bürkert
FLUID CONTROL SYSTEMS

Fieldbus gateway

- Gateway for industrial Ethernet and fieldbus standards
- Up to 128 input and 128 output variables can be assigned
- Easy integration in the process control level through system-specific device description files
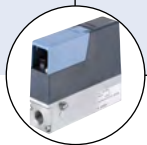- Graphical programming for automation of sub-systems

powered by
EDIP

Type ME43 can be combined with…

| Type 8741 MFC/MFM | Type 8742 MFC/MFM | Type 8746 MFC/MFM | Type 8905 Online Analysis-System | Type 8652 Valve island |

The fieldbus gateway Type ME43 is the central control unit for Bürkert products (valves, sensors, mass flow controllers or displays), which are based on EDIP ("Efficient Device Integration Platform"). The basic version of Type ME43 consists of a fieldbus coupler which transmits the internal CANopen-based communication of the Bürkert field devices to industry standards for industrial Ethernet and fieldbus.

With the help of graphical programming, which the module supports, sub-systems can be automated specifically to the customer's needs (e.g. controlled mixing of gases, error monitoring through limit value switches, time switches).

| Technical data	
Housing material	PC (Polycarbonate)
Gateway functionality (Integrated switch for Industrial Ethernet)	PROFINET EtherNet/IP Modbus/TCP PROFIBUS DPV1 EtherCAT
Configuration storage	Micro SD Card (not included in delivery) (for storing device parameters, configuration and easy replacement of a module)
Operating voltage	24 V DC ±10 % - residual ripple 10 %
Current limitation at 24V	3,2 A
Output current at 3.3V and 5V (max.)	400 mA
Light diodes housing (external)	RGB-LED based on NAMUR NE107
Power consumption	2 W
Ambient temperature	-20 … +60 °C
Protection class ME43 (Fieldbus Gateway)	IP20
Installation	Horizontal or vertical on DIN rail EN 50022
Certificates PROFINET (PNO) EtherNet/IP (ODVA)	Certificate Z11908 DOC 11648
Approvals UL ATEX IECEx	cULus Listed Certificate: E238179 II 3G Ex ec IIC T4 Gc Certificate: BVS 18 ATEX E 051 X Ex ec IIC T4 Gc Certificate: IECEx BVS 18.0041X

PROFINET
EtherNet/IP
PROFIBUS
EtherCAT
CANopen

EDIP – Efficient Device Integration Platform

EDIP is the new Bürkert device platform which will in the future standardise the operation, communication and interfaces of many process devices (e.g. Sensors, Mass Flow Controller). Thanks to EDIP the devices can be intelligently networked and operated with with the consistent Software, the Bürkert Communicator. The backbone and connecting link of EDIP is the digital interface which complies with the CANopen standard and is always downwards compatible to it. EDIP offers following advantages to the user:

- Interoperability - guaranteed by the uniform interface
- Comfortable operating and display concept
- Fast start-up and easy commissioning
- Modularity – allows adjustment of the devices to individual customer requirements
- Easy transfer and backup of device settings

Feldbus Gateway ME43
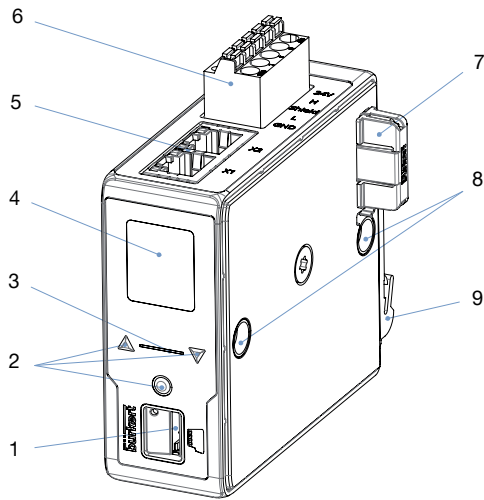
No.	Moduls
1	Micro-SD card slot
2	Buttons
3	NAMUR-LED
4	Display
5	Fieldbus connection
6	büS connector
7	Termination resistor*
8	Fastening to the valve island (type 8652)
9	DIN rail mounting

*Included in delivery.

Pin assignment
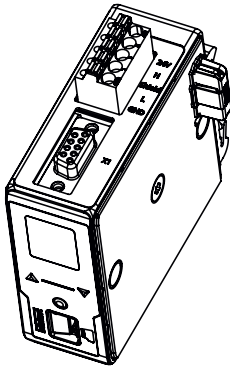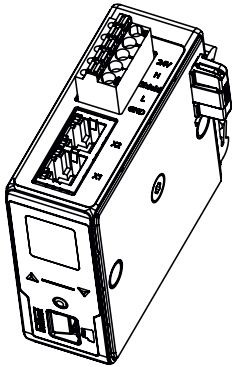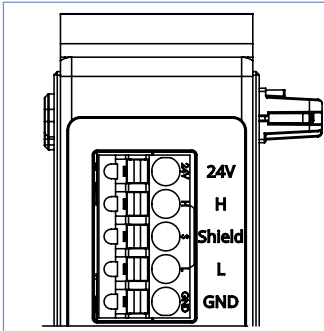
CANopen / büS - Spring terminal 5 pin	Color	Assignment
	Red	24 V DC
	White	CAN H (büS-connection)
	Green	SHIELD
	Blue	CAN L (büS-connection)
	Black	GND

Industrial Ethernet RJ45 - Interface X1 and X2	Pin	Assignment
	1	TX+
	2	TX–
	3	RX+
	4	N.C.
	5	N.C.
	6	RX–
	7	N.C.
	8	N.C.

PROFIBUS-DPV1 D-Sub 9 - D-Sub 9 pin female	Pin	Assignment
	1	SHIELD
	2	M24 (optional)
	3	RxD/TxD-P (B-Line)
	4	CNTR-P (optional)
	5	DGND
	6	+5 V (Supply for the termination resistor)
	7	+24 V (optional)
	8	RxD/TxD-N (A-Line)
	9	CNTR-N (optional)

CC Link D-Sub 9 pin female	Pin	Assignment
	1	N.C.
	2	N.C.
	3	DA data cable – (A-Line)
	4	DG data ground
	5	N.C.
	6	N.C.
	7	N.C.
	8	DB data cable + (B-Line)
	9	N.C.

Note:

1) The termination resistor can be plugged in easily to the right of the module (included in delivery. It can also be ordered as an accessory. For the Article no. see ordering chart on page 6).

2) CANopen requires two termination resistors: one at the beginning and one at the end of the network. An indicator of the correct bus termination is the resistance between CAN_H and CAN_L when the power supply is disconnected; this should be about 60 Ohm.

Software Bürkert Communicator

The Bürkert Communicator is the most important software component of the ‚Efficient Device Integration Platform' (EDIP). Various features of this universal tool simplify the configuration and parameterization of devices equipped with a digital CANopen based interface. With this tool the user has a complete overview of cyclic process values as well as acyclic diagnosis data. In the near future, an integral part of the Communicator will be a graphical programming environment which will help in creating decentralized sub-system control functions. The connection to the PC is established with a USB-CAN adapter.

The communicator allows:
- Configuration, parameterisation and diagnosis of EDIP devices / networks
- Easy and comfortable mapping of cyclic values
- Graphical display of process values
- Firmware update for the connected EDIP devices
- Backup and restoring of device configurations
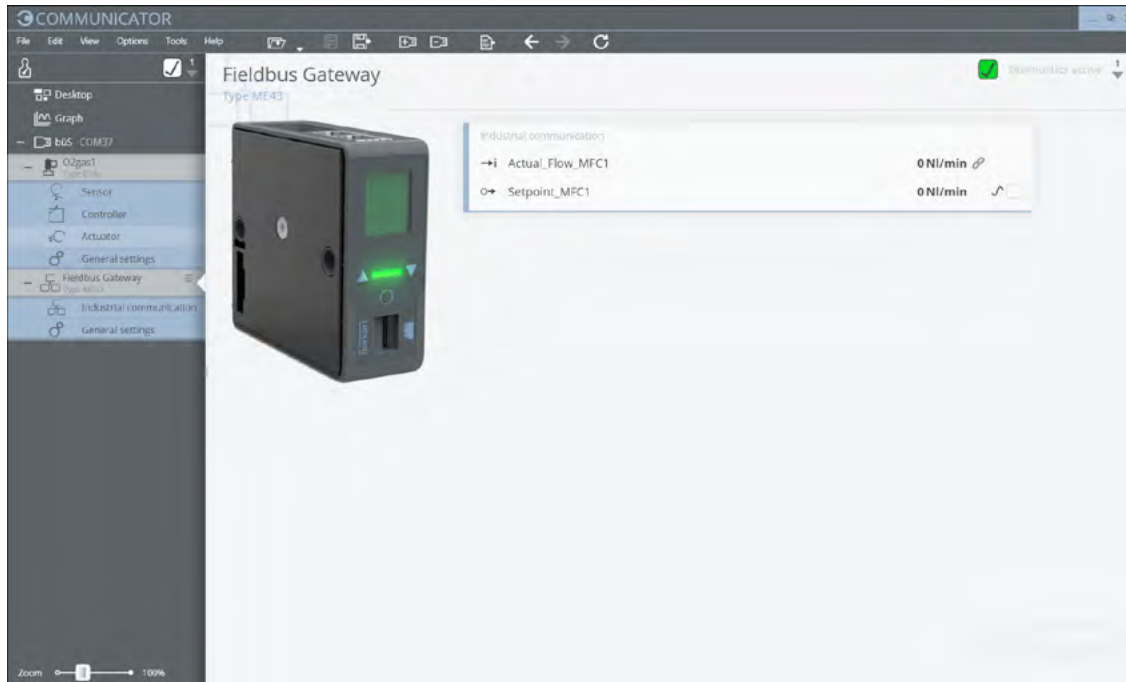
To install the software, click on the download button.

Operation in a network

Example of a network with Gateway ME43 and MFCs

Industrial Ethernet

24 V DC, GND, CAN-L, CAN-H
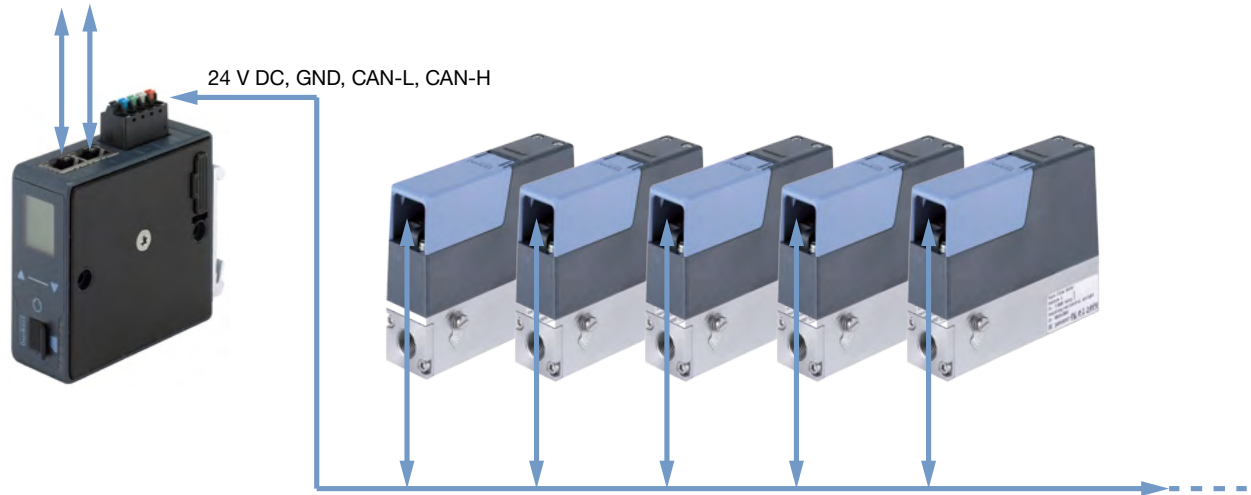
Dimensions [mm]

**Example with spring terminal block for büS connection**

91,4

75,5

35,7

35

20,7

1,5

32

43,3

6,7

2,9

82,6

95,6

bürkert
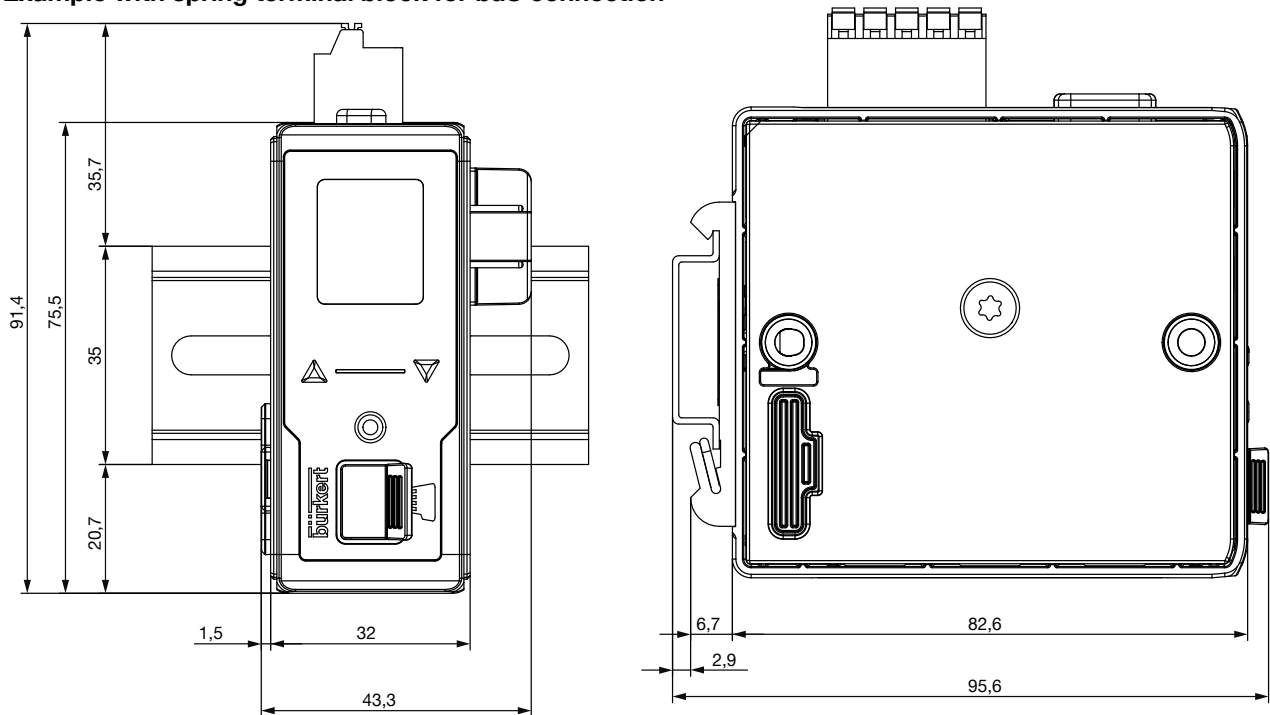
Ordering chart

Article	Article no. Standard	Article no. AirLINE Type 8652
Gateway Industrial Ethernet (PROFINET, EtherNet/IP, Modbus TCP, EtherCAT)	307390 🛒	301799 🛒
Gateway PROFIBUS DPV1	307393 🛒	301803 🛒
Gateway CANopen (büS)	307391 🛒	301802 🛒

Important note:
Please note that the ME43 Gateway modules are not factory configured. However, these must be configured in order to be used in a system. The device description files for the required protocols must be generated with the Communicator software before commissioning a system. For further details, please refer to the operating instructions for ME43.

Ordering chart for accessories

Article	Article no.
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 🛒
Connector M12, female, straight[1]	772416 🛒
Connector M12, male, straight[1]	772417 🛒
Connector M12, female, angled[1]	772418 🛒
Connector M12, male, angled[1]	772419 🛒
Y connector	772420 🛒
Y connector for connecting two separately powered segments of a büS network	772421 🛒
Termination resistor (directly pluggable)	303833 🛒
Termination resistor 120 Ohm M12 male	772424 🛒
Termination resistor 120 Ohm M12 female	772425 🛒
Power supply Type 1573 for rail mounting, 100 – 240 V AC/ 24 V DC, 1.25 A, NEC Class 2 (UL 1310)	772438 🛒
Power supply Type 1573 for rail mounting, 100 – 240 V AC/ 24 V DC, 1 A, NEC Class 2 (UL 1310)	772361 🛒
Power supply Type 1573 for rail mounting, 100 – 240 V AC/ 24 V DC, 2 A, NEC Class 2 (UL 1310)	772362 🛒
Power supply Type 1573 for rail mounting, 100 – 240 V AC/ 24 V DC, 3,8 A, NEC Class 2 (UL 1310)	772898 🛒
Power supply Type 1573 for rail mounting, 100 – 240 V AC/ 24 V DC, 10 A	772698 🛒
Micro SD Card	774087 🛒
büS-Stick Set 1 (incl. cable (M12)), stick with integrated termination resistor, power supply and software	772426 🛒
büS-Stick Set 2 (incl. cable (M12)), stick with integrated termination resistor	772551 🛒
License for graphical programming (only required for a running time > 60 minutes)	567713 🛒
Software Bürkert Communicator	http://www.burkert.com/en/type/8920

1) Due to lack of space, the M12 single connectors may not be suitable for their simultaneous use on the same side of the Y connector. Please use the available ready-made assembled cable in this case.

To find your nearest Bürkert facility, click on the orange box → **www.burkert.com**