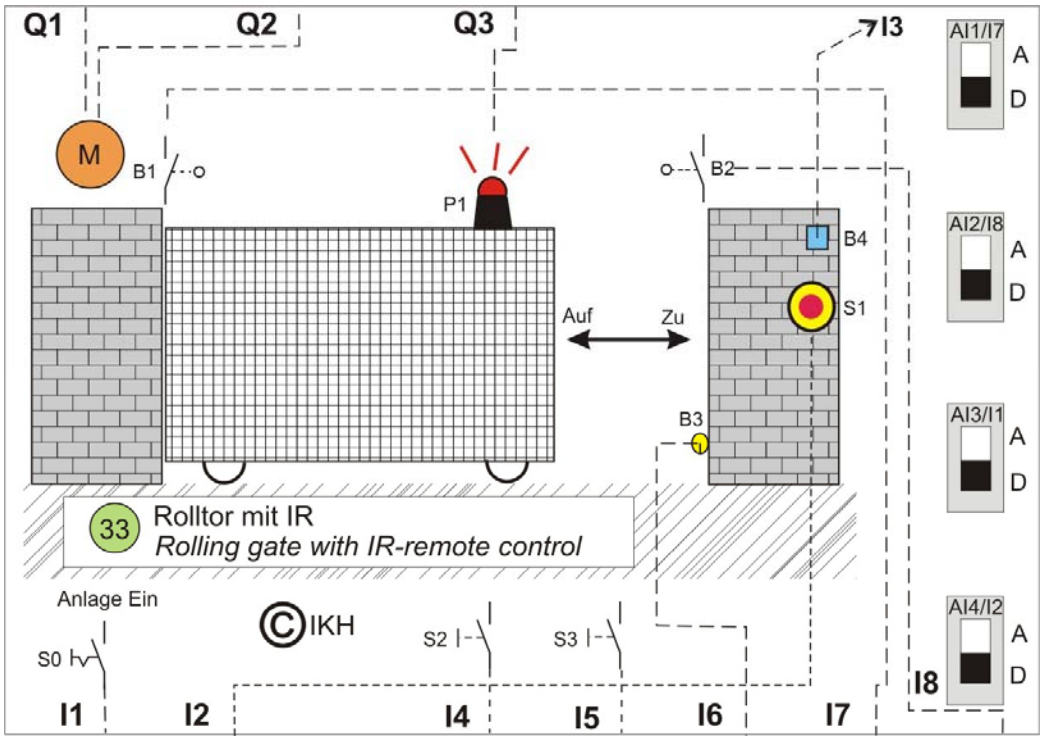
# Sliding gate

A sliding gate has to be controlled by a LOGO!

**Picture 129**
Technical drawing




## Operating description

A sliding gate should be opened and closed with a bidirectional contactor circuit. In order to minimize the accident risk while cars are driving in and out, a light beacon, which is mounted at the gate, has to be switched on while the gate is moving. Mechanical limit switches (B1 and B2) as well as IR-receivers and an emergency off switch are mounted on either side of the wall. The mechanical limit switches must switch the sliding gate off when they reach the end brackets.

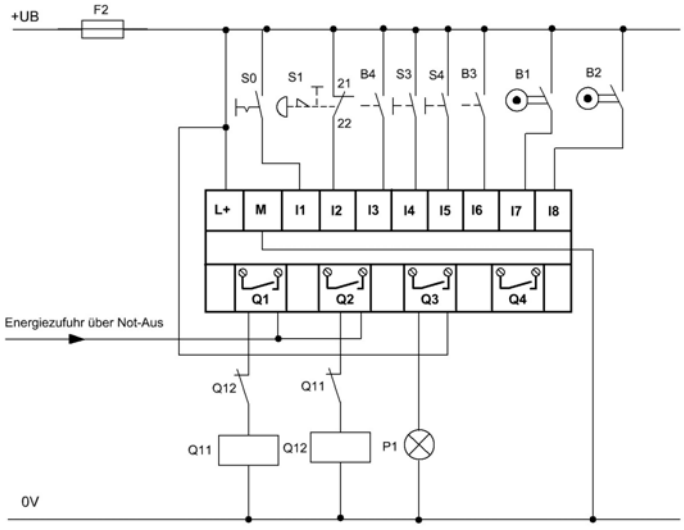
The switch S0 switches the system on. If button S2 is activated or if the IR remote control is activated (button 1 = 50 Hz), the gate slides “open” until it reaches its limit switch. Limit switch B1 switches „off“. The gate has to close automatically after an opening time of 10 sec. Activation of button S3 closes the gate till it reaches its end bracket. Limit switch B2 switches „off“. The moving procedure can be stopped at any time with the emergency „off“ button. Should the gate be passed by a car or by a pedestrian during the closing procedure (gate closing), the action of the motor has to be reversed by means of a light beam and the gate should open again.

*Button lay-out on the IR remote control*

**Button Frequenz**

| | | |
|---|---|---|
| 1 | 50 Hz | Sliding gate Open |
| 2 | 100 Hz | |
| 3 | 200 Hz | |
| 4 | 333 Hz | |
| 5 | 500 Hz | |
| 6 | 1000 Hz | |
| 7 | 2000 Hz | |
| 8 | 3333 Hz | |
| 9 | 5000 Hz | |
| 10 | 20 Hz | |
| 0 | 0Hz | |

| Correlation list | | |
|---|---|---|
| **Symbol** | **Component** | **Comment** |
| S0 | I1 | Switch „make“ System On |
| S1 | I2 | Button „brake" EMERGENCY-OFF |
| B4 | I3 | IR-Receiver |
| S2 | I4 | Button „brake" Gate oens |
| S3 | I5 | Button „make" Gate coses |
| B3 | I6 | IR beam |
| B1 | I7 | Limit switch "make" Gate open |
| B2 | I8 | Limit switch "make" Gate closed |
| Q11 | Q1 | Power contactor „Open gate“ |
| Q12 | Q2 | Power contactor „Close gate“ |
| Q13 | P1 | Light beacon |




Connection to LOGO!
**Picture 130b**

**Exercise**

- Develop program, enter the program into the PC with the software LOGO! Comfort 6.0 and save under the filename “Sliding gate”.
- Test program with integrated simulator according to function block diagram (FBD) and ladder diagram (LAD).
- Transfer program into LOGO!
- Test program

The solution is available on the enclosed CD.