

OB1 - <offline>

""

Name:

Family:

Author:Version: 0.1

Block version: 2

Time stamp Code:12/31/2015 10:22:49 AM

Interface:02/15/1996 04:51:12 PM

Lengths (block/logic/data): 01080 00896 00030

Name	Data Type	Address	Comment
TEMP		0.0	
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

Block: OB1"Main Program Sweep (Cycle)"

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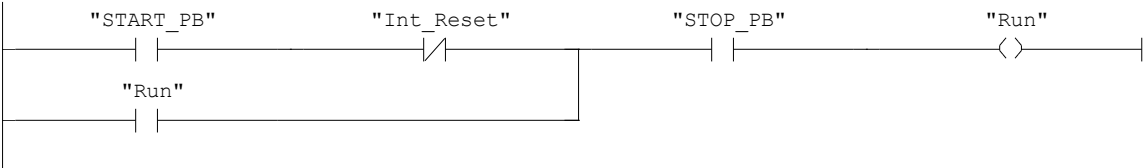
SP7-10 Hole Drilling Station Control

Additional internal memory:

Symbol	Address		
Run	M5.0	BOOL	On while station running
Int_Reset	M5.1	BOOL	Internal reset
Step_1_to_Step_10	M0.1 to M1.2	BOOL	Step-in-progress bits
Clamp_Tmr	DB1	SFB4	Times clamping
Pause_Tmr	DB3	SFB4	Times pause during drilling
Reset_Tmr	DB4	SFB4	Times retract of YCYL 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

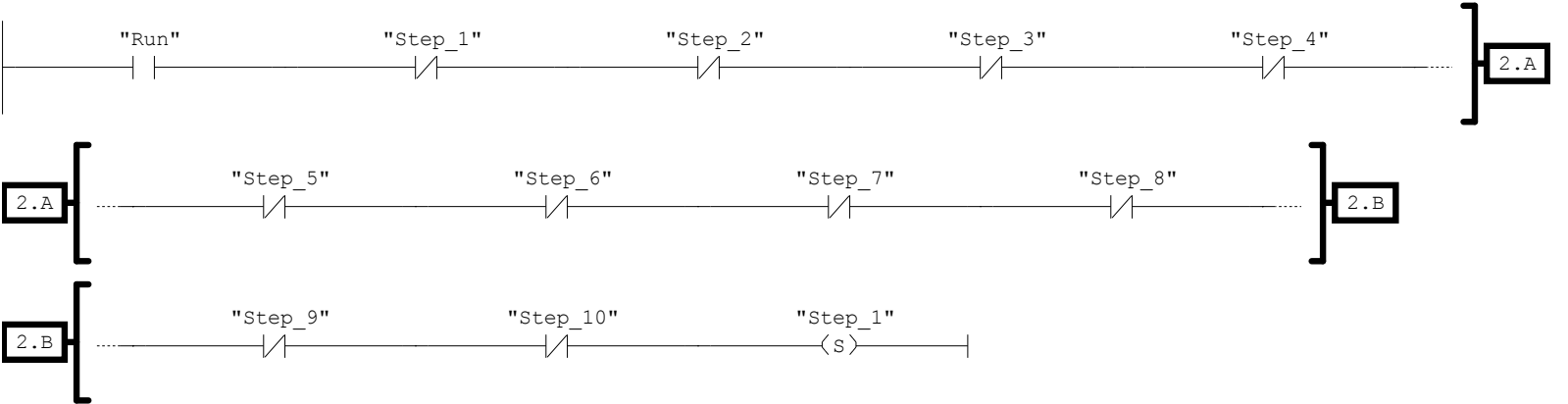
Conversion formulas:
X_VAL = (X_MEAS-5530)/22118.0) * (300.0-150.0) + 150.0
Y_VAL = (Y_MEAS-5530)/22118.0) * (110.0)

Network: 1Start/stop



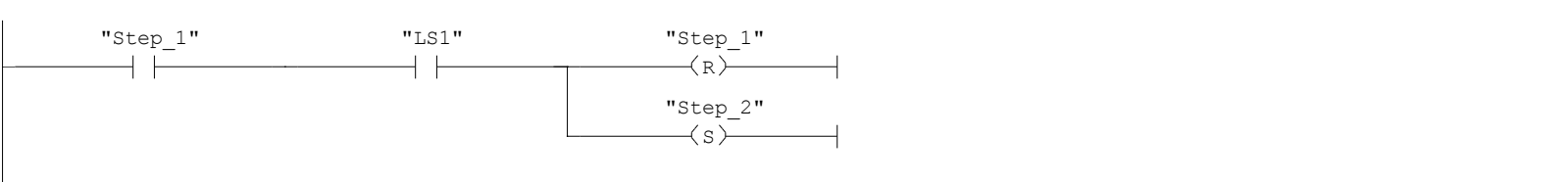
Network: 2

Initial Start



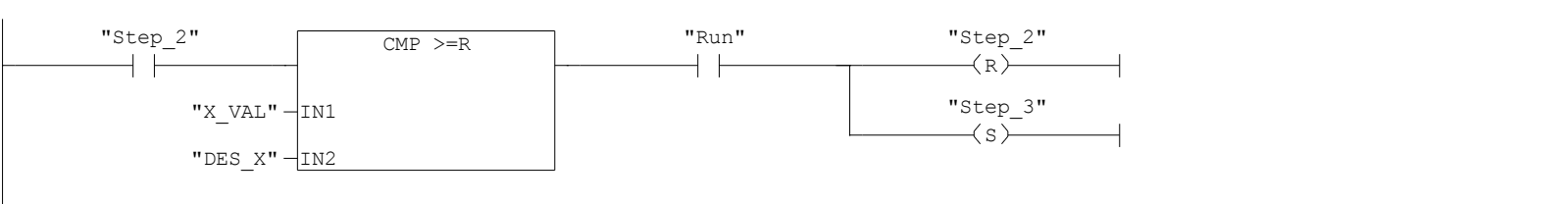
Network: 3

Step 1 Wait for piece



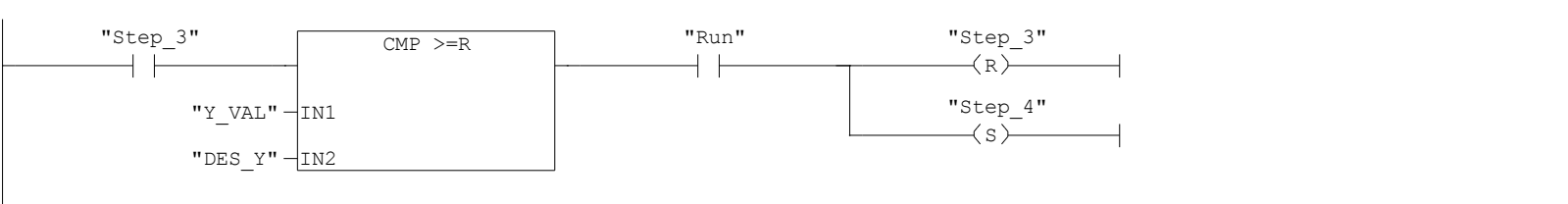
Network: 4

Step 2 Push to X position

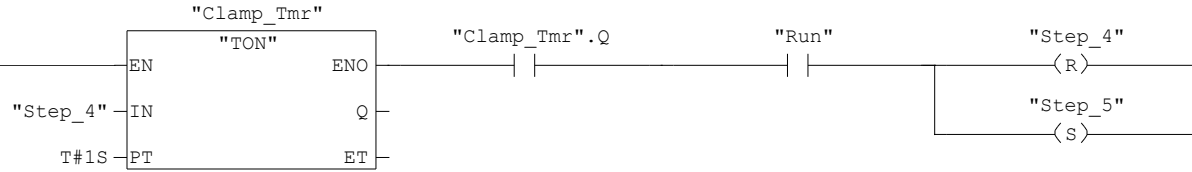


Network: 5

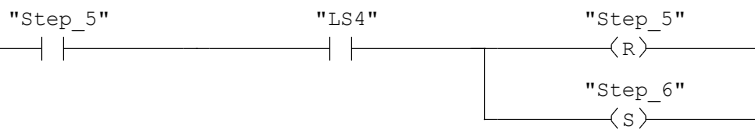
Step 3 Push to Y position



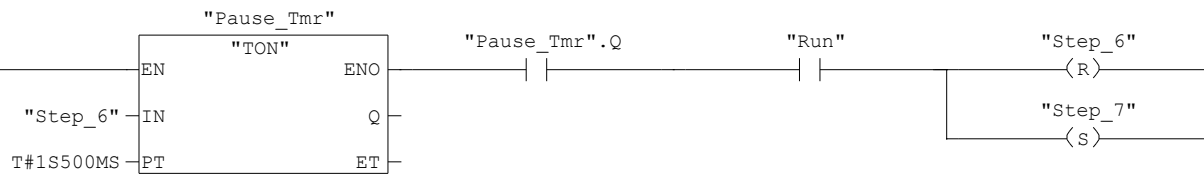
Network: 6 Step 4 - Clamp



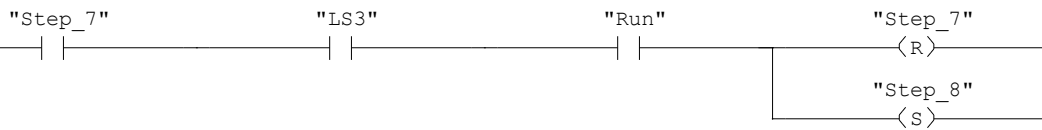
Network: 7 Step 5 Drill down



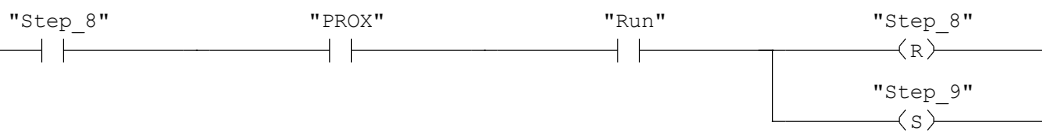
Network: 8 Step 6 - Pause



Network: 9	Step 7 Drill up
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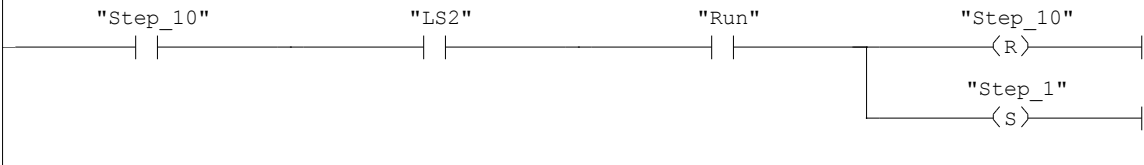
Network: 10	Step 8 Push partway out
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Network: 11

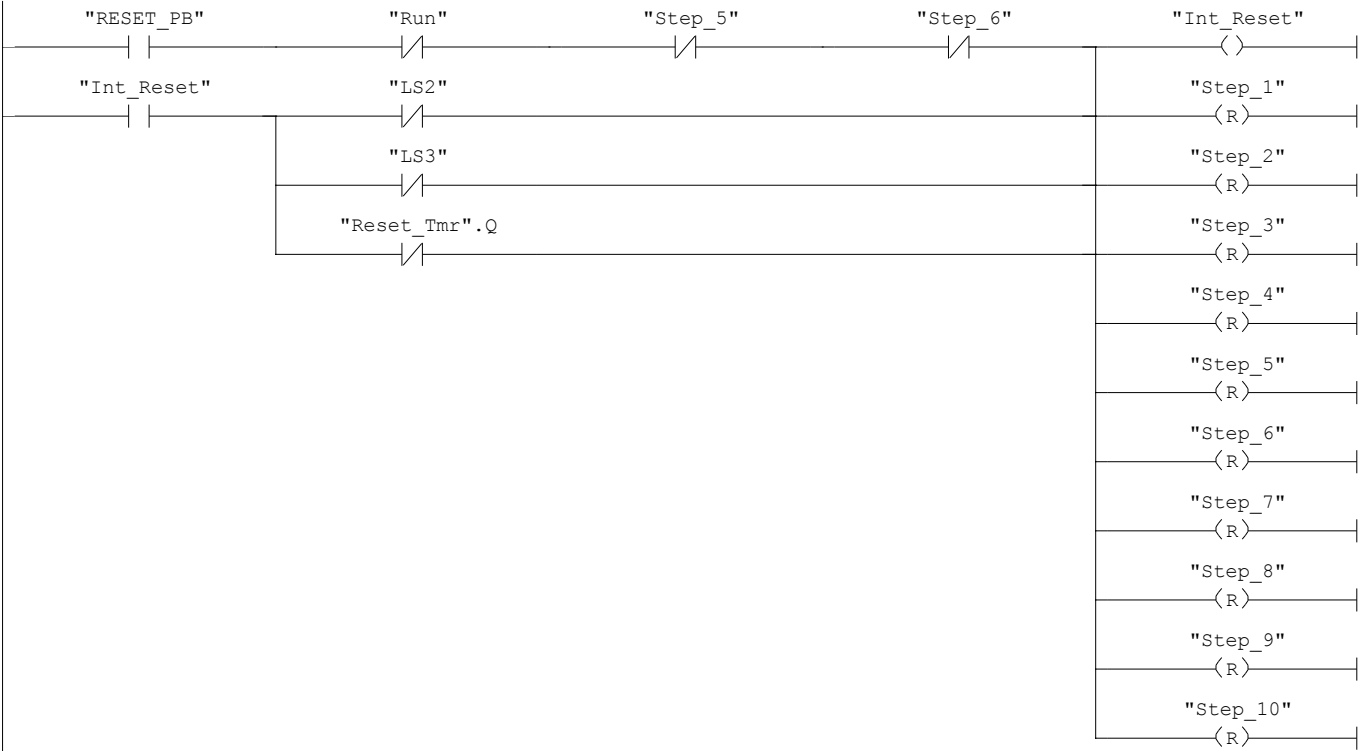


Network: 12



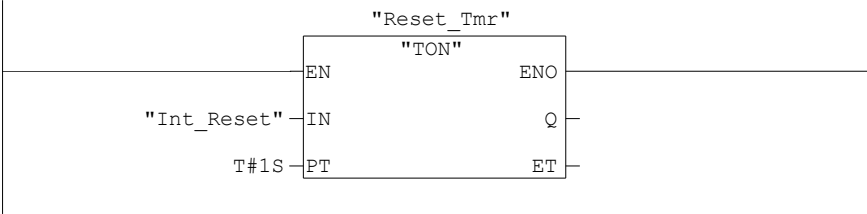
Network: 13 Reset

Cannot reset during drill down and pause steps



Network: 14

Timer for retracting CYL1 when reset



Network: 15

Conveyor controls



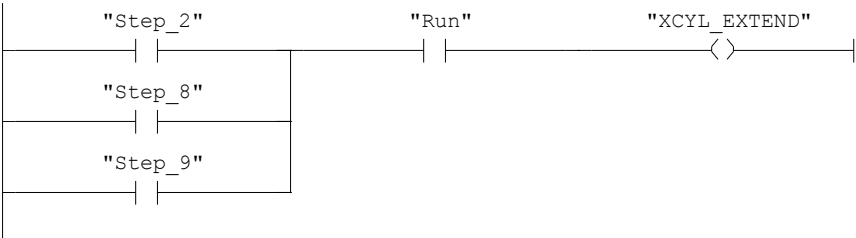
Network: 16

Outbound conveyor motor



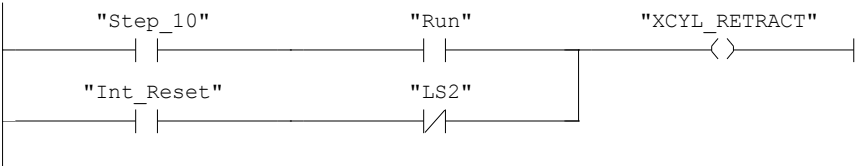
Network: 17

X, Y Cylinder Controls



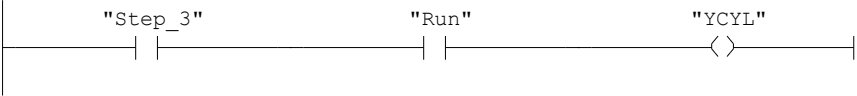
Network: 18

Main cylinder extension control



Network: 19

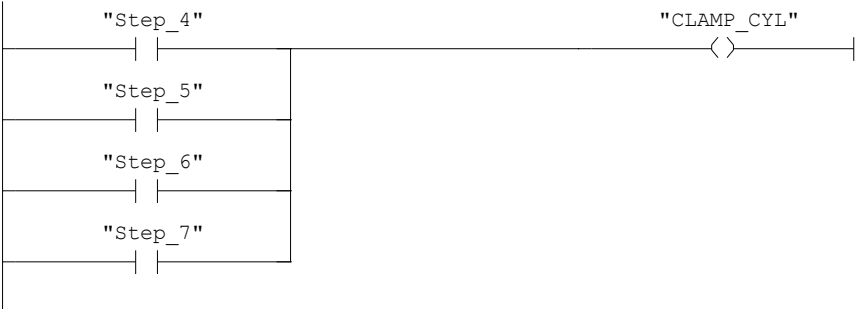
Main cylinder retraction control



Network: 20

Clamp cylinder control

Must remain on when paused.



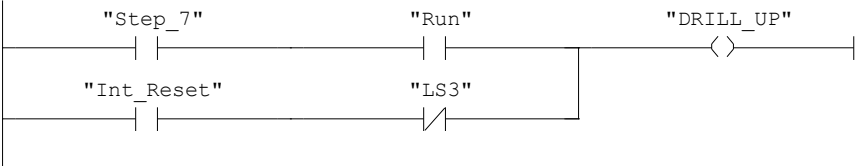
Network: 21

Drill control



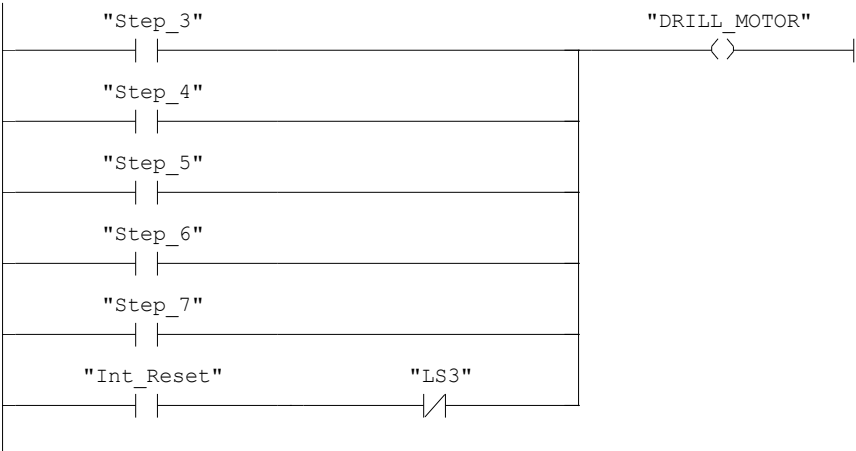
Network: 22

Drill cylinder retraction control



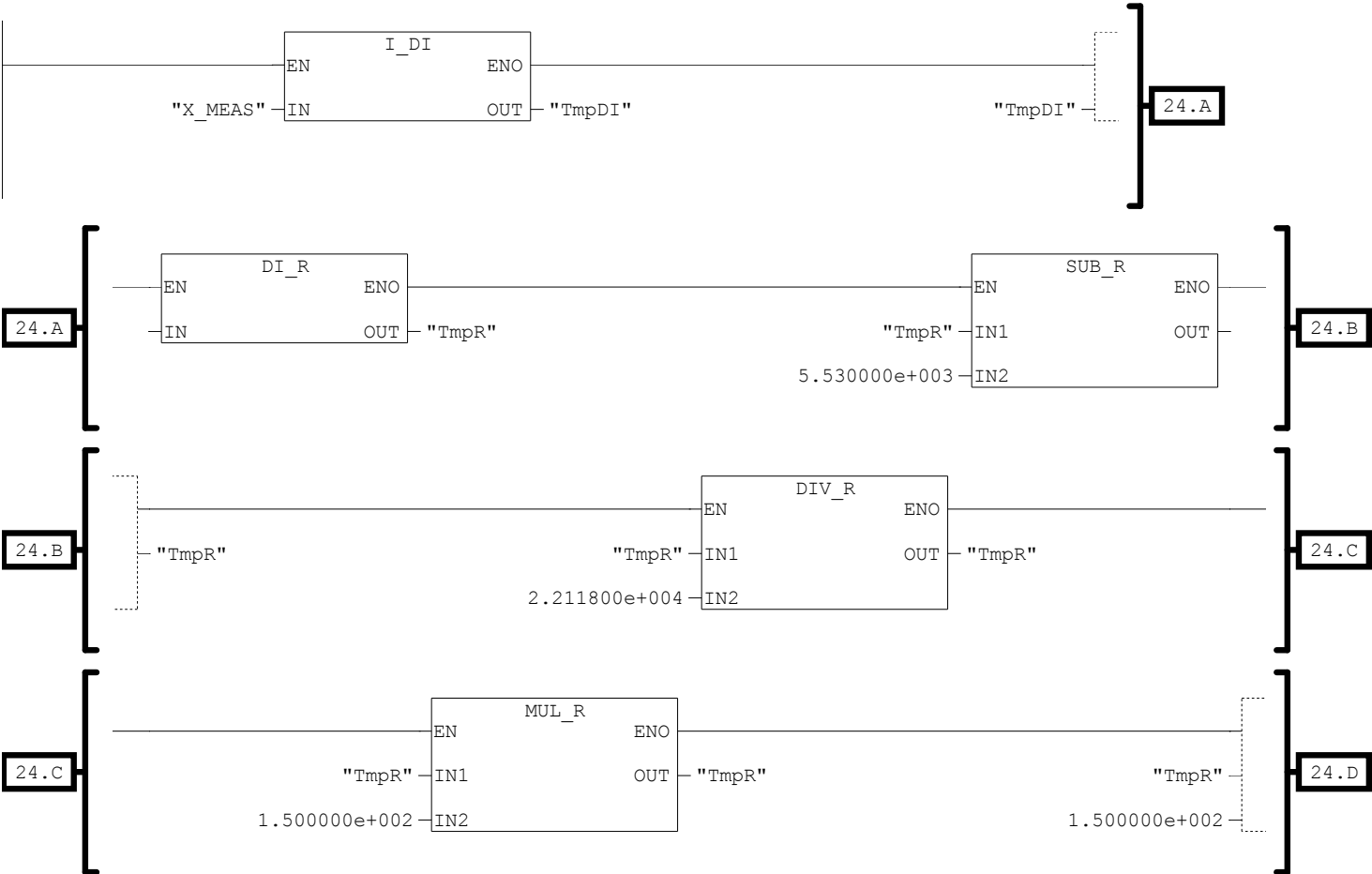
Network: 23 Drill motor control

Must remain on when paused. Must run during reset if retracting drill.



Network: 24

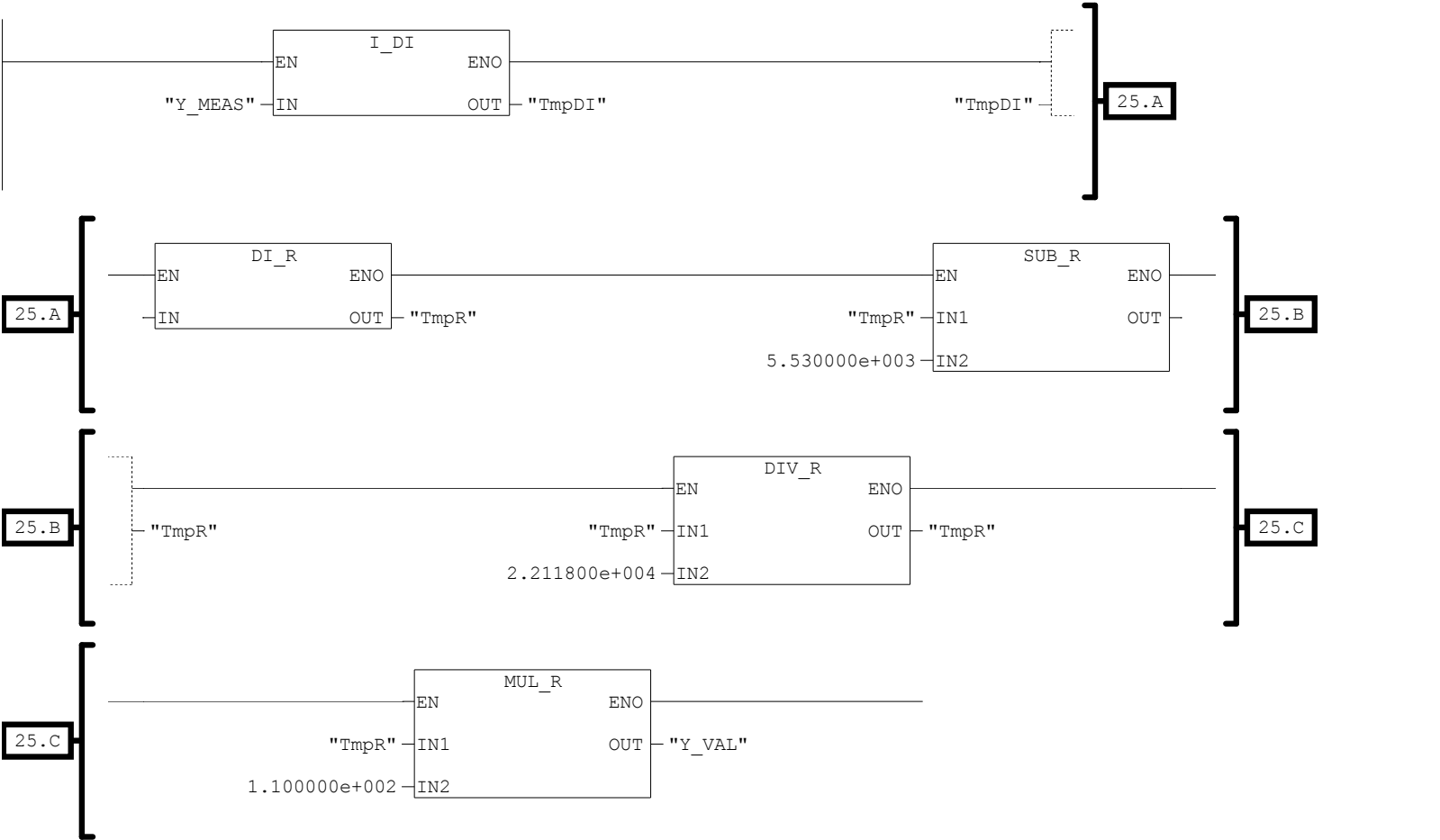
Convert X measurement to mm.
Uses individual computation blocks.





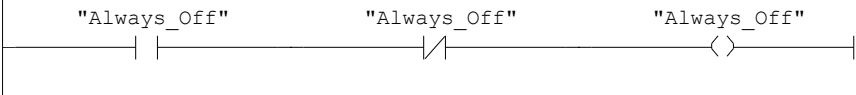
Network: 25

Convert Y measurement to mm.
Uses individual computation blocks.



Network: 26

Always Off



Network: 27

Convert X and Y measurements to mm.
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).

