DATA SHEET

Type ME63

bürkert
FLUID CONTROL SYSTEMS

Industrial Ethernet gateway, IP65/ IP67/ IP69k

- Gateway for Industrial Ethernet standards, incl. OPC UA, for use in environments requiring a high degree of protection
- Up to 128 input and 128 output variables can be transmitted
- "Batch controller" functionality for precise dosing of liquids
- Connection of up to eight end devices or junction box modules, connection of up to 126 CANopen participants
- Integrated central configuration management for easy device replacement

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

Can be combined with

Type 8742 ▸
Mass Flow Controller (MFC)/ Mass Flow Meter (MFM) for gases

Type 8653 ▸
AirLINE Field - the valve island optimised for process automation

Type 8802 ▸
ELEMENT continuous control valve systems - overview

Type 3361 ▸
Electromotive 2 way globe control valve

Type 8605 ▸
PWM control electronics for electromagnetic proportional valves

Type 8681 ▸
Control head for decentralized automation of hygienic process valves

Type ME64 ▸
I/O modules IP65/ IP67/ IP69k

Type description

The Industrial Ethernet gateway Type ME63 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 ME63 consists of a fieldbus gateway which transmits the internal CANopen-based communication of the Bürkert field devices to all common industry standards for Industrial Ethernet. With the help of eight M12 ports, CANopen-based Bürkert field devices can be connected directly to the gateway Type ME63. The power supply of the field devices can be provided either by an M12 L-Power (up to 32 A) or an A-coded M12 connector (up to 4 A). One of these additional participants can be either Type ME64 (I/O module) or a passive junction box (included as an accessory part with this data sheet). The passive junction box is intended to simply integrate further participants into the proprietary bus system of the gateway Type ME63. The power supply via the M12 L-Power input can supply further field devices located close to the process via the second M12 L-Power output. Also integrated is an Ethernet switch which allows the direct integration of further field devices located close to the process in the Ethernet communication.

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1. General technical data

Product properties	
Dimensions	Detailed information can be found in chapter "2. Dimensions" on page 4.
Weight	400 g
Material	
Body	PC (Polycarbonate)
Status display	RGB-LED based on NAMUR NE107
Configuration memory	Micro SD card (not included in delivery) (Configuration Provider Function: For optional storage of unit parameters, configuration and easy exchange of EDIP modules)
Electrical data	
Operating voltage	24 V DC ±10 % - residual ripple 10 %[1.)]
Power consumption of module	3.6 W
Max. input current	4 A for supply via X4 (M12, A-coded, plug), 32 A for supply via X03 (M12, L-coded, plug), factory-set to X03, the module detects this automatically when supplied via X4 instead of X03
Max. output current	4 A per büS/CANopen connection (X1-X3, X5-X8) with supply via X03, 4 A in total with supply via X4
Process/Port connection & communication	
Communication interface (integrated switch for Industrial Ethernet)	Connections X01 and X02, M12 D-coded (socket) PROFINET, EtherNet/IP, Modbus/TCP EtherCAT, CC-Link IE Field Basic, OPC UA
Electrical connection	Via X4 (IN): M12, A-coded, or via X03 (IN) and X04 (OUT): M12, L-coded
büS/CANopen communication (proprietary)	X1 to X3 and X5 to X8 (M12, socket), X4 (M12, plug) - preferably for the büS/CANopen input for integration of the module into a büS/CANopen network
Approvals and Certificates	
Approval	
CE	EU conformity
UKCA	UK conformity
UL	cULus listing (in preparation)
SPS	IEC 61131 – 2
EMV	EN 61000
Certificate	PROFINET (PNO) EtherNet/IP (ODVA) CC-Link IE Field Basic
Environment and installation	
Ambient temperature	-20…+60 °C
Storage temperature	-30…+80 °C
Degree of protection	IP65, IP67 and IP69k acc. to EN 60529 / IEC 60529 (with cables connected and with protective caps on unused connections)
Height above sea level	Max. 2000 m

1.) The requirements of the attached components need to be considered in the selection of the power supply as well.

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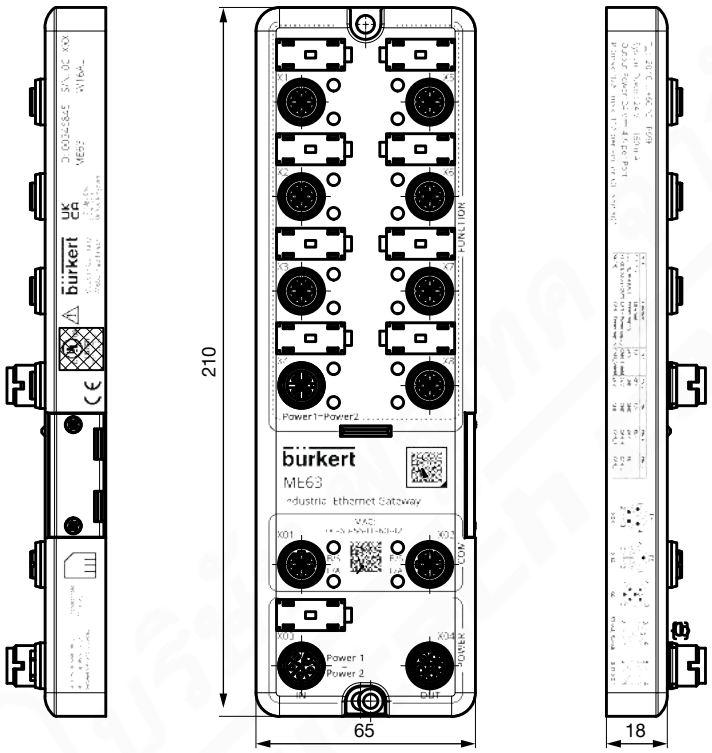
2. Dimensions

2.1. Gateway module Type ME63

Note:
Dimensions in mm



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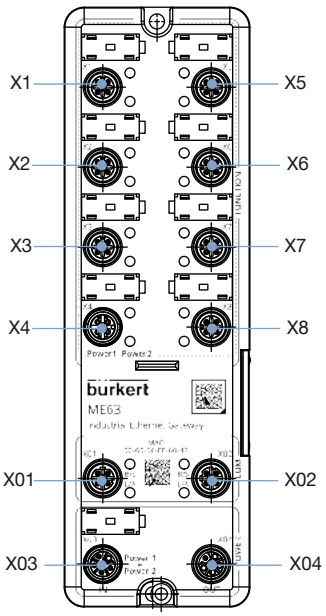
3. Device/Process connections

3.1. Gateway Module Type ME63

Connection details

Note:
Device automatically detects whether the power supply is connected to X4 or X03

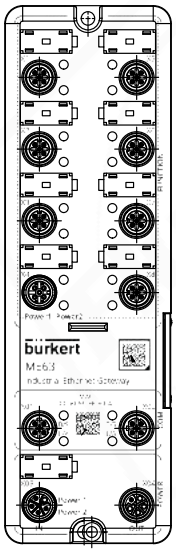


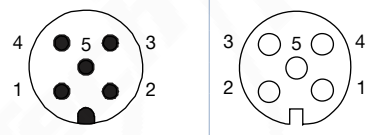
No.	Description
X1	M12-A, socket, büS/CANopen and 24 V DC, max. 4 A, for connecting a device via büS/CANopen
X2	M12-A, socket, büS/CANopen and 24 V DC, max. 4 A, for connecting a device via büS/CANopen
X3	M12-A, socket, büS/CANopen and 24 V DC, max. 4 A, for connecting a device via büS/CANopen
X4	M12-A, plug, büS/CANopen and 24 V DC, max. 4 A, preferably for büS/CANopen connection
X5	M12-A, socket, büS/CANopen and 24 V DC, max. 4 A, for connecting a device via büS/CANopen
X6	M12-A, socket, büS/CANopen and 24 V DC, max. 4 A, for connecting a device via büS/CANopen
X7	M12-A, socket, büS/CANopen and 24 V DC, max. 4 A, for connecting a device via büS/CANopen
X8	M12-A, socket, büS/CANopen and 24 V DC, max. 4 A, for connecting a device via büS/CANopen
X01	M12-D, socket, Ethernet, e.g. for the Ethernet connection of the module
X02	M12-D, socket, Ethernet, e.g. for Ethernet integration of further devices
X03	M12-L, plug, Power IN, max. 32, A for power supply
X04	M12-L, socket, Power OUT, max. 32 A, for the power supply of further devices

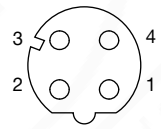
Pin assignment

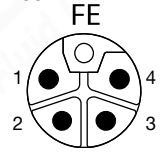
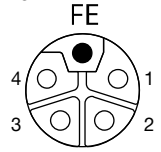
Note:

- The L-coded M12 connection (X03, X04) is designed for connecting 2 power supplies, each up to max. 16 A.
- Both power supplies are integrated on the module and made available to all ports.



M12, X4 (plug) and X1-X3, X5-X8 (socket), A-coded	Pin	Pin assignment	Function
	1	FE/CAN_GND	Shield
	2	24 V	Power supply
	3	GND	Power supply GND
	4	CAN_H	büS communication
	5	CAN_L	büS communication

M12, X01, X02 (socket), D-coded	Pin	Pin assignment	Function
	1	TD +	Transmitting data +
	2	RD +	Receiving data +
	3	TD –	Transmitting data –
	4	RD –	Receiving data –

M12, X03 (plug), X04 (socket), L-coded	Pin	Pin assignment	Function
X03  X04 	1	24 V	Power supply Power 1[1.)]
	2	GND	Power supply Power 1[1.)]
	3	GND	Power supply Power 2[1.)]
	4	(24 V)	Power supply Power 2[1.)]
	5	FE	Shield

1) The power supplies Power 1 and Power 2 are internally connected.

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4. Product design and assembly

4.1. Product features

Gateway module Type ME63

Function:
Connection of terminal devices or further distributors, büS/CAN-open and operating voltage on M12, A-coded

Memory:
Micro SD card for saving device-specific settings

Communication:
Ethernet, M12, D-coded

Power supply:
M12, L-coded

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5. Product accessories

5.1. EDIP – Efficient Device Integration Platform

EDIP is the new Bürkert device platform that will standardize the operation, communication and interfaces of many process devices (e.g. sensors, mass flow controllers). Thanks to EDIP, devices can be intelligently networked and operated with the standardized 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 fusion of device settings

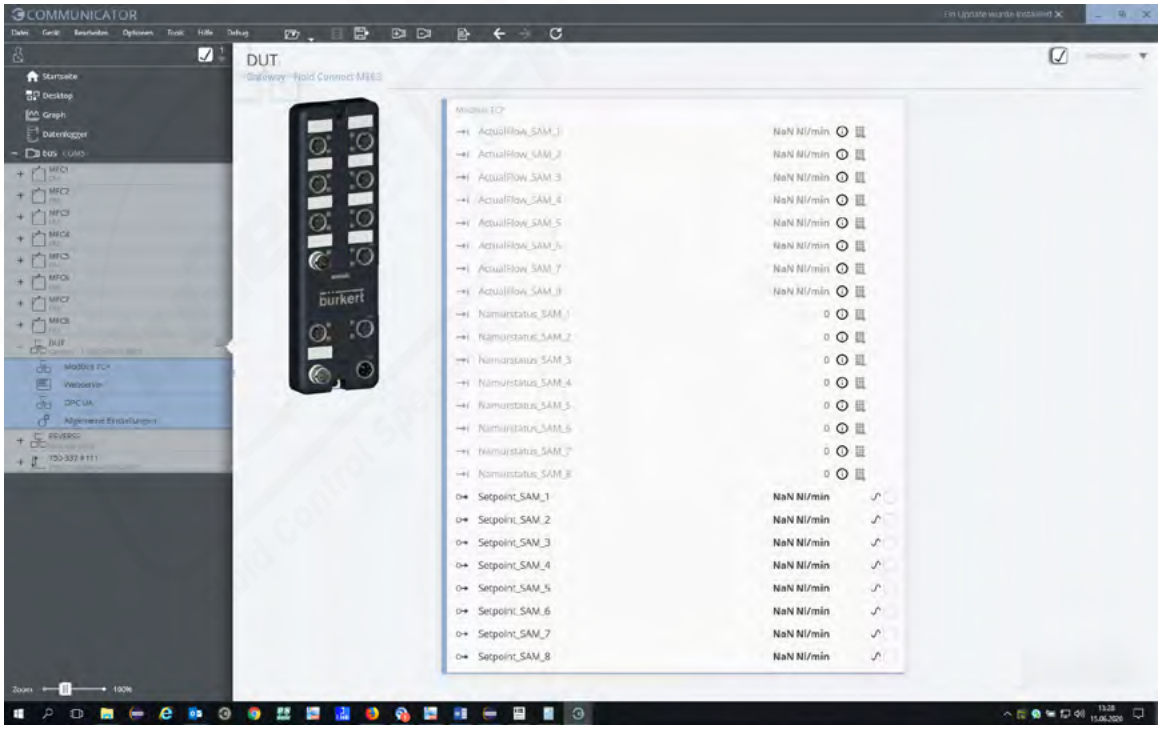
5.2. Bürkert Communicator Software

Note:
To install the software, click **here** ▶.

Part of Bürkert's new EDIP program (Efficient Device Integration Platform) is the Bürkert Communicator. This software can be run under MS-Windows and it is available on Bürkert's website for free. The Bürkert Communicator allows convenient system configuration and parametrisation of all connected field devices. An accessory part, the büS stick serves as the interface between computer and process instruments (see "7.4. Ordering chart accessories" on page 10).

The Communicator allows:

- Diagnostics
- Parametrization
- Registration and storage of process data
- Graphical monitoring of the process data
- To update firmware of the büS device connected
- Guided re-calibration



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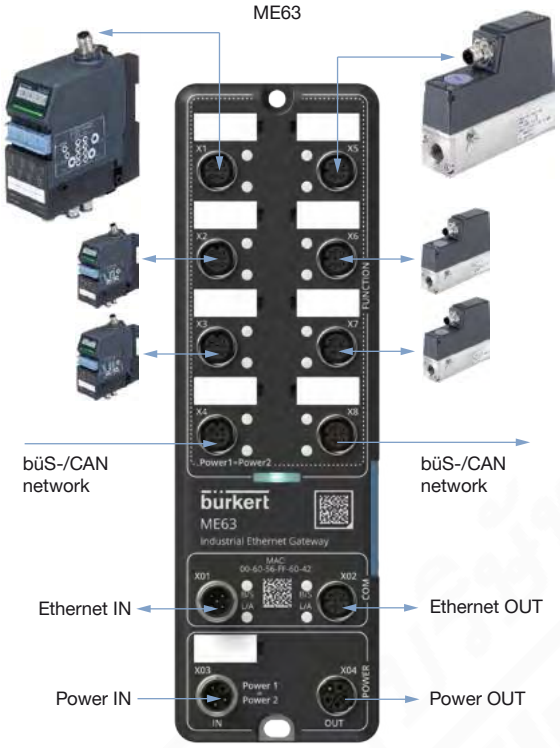
6. Networking and combination with other Bürkert products

6.1. Example for Type ME63

Note:

- Lengths of stub lines should 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 spur line to X1-X3, X5-X7
- Integration in büS/CANopen network via X4 and X8
- All büS devices can be reached via the Ethernet connection
- Additional devices can be integrated into the Ethernet communication via the second Ethernet port X02.
- Further devices can be supplied via the second power port X04
- A total of up to 126 büS/CANopen devices can be connected to one gateway.

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7. Ordering information

7.1. Bürkert eShop – Easy ordering and quick delivery

Bürkert eShop – Easy ordering and fast 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

7.2. 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

7.3. Ordering chart

Note:
Please note that the ME63 gateway modules are not configured at the factory. However, they must be configured to enable their use in a system. The device description files for the required protocols must be generated with the communicator software before commissioning a system. You can find further details in the **Operating manual for ME63** ▶.

Article	Article no.
Gateway Industrial Ethernet ME63	346845

Software Functions

Article	Article no.
Graphical programming f(x) license for Type ME63 gateway[1.)]	567713
Batch Controller license for Type ME63 gateway[1.)]	572948

1.) Without the license the active run time is limited to 60 minutes.

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7.4. Ordering chart accessories

Article	Article no.
Passive distributor Type ME66 (version 2, with separate power supply via X03)	20028654
16x digital inputs, 16DI module (ME64) (version 2, with 8 frequency inputs)	20021994
büS cable extension, M12, 0.1 m	772492
büS cable extension, M12, 0.2 m	772402
büS cable extension, M12, 0.5 m	772403
büS cable extension, M12, 1 m	772404
büS cable extension, M12, 3 m	772405
M12 socket, straight (A-coded)[1.)]	772416
M12 plug, straight (A-coded)[1.)]	772417
M12 socket, angled (A coded)[1.)]	772418
M12 plug, angled (A-coded)[1.)]	772419
Y distributor	772420
Y distributor for connecting two separately powered segments of a büS network	772421
Terminating resistor, 120 Ohm, M12 plug	772424
Terminating resistor, 120 Ohm, M12 socket	772425
Power supply unit Type 1573 for DIN rail, 100…240 V AC/24 V DC, 1.25 A, NEC Class 2 (UL 1310)	772438
Power supply unit Type 1573 for DIN rail, 100…240 V AC/24 V DC, 1 A, NEC Class 2 (UL 1310)	772361
Power supply unit Type 1573 for DIN rail, 100…240 V AC/24 V DC, 2 A, NEC Class 2 (UL 1310)	772362
Power supply unit Type 1573 for DIN rail, 100…240 V AC/24 V DC, 3.8 A, NEC Class 2 (UL 1310)	772898
Power supply unit Type 1573 for DIN rail, 100…240 V AC/24 V DC, 10 A	772698
Micro SD card	774087
büS-Stick Set 1 (incl. cable (M12), stick with integrated terminating resistor, power supply and software)	772426
büS-Stick Set 2 (incl. cable (M12)), stick with integrated terminating resistor	772551
Bürkert Communicator Software	**LINK**
Industrial Ethernet connection cable (RJ45 to M12 plug, D-coded)	
Industrial Ethernet cable, 1 m	775050
Industrial Ethernet cable, 2 m	775051
Industrial Ethernet cable, 3 m	775052
Industrial Ethernet cable, 5 m	775053
Industrial Ethernet cable, 10 m	775054
Industrial Ethernet cable, 15 m	775055
Industrial Ethernet cable, 20 m	775056
Industrial Ethernet connection cable (RJ45 to M12 plug, D-coded, angled)	
Industrial Ethernet cable, 0.5 m	774826
Industrial Ethernet cable, 1 m	774827
Industrial Ethernet cable, 2 m	774830

1.) For space reasons, the individual M12 connectors may not be suitable for simultaneous use on the same side of a Y distributor. In this case, please use a commercially available moulded cable.

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