

## Main\_Program [OB1]

### Main\_Program Properties

#### General

<b>Name</b>	Main_Program	<b>Number</b>	1	<b>Type</b>	OB
<b>Language</b>	LAD	<b>Numbering</b>	Manual		

#### Information

<b>Title</b>	"Main Program Sweep (Cycle)"	<b>Author</b>		<b>Comment</b>	
<b>Family</b>		<b>Version</b>	0.1	<b>User-defined ID</b>	

Name	Data type	Offset	Default value	Comment
▼ Temp				
OB1_EV_CLASS	Byte	0.0		Bits 0-3 = 1 (Coming event), Bits 4-7 = 1 (Event class 1)
OB1_SCAN_1	Byte	1.0		1 (Cold restart scan 1 of OB 1), 3 (Scan 2-n of OB 1)
OB1_PRIORITY	Byte	2.0		Priority of OB Execution
OB1_OB_NUMBR	Byte	3.0		1 (Organization block 1, OB1)
OB1_RESERVED_1	Byte	4.0		Reserved for system
OB1_RESERVED_2	Byte	5.0		Reserved for system
OB1_PREV_CYCLE	Int	6.0		Cycle time of previous OB1 scan (milliseconds)
OB1_MIN_CYCLE	Int	8.0		Minimum cycle time of OB1 (milliseconds)
OB1_MAX_CYCLE	Int	10.0		Maximum cycle time of OB1 (milliseconds)
OB1_DATE_TIME	Date_And_Time	12.0		Date and time OB1 started
Constant				

### Network 1: SP7-8

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#### SP7-8 Stamping Station Control

Additional internal memory:

Tag Address

Run M5.0 BOOL On while station running

Int\_Reset M5.1 BOOL Internal reset

Step\_1 to Step\_8 M0.1 to M1.0 BOOL Step-in-progress bits

Ram\_Up\_Tmr DB4 TON\_SFB Times raising of stamp head

Ram\_Up\_Tic\_Ctr DB7 CTU\_SFB Counter for retentive timer

Retract\_Tmr DB1 TON\_SFB Times retract of PCYL2

Rst\_Tmr DB3 TON\_SFB Times raising of stamp head when reset

TmpDI MD120 DINT Temporary double integer

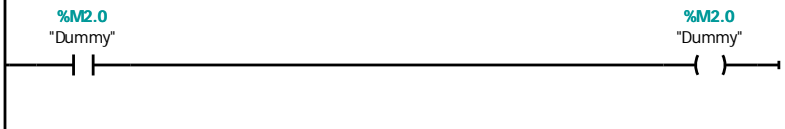
TmpR MD124 REAL Temporary real

Ret\_Val MW12 WORD Return value from SCALE block

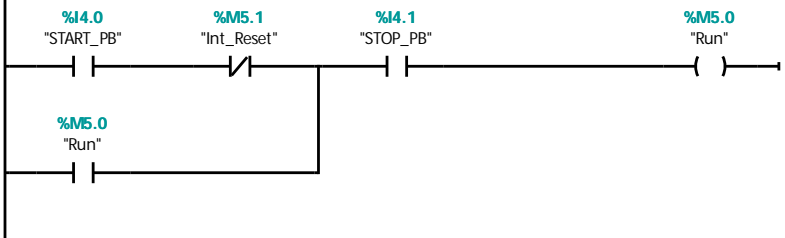
Always\_Off M10.0 BOOL Always off bit for SCALE block

Conversion formula:

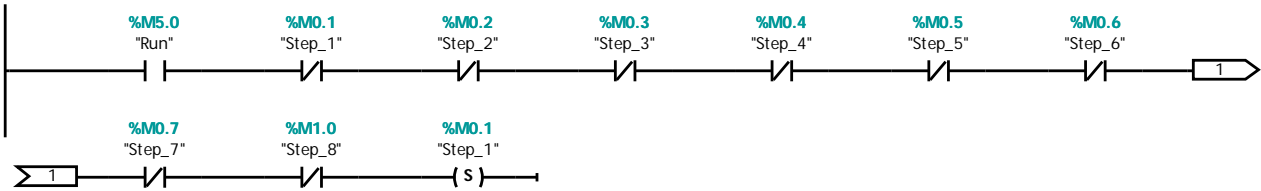
$PT214\_VAL = (PT214\_MEAS - 5530) / 22118.0 * (3000.0) + 2000.0$



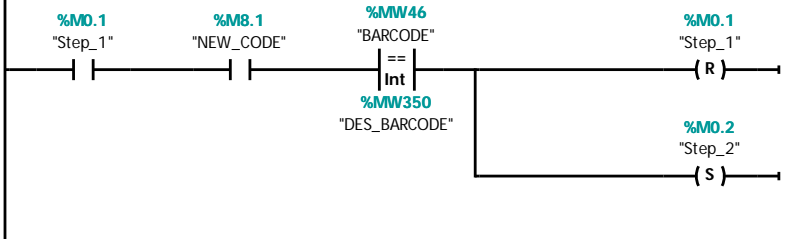
Network 2: Start/stop



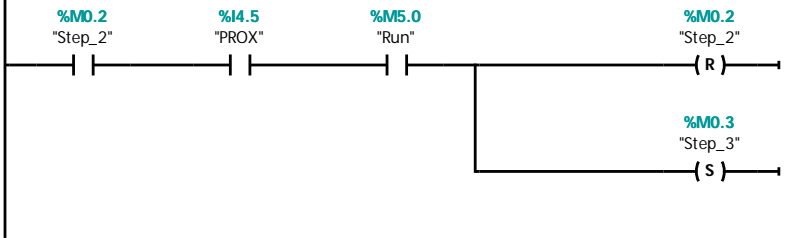
Network 3: Initial Start



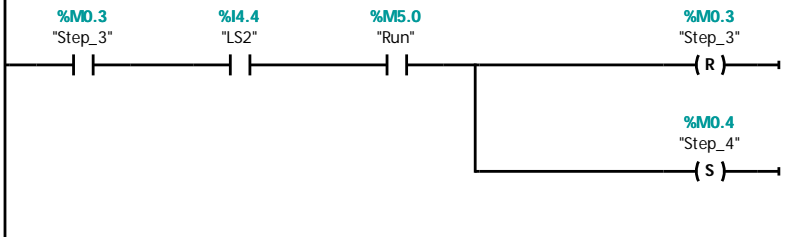
Network 4: Step 1 Wait for correct code



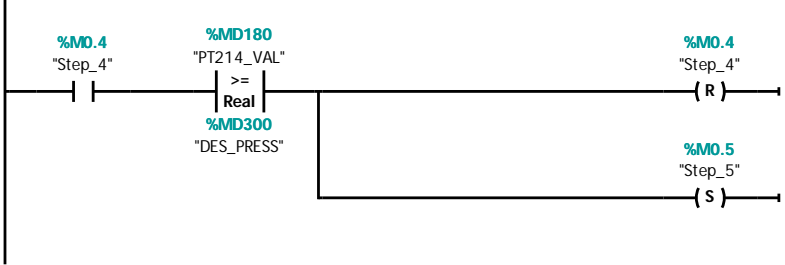
Network 5: Step 2 Wait for piece in position



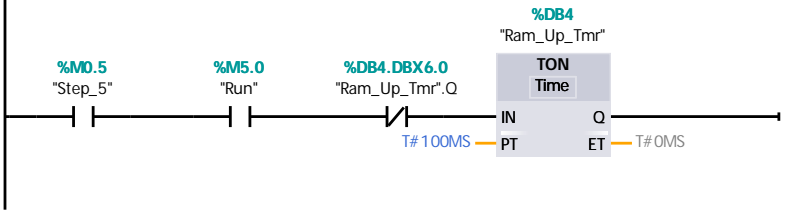
Network 6: Step 3 Push piece in



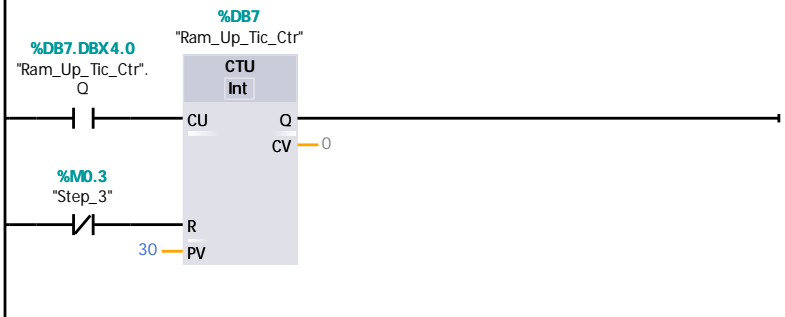
Network 7: Step 4 - Stamp part



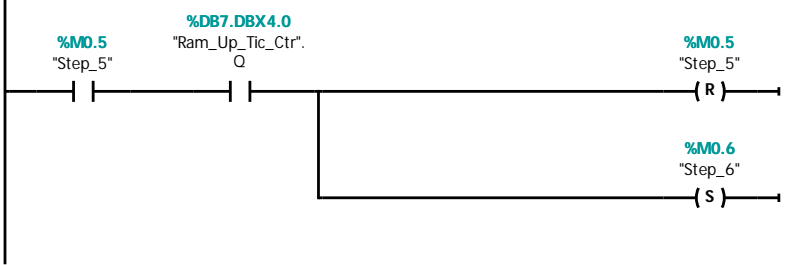
Network 8: Step 5 Timer for tics for retentive timer



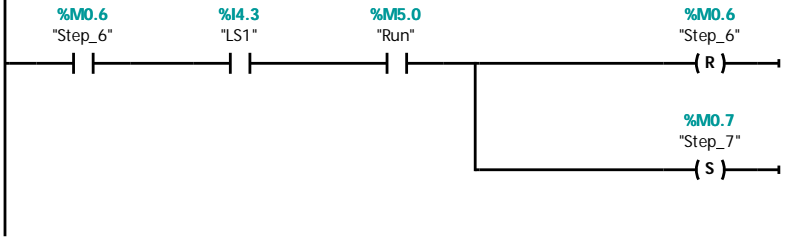
Network 9: Step 5 tic counter



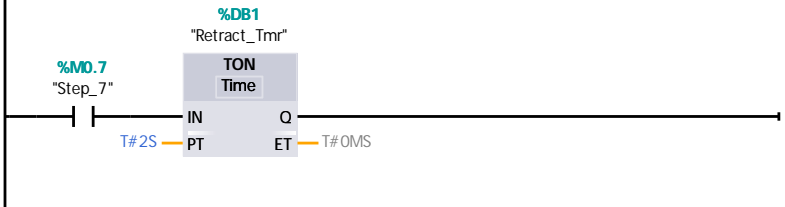
Network 10: Step 5 Move stamp up, retentive timer



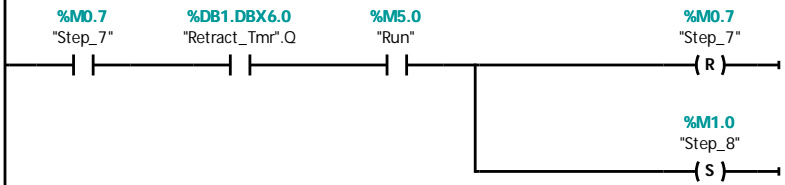
Network 11: Step 6 - Push to conveyor



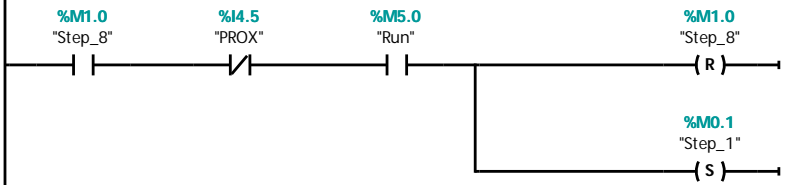
Network 12: Step 7 Timer



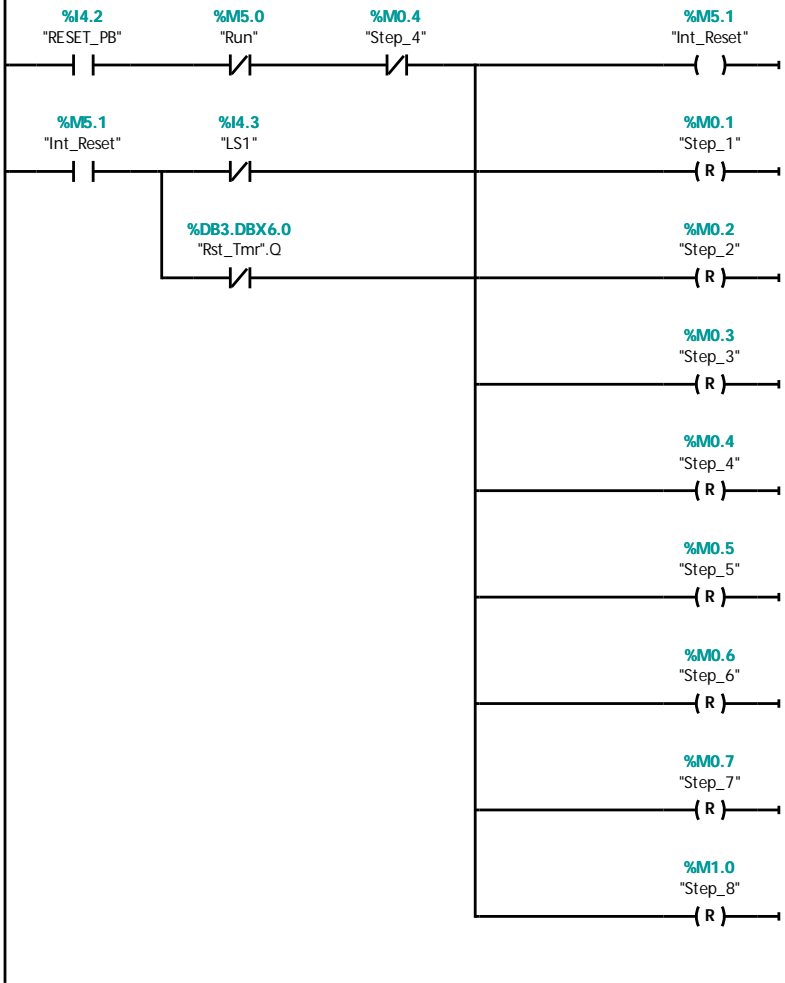
Network 13: Step 7 Retract PCYL2



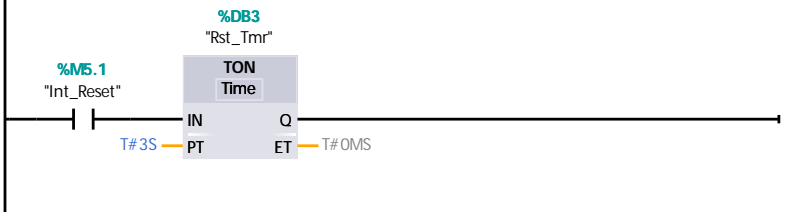
Network 14: Step 8 Move Out



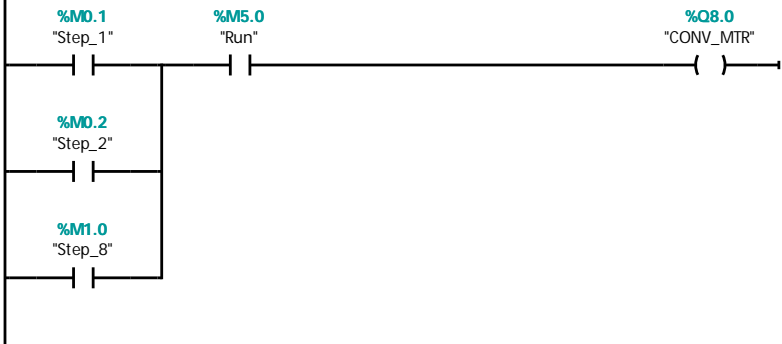
Network 15: Reset



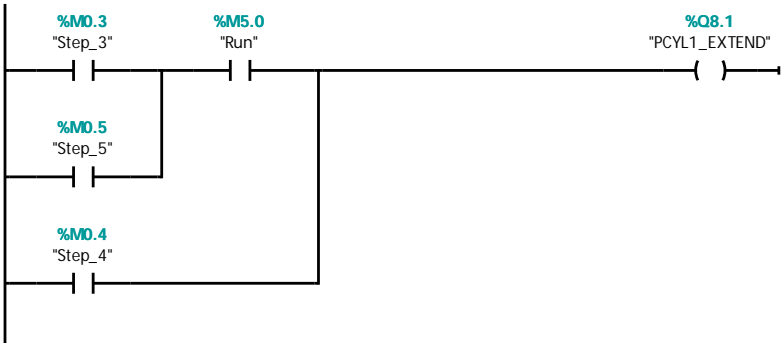
Network 16: Timer for raising stamp when reset



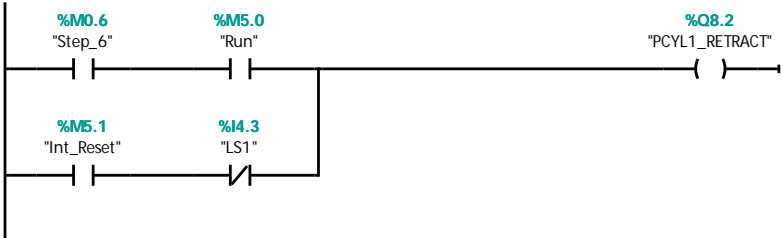
Network 17: Conveyor control



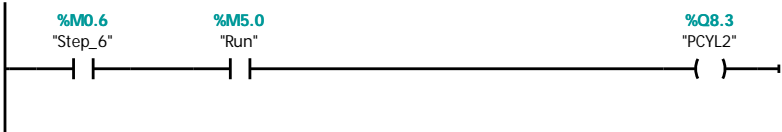
Network 18: PCYL controls



Network 19: PCYL1 retract ram control



Network 20: PCYL2 ram control



Network 21: Stamp control

**%M0.4**  
"Step\_4"

**%Q8.4**  
"STAMP\_DOWN"

## Network 22: On to move stamp ram up

**%M0.5**  
"Step\_5"

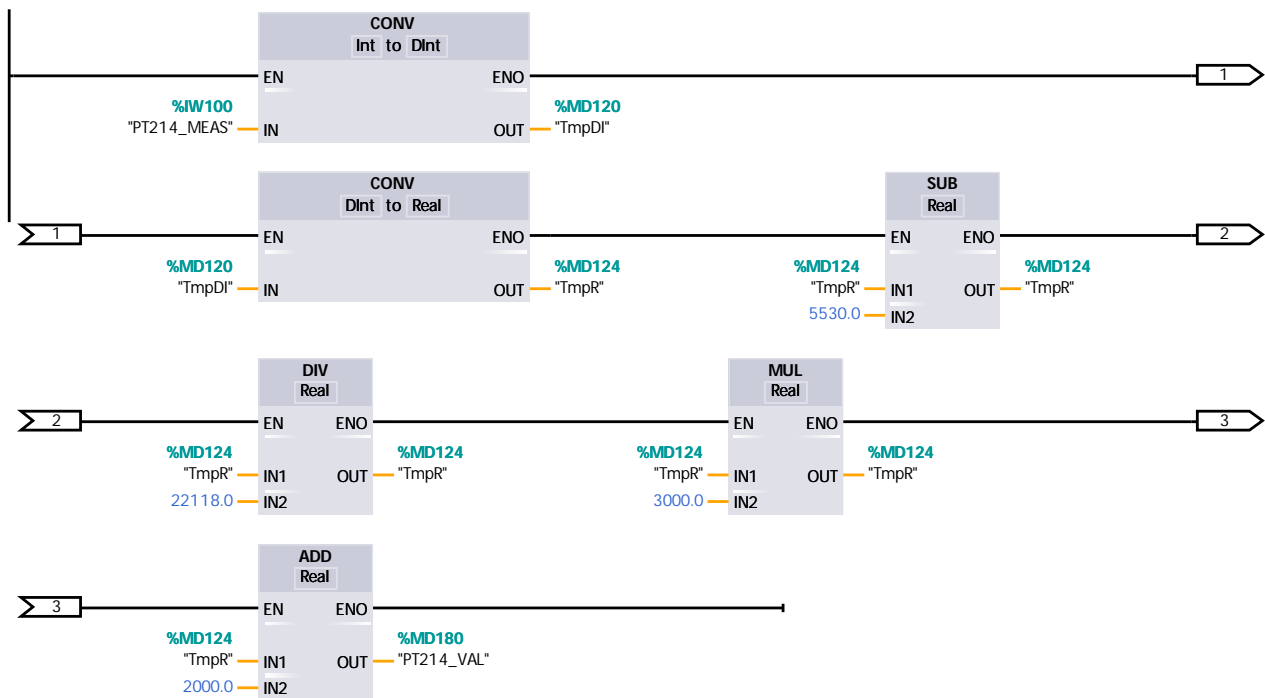
**%M5.0**  
"Run"

**%Q8.5**  
"STAMP\_UP"

**%M5.1**  
"Int\_Reset"

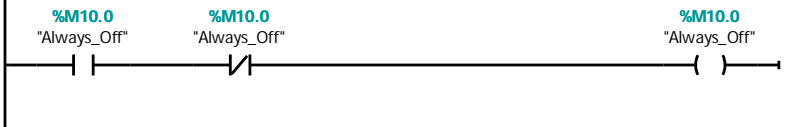
## Network 23: Convert pressure measurement with comp blocks

Convert pressure measurement to psi.  
Uses individual computation blocks.



## Network 24: Always Off





**Network 25: Convert pressure measurement with SCALE**

Convert pressure measurement to psi.  
Uses SCALE block. Note that the lo\_lim input is 25% lower than zero weight to account for this block assuming the minimum value of the analog in is zero rather than the 5530 (which corresponds to 4 mA).

