



BUILDING CONTROL SYSTEM

# Wildeboer-Net bus controller **BS2**



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 **WILDEBOER**

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### 1 Product overview

The BS2 bus controller is used - as a component of the overall Wildeboer-Net system - to control and monitor fire protection and ventilation components in buildings. The required modules can be selected and combined in accordance with the building and control requirements, set up as a modular and flexible system. Fire protection and ventilation components are connected in series. The individual components are parametrised using the Wildeboer-Net WiNet-SW-02 software.



- For controlling fire protection and ventilation components:
  - Fire dampers with motor-driven actuators or thermal-mechanical release equipment (TMA), fire dampers for commercial kitchens, fire protection valves, smoke protection dampers, smoke detectors, multileaf dampers with spring return actuators, fans, further sensors and actuators
- Automatic detection and commissioning of connected modules
- Operator-friendly software pre-installed on the WiNet-ZB-03 or for installation on the operating company's PC
- Straightforward integration of media, such as building plans, photos or comments for description of connected components inside a building
- Straightforward parametrisation of the system, no programming required
- Modular and flexible setup
- Comprehensive range of functions:
  - Automatic commissioning, automatic functional test, release group control, sequence control, calendar control, data recording, analysis and optimisation, storage of building plans and photos, master data management, system operation, module configuration and parametrisation, comment function, fan control, documentation

#### 1.1 Wildeboer-Net communication system

Wildeboer-Net is a communication system which comprises multiple higher-level components of WiNet. These components are used for configuration of the system, and enable communication with external systems. The system is divided up flexibly and can be used for various applications. It is split into two main controllers: the BS2 bus controller and the KS2 compact controller.

The **BS2 bus controller** is designed for decentralised installation of components. It is for applications for which long line lengths are required. The components are connected in series.

The **KS2 compact controller** is designed for centralised installation, for example, in a control cabinet. The components of this controller are connected in a star-shaped configuration.

Both controllers, the BS2 and the KS2, can be operated individually or in combination within the communication system. All functions are available throughout the entire system.

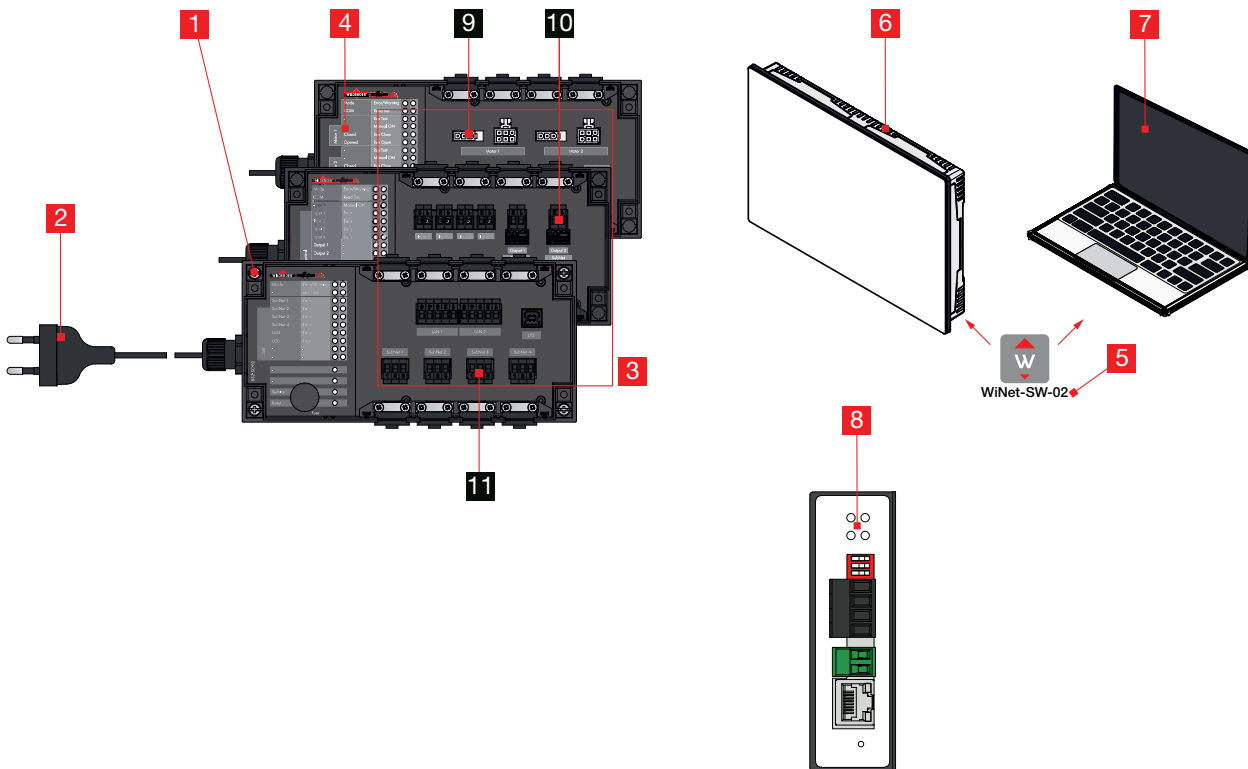


For further information on the KS2 compact controller, see ► [KS2 user manual](#)

# Product features

## BS2 bus controller

### 2 Product features



#### 1 Installation

The modules of the BS2 bus controller are designed for wall mounting, and are installed near to fire protection and ventilation components.

#### 2 Voltage supply

The modules are supplied with voltage via a connecting duct which is 1.5 m in length with Europlug, connected to a 230 V AC socket provided by the operating company. Alternatively, the Europlug on the module can be removed for a permanent connection. The operating company provides a 16 A circuit breaker as the fuse protection for up to 10 modules.

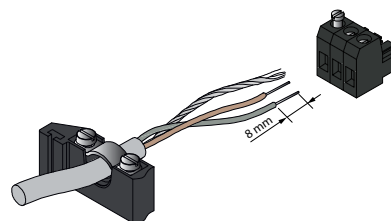
#### 3 Connection

The modules are connected to each other in the subnet using the plug-in screw terminals **11**.

They are designed for the following cables:

Shielded 120  $\Omega$  twisted pair cable

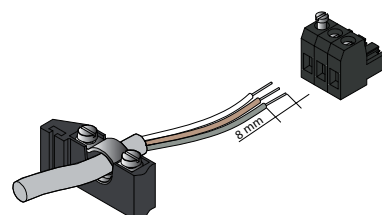
- Line cross section: 0.08 ... 2.5 mm<sup>2</sup>
- Tightening torque: 0.5 Nm
- Stripping length: min. 8 mm
- Screwdriver: 3 mm blade width (-)



The fire protection and ventilation components are connected to the modules of the BS2 using AMP plug connectors **9** or plug-in screw terminals **10**.

They are designed for the following cables:

- Line cross section: 0.08 ... 2.5 mm<sup>2</sup>
- Tightening torque: 0.5 Nm
- Stripping length: min. 8 mm
- Screwdriver: 3 mm blade width (-)



For further information on the connection options for the modules, see ► [Page 7](#).

# Product features

## BS2 bus controller

### 4 Modules

The BS2 bus controller is made up of various modules which are selected to suit the fire protection and ventilation components which are to be controlled.

For an overview and further information on the modules, see ► [Page 7](#).

### 5 Software and operation

The Wildeboer-Net WiNet-SW-02 [5](#) software is pre-installed on the WiNet-ZB-03 [6](#) or can be installed on a PC [7](#) provided by the operating company. It has an intuitive operating interface which is used for parametrisation, configuration and access to the functions of the bus controller. The user account control can be used to set up the appropriate accesses.

For further information on the functions, see ► [Page 12](#).

### 6 WiNet-ZB-03

The WiNet-ZB-03 [6](#) is equipped with the Wildeboer-Net WiNet-SW-02 [5](#) software in the factory, and is used for operation and control of the BS2 bus controller and the KS2 compact controller. Thanks to the touch screen, no further peripheral devices, such as a mouse or keyboard, are required.

For further information, see ► [Page 11](#).

### 7 Operating company's PC

The Wildeboer-Net WiNet-SW-02 [5](#) software can also be installed on a PC [7](#) provided by the operating company, which is connected to the BS2-SC-02 subnet controller via Ethernet.

Requirements for operating company's PC:

- 4 GB random access memory
- 500 MB free hard drive storage
- Ethernet interface (100 Mbit/s)
- Screen resolution at least 1920 x 1080 px
- Supported operating systems: Windows 7, Windows 8, Windows 10, Windows 11 (32 Bit or 64 Bit)
- Microsoft DotNet Framework 8 Hosting Bundle
- Supported (current) web browsers: Google Chrome, Microsoft Edge

### 8 WiNet-GW-xx gateways

Gateways [8](#) are used for communication between devices with different communication protocols. A WiNet-GW-xx gateway allows you to connect Wildeboer-Net to open communication profiles. In the process, one gateway can be used to operate different protocols simultaneously.

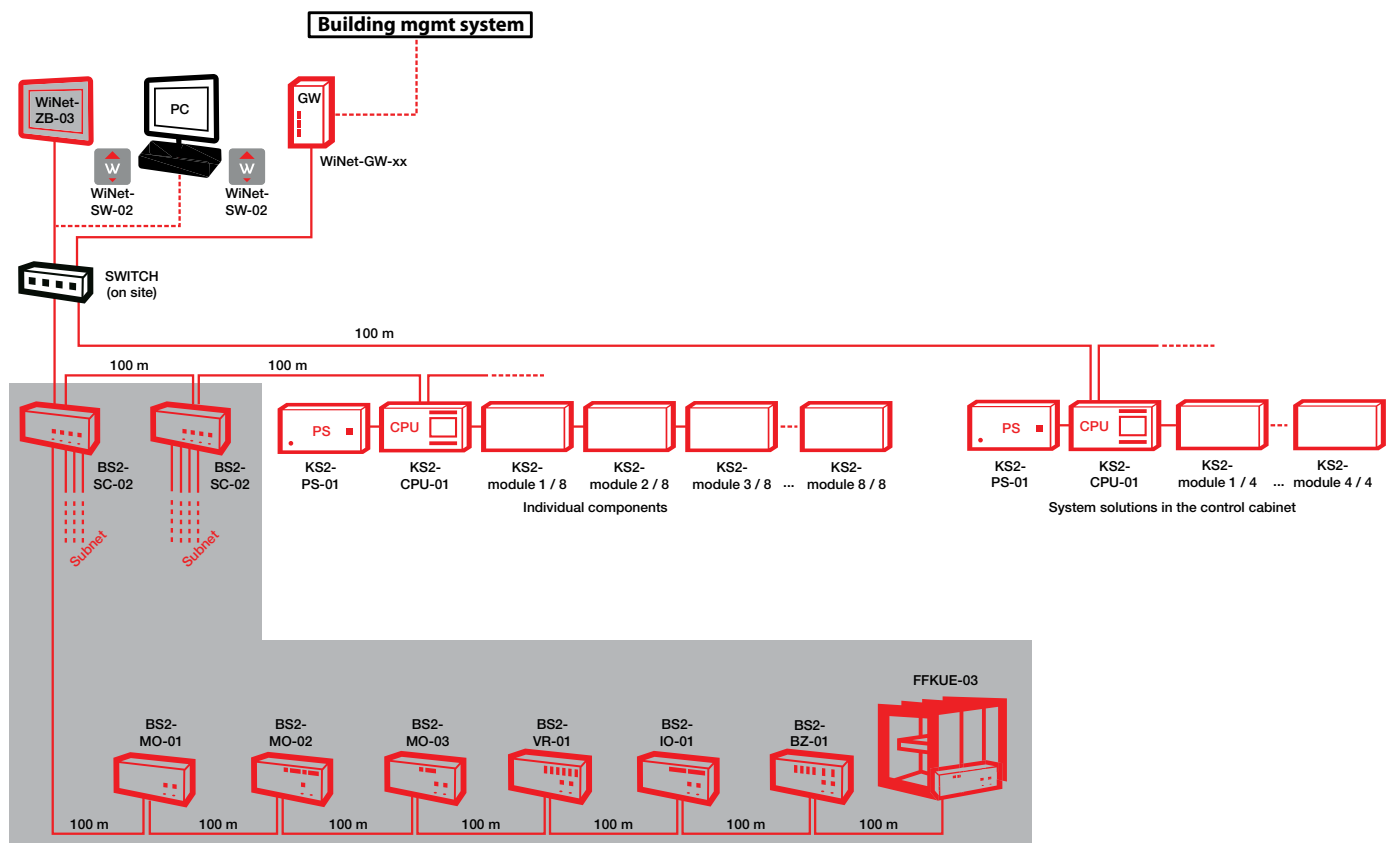
For further information on WiNet-GW-xx gateways, see ► [Page 10](#).

# System setup and topology

## BS2 bus controller

### 3 System setup and topology

A BS2 bus controller (shown with grey background) is made up of the BS2-SC-02 subnet controller and further field modules. In the process, the field modules are selected to suit the fire protection and ventilation components. The following image shows the interaction of the BS2 bus controller with the KS2 compact controller. Both control systems can be used as standalone systems or as an integrated system in Wildeboer-Net.



#### 3.1 Module overview

The following overview shows the options for connecting the fire protection and ventilation components to the BS2 modules.

Description	BS2-VR-01	SM-01	BS2-MO-xx	BS2-IO-01	BS2-BZ-01	FKKUE-03	WiNet-GW-xx
Fire dampers with spring return actuators and integrated limit switches			■				
Fire dampers with thermal-mechanical release mechanism (TMA)				■			
FK90 fire damper for commercial kitchens						■	
Smoke protection dampers with spring return actuators and integrated limit switches			■				
Multileaf dampers with spring return actuators and integrated limit switches			■				
Sensors/actuators				■ / ■	- / ■		
Building management system							■
Volume flow and pressure controller	■						
VRE1 and VKE1 volume flow controllers	■	■					
Signalling devices with line monitoring provided by the operating company					■		

### 4 System components

#### 4.1 BS2-SC-02 subnet controller

The BS2-SC-02 subnet controller controls, regulates and monitors the data communication within its four subnets, and initiates rest bus mode in the event of faults, interruptions and short circuits. It controls the exchange of operating data in its system with the higher-level management level via Ethernet, for example, with the Wildeboer-Net software or via a gateway with higher-level building control systems. When commissioning, the field modules connected to the subnets are detected and addressed automatically.



##### Connection overview

- 4 x galvanically isolated CAN bus connections
- 2 x Ethernet connections with integrated switch

#### 4.2 BS2-VR-01 volume flow and pressure controller module

The BS2-VR-01 volume flow and pressure controller module allows you to connect up to four electronic volume flow controllers and/or pressure controllers (manufactured by WILDEBOER). Existing VRE1 or VKE1 volume flow controllers can be connected using SM-01 interface modules.



##### Connection overview

- 4 x RS485/MP-Bus interface
- 4 x 24 V DC voltage supply for connected controllers

##### Implemented functions:

- Calendar control
- Graphic analysis

# System components

## BS2 bus controller

### 4.3 BS2-MO-xx motor modules

The BS2-MO-xx motor modules allow you to connect one or two fire dampers and/or smoke protection dampers with electrical 24 V spring return actuator, integrated limit switch and thermal-electric release for fire dampers. The three modules differ in their connections.



#### Connection overview

- BS2-MO-01: for AMP plug of the fire dampers
- BS2-MO-02: for duct connections with plug-in screw terminals
- BS2-MO-03: for AMP connector of a fire damper and with plug-in screw terminals for the second fire damper or smoke protection damper

#### Implemented functions:

- Release group control
- Functional tests with graphic analysis
- Calendar control

### 4.4 BS2-IO-01 IO module

The BS2-IO-01 IO module allows you to connect external sensors and actuators.



#### Connection overview

- 8 x galvanically isolated inputs
- 8 x galvanically isolated outputs
- 1 x 24 V DC voltage supply for inputs
- 1 x 24 V DC voltage supply for outputs

#### Implemented functions:

- Release group control
- Calendar control

### 4.5 BS2-BZ-01 BMZ module

The BS2-BZ-01 BMZ module allows you to connect the operating company's signalling devices to Wildeboer-Net via four inputs for floating contacts and two floating outputs. The module monitors the lines connected to the inputs for faults. All actuations and functions can be remote-controlled or manually controlled using the BMZ module's push buttons.



#### Connection overview

- 4 x input for floating contacts
- 2 x floating outputs (2 ... 30 V DC/10  $\mu$ A ... 2 A)

#### Implemented functions:

- Release group control
- Calendar control



### 4.6 FKKUE-03 control unit

The FKKUE-03 control unit allows you to connect the FK90 fire damper for commercial kitchens to Wildeboer-Net. The control unit is installed on the fire damper in the factory and supplied that way, or it can be retrofitted.



#### Connection overview

- 3 x AMP plug connection for FK90 fire damper for commercial kitchens

#### Implemented functions:

- Release group control
- Functional tests
- Calendar control
- Graphic analysis

### 4.7 SM-01 interface module

The SM-01 interface module allows you to connect a VRE1 or VKE1 volume flow controller to the BS2-VR-01 volume flow controller and pressure controller module.



#### Connection overview

- 1 x RS485 interface
- 1 x 24 V DC voltage supply for connected controllers

### 4.8 AB-01 connection box

The AB-01 connection box allows you to connect 24 V spring return actuators with AMP plugs, and is used together with the BS2-MO-02 and BS2-MO-03. The line connection is made by the operating company using plug-in screw terminals.



#### Connection overview

- 2 x AMP plug connection for fire damper
- 2 x plug-in screw terminal for operating company's line connection

4.9 WiNet-GW-xx gateways

Gateways are used for communication between devices with different communication protocols. A WiNet-GW gateway allows you to connect Wildeboer-Net to open communication profiles. In the process, one gateway can be used to operate different protocols simultaneously.



WiNet-GW-01 gateway  
WiNet-GW-02 gateway  
for BACnet, Modbus and  
OPC Server DA 2.0



WiNet-GW-03 gateway  
WiNet-GW-04 gateway  
for BACnet, Modbus,  
OPC Server DA 2.0 and LON



WiNet-GW-05 gateway  
WiNet-GW-06 gateway  
for BACnet, Modbus,  
OPC Server DA 2.0 and KNX

Supported communication protocols

Protocol	Gateway					
	WiNet-GW-01	WiNet-GW-02	WiNet-GW-03	WiNet-GW-04	WiNet-GW-05	WiNet-GW-06
BACnet MS/TP <sup>1)</sup>	■	■	■	■	■	■
BACnet IP	■	■	■	■	■	■
Modbus/serial (ASCII & RTU) <sup>1)</sup>	■	■	■	■	■	■
Modbus/IP	■	■	■	■	■	■
OPC Server DA 2.0	■	■	■	■	■	■
LON			■	■		
KNX/TP					■	■
Data points	200	1100	200	1100	200	1100
An update to 2500 data points is possible.						

1) not possible simultaneously

Data points

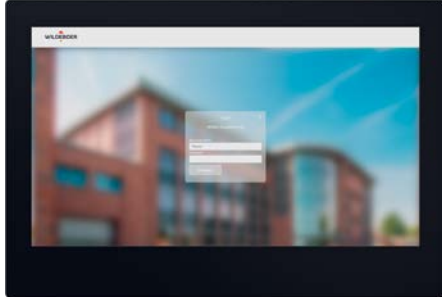
The exchange via the communication protocols is performed using data points. In the process, a data point comprises an address and additional metadata which is sent into a communication protocol.

# System solutions in the control cabinet

## BS2 bus controller

### 4.10 WiNet-ZB-03 central operating unit

The central operating unit is an industrial PC with multi-touch glass display screen for installation in a control cabinet front. Microsoft Windows 10 IoT and the Wildeboer-Net WiNet-SW-02 software are pre-installed.



#### Technical features:

- Shock- and vibration-resistant display screen, thermally stable, LED background lighting, display format 16:9
- Wildeboer-Net WiNet-SW-02 software for parametrisation and operation
- Voltage supply 230 V AC with 24 V DC power unit
- Dimensions (b x h x t): 392 x 266 x 77 mm

### 4.11 WiNet-AP-01 support during commissioning and system parametrisation

Our Customer Service department can provide supporting instructions for operation of the software and the system for commissioning. This includes, for example, instructions on generating texts, functional tests, calendar controls and release groups.

Contact us for further details.

## 5 System solutions in the control cabinet

### 5.1 WiNet control cabinet ZB-03

The central operating unit is an industrial PC with multi-touch glass display screen and is installed in an IP65 control cabinet front. Microsoft Windows 10 IoT and the Wildeboer-Net WiNet-SW-02 software are pre-installed.



#### Technical features:

- Control cabinet with WiNet-ZB-03 central operating unit
- Wildeboer-Net WiNet-SW-02 software for parametrisation and operation
- Voltage supply 230 V AC
- Dimensions (b x h x t): 600 x 400 x 200 mm
- Protection rating IP65

6 Scope of functions

6.1 Release group control

In order to guarantee the internal sealing of a building in the event of a fire, further fire dampers often have to close when a fire damper or a smoke detector is released. For this purpose, release groups are defined with which complex control scenarios can be represented with little effort. Release groups are parametrised and transferred to the modules using the Wildeboer-Net software in the form of a release group matrix. In the process, it is possible to differentiate between alarm senders and alarm receivers. Release groups can be formed to be universal for all modules within the Wildeboer-Net system. In the process, all inputs and outputs of the modules can be used.

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AUSLÖSEGRUPPEN

Hallo Master!

?

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INBETRIEBNAHME & ANPASSUNG

INFORMATIONEN & STATUS

KONFIGURATION & ÜBERTRAGUNG

Auslösegruppen

Funktionsprüfungen

Busadresse	↑	Typ	Kurzbezeichnung	AG-001
		Brandschutzklappe ...		<input type="checkbox"/> Alle auswählen
1.5.2.5		Rauchmelder	Rauchmelder 1	<input type="checkbox"/>
1.5.2.6		Rauchmelder	Rauchmelder 2	<input checked="" type="checkbox"/>
1.5.4.3		Brandschutzklappe	Brandschutzklappe 1	<input type="checkbox"/>
1.5.4.31		Brandschutzklappe	Brandschutzklappe 6	<input checked="" type="checkbox"/>

6.2 Functional tests

A remote-controlled functional test is a reliable manner of testing and recording whether the CLOSED and OPEN positions of a motor-operated fire damper are reached. The results of the functional test are saved reliably and permanently on the modules and, after download, in the Wildeboer-Net software.

The functional test can be performed for all fire dampers simultaneously, but also in groups and individually. Regardless of the number of dampers, this is completed within a few minutes.

Functional tests can be scheduled in a straightforward manner using a timetable calendar. They are started automatically at the defined scheduled time. In the process, the fan activation (see ▶ [Page 14](#)) can be used to shut off the fan.

Furthermore, functional tests can be started manually at any time. This way, you can check both that the fire damper is connected properly to the motor module and that the fire damper is fully functional directly after installation on site.

The runtimes of the connected fire dampers, multileaf dampers or smoke protection dampers are recorded. For evaluation, a table view which includes all dampers, and a graphic analysis for individual dampers are available. Required repair measures can thus be detected and arranged in good time. For documentation purposes, you have the option of exporting the data to Excel.



# Scope of functions

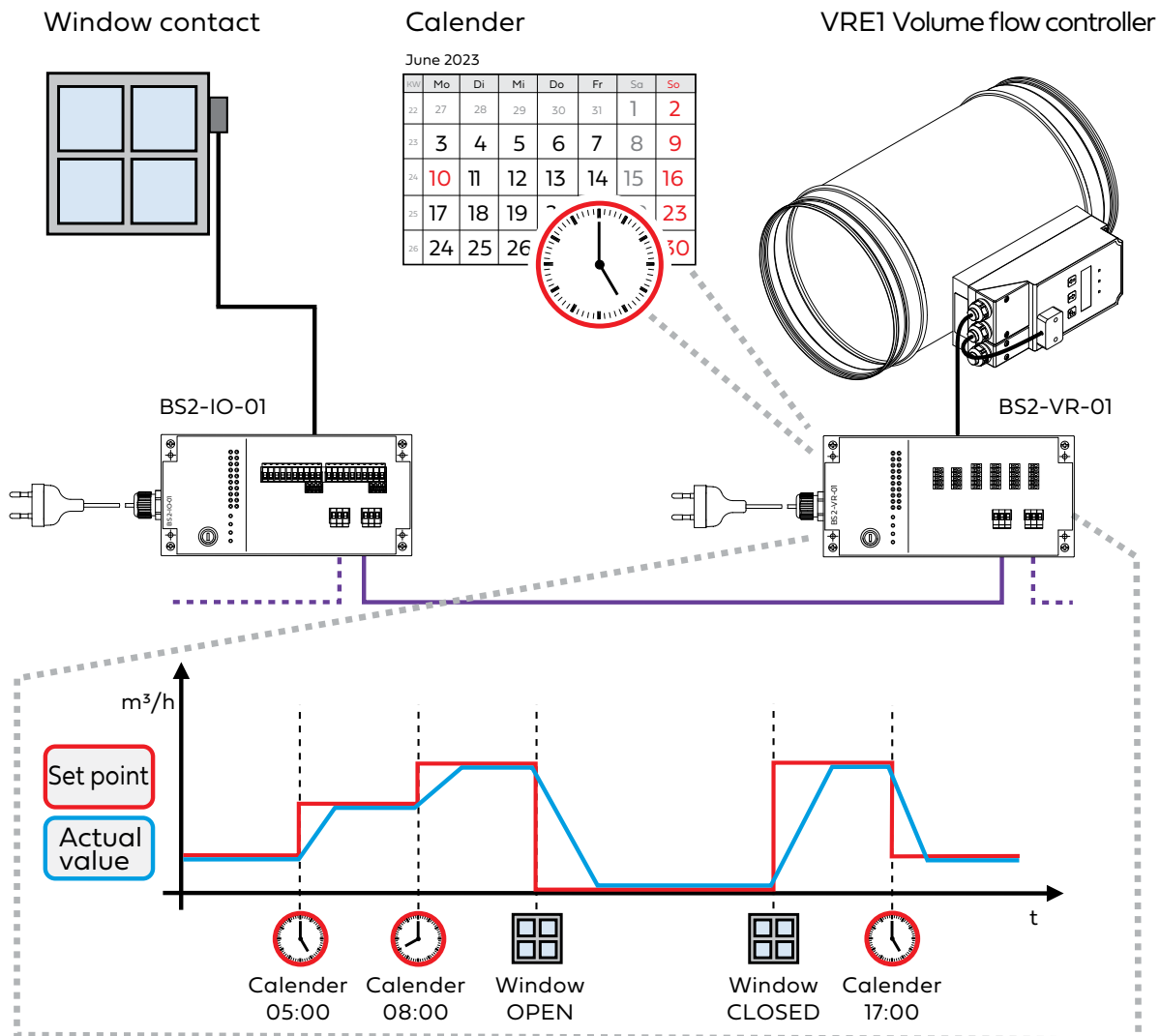
## BS2 bus controller

### 6.3 Calendar control

The calendar control enables the automatic execution of product-specific actions at defined points in time or at fixed intervals.

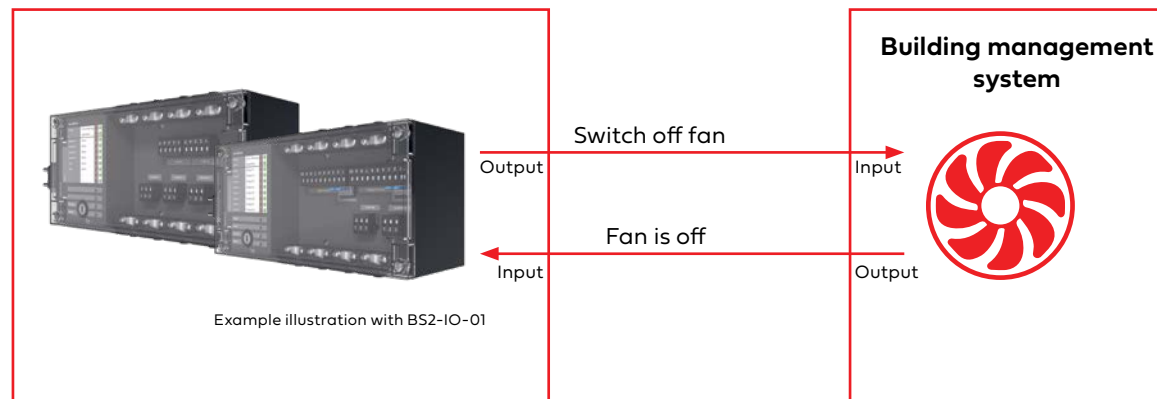
For example, fire dampers and smoke protection dampers (via motor module) or the fire damper for commercial kitchens (via FKKUE-03 control unit) can be closed at the end of operation and opened at the beginning of operation, and ventilation fans can be switched on or off (VdS guideline 2038). That way, the individual components in the building can be adapted to the times of operation and use in a straightforward manner.

The volume flow and pressure controller module can be used to open and close the connected controllers at defined points in time or to control their set points. That way, the requirement of the GEG (German Buildings Energy Act) for a setup for automatic control of the flow rates in accordance with time can be met.



### 6.4 Fan activation

A parametrisable fan shut-off for functional tests is integrated into Wildeboer-Net. It is used when, for system reasons, it is necessary to shut off the fan before and during the implementation of a functional test. An output of the system is used to shut off the fan as soon as a functional test is to be performed for one or more of the fire dampers assigned to the fan. A functional test is not started until feedback is received via an input of the system indicating that the fan has been shut off.



### 7 Technical data

Technical data	Parameter
Min. ... max. temperature range	0 ... 70 °C
Relative humidity	95 %, non-condensing
Protection rating	IP40: BS2 modules, WiNet-GW-xx IP65: KS2 control cabinet ZB-03 IP20: WiNet-ZB-03 (front: IP65)
Protection class	Class II
Voltage supply	88 ... 265 V AC, 47 ... 63 Hz, with Europlug and 1.5 m connecting duct
Fuse	T 2.5 A, 250 V, switching capacity: "H" (5 x 20 mm)
Power consumption	P = 25.8 W, S = 46.6 VA
Screw terminals	Plug-in Permitted conductor cross-section 0.08 ... 2.5 mm <sup>2</sup> SEV tightening torque: 0.5 Nm Stripping length: min. 8 mm Screwdriver: 3 mm blade width



For further information and technical data, see the installation and operating instructions.

### 8 Specification text

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The BS2 bus controller is used - as a component of the Wildeboer-Net communication system - to control fire protection and ventilation components in buildings.

Communication system for control and monitoring of fire dampers and smoke protection dampers and volume flow and pressure controllers (manufactured by Wildeboer) of the ventilation and air conditioning system.

Operation, visualisation and parametrisation of all functions is performed from a central point using ready-for-operation software. The software is pre-installed on the central operating unit. Alternatively, it can also be installed on a PC provided by the operating company. Continuous logging of operating data in the software and on the field modules even in the event of a power failure. Connection to building management system using gateways for BACnet, Modbus, LON, KNX or OPC. Software, gateways and subnet controllers communicate with each other via Ethernet. Up to 32 subnet controllers can be connected via Ethernet. Each controller operates up to four subnets. Up to 32 field modules can be connected per subnet. Line lengths per subnet of up to 3200 m, between the modules up to 100 m, operationally reliable data transfer via CAN bus in the subnets, galvanically isolated partial segments between the individual field modules and to the subnet controller. Faults on the subnets are diagnosed automatically, narrowed down to the partial segment or module, and displayed. In the event of faults, rest bus mode is used. After eradicating the fault, bus operation continues automatically.

Field modules and subnet controllers are ready for connection for 230 V AC mains voltage without additional power units.

Fast commissioning with automatic addressing of field modules, partial commissioning during the construction phases can also be implemented. Simple upgrade of the system without programming. Automatic restoration after module replacement.

Comment function for description and identification of connected field modules and field devices, and integration of building plans for orientation in the building. The information is recorded separately for each field module and for each field device. In addition, existing identification codes in accordance with the system identification code (SID) system can be applied. The saved comments or the identification codes can optionally be applied in the EDE files generated automatically for the gateways.

Controller for implementation of requirements for cold smoke safety and of the stipulated functional tests for fire dampers and smoke protection dampers:

Sequence controls for generating control links for fire dampers and smoke protection dampers to sensors and actuators. That way, for example, fan activations can be implemented using IO modules. Straightforward parametrisation of the fan activation using a matrix.

Release group controls for increasing cold smoke safety and fire protection by integrating fire dampers and smoke protection dampers into release groups together with volume flow and pressure controllers, sensors and actuators using IO modules. Subscribers of a release group can be all field modules under a subnet controller. The field modules within the release group monitor each other mutually using a heart beat signal. Straightforward parametrisation of the release group using a matrix.

Calendar controls for scheduled opening and closing of fire dampers and smoke protection dampers adapted to the operating times of the building and for implementation of regular functional tests of the fire dampers. Straightforward generation of calendar entries using a timetable calendar assistant.

Functional tests for fire dampers within a few minutes for all dampers simultaneously, in groups or individually. The test begins automatically as scheduled, manually as scheduled or simply manually. Continuous logging of the results of the functional tests and the scheduled manual tests which are not performed. An export function is available for the results. The fire dampers can also be operated using the modules without prior commissioning of the overall system, including carrying out functional tests with logging of the results. Graphic trend analysis for identifying changes when carrying out functional tests on the fire dampers.

As "1-to-1 test" of the scheduled connection of the fire dampers, a ping function can be carried out by a single person.

Field modules for fire dampers and smoke protection dampers supply them with 24 V DC operating voltage. Field modules for external sensors and actuators can supply them with 24 V DC voltage. Alternatively, a 24 V DC voltage supply (provided by the operating company) for sensors and actuators can be connected using the module.

Needs-based control of a ventilation and air conditioning system in accordance with time settings and thermal and material loads:



# Specification text

## BS2 bus controller

Sequence controls for implementing needs-based set point settings for volume flow and pressure controllers in accordance with the thermal and material loads (motion sensor, CO<sub>2</sub> switch) and master-slave controls.

Calendar controls for implementing needs-based set point settings for volume flow and pressure controllers, adapted to the operating times of the building. Straightforward generation of calendar entries using a timetable calendar assistant.

Graphic analysis of any number of set points and actual values of the volume flow and pressure controllers. Continuous recording of data. Parameters which can be pre-configured in the factory are applied automatically by the volume flow and pressure controllers. Field modules for electronic volume flow and pressure controllers supply them with 24 V DC operating voltage. Field modules for external sensors and actuators can supply them with 24 V DC voltage. Alternatively, a 24 V DC voltage supply (provided by the operating company) for sensors and actuators can be connected using the module.

**Accordingly comprising:**

Wildeboer-Net software for installation on a PC provided by the operating company as operating interface for visualisation of the operating and diagnostics data collected in the field. For parametrisation and control of connected modules.

..... pcs. WiNet-SW-02 deliver: .....  
Manufacturer: WILDEBOER install: ..... .....

Central operating unit with multi-touch glass display screen for front installation in control cabinets with IP65 front. Mains connection via power adapter to 230 V AC. Fully pre-installed with the operating system and with the Wildeboer-Net WiNet-SW-02 software for data communication with subnet controllers via Ethernet. For visualisation of the operating and diagnostics data saved on the modules and control and parametrisation of the field modules.

..... pcs. WiNet-ZB-03 deliver: .....  
Manufacturer: WILDEBOER install: ..... .....

Control cabinet with fully functional, wired ZB-03 central operating unit with multi-touch glass display screen. Fully pre-installed with the operating system and with the Wildeboer-Net WiNet-SW-02 software for data communication with subnet controllers via Ethernet. For visualisation of the operating and diagnostics data saved on the modules and control and parametrisation of the field modules. Mains voltage 230 V AC. Protection rating IP65.

..... pcs. WiNet ZB-03 control cabinet deliver: .....  
Manufacturer: WILDEBOER install: ..... .....

Gateway for implementation of Wildeboer-Net on BACnet/IP, Modbus/series, Modbus/TCP or OPC Server DA 2.0. The project planning of the up to 200 data points and the generation of an EDE file is performed using the Wildeboer-Net software.

..... pcs. WiNet-GW-01 deliver: .....  
Manufacturer: WILDEBOER install: ..... .....

# Specification text

## BS2 bus controller

Gateway for implementation of Wildeboer-Net on BACnet/IP, Modbus/series, Modbus/TCP or OPC Server DA 2.0. The project planning of the up to 1100 data points and the generation of an EDE file is performed using the Wildeboer-Net software.

..... pcs. WiNet-GW-02 deliver: .....  
Manufacturer: WILDEBOER install: ..... .....

Gateway for implementation of Wildeboer-Net on BACnet/IP, Modbus/series, Modbus/TCP, OPC Server DA 2.0 or LON. The project planning of the up to 200 data points and the generation of an EDE file is performed using the Wildeboer-Net software.

..... pcs. WiNet-GW-03 deliver: .....  
Manufacturer: WILDEBOER install: ..... .....

Gateway for implementation of Wildeboer-Net on BACnet/IP, Modbus/series, Modbus/TCP, OPC Server DA 2.0 or LON. The project planning of the up to 1100 data points and the generation of an EDE file is performed using the Wildeboer-Net software.

..... pcs. WiNet-GW-04 deliver: .....  
Manufacturer: WILDEBOER install: ..... .....

Gateway for implementation of Wildeboer-Net on BACnet/IP, Modbus/series, Modbus/TCP, OPC Server DA 2.0 or KNX/TP. The project planning of the up to 200 data points and the generation of an EDE file is performed using the Wildeboer-Net software.

..... pcs. WiNet-GW-05 deliver: .....  
Manufacturer: WILDEBOER install: ..... .....

Gateway for implementation of Wildeboer-Net on BACnet/IP, Modbus/series, Modbus/TCP, OPC Server DA 2.0 or KNX/TP. The project planning of the up to 1100 data points and the generation of an EDE file is performed using the Wildeboer-Net software.

..... pcs. WiNet-GW-06 deliver: .....  
Manufacturer: WILDEBOER install: ..... .....

Subnet controller for initialisation and operation of up to four subnets for a total of 128 field modules. Mains connection 230 V AC, with Europlug and 1.5-m connecting duct. Galvanically isolated bus connections. Ethernet connection with integrated 2-way switch for connection of the operating unit, for system upgrade to include further subnet controllers and connection to building management system via gateway. Bus and Ethernet connections with plug-in screw terminals. LEDs for diagnostics. Plastic casing IP40.

..... pcs. BS2- SC-02 deliver: .....  
Manufacturer: WILDEBOER install: ..... .....

# Specification text

## BS2 bus controller

Volume flow and pressure controller module for connection of up to four electronic volume flow controllers and/or pressure controllers (manufactured by WILDEBOER). 24 V DC voltage supply for the controllers via integrated power unit. Communication between module and controller via RS485 or MP-Bus. Connection of controllers via spring terminals. Mains connection 230 V AC, with Europlug and 1.5-m connecting duct. Galvanically isolated bus connections with plug-in screw terminals. LEDs for diagnostics. Plastic casing IP40.

..... pcs. BS2-VR-01	deliver:	.....
Manufacturer: WILDEBOER	install:	.....

IO module with eight galvanically isolated inputs and eight galvanically isolated outputs for connection of external sensors and actuators using plug-in screw terminals. Use for circuit-entering, forwarding alarm messages, switching fans etc. Mains connection 230 V AC, with Europlug and 1.5-m connecting duct. Galvanically isolated bus connections with plug-in screw terminals. Manual operation using push-buttons, LEDs for diagnostics. Plastic casing IP40.

..... pcs. BS2-IO-01	deliver:	.....
Manufacturer: WILDEBOER	install:	.....

Motor modules for up to two fire dampers and/or smoke protection dampers with electric spring return actuator 24 V DC, integrated limit switches for the operating positions OPEN/CLOSED and with thermal-electric release for fire dampers. Mains connection 230 V AC, with Europlug and 1.5-m connecting duct. Galvanically isolated bus connections with plug-in screw terminals. Manual operation of connected dampers using push-buttons, LEDs for diagnostics. Dampers can also be operated using the modules without prior commissioning of the overall system, including carrying out functional tests with logging of the results. Plastic casing IP40.

..... pcs. BS2-MO-01 with AMP plug connector	deliver:	.....
for both dampers	install:	.....
..... pcs. BS2-MO-02 with plug-in screw terminals	deliver:	.....
for both dampers	install:	.....
..... pcs. BS2-MO-03 with AMP plug connector and	deliver:	.....
plug-in screw terminals	install:	.....
Manufacturer: WILDEBOER		

BMZ module for connection of operating company's signalling devices. Two floating outputs and four inputs for floating contacts with plug-in screw terminals. Lines connected to the inputs are monitored for faults. Mains connection 230 V AC, with Europlug and 1.5-m connecting duct. Galvanically isolated bus connections with plug-in screw terminals. Manual operation using push-buttons, LEDs for diagnostics. Plastic casing IP40.

..... pcs. BS2-BZ-01	deliver:	.....
Manufacturer: WILDEBOER	install:	.....

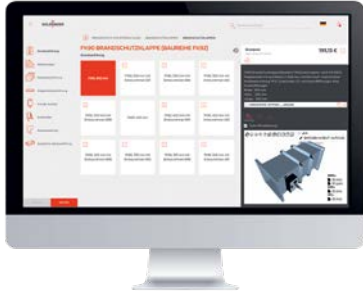
# Specification text

## BS2 bus controller

Interface module for connection of an electronic VRE1 or VKE1 volume flow controller to a volume flow and pressure controller module. Plastic housing IP54 in conjunction with the actuator housing of the volume flow controller.			
.....	pcs. SM-01	deliver:	.....
	Manufacturer: WILDEBOER	install:	..... ..
Connection box for 24 V spring return actuator with AMP plug connector on the connecting ducts for forwarding via plug-in screw terminals to an operating company's line. Plastic casing IP40.			
.....	pcs. AB-01	deliver:	.....
	Manufacturer: WILDEBOER	install:	..... ..
Support for commissioning and system parametrisation of Wildeboer-Net.			
.....	pcs. WiNet-AP-01	deliver:	.....
	Manufacturer: WILDEBOER	install:	..... ..

### 9 Wildeboer makes it easy

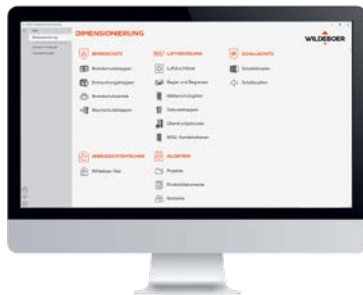
#### 9.1 Wildeboer Connect



- High-performance configurator with customer-specific net prices
- Quick, intuitive product configuration of Wildeboer products
- Access to prices and unique version keys for ordering products
- Easy calculation of operating point data for configured products
- Interface to Autodesk Revit and AutoCAD for transferring CAD geometries
- Download of CAD data, data sheets, specification texts and further product documents in common data formats
- Transparent real-time order tracking
- Detailed order information
- Access to order documents
- Access to shipment tracking



#### 9.2 WiDim dimensioning software



- Functional, modern and intuitive dimensioning of Wildeboer products
- Conveniently collect operating point data, 3D product views, suitable accessories and current revision documents in a single project
- Project can be output in various formats
- A GAEB interface and an interface based on VDI 3805 facilitate a continuous planning process



#### 9.3 Documents online



- Paperless and environmentally friendly online access to Wildeboer documents
- All documents in one central location and always up to date
- Supporting interactive formats and content



#### 9.4 Wildeboer-Net assistant



- Issuing of SID codes, brief comments and further information for connected field devices.
- Storing of images of installation scenarios and scanning and saving the option barcodes.
- Import of recorded data to the Wildeboer-Net WiNet-SW-02 software and synchronisation with the integrated ping list.

IOS



Android



[illegible]

## This image shows a full page of blank graph paper. The grid consists of small, equal-sized squares formed by thin black lines. There are no margins, text, or other markings on the page.

# Always there for you

Locations & contact

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## WILDEBOER

## WILDEBOER

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