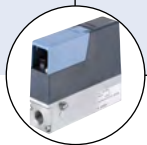


Fieldbus gateway



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

powered by
EDIP

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 CC-Link
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 $\pm 10\%$ - 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

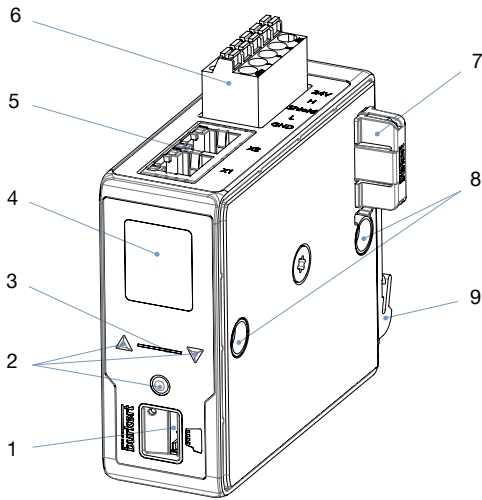
UL
ATEX
IECEX

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

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 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:

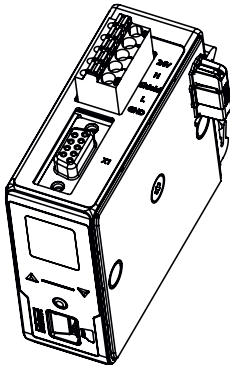
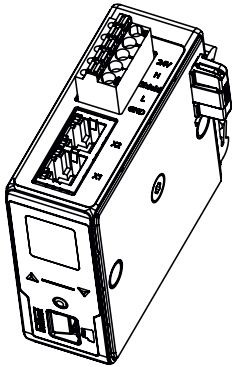
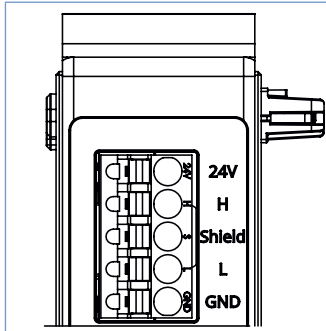
- Interoperability - guaranteed by the uniform interface
- Comfortable operating and display concept
- Fast start-up and easy commissioning
- Modularity – allows adjustment of the devices to individual customer requirements
- Easy transfer and backup of device settings

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).

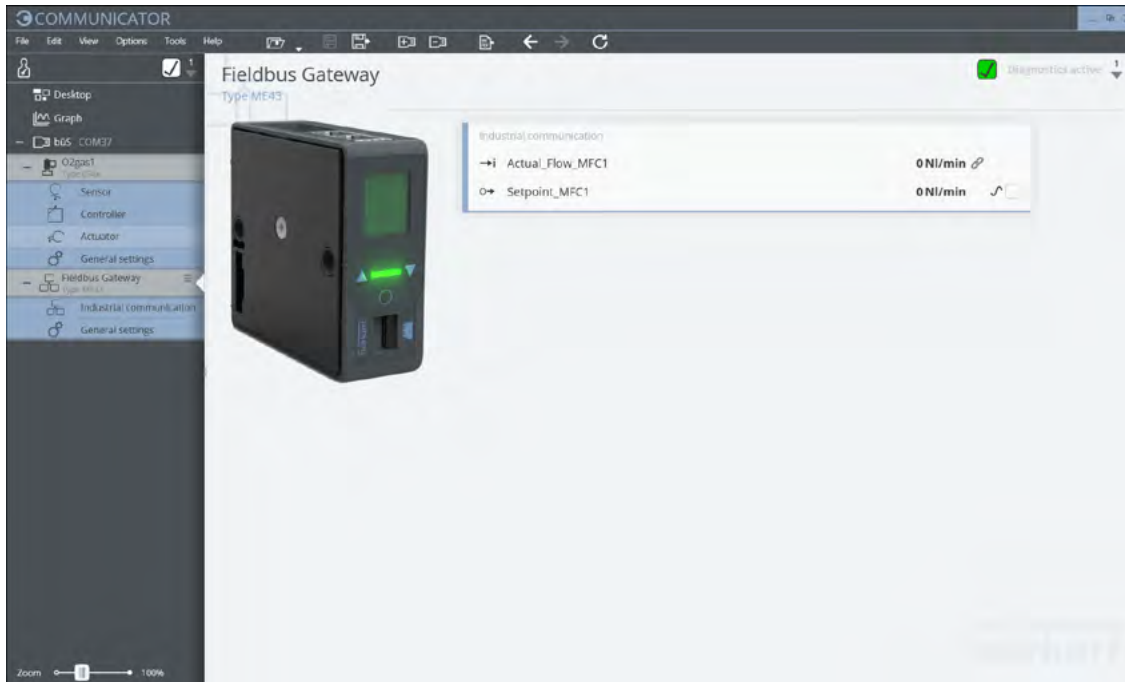
2) CANopen requires two termination resistors: one at the beginning and one at the end of the network. An indicator of the correct bus termination is the resistance between CAN_H and CAN_L when the power supply is disconnected; this should be about 60 Ohm.

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

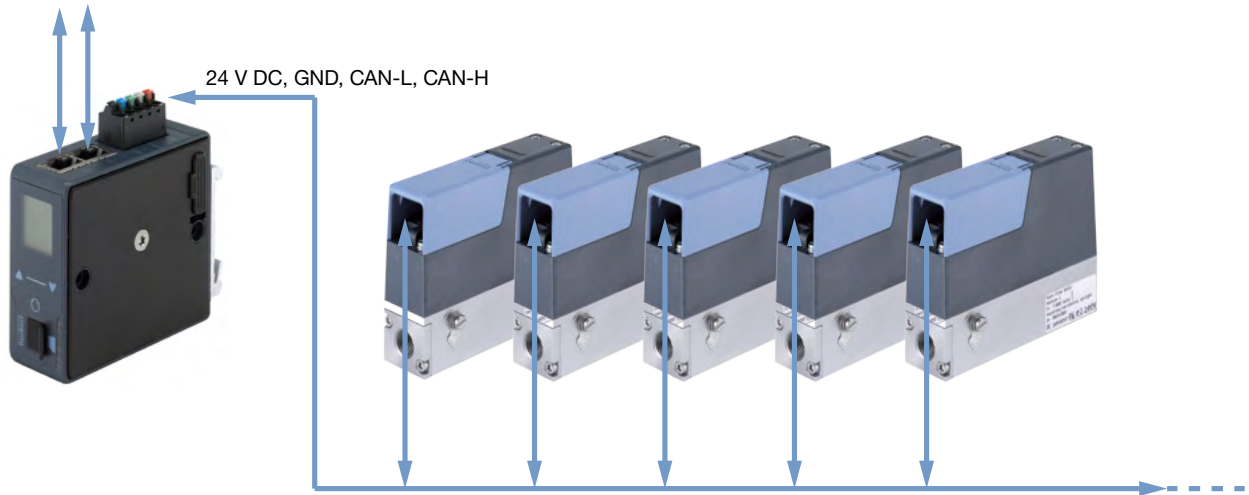


To install the software, click on the download button.

Operation in a network

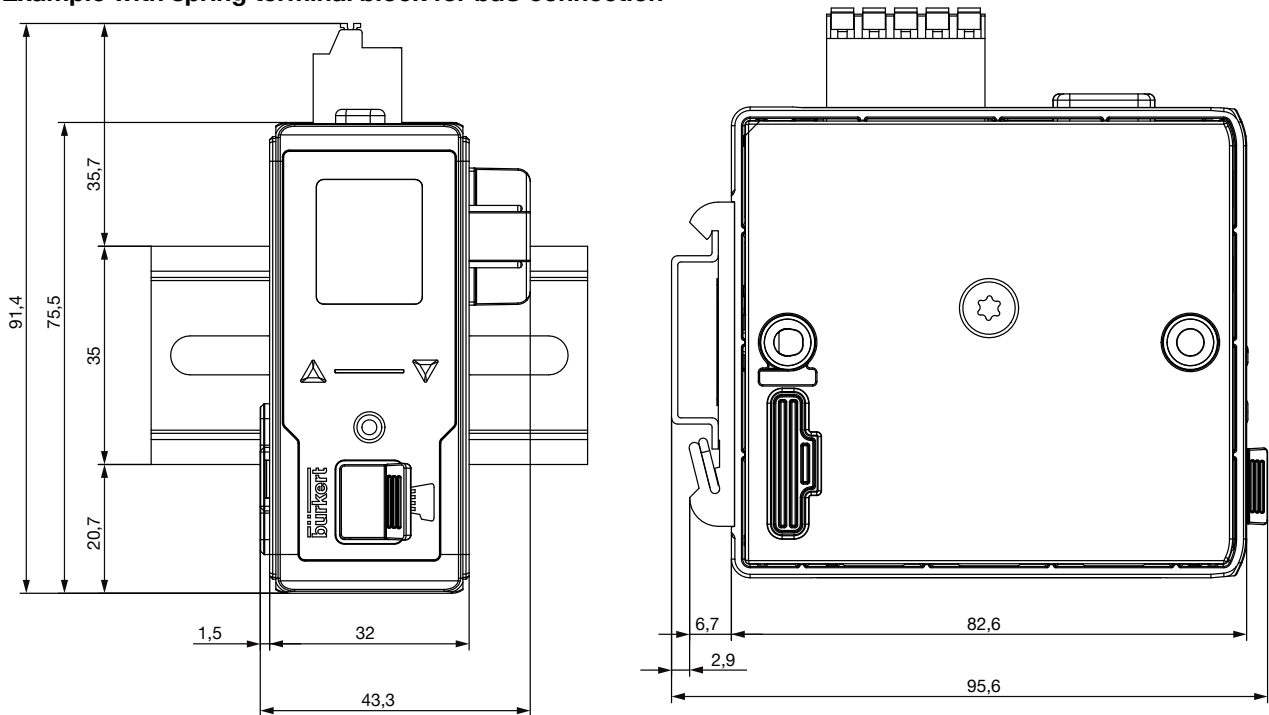
Example of a network with Gateway ME43 and MFCs

Industrial Ethernet










Dimensions [mm]

Example with spring terminal block for büS connection


























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 (bùS)	307391 	301802 
Gateway CC-Link	307394 	-

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.
bùS cable extension M12 0.1 m	772492 
bùS cable extension M12 0.2 m	772402 
bùS cable extension M12 0.5 m	772403 
bùS cable extension M12 1 m	772404 
bùS 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 bùS 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 
bùS-Stick Set 1 (incl. cable (M12)), stick with integrated termination resistor, power supply and software	772426 
bùS-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

In case of special application conditions,
please consult for advice.

Subject to alteration.
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