

1.4 UNDERGROUND CAR PARK CONTROL

Specifications:

We want to complete and centralize the control of the underground car park of an administration building.

Vehicle entrance/exit control: access is allowed by an automatic barrier. Users can access the car park during business hours: Monday through Friday from 8:30 a.m. to 5:30 p.m., Saturday from 9:30 to noon. However, it is possible to manually inhibit the blocking of the barrier by pressing on **Z4** (function restored by pressing on **Z2**) in case of an exceptional event.

Counting: The car park capacity is limited to 93 vehicles. A counter will block access to the car park if it is full and will control a light panel indicating "Car park Full". It is also possible to manually increase or decrease (in increments) the number of vehicles present in the car park (using **Z1** and **Z3**).

CO2 level: For safety reasons, a CO2 sensor indicates when the level is high and controls the operation of a fan (10 minutes).

Light: The lighting switches on for 2 minutes each time a vehicle enters the car park or whenever a pedestrian presses the switch. .

Description of the inputs/outputs:

INPUTS:	OUTPUTS:
I1 Vehicle entry	Q1 Indicates when the car park is full.
I2 Vehicle exit	Q2 Locks the entry barrier
I3,I4 Pushbuttons at pedestrian access points	Q3 Lightning
IB Carbon dioxide level sensor	Q4 Fan control
Z1 Manually increments the number of vehicles	
Z2 Resumes automatic entry control	
Z3 Manually decrements the number of vehicles	
Z4 Manual release of entry barrier	

Model Required:

Model with clock and analog inputs.

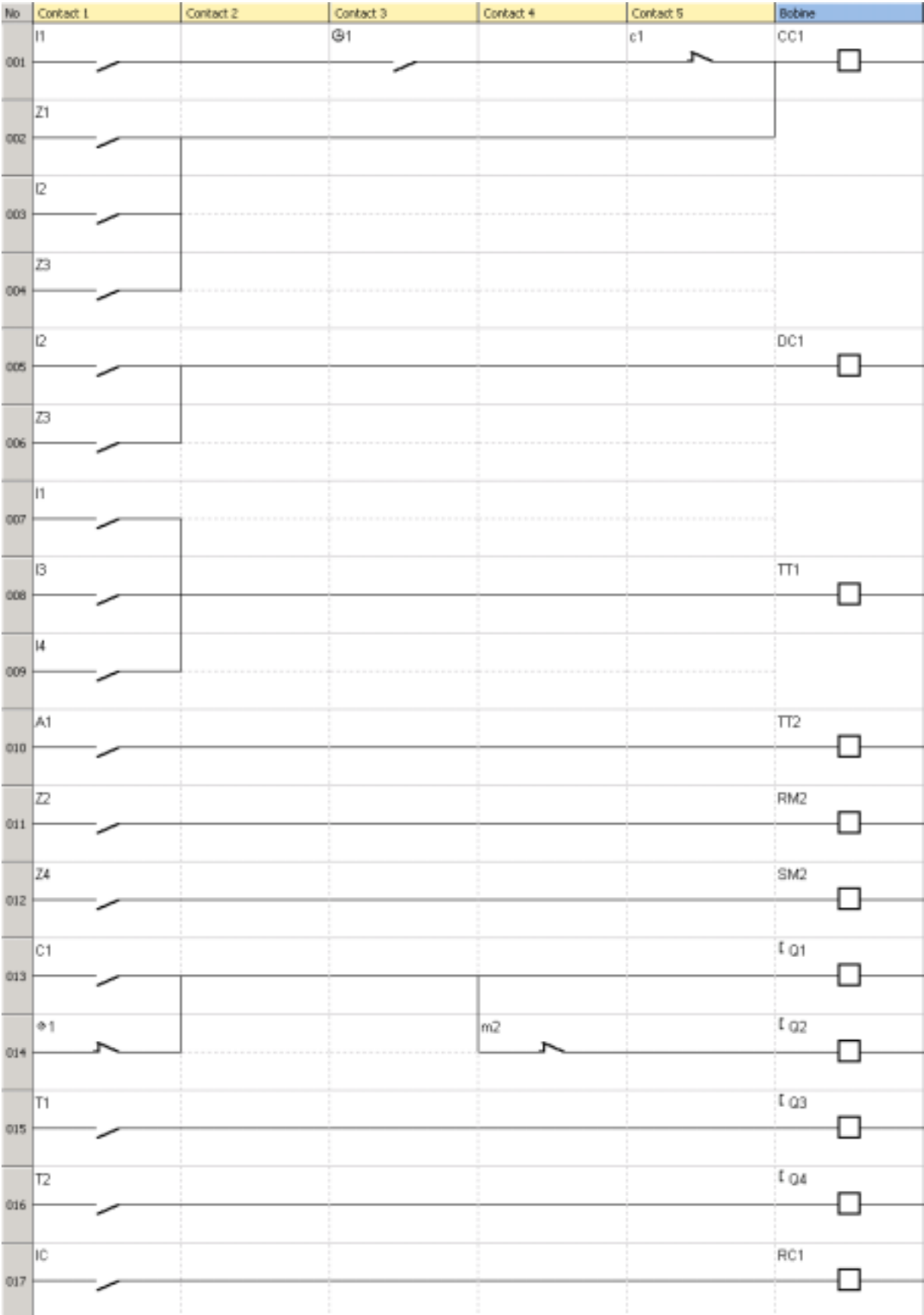
SR2 B121 BD (24 V DC) or **SR2 B121 JD** (12 V DC) for example.

Advantages of the application:

Full car park control using a single logic module.

*Note: Use the floating pop-ups to simulate the variation of the level of CO2 (analog input **IB**) and to use the push-buttons. To call them up, click on the corresponding icons in the lower bar.*

Logic diagram:



Click on the link below to access the application:

[Underground car park control](#)