Control panels
Type BE-SEG

For EASYLAB fume cupboard controllers and FMS monitoring systems

Control panels to be used for displaying operating values, activating functions and signalling operating states

- Signalling of the safety-related functions of fume cupboards according to EN 14175
- Display of actual values, setpoint values and status messages
- OLED display for face velocity, volume flow rate and system information
- Push buttons for the operating mode default setting and for specific functions
- Project-specific range of functions with configurable push buttons
- Two control panels can be used simultaneously for each fume cupboard controller
- Integral service socket for configuration and diagnosis
- Casing suitable for flush mounting or surface mounting to the fume cupboard side frame

Optional equipment and accessories
- Two construction variants with different ranges of functions
- Indication of power supply failure for fume cupboard controllers with expansion module EM-TRF-USV
- Wireless communication with Bluetooth module BlueCON

Service socket for controller configuration

Application

Application
–   Control panels Type BE-SEG for displaying and operating the aerodynamic functions of fume cupboards
–   Status display to EN 14175
–   Optical and acoustic alarms
–   Operating mode default setting
–   Operation of fume cupboard lighting
–   Connection to fume cupboard controller EASYLAB TCU3 and to fume cupboard monitoring system FMS

BE-SEG-02
–   Display of actual values, setpoint values and operating states
–   Operation of automatic sash devices

Special characteristics

–   Optical and acoustic signalling of the safety-related functions of fume cupboards according to EN 14175
–   Large three-colour status display
–   Push buttons and functions can be configured individually
–   Easy to use – available function buttons are visible, unavailable function buttons are not visible
–   Excellent operating reliability as a result of continuous self monitoring of the communication between controller and control panel
–   Two control panels can be used for each fume cupboard controller (BE-SEG-02 only) or monitoring system, e.g. for fume cupboards with sash windows on two sides

Description

Variants
–   BE-SEG-02: Control panel for fume cupboard control and monitoring
–   BE-SEG-03: Control panel for fume cupboard monitoring

Parts and characteristics
–   OLED display (BE-SEG-02 only)
–   Three-colour status display (green, yellow, red) with text HIGH and LOW
–   Sash monitoring warning display
–   BE-SEG-02: 8 function button fields, can be individually activated
–   BE-SEG-03: 4 function button fields, can be individually activated
–   Alarm sounder
–   Connector for EASYLAB controller or monitoring system
–   Integral service socket for the configuration and diagnosis of the controller or monitoring system
–   Wireless communication with Bluetooth module BlueCON
–   5 m connecting cable

–   Rectangular casing suitable for flush mounting or surface mounting

Useful additions
–   EasyConnect: Configuration software for the commissioning and diagnosis of EASYLAB components
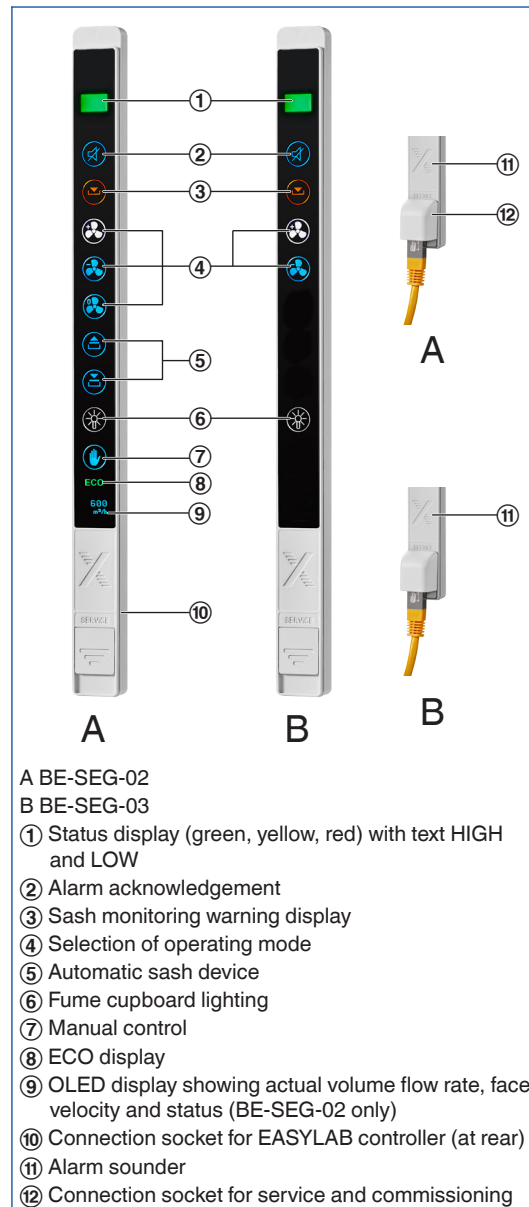
Construction features
–   Oblong display suitable for flush mounting or surface mounting to the fume cupboard side frame
–   Surface mounting by screw fixing the casing to the side frame
–   Flush mounting by clip fixing or by gluing the display to the side frame (without casing)

Materials and surfaces
–   Casing in ABS plastic
–   Casing: light grey (RAL 7035)
–   Front plastic: black, glossy

EASYLAB control panel BE-SEG-02/03, display and control elements

A BE-SEG-02
B BE-SEG-03
① Status display (green, yellow, red) with text HIGH and LOW
② Alarm acknowledgement
③ Sash monitoring warning display
④ Selection of operating mode
⑤ Automatic sash device
⑥ Fume cupboard lighting
⑦ Manual control
⑧ ECO display
⑨ OLED display showing actual volume flow rate, face velocity and status (BE-SEG-02 only)
⑩ Connection socket for EASYLAB controller (at rear)
⑪ Alarm sounder
⑫ Connection socket for service and commissioning

The Type BE-SEG-02 and BE-SEG-03 control panels are used to display and control the most critical aerodynamic and safety-related functions of a fume cupboard. Users obtain information regarding the condition of the fume cupboard and can set various operating modes. The individual display elements and controls are as follows:

BE-SEG-02
– Three-colour status display
– Warning display
– OLED display
– Alarm sounder
– 8 function button fields: 1 acoustic alarm acknowledgement, 3 operating mode buttons, 2 buttons for the automatic sash device, 1 button for the fume cupboard lighting, 1 button for manual control
– Service socket

– ECO display

BE-SEG-03
– Three-colour status display
– Warning display
– Alarm sounder
– 4 function button fields: 1 acoustic alarm acknowledgement, 2 operating mode buttons, 1 button for the fume cupboard lighting

The range of functions of the control panel can be adapted to project-specific requirements using the EasyConnect configuration software. The range of functions may vary for different fume cupboards. The function button fields are used for display and for operation. The available functions are highlighted in blue.
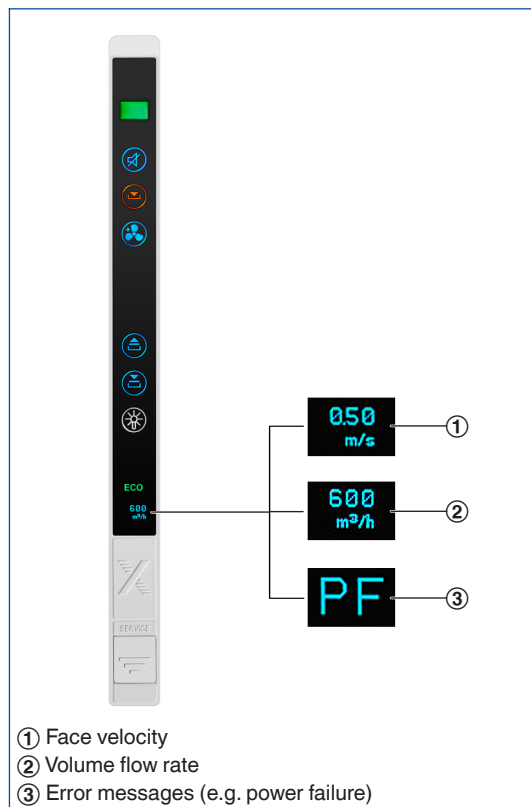A required function can be selected by pressing the corresponding button.

– Selecting an operating mode
– Automatic sash device
– Fume cupboard lighting on/off
The selected, active function is highlighted in white.

The OLED display (BE-SEG-02 only) shows system messages or, if enabled, the actual face velocity or volume flow rate.

BE-SEG-02, typical configuration and display example

① Face velocity
② Volume flow rate
③ Error messages (e.g. power failure)

Supply voltage	24 V DC from the controller TCU3
Connecting cable	Approx. 5 m standard network patch cable, SF-UTP, extendable to 40 m
Operating temperature	0 – 50 °C
IEC protection class	III (protective extra-low voltage)
Protection level	IP 41 for surface mounting, IP 42 for flush mounting
Dimensions	23 × 306.4 × 6.4 (without wire clamping bracket)
EC conformity	EMC according to 2004/108/EC
Weight	0.130 kg

Fume cupboard control panels with adaptable status display for the EASYLAB system, used to display and set the most critical aerodynamic and safety-related functions of an EASYLAB fume cupboard controller. The control panel includes an OLED display, function buttons, a three-colour status display, an alarm sounder and a service socket.
Casing suitable for flush mounting or surface mounting to the fume cupboard side frame.

Functions
– Configurable, optical and acoustic signalling of the safety-related functions
– Large three-colour status display; green, yellow or red with text LOW or HIGH (red: either blinking or permanent)
– Continuous self monitoring of the communication between controller and control panel
– Integral service socket for configuration and diagnosis
– Wireless communication with Bluetooth module BlueCON
– Two control panels can be connected simultaneously to a controller or a monitoring system
– OLED display of face velocity, volume flow rate and system information
– ECO display

Configurable functions
– Available (configured) function buttons are visible
– Unavailable function buttons are not visible

Function buttons that can be activated
– Warning display that the 'maximum operational sash opening' has been exceeded
– Increased volume flow
– Reduced volume flow
– Shut-off mode
– Automatic sash device

– Fume cupboard lighting
– Manual mode (override operating mode default setting)

Special characteristics
– Optical and acoustic signalling of the safety-related functions of fume cupboards according to EN 14175
– Large three-colour status display
– Push buttons and functions can be configured individually
– Easy to use – available function buttons are visible, unavailable function buttons are not visible
– Excellent operating reliability as a result of continuous self monitoring of the communication between controller and control panel
– Two control panels can be used for each fume cupboard controller (BE-SEG-02 only) or monitoring system, e.g. for fume cupboards with sash windows on two sides
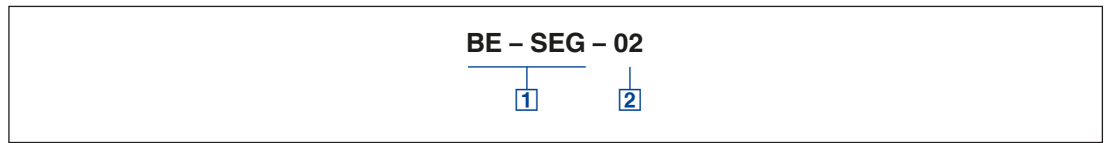
Materials and surfaces
– Casing in ABS plastic
– Casing: light grey (RAL 7035)
– Front plastic: black, glossy

Technical data
– Supply voltage: 24 V DC from the controller TCU3
– Connecting cable: Approx. 5 m standard network patch cable, SF-UTP, extendable to 40 m
– Operating temperature: 0 to 50 °C
– IEC protection class: III (protective extra-low voltage)
– IP protection level: IP 41 for surface mounting, IP 42 for flush mounting
– Dimensions: 23 × 306.4 × 6.4 (without wire clamping bracket)
– EC conformity: EMC to 2004/108/EC
– Weight: 0.130 kg

BE-SEG-02/03

$$BE - SEG - 02$$

[1]   [2]

[1] Type
BE-SEG Control panel for EASYLAB
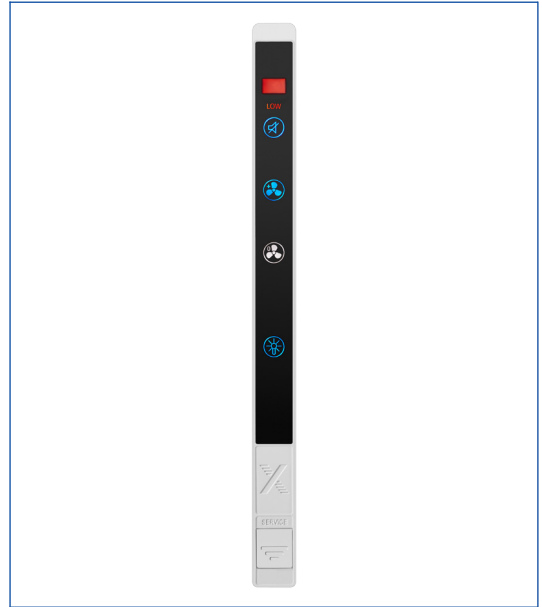controller TCU3 or fume cupboard
monitoring system FMS

[2] Variant
02   For all EASYLAB controllers and for
monitoring system FMS with OLED display
03   For fume cupboard monitoring
system FMS

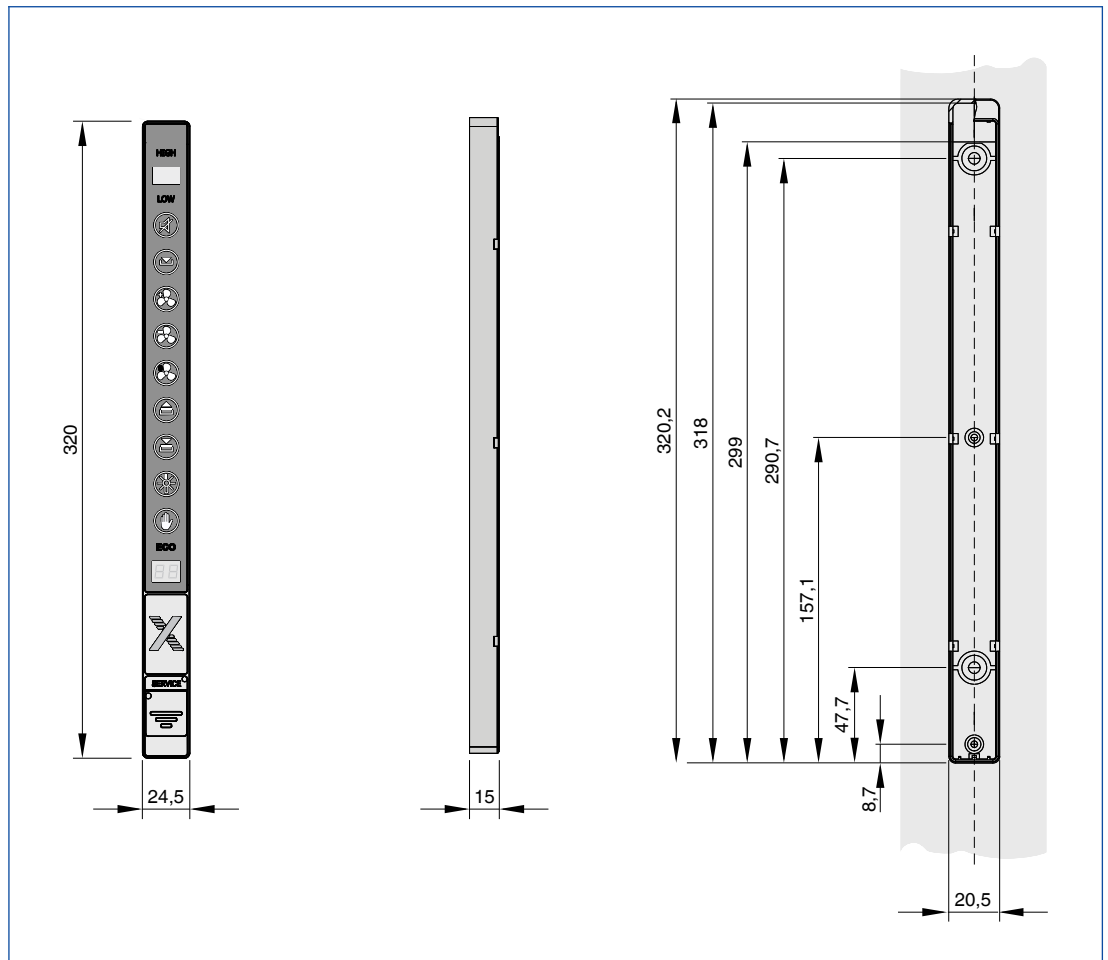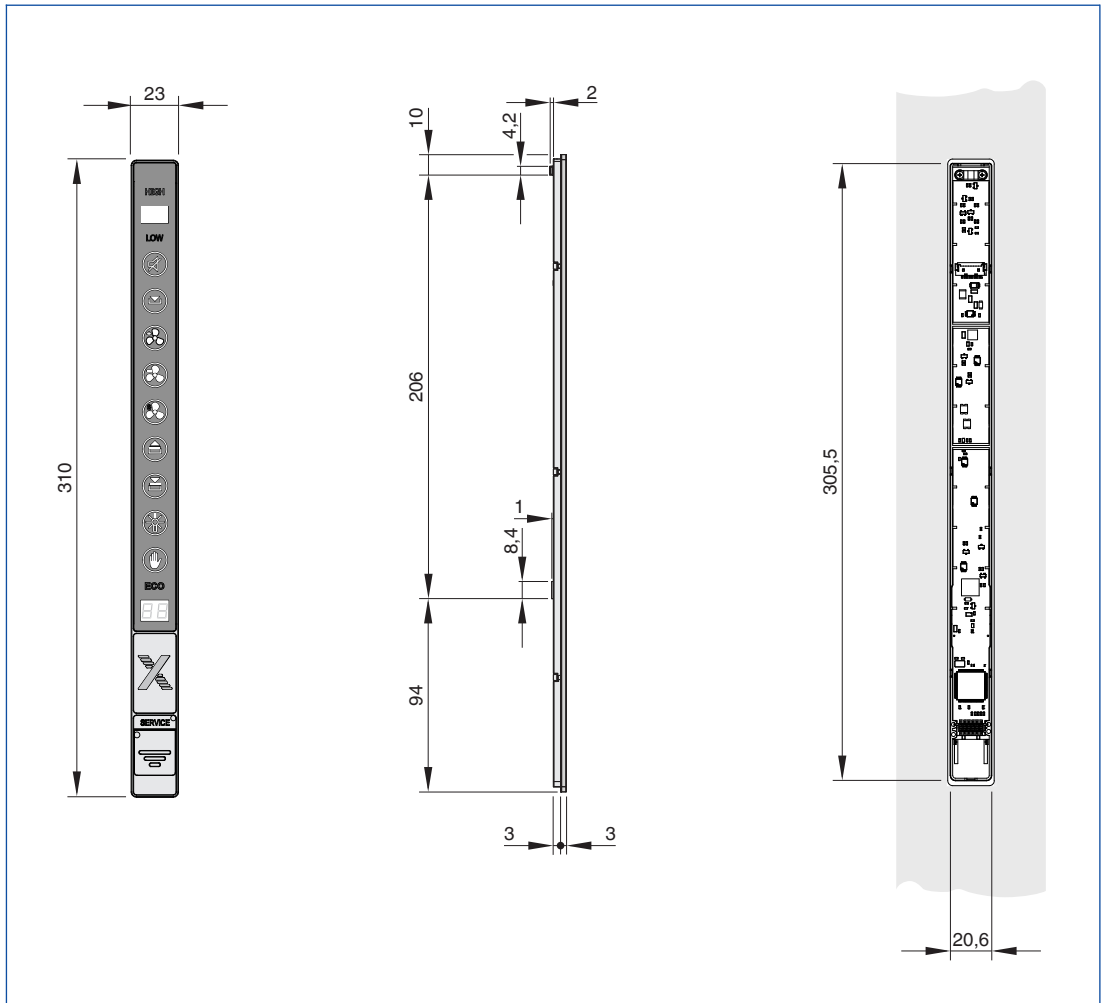**Control panel Type BE-SEG-02**

Control panel Type BE-SEG-03

Installation and commissioning
– Surface mounting to the side frame, with casing, or flush mounting to the side frame, without casing
– Connect the control panel to the EASYLAB controller TCU3 or to the monitoring system FMS
– The device recognises the control panel
– If necessary, make project-specific adjustments using the EasyConnect configuration software
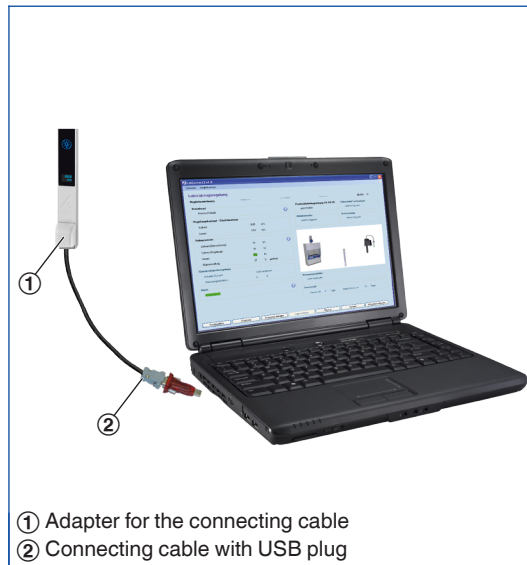
BE-SEG-02/03, surface mounting

BE-SEG-02/03, flush mounting

Connection of commissioning and service devices with a cable

① Adapter for the connecting cable
② Connecting cable with USB plug

Wireless connection of commissioning and service devices

① Adapter for the connecting cable
② Bluetooth module BlueCON