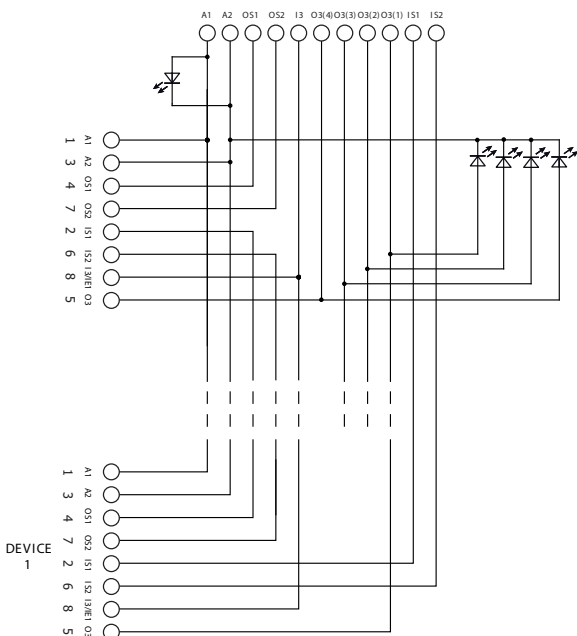
Internal device connections

BC 2Z8A1.....



Versions with connector	Versions with cable	Connection	
M23 connector, 19-pole	BC 2Z8A***AL* Cable 2x0.75 mm ² + 17x0.34 mm ²		
1	Brown-Green	O3/O4 (6)	Signalling output device 6
2	Brown	IS1	Safety input
3	Green	IS2	Safety input
4	Grey	OS1	Safety output
5	Yellow	OS2	Safety output
6	White-Pink	A1	Supply input +24 Vdc
7	Red-Blue	O3/O4 (7)	Signalling output device 7
8	Grey-Pink	O3/O4 (5)	Signalling output device 5
9	Black	O3/O4 (3)	Signalling output device 3
10	Red	O3/O4 (2)	Signalling output device 2
13	White	O3/O4 (4)	Signalling output device 4
15	Green-White	O3/O4 (8)	Signalling output device 8
17	Grey-Brown	O3/O4 (1)	Signalling output device 1
18	Blue	I3/E1	Solenoid activation / programming input
19	Pink	A2	Supply input 0 V

BC 1Z4A1.....

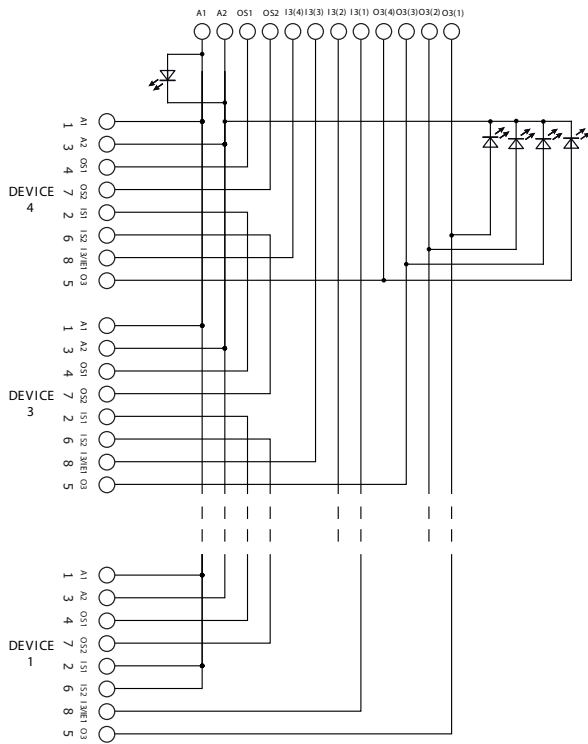


Versions with connector	Versions with cable	Connection	
M23 connector, 19-pole	BC 1Z4A***AF* Cable 12x0.5 mm ²		
2	Brown	IS1	Safety input
3	Pink	IS2	Safety input
4	Blue	OS1	Safety output
5	Yellow	OS2	Safety output
6	White	A1	Supply input +24 Vdc
9	Black	O3/O4 (3)	Signalling output device 3
10	Red	O3/O4 (2)	Signalling output device 2
13	Red-Blue	O3/O4 (4)	Signalling output device 4
16	Grey-Pink	I3/E1	Solenoid activation / programming input
17	Purple	O3/O4 (1)	Signalling output device 1
19	Green	A2	Supply input 0 V



Internal device connections

BC 1Z4A2.....



Versions with connector	Versions with cable	Connection	
M23 connector, 19-pole	BC 1Z4A...AF+ Cable 12x0.5 mm ²		
4	Blue	OS1	Safety output
5	Yellow	OS2	Safety output
6	White	A1	Supply input +24 Vdc
9	Black	O3/O4 (3)	Signalling output device 3
10	Red	O3/O4 (2)	Signalling output device 2
12	Pink	I3/I1 (4)	Solenoid activation / programming input device 4
13	Red-Blue	O3/O4 (4)	Signalling output device 4
14	Grey	I3/I1 (3)	Solenoid activation / programming input device 3
16	Grey-Pink	I3/I1 (2)	Solenoid activation / programming input device 2
17	Purple	O3/O4 (1)	Signalling output device 1
18	Brown	I3/I1 (1)	Solenoid activation / programming input device 1
19	Green	A2	Supply input 0 V

Accessories

M12 terminating plugs for series connections

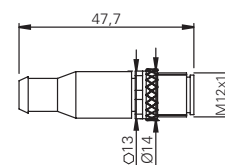


Features:

- Polyurethane connector body
- Gold-plated contacts
- Anti-vibration self-locking ring nut

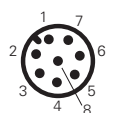
Max. operating voltage: 250 Vac / 300 Vdc
 Max. operating current: 4 A
 Protection degree: IP67 acc. to EN 60529
 Tightening torque of the ring: 0.6 ... 0.8 Nm

Internal block diagram of the terminating plug



Pin assignment

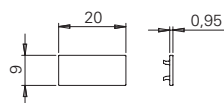
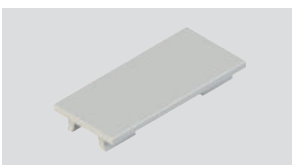
8-pole male



Article	Description
VF CY104P0	M12 terminating plugs for series connections, 8-pole

ATTENTION: always disconnect the power supply before removing the connector.

White label



Article	Description
AC 6309	White label made of polyamide PA66

Note: For the connection cables, see the Accessories chapter of the General Catalogue Safety.



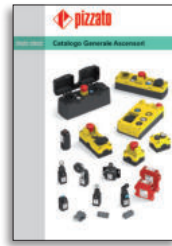
General Catalogue
Detection



General Catalogue
HMI



General Catalogue
Safety



General Catalogue
Lift



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www.pizzato.com



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