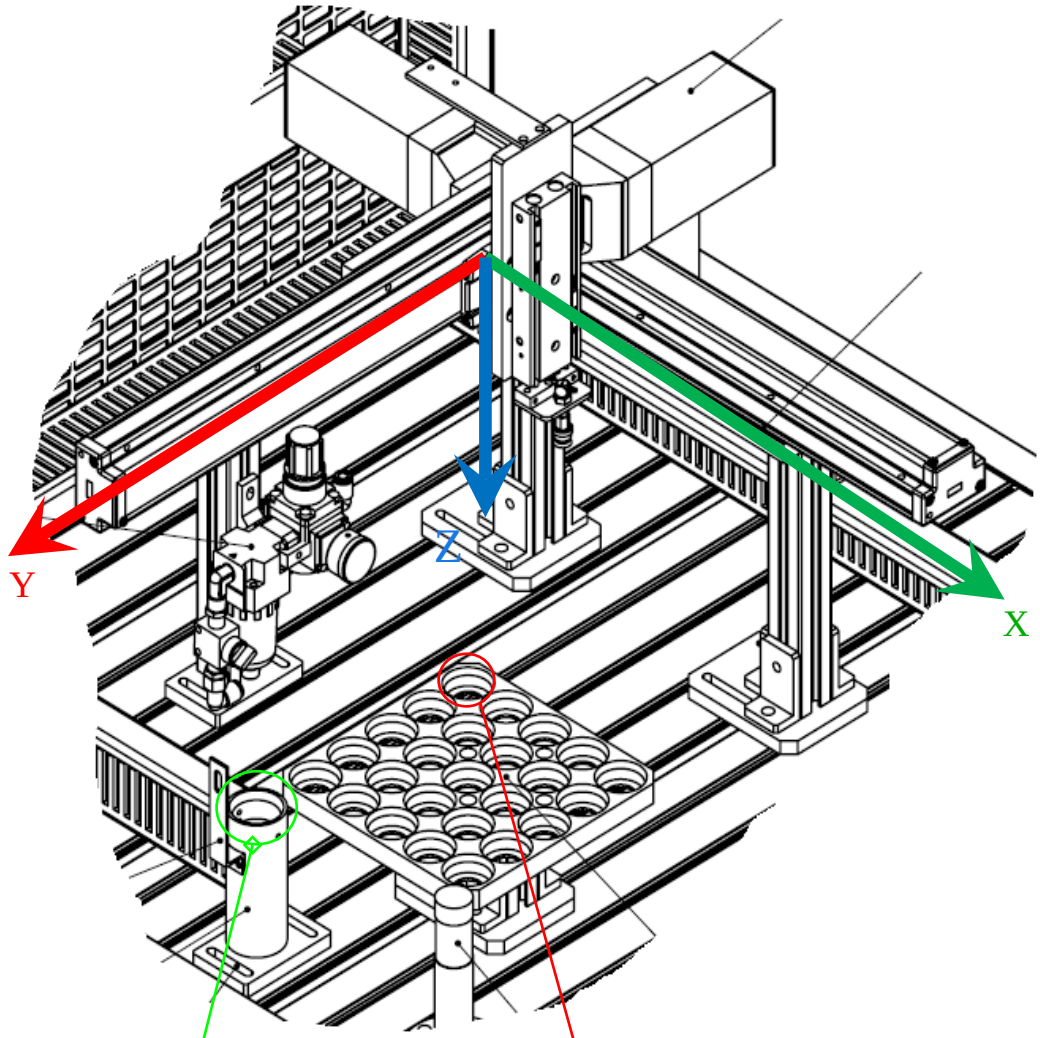
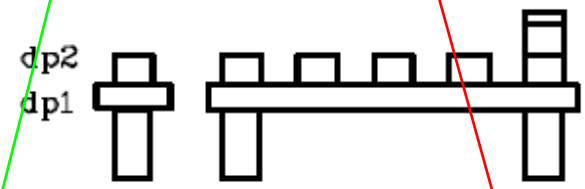
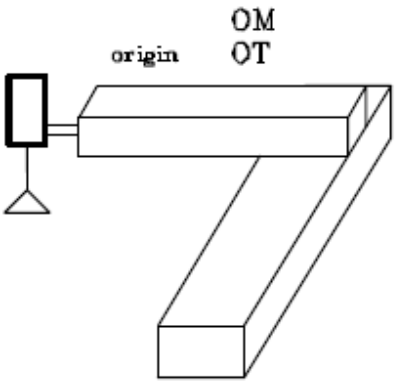
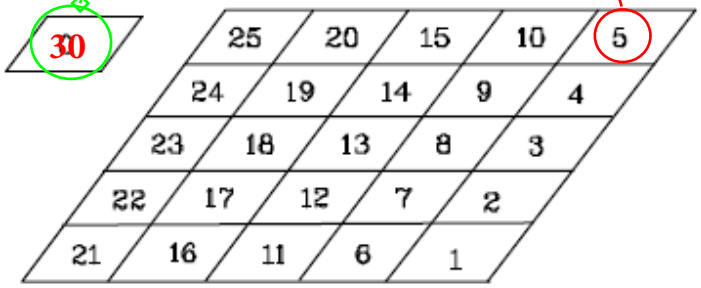
Palletising station.









Pneumatic control pick cylinder:

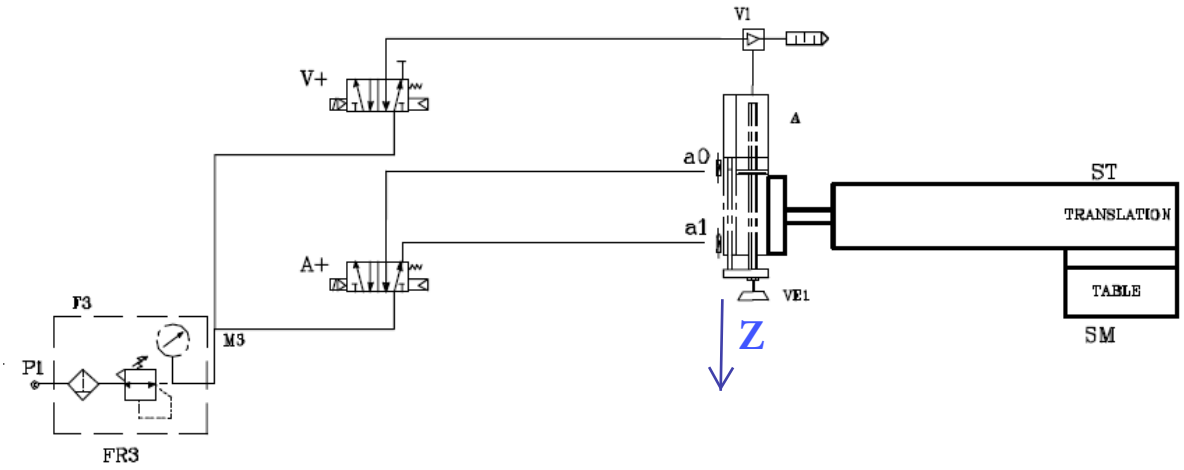


Table with the location position of the palletizer (blue-marked) numbers are: distance in mm from the referencepoint)

101 300 26 27 28 29 30 pick position

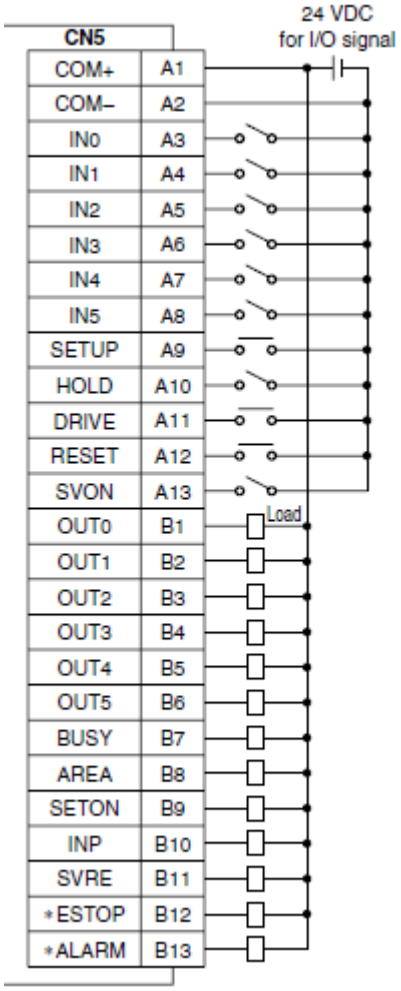
INY0..INY2:					
100	245	21	22	23	24	25
011	210	16	17	18	19	20
010	175	11	12	13	14	15
001	140	6	7	8	9	10
000	105	1	2	3	4	5
		154	119	84	49	14

INX0..INX2: 000 001 010 011 100

binair values

position 26 .. 29 can be considered as "dump" positions

Reference point location



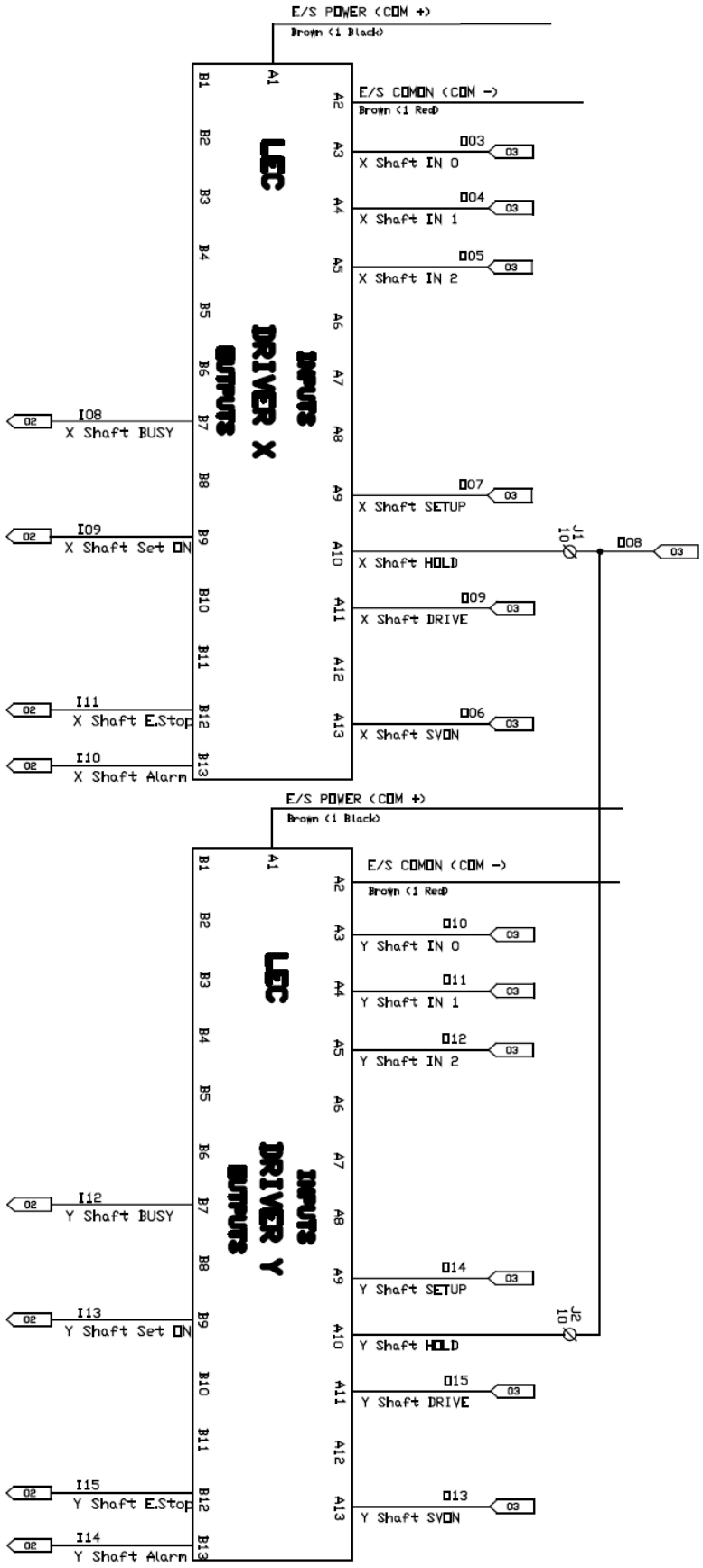
Input Signal

Name	Contents
COM +	Connects the power supply 24 V for input/output signal
COM –	Connects the power supply 0 V for input/output signal
IN0 to IN5	Step data specified Bit No. (Input is instructed in the combination of IN0 to 5.)
SETUP	Instruction to return to the original position
HOLD	Operation is temporarily stopped
DRIVE	Instruction to drive
RESET	Alarm reset and operation interruption
SVON	Servo ON instruction

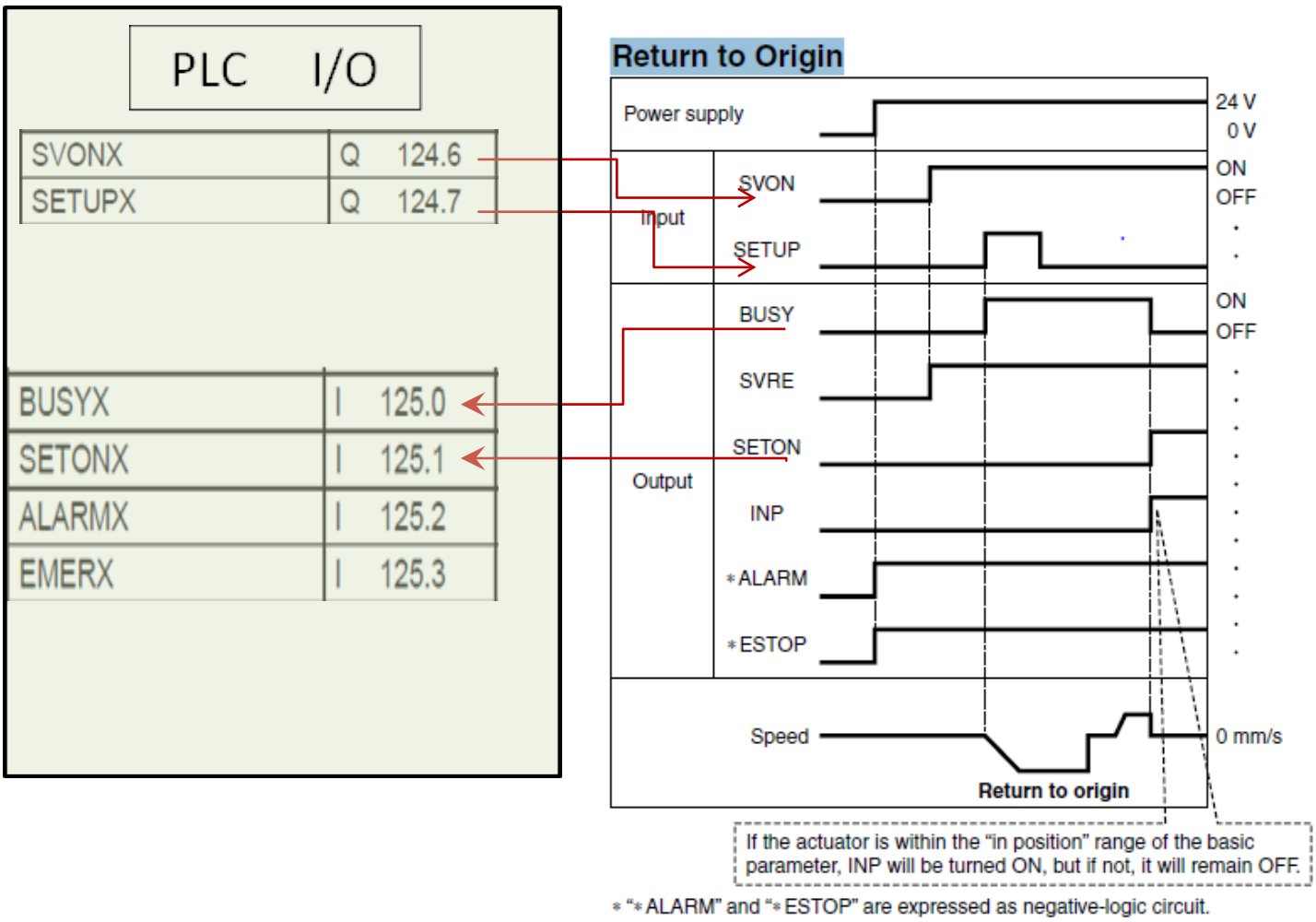
Output Signal

Name	Contents
OUT0 to OUT5	Outputs the step data No. during operation
BUSY	Outputs when the actuator is moving
AREA	Outputs within the step data area output setting range
SETON	Outputs when returning to the original position
INP	Outputs when target position or target force is reached (Turns on when the positioning or pushing is completed.)
SVRE	Outputs when servo is on
*ESTOP Note)	Not output when EMG stop is instructed
*ALARM Note)	Not output when alarm is generated

Note) These signals are output when the power supply of the controller is ON. (N.C.)

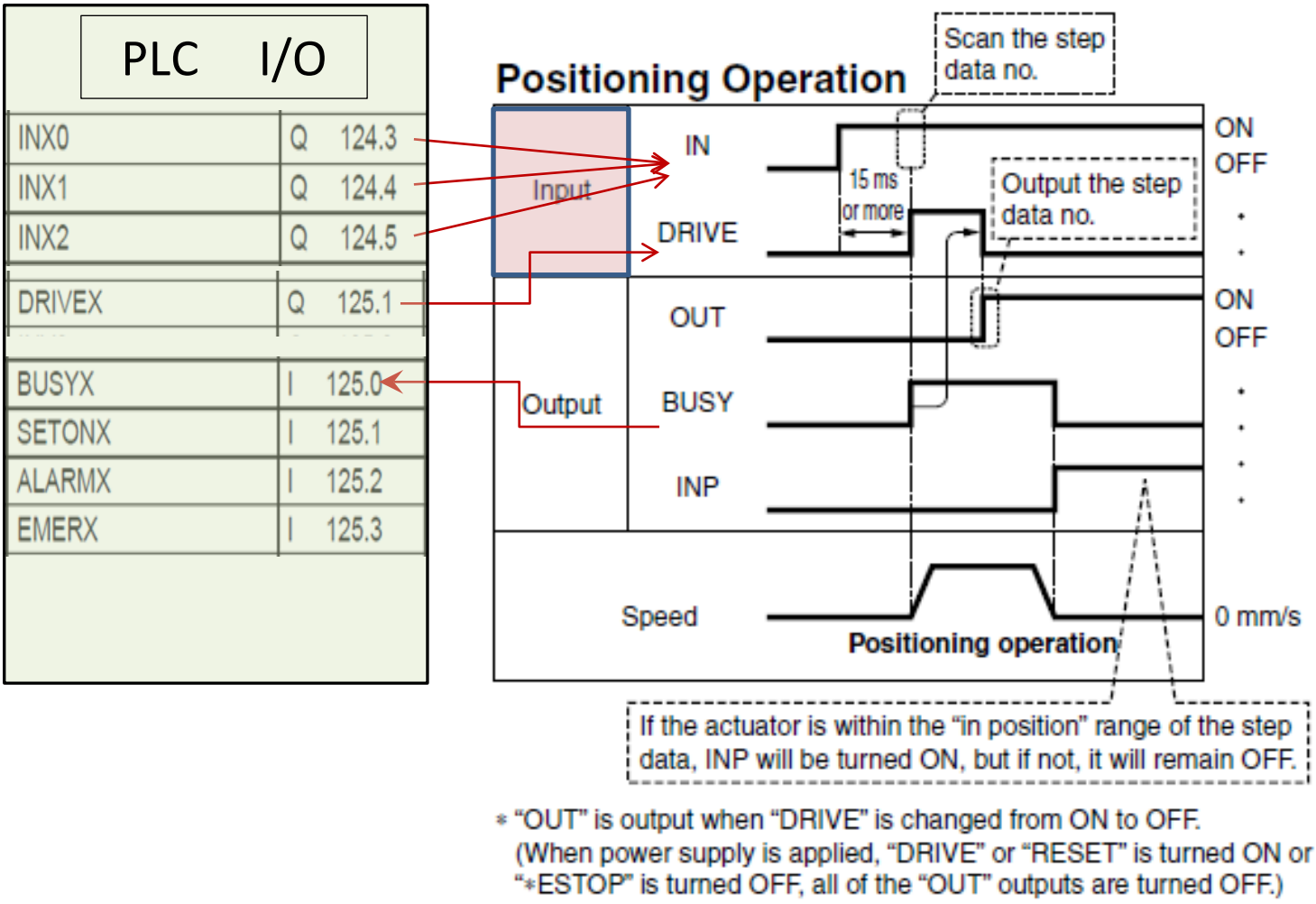

E/S POWER (COM +)
Brown (1 Black)
E/S COMON (COM -)
Brown (1 Red)
LEC
DRIVER X
INPUTS
OUTPUTS
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
B1
B2
B3
B4
B5
B6
B7
B8
B9
B10
B11
B12
B13
O03
X Shaft IN 0
O04
X Shaft IN 1
O05
X Shaft IN 2
I08
X Shaft BUSY
O07
X Shaft SETUP
I09
X Shaft Set ON
J1
10
O08
X Shaft HOLD
O09
X Shaft DRIVE
I11
X Shaft E.Stop
O06
X Shaft SVON
I10
X Shaft Alarm
E/S POWER (COM +)
Brown (1 Black)
E/S COMON (COM -)
Brown (1 Red)
LEC
DRIVER Y
INPUTS
OUTPUTS
O10
Y Shaft IN 0
O11
Y Shaft IN 1
O12
Y Shaft IN 2
I12
Y Shaft BUSY
O14
Y Shaft SETUP
I13
Y Shaft Set ON
J2
10
Y Shaft HOLD
O15
Y Shaft DRIVE
I15
Y Shaft E.Stop
O13
Y Shaft SVON
I14
Y Shaft Alarm

Initialise XY system.



Positioning of the XY system

Input XY-Controller : controlled by bit combinations from the digital outputs: INX0..INX2 and INY0..INY2 (Example : control of the X-axis, see figure depicted hereafter)
See also table with the PLC outputs.



* "OUT" is output when "DRIVE" is changed from ON to OFF.
(When power supply is applied, "DRIVE" or "RESET" is turned ON or "*ESTOP" is turned OFF, all of the "OUT" outputs are turned OFF.)

PLC Input and Output for Controller X and Y

INX0	Q	124.3	BOOL	Input 0 table X
INX1	Q	124.4	BOOL	Input 1 table X
INX2	Q	124.5	BOOL	Input 2 table X
SVONX	Q	124.6	BOOL	Input SERVO ON table X
SETUPX	Q	124.7	BOOL	Input ORIGIN table X
HOLD	Q	125.0	BOOL	Input STOP table X and translation Y
DRIVEX	Q	125.1	BOOL	Input MOVE table X
INY0	Q	125.2	BOOL	Input 0 translation Y
INY1	Q	125.3	BOOL	Input 1 translation Y
INY2	Q	125.4	BOOL	Input 2 translation Y
SVONY	Q	125.5	BOOL	Input SERVO ON translation Y
SETUPY	Q	125.6	BOOL	Input ORIGIN translation Y
DRIVEY	Q	125.7	BOOL	Input MOVE translation Y

BUSYX	I 125.0	BOOL	Output BUSY table X
SETONX	I 125.1	BOOL	Output ORIGIN table X
ALARMX	I 125.2	BOOL	Output ALARM table X
EMERX	I 125.3	BOOL	Output EMERGENCY table X
BUSYY	I 125.4	BOOL	Output BUSY traslation Y
SETONY	I 125.5	BOOL	Output ORIGIN translation Y
ALARMY	I 125.6	BOOL	Output ALARM translation Y
EMERY	I 125.7	BOOL	Output EMERGENCY translation Y

Example:

moving XY to position 20:

Outputs for position 20 will be activated
(Q124.3) INX0 = 0
(Q124.4) INX1 = 0
(Q124.5) INX2 = 1
(Q125.2) INY0 = 1
(Q125.3) INY1 = 1
(Q125.4) INY2 = 0
after 15 ms or more : activate outputs (Q125.1)DRIVE X and (Q125.7) DRIVE Y. See also “Position operation” (Or document: Lineaire Motor Controller LECA6 en LECP6 Series)