



BLOCKTRONIC BUTTON

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The Blocktronic button is primarily designed for gravity operations for the fire gates from Somati system Ltd. The panel can also be used to control leaf fire gates which are operating together with electromagnetic anchors and closers.

1. BLOCKTRONIC BUTTON



Label on the button Blocktronic





2. CONFIGURATION

The project solves the Blocktronic control of electromagnetic brakes of fire gates. The interruptible button with a power supply of 24VDC/10W from the EPS will interrupt the power – when pressing this button – and the brake will unlock the wing, that will start closing; the unlocking will last for 130 seconds or by pressing the button once more, you can shorten the release of the brake (system START/STOP). This eliminates the need to constantly hold the button for a complete closing of the gate. Thanks to the START/STOP system, the gate can stop in any position.

3. INSTALLATION AND SET UP

You can set it up for the first time, ONLY AFTER the complete installation of the whole mechanical part of the gate to avoid mechanical damage to the gate when unlocking magnet/brake.

Before the first activation, connect only the:

- power cable
- cable magnet/brake

The Blocktronic button is standardly equipped with the LED illuminated diode (with START/STOP function). The gate can be closed by pressing the button. When you press again, the gate stops until you press the button again.

Initial state, when you first connect it to the power button to the EPS - "disconnected" – the LED diode on the button flashes (this means: released state and gate is closing). When the button is not pressed again, it automatically switches into a state of „brake locked“ after the expiry of 130 seconds.

!!! IF THE PROCEDURES STATED IN THE TECHNICAL DOCUMENTATION ARE NOT OBSERVED, THE WARRANTY CONDITIONS MAY BE VOIDED!!!

!!! IN CASE OF A MALFUNCTION IT IS FIRST NECESSARY TO DETERMINE THE CAUSE OF THE MALFUNCTION AND TO RECTIFY THE SITUATION! ONLY THEN CAN THE TRIPPED CIRCUIT BREAKER OR FUSE BE RESET AGAIN!!!

!!! IT IS FORBIDDEN TO INTERFERE WITH THE CIRCUITRY OF THE SWITCHBOARD AND CHANGE THEIR CONNECTIONS. IF THIS CONDITION IS NOT OBSERVED, THE SWITCHBOARD WARRANTY WILL NO LONGER APPLY!!!

!!! THE SWITCHBOARD CANNOT BE OPENED BY A PERSON WITHOUT APPROPRIATE TRAINING AND QUALIFICATION IN ACCORDANCE WITH, at minimum, Section 6 of Decree No. 50/1978!!!

Operating temperature of the Blocktronic switchboard is +10 °C to +35 °C. If ambient temperature drops below +10 °C or exceeds +35 °C, the switchboard cannot be operated! In temperatures exceeding +25 °C and less than +15 °C, the battery life is reduced.

In exceptional cases, the Blocktronic switchboard can be operated in lower temperatures, to as low as –5 °C, but only if input power is permanently connected in order to provide minimal warming on the control circuits.





4. DESCRIPTION OF CONTROL FEATURE FUNCTIONS

Signalization

LED

- Off = activity is stopped (no voltage 24 V)
- Flashing = gate in motion
- On = gate stands

START/STOP



Picture 1: Button

5. PARTS OF BLOCKTRONIC BUTTON

- plastic box
- printed circuit with LED diode
- button with I/O function
- plastic cover of the box
- cap of the button with glass for the diode
- rubber upper part of the button to implement the cables





6. DESCRIPTION OF FUNCTIONS WITH DIFFERENT SYSTEMS OF THE SOMATI SYSTEM GATES

A. Electromagnetic anchor system:

In case of fire, the electrical control panel sends a signal of fire detection to the button that releases the electromagnetic anchor which is holding the wing of the fire gate, that will be closing by counterweight. During daily operations, the wing opens manually by using the built-in handles and closes by pressing the button (Picture 1:). By pressing this button once more, the 24V will come back to the magnet and the gate can be hold still in the open position to the electromagnet. When opening the gate and by anchoring it to the electromagnetic anchor, it is necessary to be very careful to avoid any mechanical damage to the magnet and it's anchoring – by reducing the speed of movement (to minimize the impact to the electromagnetic anchor) while commuting to the end position (maximum opening).

B. Electromagnetic brake system:

In case of fire, the electrical control panel sends a signal of fire detection to the button that releases the electromagnetic brake which is holding the wing of the fire gate, that will be closing by counterweight. During daily operations, the wing opens manually using the built-in handles and closes by pressing the button (Picture 1:). When pressing the button again, the gate stops. The advantage of this system is that it allows to lock the wing in any position and also to regulate the speed of closing, you can adjust it with the electromagnetic brake.

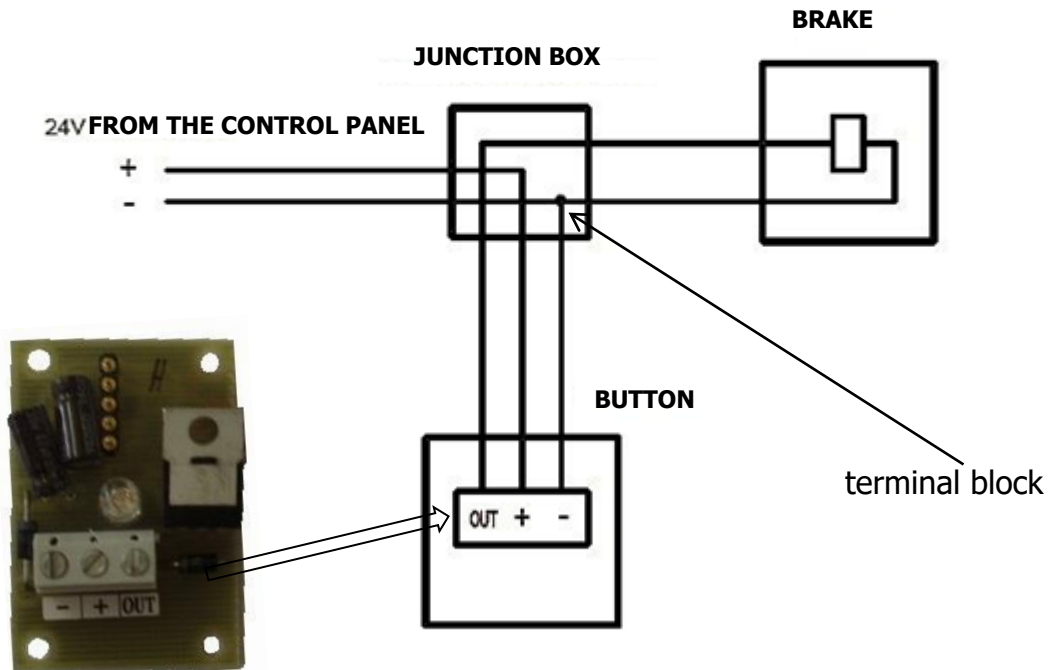
7. ELECTRICAL AND DIMENSIONAL DATA

Voltage	24 VDC
Power input	10 VA
Output brake max.	24 V/0,1 A
Panel size	H: 8 cm; W: 8 cm; D: 5,5 cm
Working temperature	from -15 to +35 °C (backup time is reduced with decreasing temperatures)



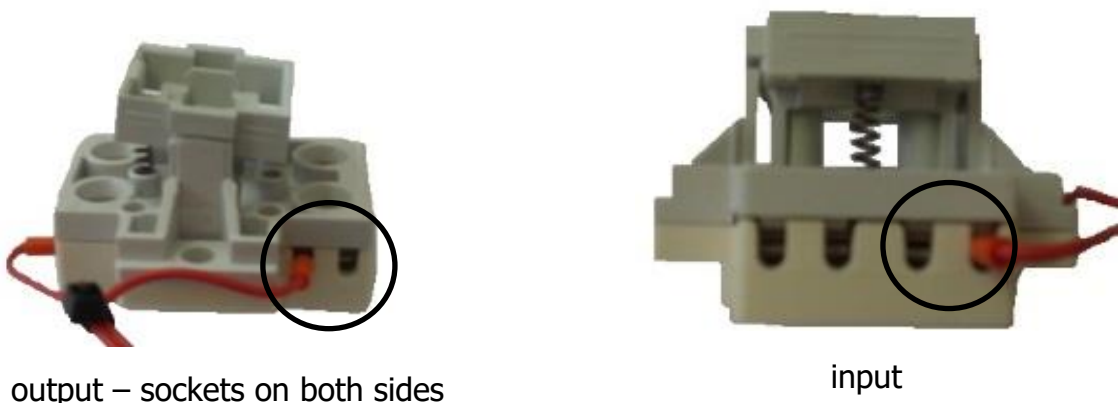


8. CIRCUIT DIAGRAMS



Between the EPS panel, brake and Blocktronic button is a "junction box" inserted which is used to connect two (-) leadings from EPS and brake by help of a terminal block, so that to the (-) slot in the Blocktronic button will lead only one cable.

To the Blocktronic button can be an external switch connected, but ofcourse in this case without signalization. The external switch is connected in parallel to the I/O sockets of the button with the functions I/O.



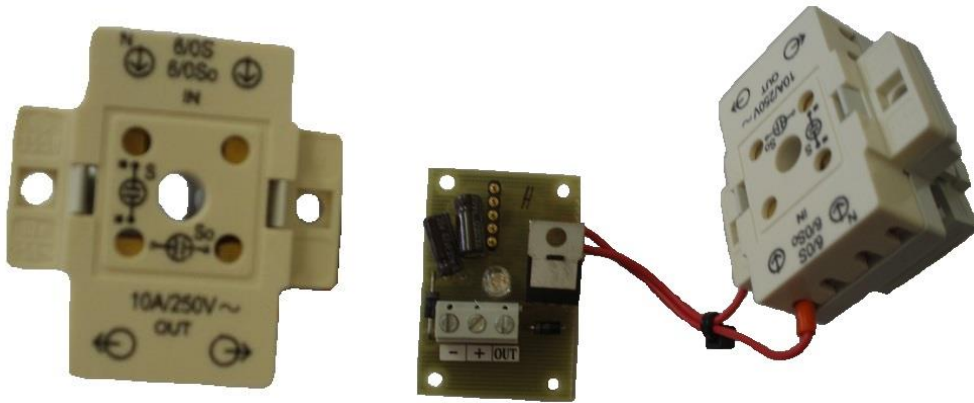


9. COMPOSITION AND DISTRIBUTION OF BLOCKTRONIC BUTTON

1. Printed circuit set into a plastic box



2. Printed circuit cable is connected at the input and output of the button I/O. Both components are integrated into outputs in a plastic box.



3. Placing of the plastic cover on the box



4. Placing of the cap with the instructional label on the cover

