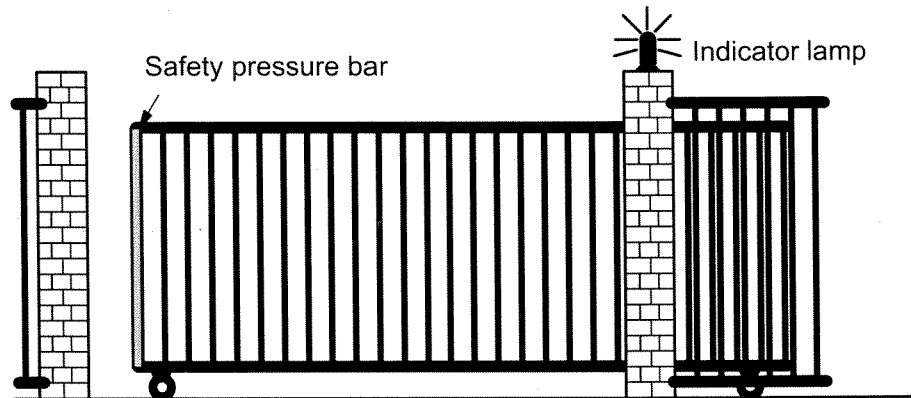


## 8.4 Factory door



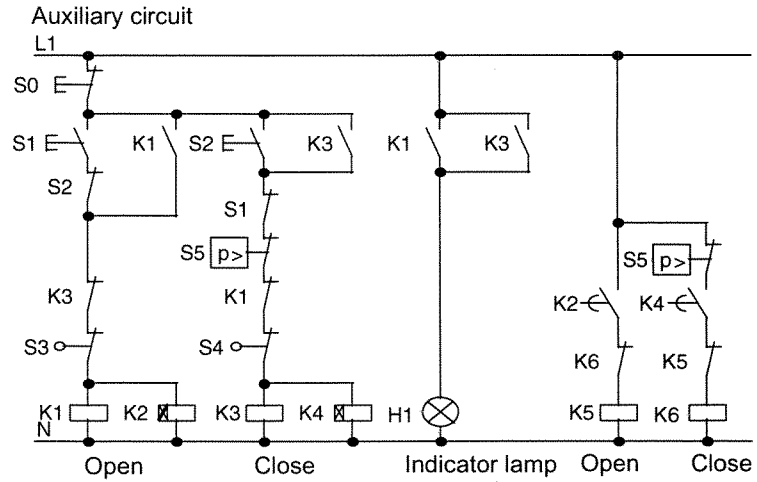
The entrance to a company's premises is often closed with a gate. The gate is only opened to let vehicles in and out. The gate is controlled by the porter.

### 8.4.1 Requirements for a gate control system

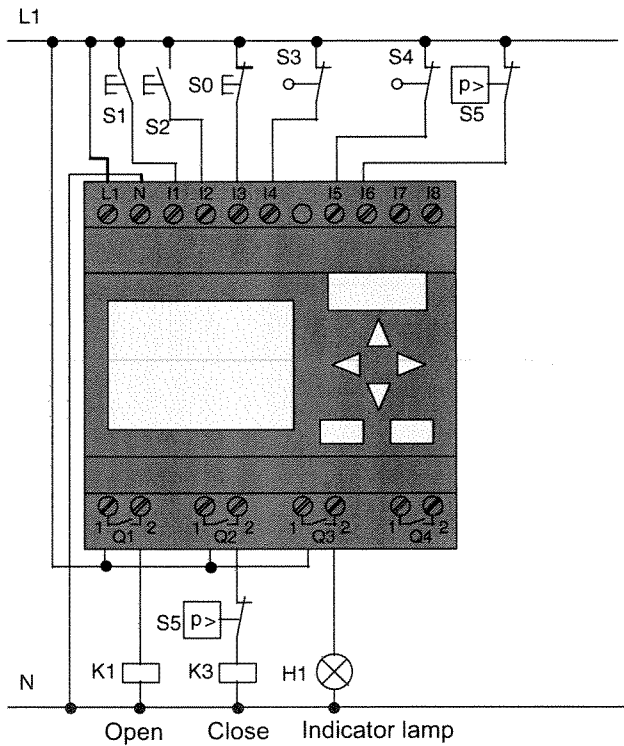
- The gate is opened and closed by means of pushbuttons in the gatehouse. The porter can monitor the operation of the gate at the same time.
- The gate is normally fully opened or fully closed. The gate motion can be interrupted at any time.
- An indicator lamp is switched on five seconds before the gate starts moving and when the gate is in motion.
- A safety pressure bar prevents harm to persons and objects from getting trapped or damaged when the gate is closing.

### 8.4.2 Previous solution

Various control systems are used to operate automatic gates. The circuit diagram below shows one of these options.



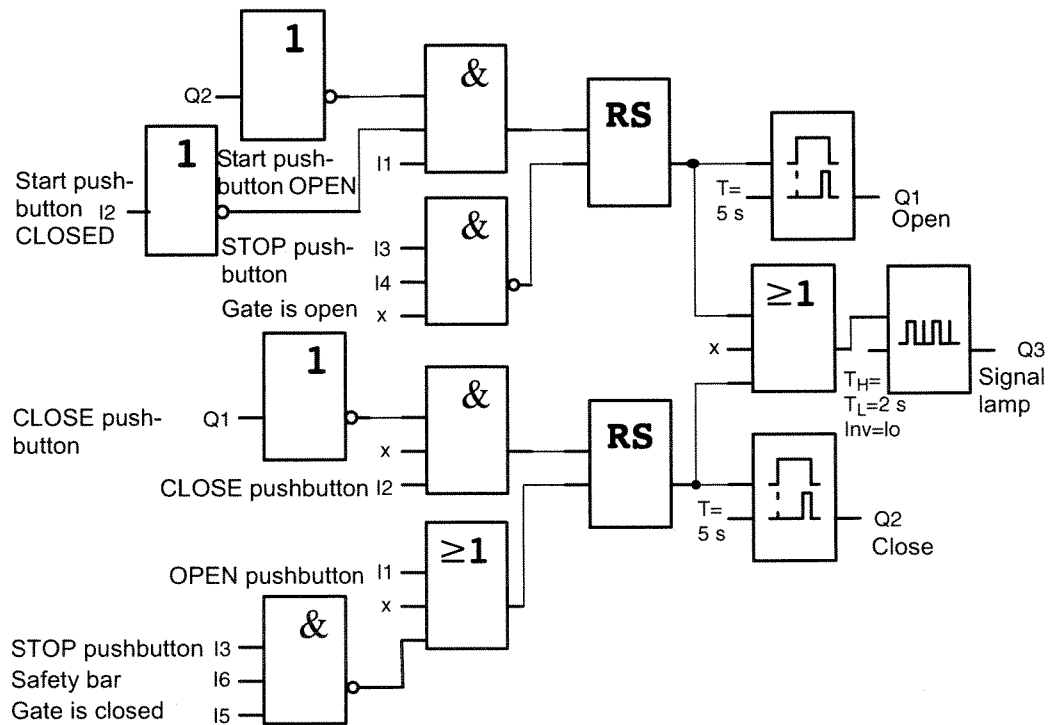
### Wiring of a gate control system with FL1D-H12RCC



**Components used**

- K1 contactor relay
- K2 contactor relay
- S0 (normally closed contact) STOP pushbutton
- S1 (normally open contact) OPEN pushbutton
- S2 (normally open contact) CLOSE pushbutton
- S3 (normally closed contact) Position sensor OPEN
- S4 (normally closed contact) Position sensor CLOSED
- S5 (normally closed contact) Safety bar

**Block diagram of the IDEC SmartRelay solution**



The OPEN or CLOSE pushbuttons initiate the gate motion, provided it is not already moving in the other direction. The gate is stopped by means of the STOP pushbutton or the relevant limit switch. A safety bar furthermore interrupts the closing motion of the gate.

### 8.4.3 Extended IDEC SmartRelay solution

Our extended control circuit is to open the gate automatically when the safety bar is actuated.

