

## 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	Default value
▼ Temp		
OB1_EV_CLASS	Byte	
OB1_SCAN_1	Byte	
OB1_PRIORITY	Byte	
OB1_OB_NUMBR	Byte	
OB1_RESERVED_1	Byte	
OB1_RESERVED_2	Byte	
OB1_PREV_CYCLE	Int	
OB1_MIN_CYCLE	Int	
OB1_MAX_CYCLE	Int	
OB1_DATE_TIME	Date_And_Time	
Constant		

### Network 1: SP7-7

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#### SP7-7 Width Check Station Control

Additional internal memory:

Tag Address

Run M3.1 BOOL On while station running

Step\_1 to Step\_3 M0.1 to M0.3 BOOL Step-in-progress bits

Clamp\_Tmr DB1 TON\_SFB Delay for measurement to stabilize

Release\_Tmr DB3 TON\_SFB Tic for delay to allow parts to move out

Release\_Ctr DB7 CTU\_SFB Counter part of retentive delay to move out parts

Part\_Ctr DB2 CTU\_SFB Counts parts

TmpDI MD120 DINT Temporary double integer

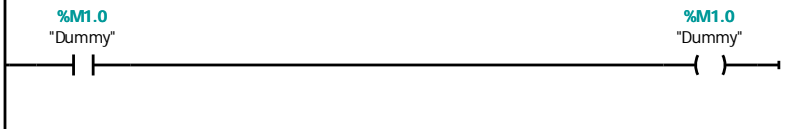
TmpR MD124 REAL Temporary real

Ret\_Val MW12 WORD Return value from SCALE block

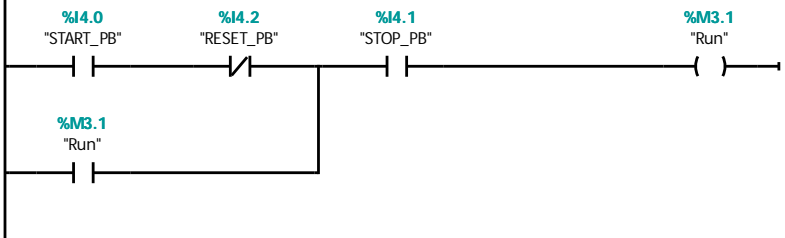
Always\_Off M10.0 BOOL Always off bit for SCALE block

Conversion formula:

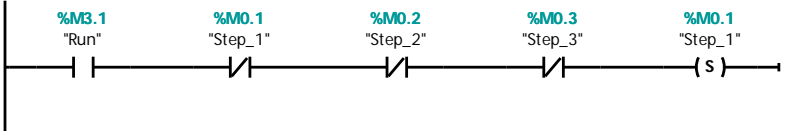
$WIDTH\_VAL = (WIDTH\_MEAS - 5530) / 22118.0 * (70.0)$



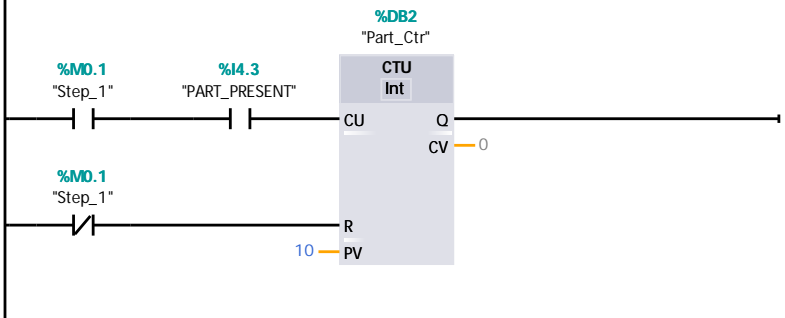
Network 2: Start/stop



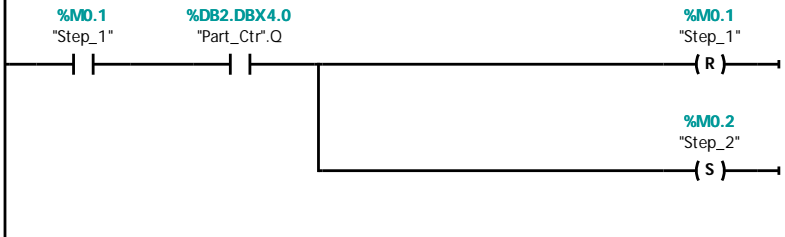
Network 3: Initial Start



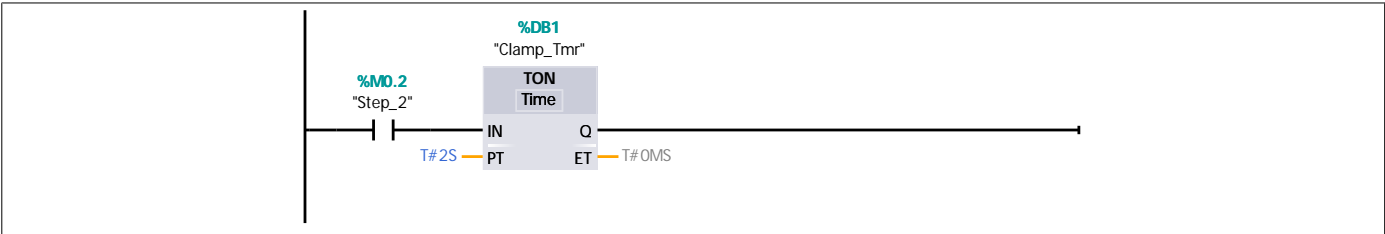
Network 4: Step 1 Counter



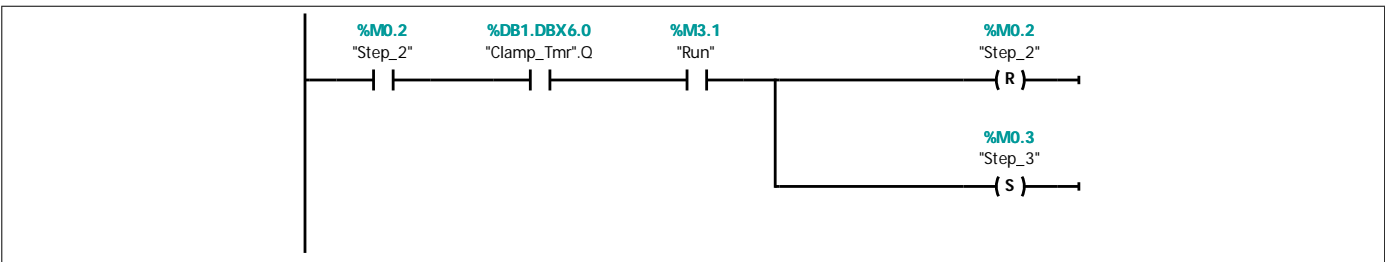
Network 5: Step 1 Wait for tenth part



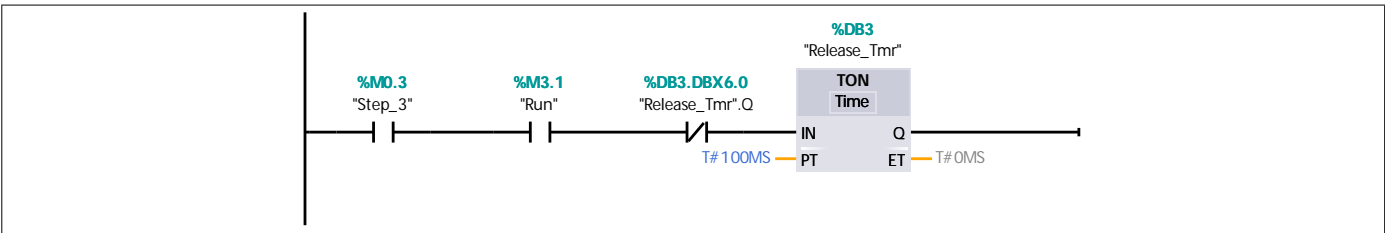
Network 6: Step 2 timer



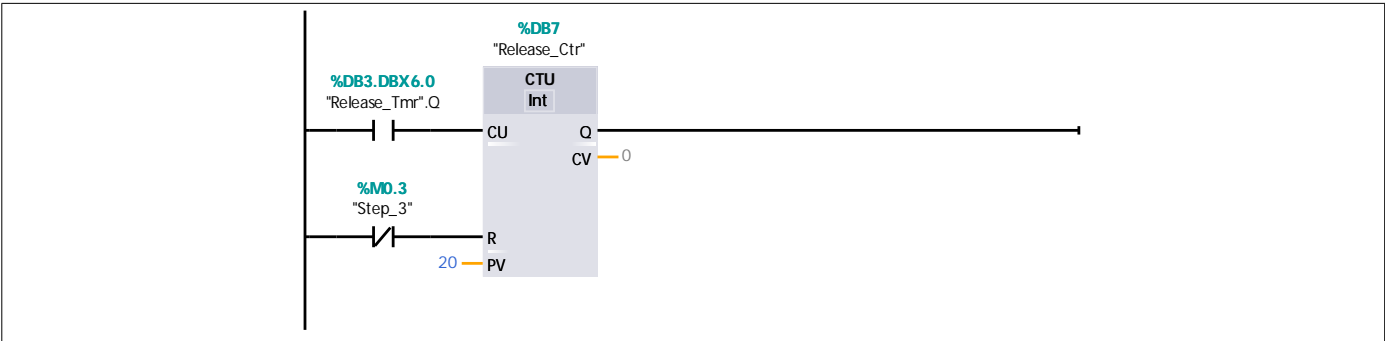
Network 7: Step 2 Wait 2 sec for width to stabilize.



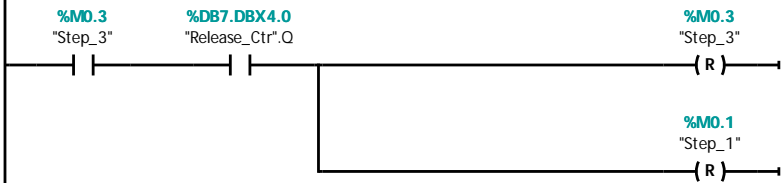
Network 8: Step 3 retentive timer



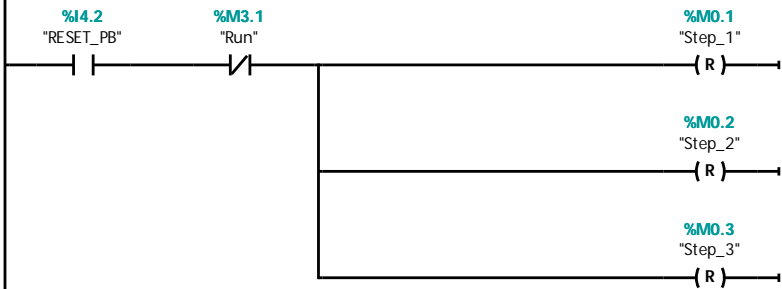
Network 9:



Network 10: Step 3 Release part and wait 2 sec



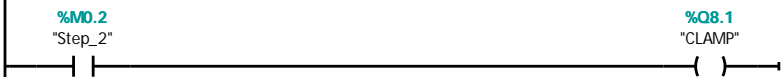
**Network 11: Reset**



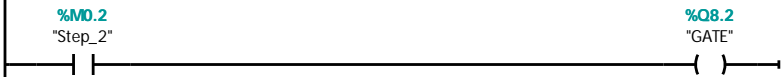
**Network 12: Conveyor control**



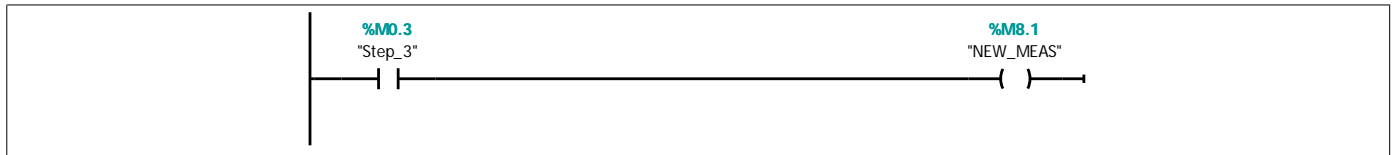
**Network 13: Clamp control**



**Network 14: Gate control**

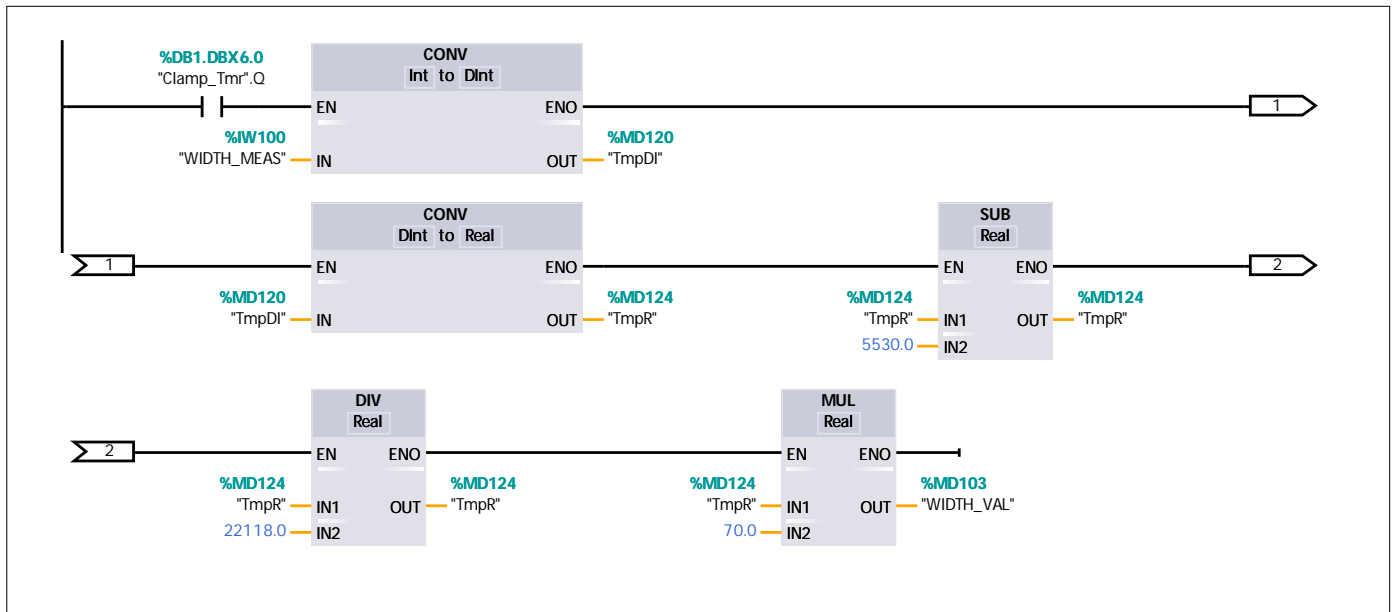


### Network 15: Coil to let other part of program know there is a new width.

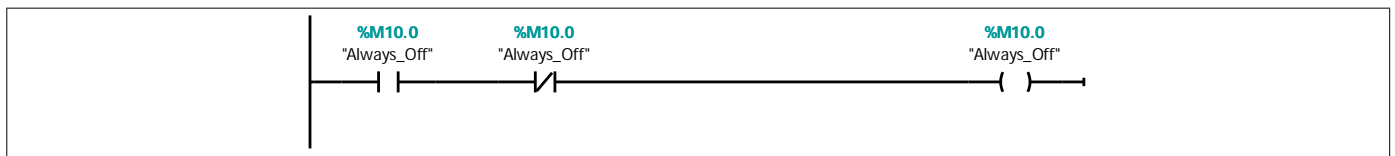


### Network 16: Convert width measurement with comp blocks

Convert width measurement to mm after 2 sec delay to let width settle.  
Uses individual computation blocks.



### Network 17: Always Off



### Network 18: Convert width measurement with SCALE

Convert width measurement to mm after 2 sec delay to let width settle..  
Uses SCALE block. Note that the lo\_lim input is 25% lower than zero width to account for this block assuming the minimum value of the analog in is zero rather than the 5530 (which corresponds to 4 mA).

