



### Passive junction box, IP65/ IP67/ IP69k

- Passive junction box for expansion of bus/CANopen-based networks
- Connection option for up to eight devices or other network extensions
- Easy integration of Bürkert devices in industrial control systems using gateways
- No configuration required

Product variants described in the data sheet may differ from the product presentation and description.

#### Can be combined with

	<b>Type ME63</b> Industrial Ethernet gateway, IP65/IP67/IP69k	▶
	<b>Type ME43</b> Fieldbus gateway	▶
	<b>Type ME64</b> I/O modules IP65/IP67/IP69k	▶
	<b>Type 8742</b> Mass flow controller (MFC) / mass flow meter (MFM) for gases	▶
	<b>Type 8653</b> AirLINE Field – the valve island – optimised for process automation	▶
	<b>Type 8802</b> Continuous control valve systems ELEMENT – overview	▶
	<b>Type 3361</b> Electromotive 2-way globe control valve	▶
	<b>Type 8681</b> Control head for decentralized automation of hygienic process valves	▶

#### Type description

The Type ME66 passive junction box is the central control unit for Bürkert products (valves, sensors, process control systems), which is based on EDIP (Efficient Device Integration Platform) and used in processes requiring a high degree of protection. Type ME66 consists of connections for the simple distribution of bus/CANopen-based data lines and the associated power supply. With the help of eight M12 ports, CANopen-based Bürkert field devices can be connected directly to the Type ME66. The power can either be supplied via M12 L-power ports (up to 32 A) or M12 A-coded ports (up to 4 A). One of the connected devices will typically be an Industrial Ethernet gateway of the Type ME63 or Type ME43, which transmits the CANopen based communication of the Bürkert field devices at all common industrial standards as a fieldbus gateway. The power supply via the M12 L-power input can be passed through to other devices via the second M12 L-power output.

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## 1. General technical data

Product properties	
Dimensions	Further information can be found in chapter "3. Dimensions" on page 5.
Weight	400 g
Material	
Housing	PC (polycarbonate)
Status display	Indicator for power supply
Electrical data	
Operating voltage	24 V DC $\pm$ 10 %, residual ripple 10 % <sup>1)</sup>
Power consumption of the module	1 W
Maximum input current	4 A for supply via XG1 (M12, A-coded, plug), 32 A for supply via XD1 (M12, L-coded, plug)
	Factory set to XD1 (with separate power supply: Power1 for X1-X4, Power2 for X5-X8)
	For supply via XG1 instead of XD1, the switch under the blue cover must be switched.
Maximum output current	4 A per bÜS/CANopen connection (X1-X4, X5-X8) for supply via XD1, 4 A in total with supply via XG1
Product connections	
Communication interface	Connections XG1 and XG2, M12, A-coded
Electrical connection	Via XG1 (IN) or XG2 (OUT): M12, A-coded, or via XD1 (IN) and XD2 (OUT): M12, L-coded (depending on switch position, see maximum input current)
bÜS/CANopen communication (proprietary)	XG1 and XG2 as well as X1 to X8 for integration of the module into a bÜS/CANopen network
Approvals and conformities	
Further information can be found in chapter "2. Approvals and conformities" on page 4.	
Environment and installation	
Ambient temperature	-20 °C...+60 °C
Storage temperature	-30 °C...+80 °C
Degree of protection	IP65, IP67 and IP69k according to EN 60529 / IEC 60529 (with cables connected and with protective caps on unused connections)
Height above sea level	Maximum 2000 m

1.) The requirements of all connected components must be taken into consideration when selecting the power supply.

## 2. Approvals and conformities

### 2.1. General notes

- The approvals and conformities listed below must be stated when making enquiries. This is the only way to ensure that the product complies with all required specifications.
- Not all available variants can be supplied with the below mentioned approvals or conformities.


### 2.2. Conformity

In accordance with the Declaration of Conformity, the product is compliant with the EU Directives.

### 2.3. Standards

The applied standards which are used to demonstrate compliance with the EU Directives are listed in the EU-Type Examination Certificate and/or the EU Declaration of Conformity.

### 2.4. North America (USA/Canada)

Approval	Description
	<p><b>Optional: UL Listed for the USA and Canada</b>                      UL Listed for the USA and Canada according to:                      UL 61010-1 (ELECTRICAL EQUIPMENT FOR MEASUREMENT, CONTROL, AND LABORATORY USE – Part 1:                      General Requirements)                      Certificate No.: E258716</p>

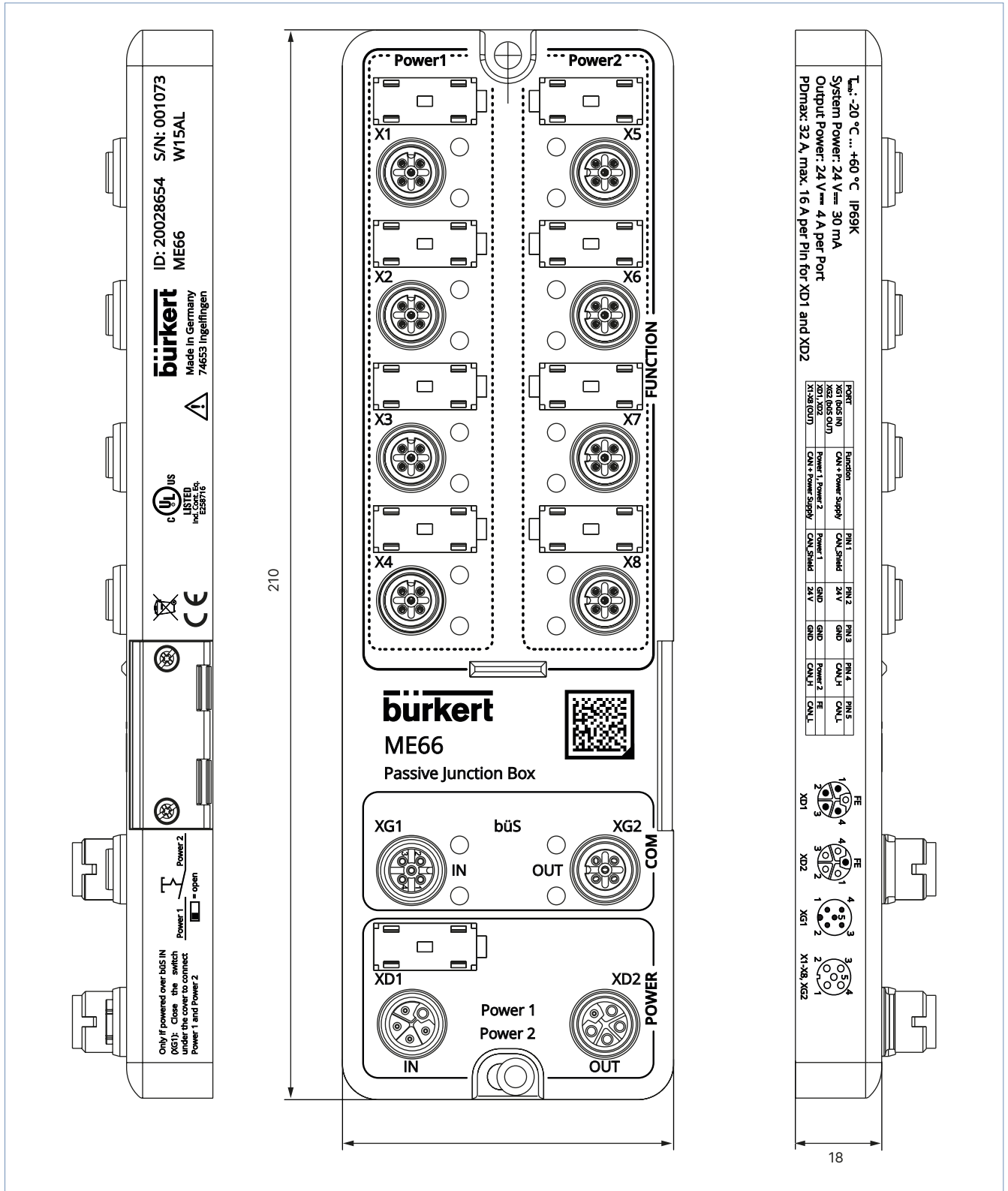
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### 3. Dimensions

**Note:**

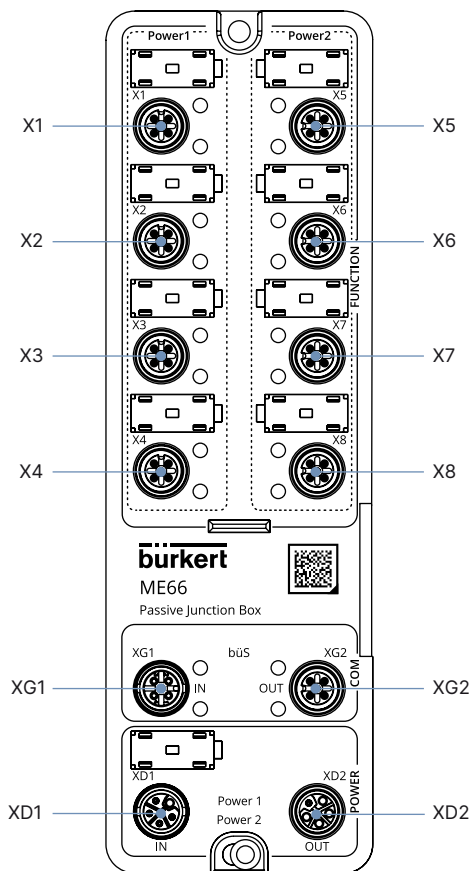
Dimensions in mm, unless otherwise stated

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## 4. Product connections

### 4.1. Connection details



Port	Module supply via XD1/XD2		Module supply via XG1	
	Power domain	Maximum current per M12 for connecting a device via büS/CANopen	Maximum current per M12 for connecting a device via büS/CANopen	Description
X1	Power1	4 A	Total, for X1-X8, 4 A (minus the module supply)	M12-A, socket, büS/CANopen and 24 V DC
X2		4 A		
X3		4 A		
X4		4 A		
X5	Power2	4 A		
X6		4 A		
X7		4 A		
X8		4 A		
XG1 <sup>1)</sup>	-	-	Feed-in: 4 A	M12-A, plug, büS/CANopen and 24 V DC, preferably for büS/CANopen connection
XG2 <sup>1)</sup>	-	-	Feed-in: 4 A	M12-A, socket, büS/CANopen and 24 V DC, preferably for büS/CANopen connection for connecting additional devices
XD1 <sup>1)</sup>	Power1 / Power2	Feed-in: 16 A / 16 A	-	M12-L, plug, Power IN, maximum 32 A, for feeding in the power supply
XD2 <sup>1)</sup>				M12-L, socket, Power OUT, maximum 32 A, for supplying power to other devices

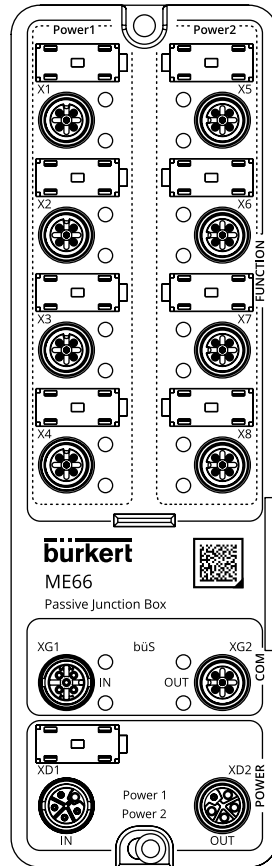
1.) In an earlier version of the module, the connections were labelled as follows: XD1/XD2 = X03/X04, XG1/XG2 = X01/X02.

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### 4.2. Pin assignment

**Note:**

- The L-coded M12 connection (XD1, XD2) is designed for the connection of 2 power supplies, each up to a maximum of 16 A.
- Power1 supplies the M12 X1-X4 and Power2 supplies the M12 X5-X8.
- Supplies are routed separately on the module or brought together, depending on the position of the switch under the blue cover.



M12, XG1 (plug), XG2 (socket) and X1 to X8		Pin	Pin assignment	Function
		1	CAN_Shield	Shielding
		2	24 V	Power supply
		3	GND	Power supply
		4	CAN_H	büS/CANopen communication
		5	CAN_L	büS/CANopen communication
M12, XD1 (plug), XD2 (socket), L-coded <sup>1)</sup>		Pin	Pin assignment	Function
		1	24 V	Power supply Power1
		2	GND	Power supply Power1
		3	GND	Power supply Power2
		4	24 V	Power supply Power2
		5	FE	Shielding

1.) In an earlier version of the module, the connections were labelled as follows: XD1/XD2= X03/X04, XG1/XG2 = X01/X02.

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## 5. Product design and assembly

### 5.1. Product features

	<p><b>Function</b> Connection of terminal devices or further distributors, būs/CANopen and operating voltage on M12, A-coded</p>
	<p><b>Switch (under the blue cover)</b> Switching the power supply from M12, L-coded (XD1) to M12, A-coded (XG1) Switch closed: power supply via XG1 (Power 1 = Power 2), switch open: power supply via XD1</p>
	<p><b>Communication</b> Integration of the devices connected via the module into a būs/CANopen network, M12, A-coded</p>
	<p><b>Power supply</b> M12, L-coded</p>

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## 6. Product accessories

### 6.1. EDIP – Efficient Device Integration Platform

EDIP is a Bürkert device platform that standardises the operation, communication and interfaces of many process devices (for example, sensors, mass flow controllers). Thanks to EDIP, devices can be intelligently networked and operated with the standardised software, the Bürkert Communicator. The backbone and connecting link of EDIP is a digital interface that complies with the CANopen standard and can always be used in a manner compatible with it.

EDIP offers the user the following advantages:

- Interoperability - guaranteed by the uniform interface
- Comfortable operation and display concept
- Faster and simplified commissioning
- Modularity - allows the devices to be adapted to individual customer requirements
- Easy transfer and safeguarding of device settings

### 6.2. Bürkert Communicator software

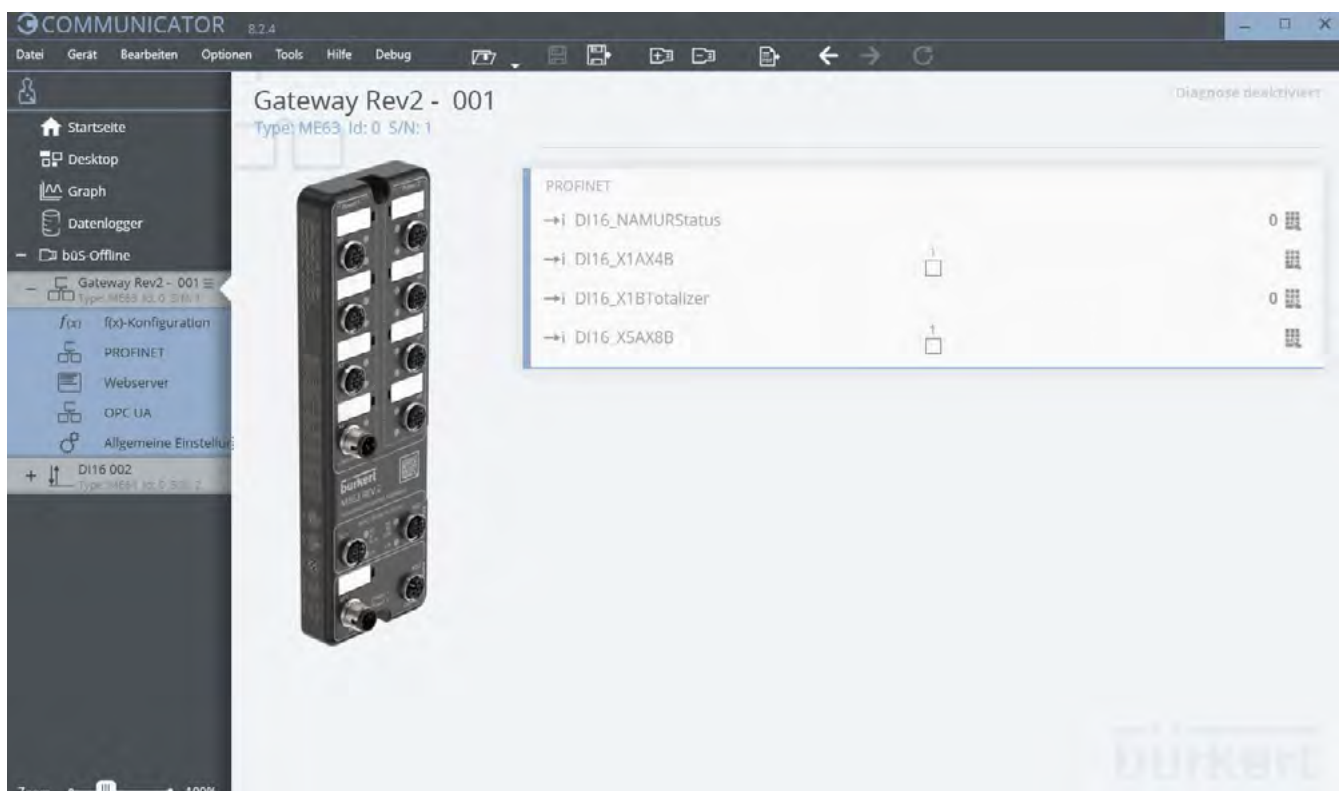
#### Note:

The associated communication software can be downloaded under **Type 8920** ▶.

The Bürkert Communicator is the most important software tool of the device platform EDIP (Efficient Device Integration Platform). The extensive features of this universal tool facilitate the configuration and parameterisation of all devices equipped with the digital CANopen-based interface. The Bürkert Communicator provides the user with a complete overview of all cyclic process values and acyclic diagnostic data. The integrated graphical programming environment enables the creation of control functions for decentralised sub-systems. The connection to the PC can be established via a USB-bUS interface set. This is available as an accessory, see **"8.4. Ordering chart accessories"** on page 12.

The Bürkert Communicator enables:

- Configuration, parameterisation and diagnosis of EDIP devices/networks
- Easy and convenient assignment (mapping) of cyclical values
- Graphical display of process values
- Firmware update of the connected EDIP devices
- Saving and restoring device configurations

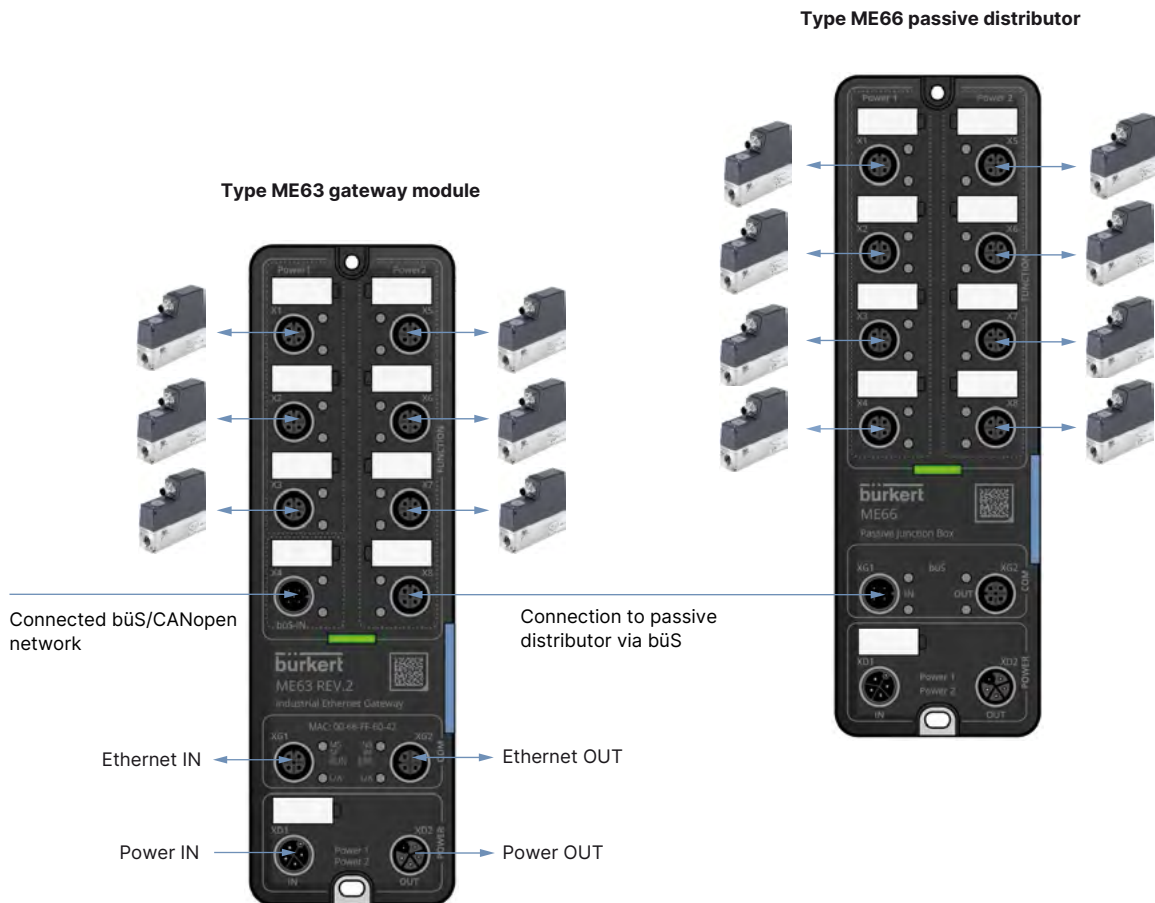


## 7. Networking and combination with other Bürkert products

### 7.1. Example for Type ME66 in combination with Industrial Ethernet gateway Type ME63

**Note:**

- Drop lines must not be longer than 5 m.
- Signal integrity measurement is recommended for star cabling of more extensive networks.
- See also **cabling guide** ▶



**Short description of the illustrated example**

- Connection of 6 Bürkert devices via drop line to X1-X3, X5-X7 of the gateway module (left)
- Integration into a bus/CANopen network via X4 and X8
- The passive distributor (right) connects another 8 devices via drop lines.
- All bus devices can be reached via the Ethernet connection of the gateway module (left).

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## 8. Ordering information

### 8.1. Bürkert eShop



#### Bürkert eShop – Easy ordering and quick delivery

You want to find your desired Bürkert product or spare part quickly and order directly? Our online shop is available for you 24/7. Sign up and enjoy all the benefits.

[Order online now](#)

### 8.2. Bürkert product filter




#### Bürkert product filter – Get quickly to the right product

You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

[Try out our product filter](#)









### 8.3. Ordering chart

Description	Article no.
Passive distributor Type ME66 (version 2, with separate power supply via X03)	20028654 






### 8.4. Ordering chart accessories

**Note:**

A complete overview of all associated cables, connectors and other accessories can be found in the appendix of the **cabling guide** ►.

Description	Article no.
Gateway Industrial Ethernet Type ME63	346845 
16DI module (variant 2, with 8 frequency inputs) Type ME64	20021994 
Display FieldConnect 3.5" (8.9 cm) Type ME61	368544 
Display FieldConnect 7" (17.8 cm) Type ME61	358545 
Micro-SD card for fieldbus gateway Type ME43 and Type ME63	774087 
Protective cap for M12 plug	917155 
USB-büS interface set 1 for connection to the Bürkert Communicator software: includes connection cable (M12 and micro USB), stick with integrated terminating resistor, power supply and software, Type 8923	772426 
USB-büS interface set 2 (Type 8923) for connection to the Bürkert Communicator software: includes büS stick, connection cable to M12 plug, M12 connection cable on micro USB for the büS service interface, cable length: 0.7 m	772551 
Bürkert Communicator software	<b>Typ 8920</b> ►





### 8.5. büS plug

Description	Article no.
Y-connector, 5-pin, A-coded; M12 socket to M12 plug and M12 socket	772420 
Y-connector, 5-pin, A-coded, with power interruption; M12 socket to 2x M12 plug	772421 
Y-connector, 5-pin, A-coded; with power interruption; M12 socket to M12 plug and M12 plug	775884 
M12, büS terminating resistor 120 Ω, M12 plug, 5-pin	772424 
M12, büS terminating resistor 120 Ω, M12 socket, 5-pin	772425 




### 8.6. Ordering chart cable

**büS connection cable**






Shielded cable, 2 × 0.75 mm<sup>2</sup>, 2 × 0.34 mm<sup>2</sup>

Description	Article no.
M12 socket, straight, 5-pin, A-coded to M12 plug, straight, 5-pin, A-coded, cable length: 0.5 m	772403 
M12 socket, straight, 5-pin, A-coded to M12 plug, straight, 5-pin, A-coded, cable length: 1 m	772404 
M12 socket, straight, 5-pin, A-coded to M12 plug, straight, 5-pin, A-coded, cable length: 3 m	772405 
M12 socket, straight, 5-pin, A-coded to M12 plug, straight, 5-pin, A-coded, cable length: 5 m	772406 

**Power cable**Unshielded cable, 5 × 2.5 mm<sup>2</sup>

Description	Article no.
M12 socket, straight, 5-pin, L-coded to M12 plug, straight, 5-pin, L-coded, cable length: 3 m	775063 
M12 socket, straight, 5-pin, L-coded to M12 plug, straight, 5-pin, L-coded, cable length: 5 m	775064 
M12 socket, straight, 5-pin, L-coded to M12 plug, straight, 5-pin, L-coded, cable length: 10 m	775065 

**Industrial Ethernet cable**

Description	Article no.
M12 plug, straight, 4-pin, D-coded to M12 plug, straight, 4-pin, D-coded, cable length: 1 m	775040 
M12 plug, straight, 4-pin, D-coded to M12 plug, straight, 4-pin, D-coded, cable length: 3 m	775042 
M12 plug, straight, 4-pin, D-coded to M12 plug, straight, 4-pin, D-coded, cable length: 10 m	775044 
M12 plug, straight, 4-pin, D-coded to RJ45 connector, cable length: 3 m	775052 
M12 plug, straight, 4-pin, D-coded to RJ45 connector, cable length: 5 m	775053 
M12 plug, straight, 4-pin, D-coded to RJ45 connector, cable length: 10 m	775054 