B.1.2 External BOP and BOP Interface Module

External BOP

Article number: 6SL3255-0VA00-4BA1

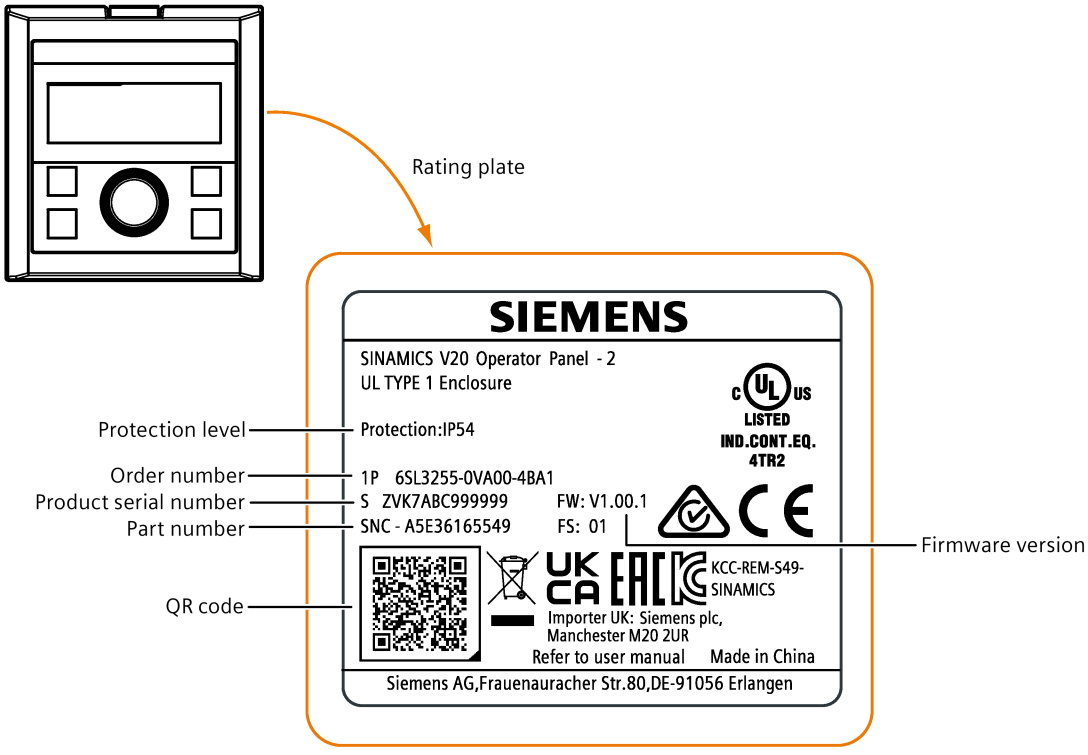
The external BOP is used for remote control of the converter operation. When mounted on a suitable cabinet door, the external BOP can achieve a UL/cUL Type 1 enclosure rating. The permissible operating temperature range for the external BOP is from -10 °C to 50 °C.

Components

- External BOP unit
- 4 x M3 screws

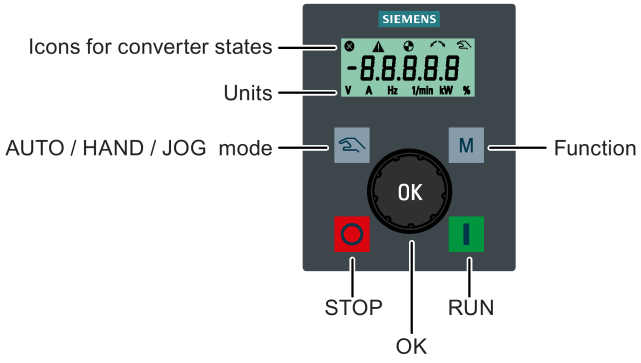
Rating plate

The rating plate for the external BOP is located on the back side of the BOP.



Panel layout

The SINAMICS V20 supports an external BOP for remote control of converter operation. The external BOP connects to the converter through an optional BOP Interface Module.



Button functions

Button	Description
O	**Stops the converter** Button functions the same as the O button on the built-in BOP.
I	**Starts the converter** Button functions the same as the I button on the built-in BOP.
M	**Multi-function button** Button functions the same as the M button on the built-in BOP.
OK	**Pressing the button:** Button functions the same as the OK button on the built-in BOP. **Turning clockwise:** Button functions the same as the ▲ button on the built-in BOP. Fast turning functions the same as long press of the ▲ button on the built-in BOP. **Turning counter-clockwise:** Button functions the same as the ▼ button on the built-in BOP. Fast turning functions the same as long press of the ▼ button on the built-in BOP.
	Button functions the same as the OK + M buttons on the built-in BOP.

Converter status icons

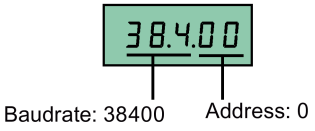
⊗	These icons have the same meaning as the corresponding icons on the built-in BOP.
⚠	
◔	
◠	
🔧	Commissioning icon. The converter is in commissioning mode (P0010 = 1).

Screen display

The display of the external BOP is identical to the built-in BOP, except that the external BOP has a commissioning icon which is used to indicate that the converter is in commissioning mode.

On converter power-up, the converter-connected external BOP first displays "BOP.20" (BOP for the SINAMICS V20) and then the firmware version of the BOP. After that it detects and displays the baudrate and the USS communication address of the converter automatically.

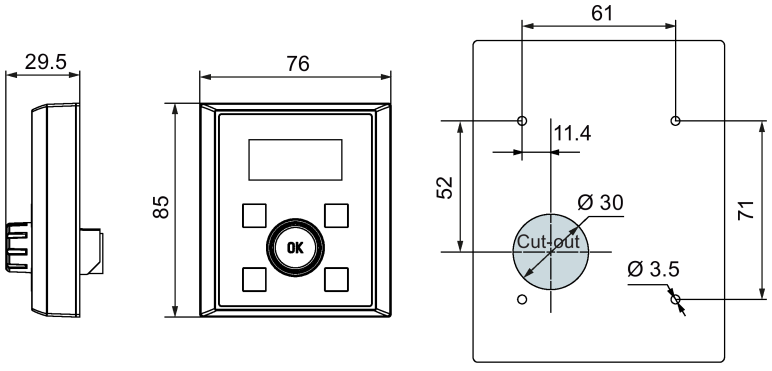
See the following table for settable baudrate and address values. To change the baudrate, set P2010[0]. To change the USS communication address, set P2011[0].

Baudrate (bps)	Communication address	Display example
9600	0 ... 31	
19200	0 ... 31	
38400	0 ... 31	
57600	0 ... 31	
76800	0 ... 31	
93750	0 ... 31	
115200	0 ... 31	

In case of any communication errors, the screen displays "noCon" which means that no communication connection has been detected. The converter then automatically restarts baudrate and address detection. In this case, check that the cable is correctly connected.

Mounting dimensions of the external BOP

The outline dimensions, drill pattern and cut-out dimensions of the external BOP are shown below:



Unit: mm

Fixings:
4 x M3 screws (length: 8 mm to 12 mm)
Tightening torque: 0.8 Nm ± 10%