

Example 2: Part conveyor (L cycle)
(File EN_2.pm2)

Specification:

A device comprising two cylinders A and B is used to store and count machined parts (see figure 2.1).

The system is initialised by pressing a button (the cylinder rods are withdrawn completely and the part counter is reset to zero).

CYLINDER A: A sensor detects the presence of a part on the tray. Each time the sensor is actuated, the rod rises and the counter is enabled. The actuator associated with this cylinder is a 4.2 monostable valve module; the rod limit switches are I2 (withdrawal) and I3 (extension).

CYLINDER B: Once the rod of cylinder A has extended completely, cylinder B ejects the part towards a conveyor belt at the end of which the parts are stored. The actuator associated with this cylinder is a 4.2 bistable valve module; the rod limit switches are I4 (withdrawal) and I5 (extension).

Table of inputs/outputs:

INPUTS		OUTPUTS	
I1	Detection of a part on the rod	O1	A+
I2	Sensor for rod A withdrawal	O2	B+
I3	Sensor for rod A extension	O3	B-
I4	Sensor for rod B withdrawal		
I5	Sensor for rod B extension		
I6	Initialisation		

Model required:

Millenium II 8 inputs/4 outputs:
 SA12 R 24 VAC.
 SA12 S 24 VDC.

Program description:

Input I6 initialises the system. The LCD display indicates:

Syst.Init.	
Parts: 00000	Part counter

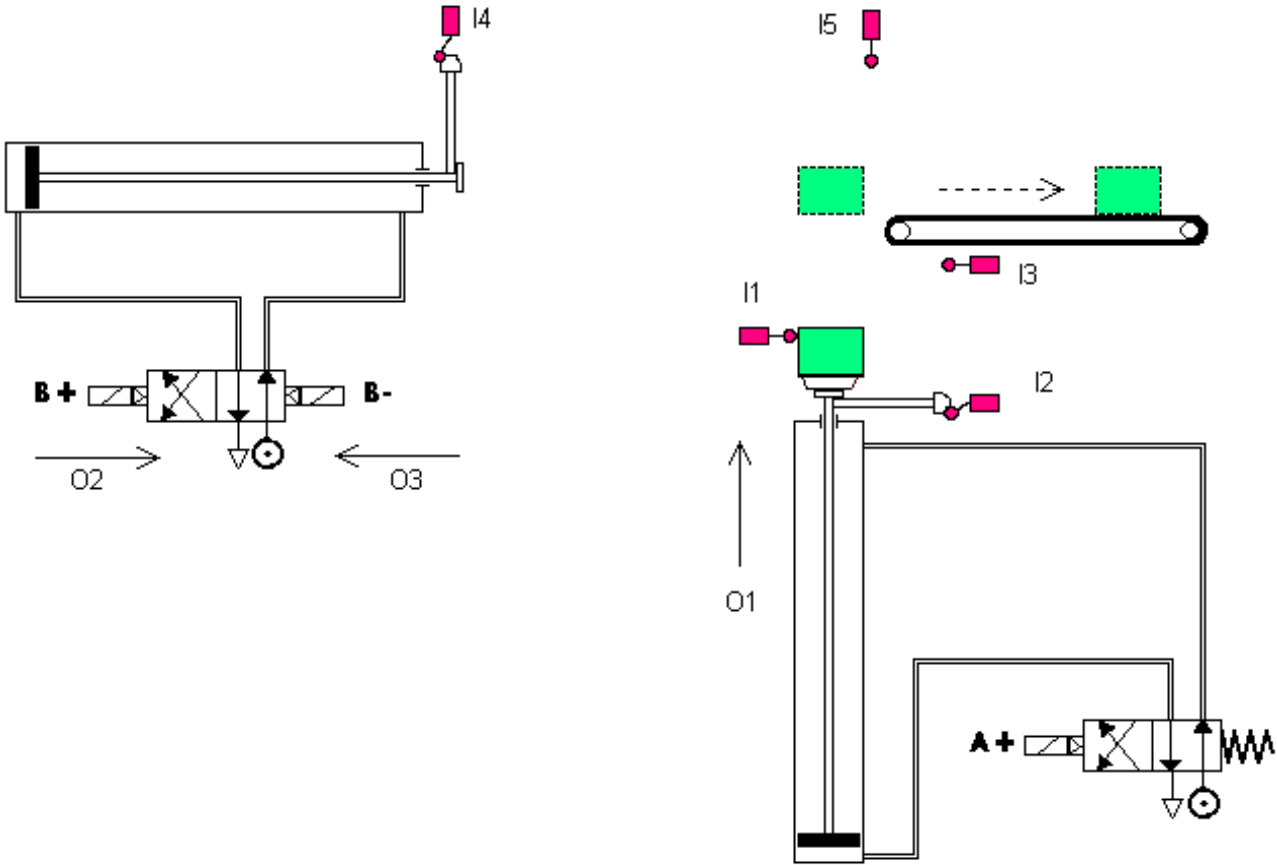
During the cycle, the display shows:

Parts: 00124

Application advantages:

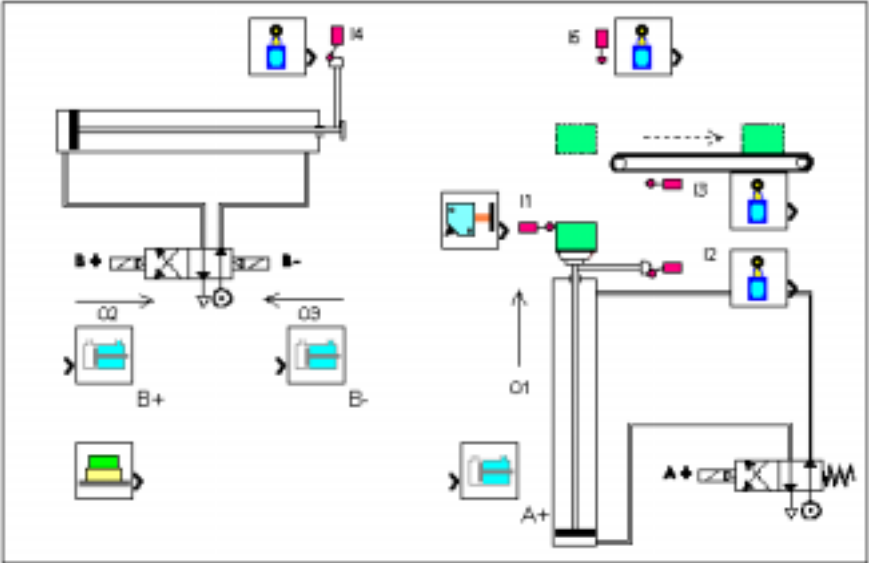
The use of supervision mode

Figure 2.1: Part conveyor diagram

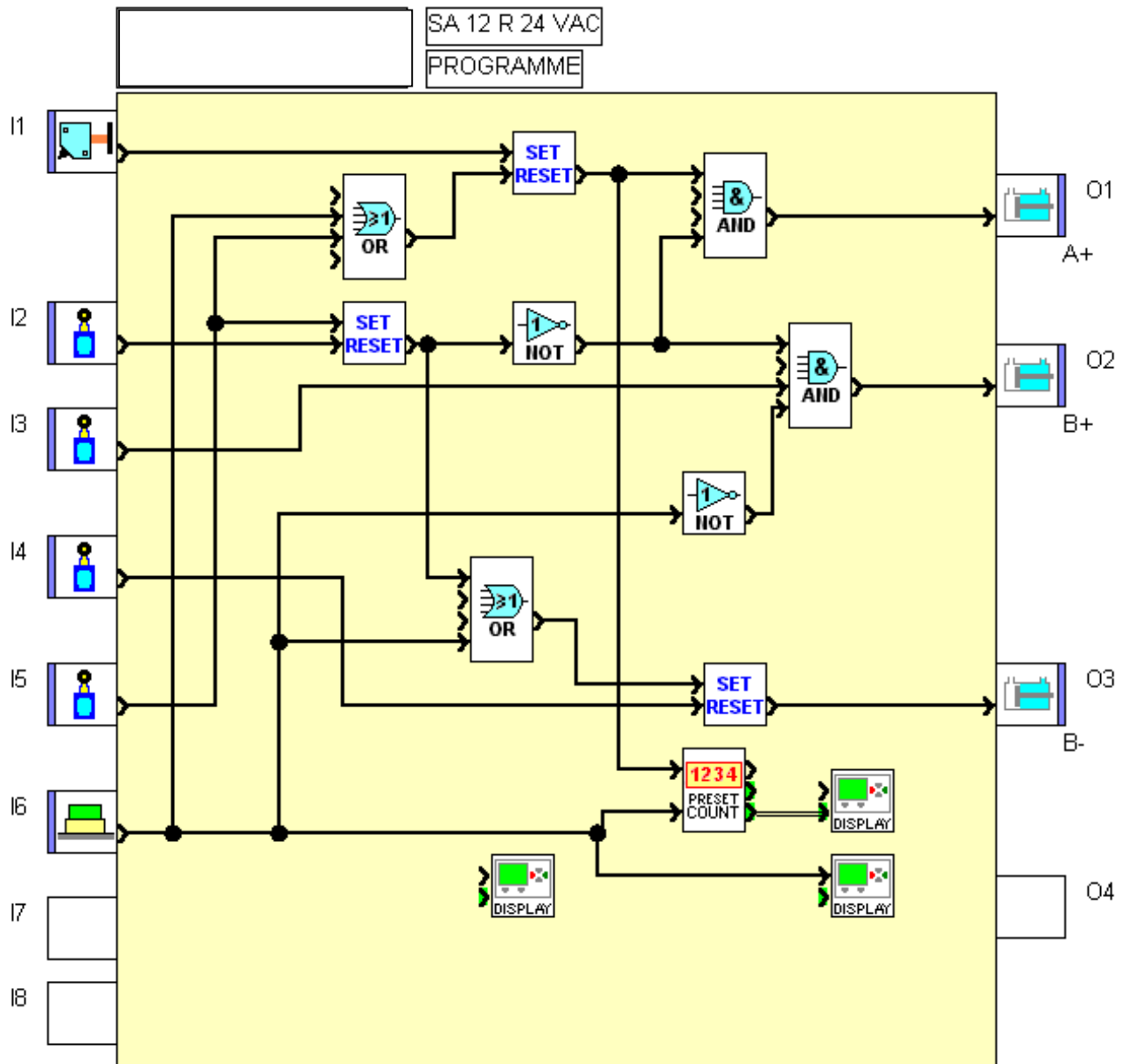


If scanned, this diagram could be used for supervision mode. Once you have located your file, simply copy the input and output icons from the "Edit" window and paste them into the "Supervision" window.

Figure 2.2: Supervision mode



Part conveyor (L cycle)
 Logic diagram (EN_2.pm2)



Part conveyor (L cycle)
 Logic diagram (EN_2A.pm2)

