

OB1 - <offline>

""

Name:

Author:

Time stamp Code:

Lengths (block/logic/data):

Family:

Version: 0.1

Block version: 2

12/31/2015 10:25:59 AM

02/15/1996 04:51:12 PM

01784 01550 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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SP7-14 Multi-Tank Batch Control

Additional internal memory:

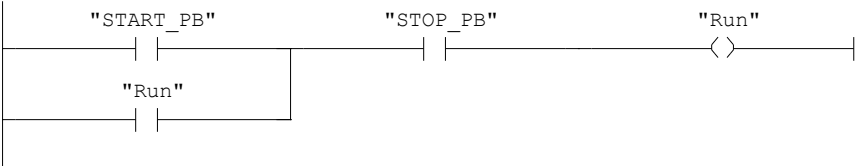
Symbol	Address		
Run	M5.0	BOOL	On while batch running
Step_1 to Step_22	M0.1 to M2.7	BOOL	Step-in-progress bits
Delay_Tmr	DB1	SFB4	Delay after emptying half of tanks
Reaction_Tmr	DB2	SFB4	Times reaction
TmpDI	MD120	DINT	Temporary double integer
TmpR	MD124	REAL	Temporary real
Ret_Val	MW12	WORD	Return value from SCALE block
Always_Off	M10.0	BOOL	Always off bit for SCALE block

Conversion formulas

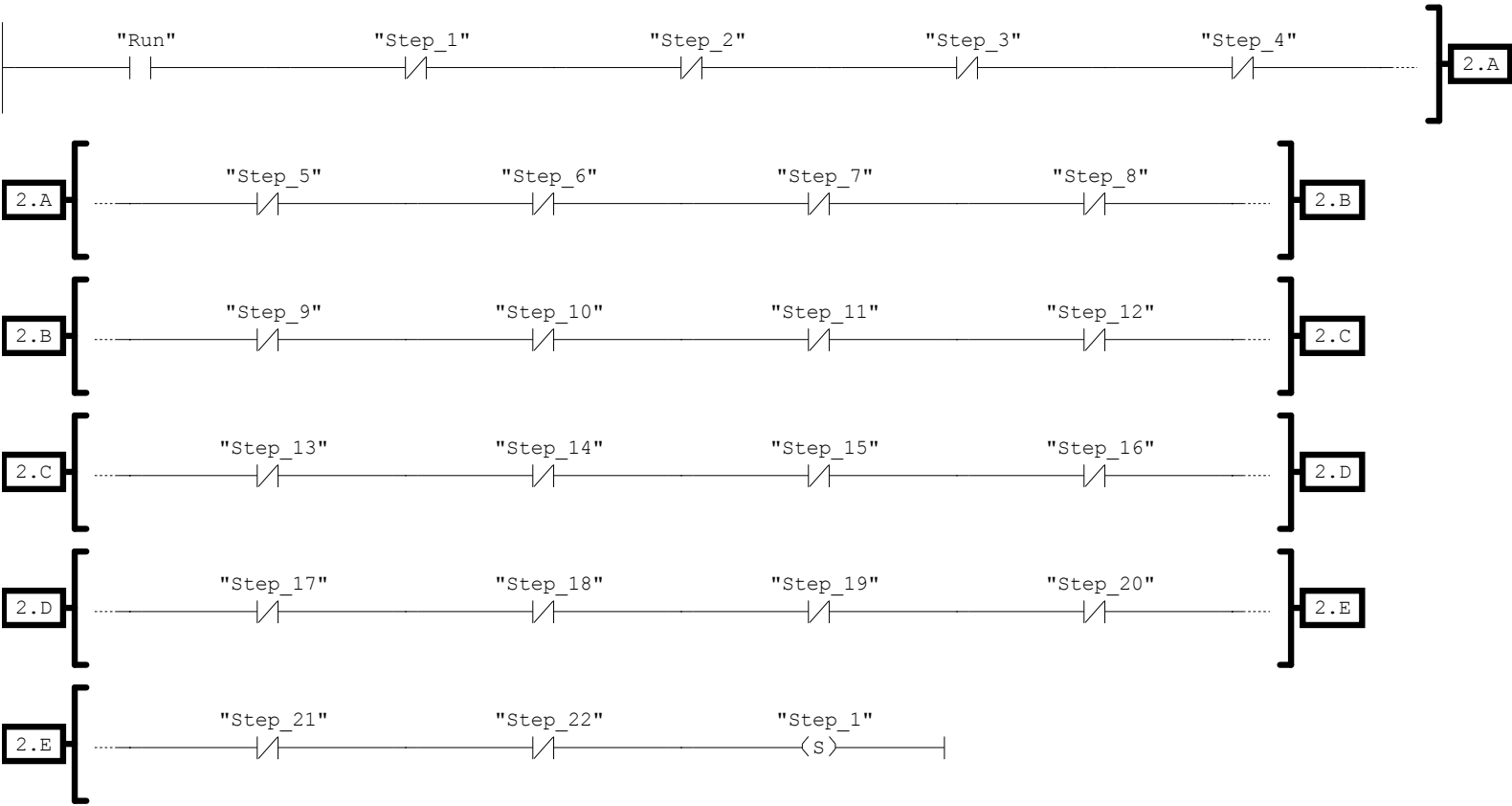
WT10x\_VAL = ((WT10x\_MEAS-5530 / (22118) \* (1000)

TT103\_VAL = ((TT103\_MEAS-5530 / (22118) \* (100)

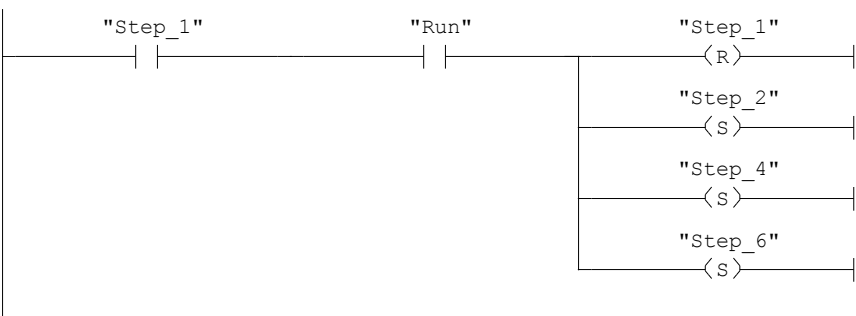
Network: 1      Start/Stop



Network: 2      Initial Start

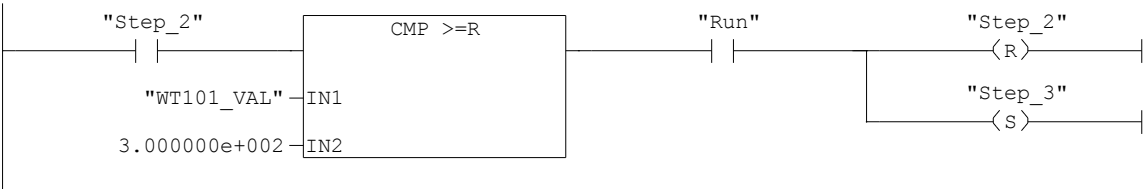


Network: 3      Step 1 Make sure run is on (especially after a pause)



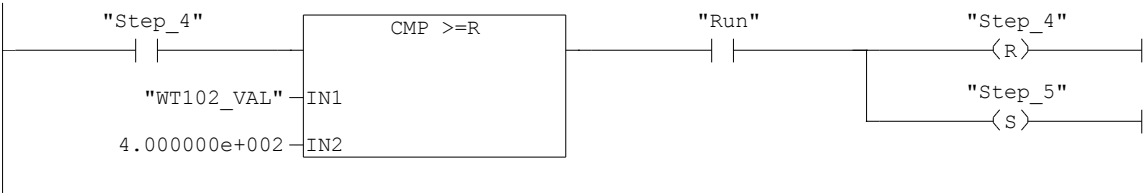
Network: 4      Step 2. Fill Tank 1

Transition to wait when full



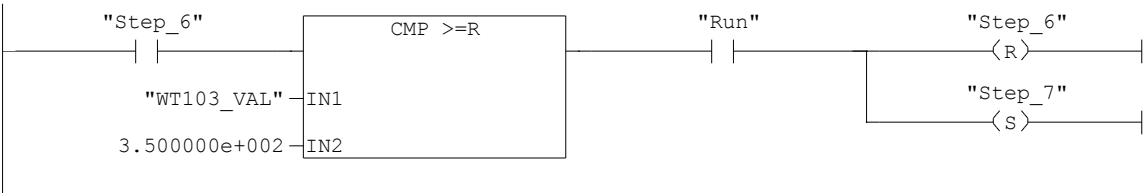
Network: 5      Step 4. Fill Tank 2

Transition to wait when full



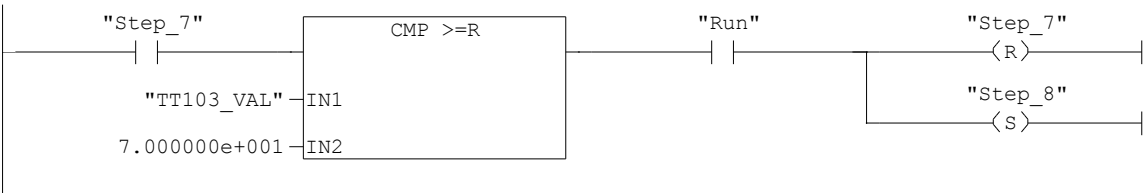
Network: 6      Step 6. Fill Tank 3

Transition to heating when full

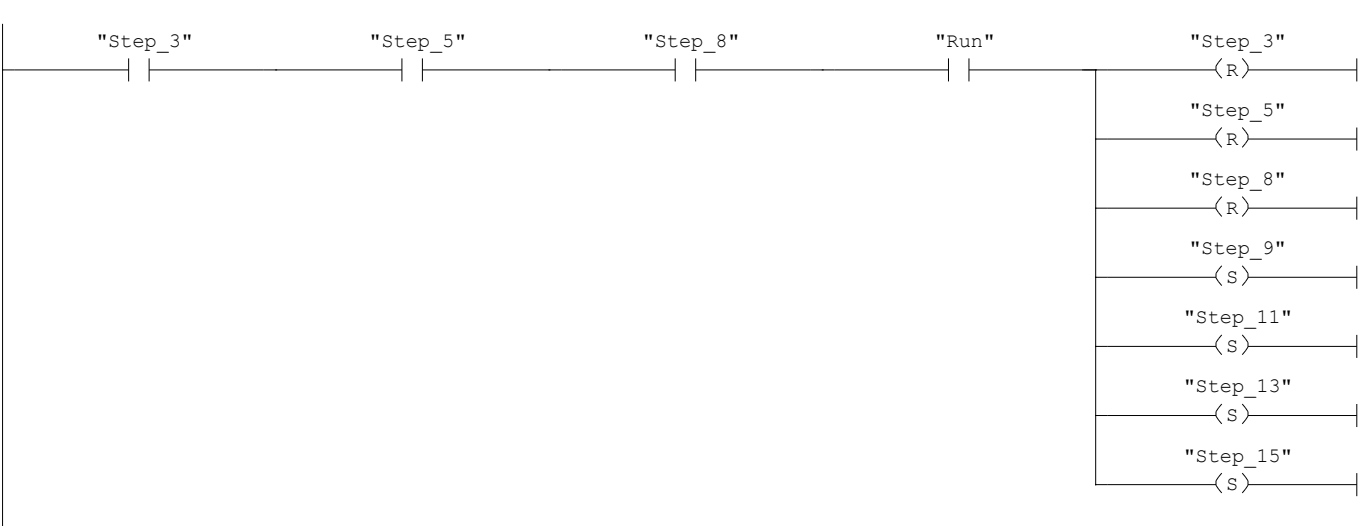


Network: 7      Step 7. Heat tank 3

Transition to wait when temperature >= 70

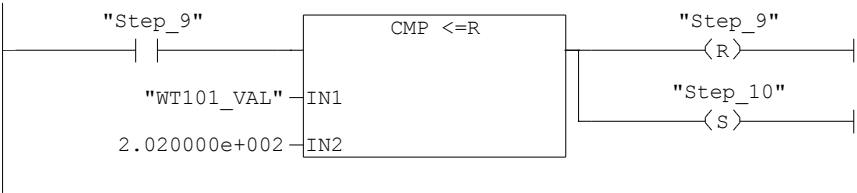


Network: 8      Steps 3, 5, 8 - Wait until all tanks full and 3 heated



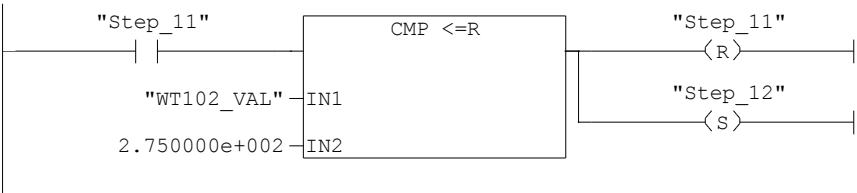
Network: 9      Step 9. Empty Tank 1

Transition to hold when material moved out.



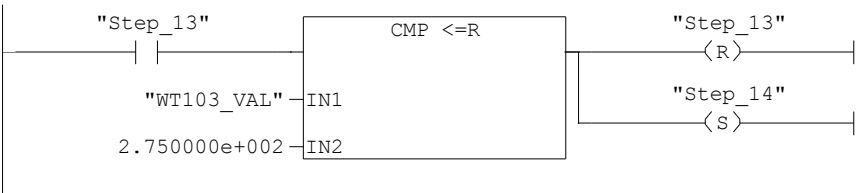
Network: 10      Step 11. Empty half of material in Tank 2.

Transition to hold when material moved out.



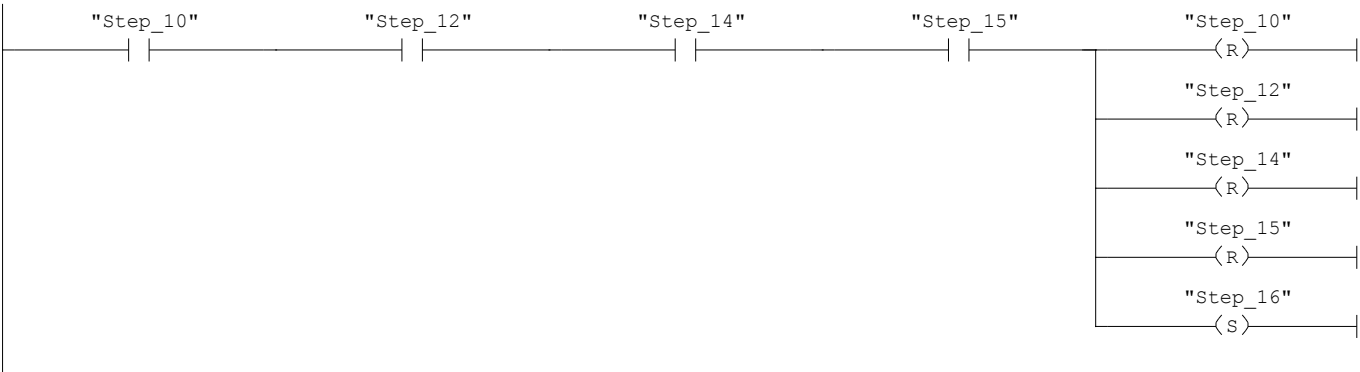
Network: 11      Step 13. Empty half of material in Tank 3.

Transition to hold when material moved out.



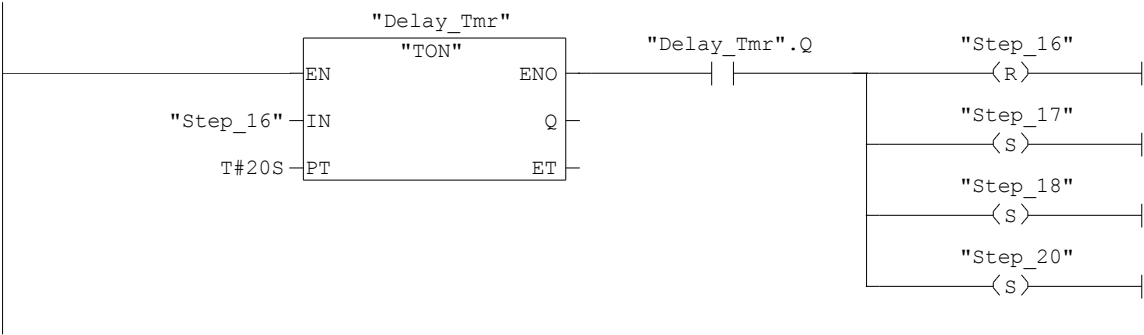
Network: 12      Steps 10, 12, 14, 15.

Stor while waiting (Step 15) until all tanks have unloaded appropriate amount of material.



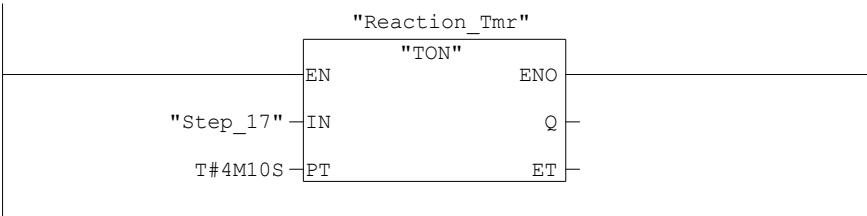
Network: 13

Step 16. Wait for 20 seconds



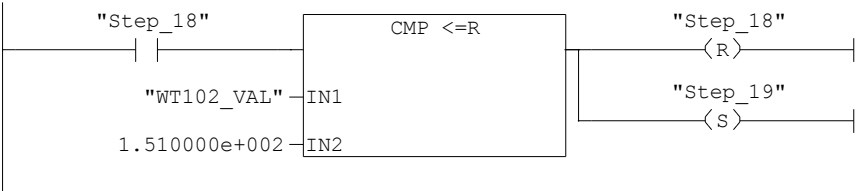
Network: 14

Step 17 - 250 sec reaction time



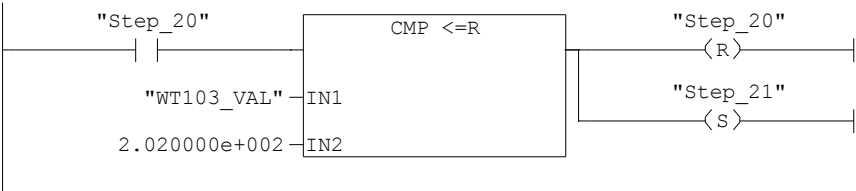
Network: 15

Step 18 - Empty remainder of material in Tank 2

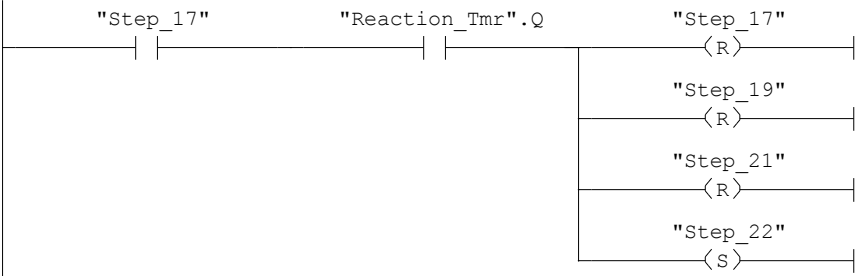


Network: 16

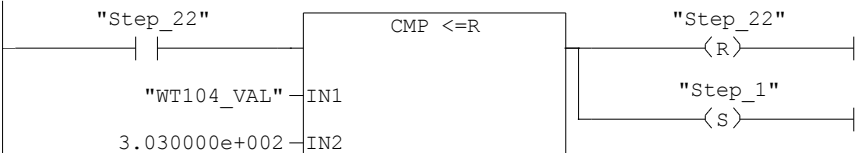
Step 20. Empty remainder of material in Tank 3



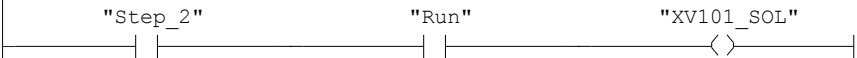
Network: 17      Step 17, 19, 21. Wait for 250 sec timer to be done



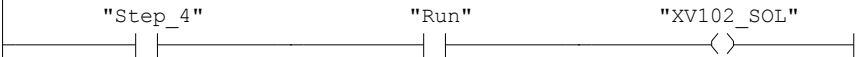
Network: 18      Step 22. Empty Tank 4



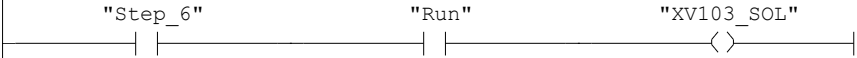
Network: 19      Valves



Network: 20      On to open XV102



Network: 21



Network: 22



Network: 23

On to open XV105



Network: 24

On to open XV106



Network: 25

On to open XV107



Network: 26

Pumps



Network: 27

On to run pump P-106



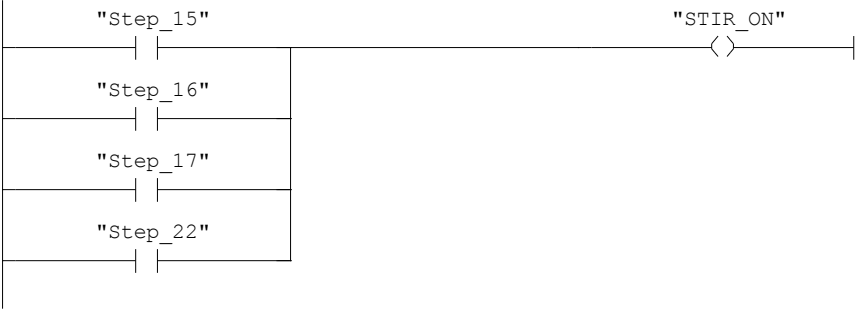
Network: 28

On to run pump P-107



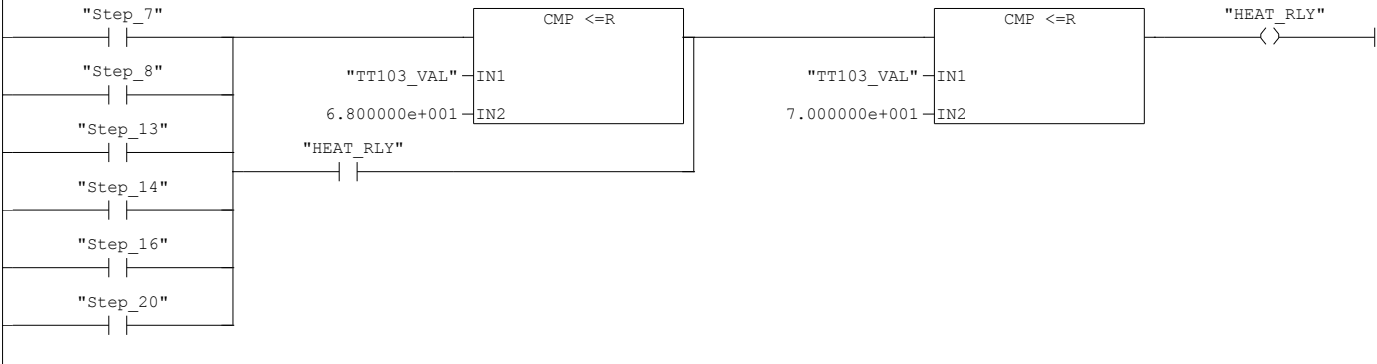
Network: 29

Stirrer



Network: 30

Heater



Network: 31

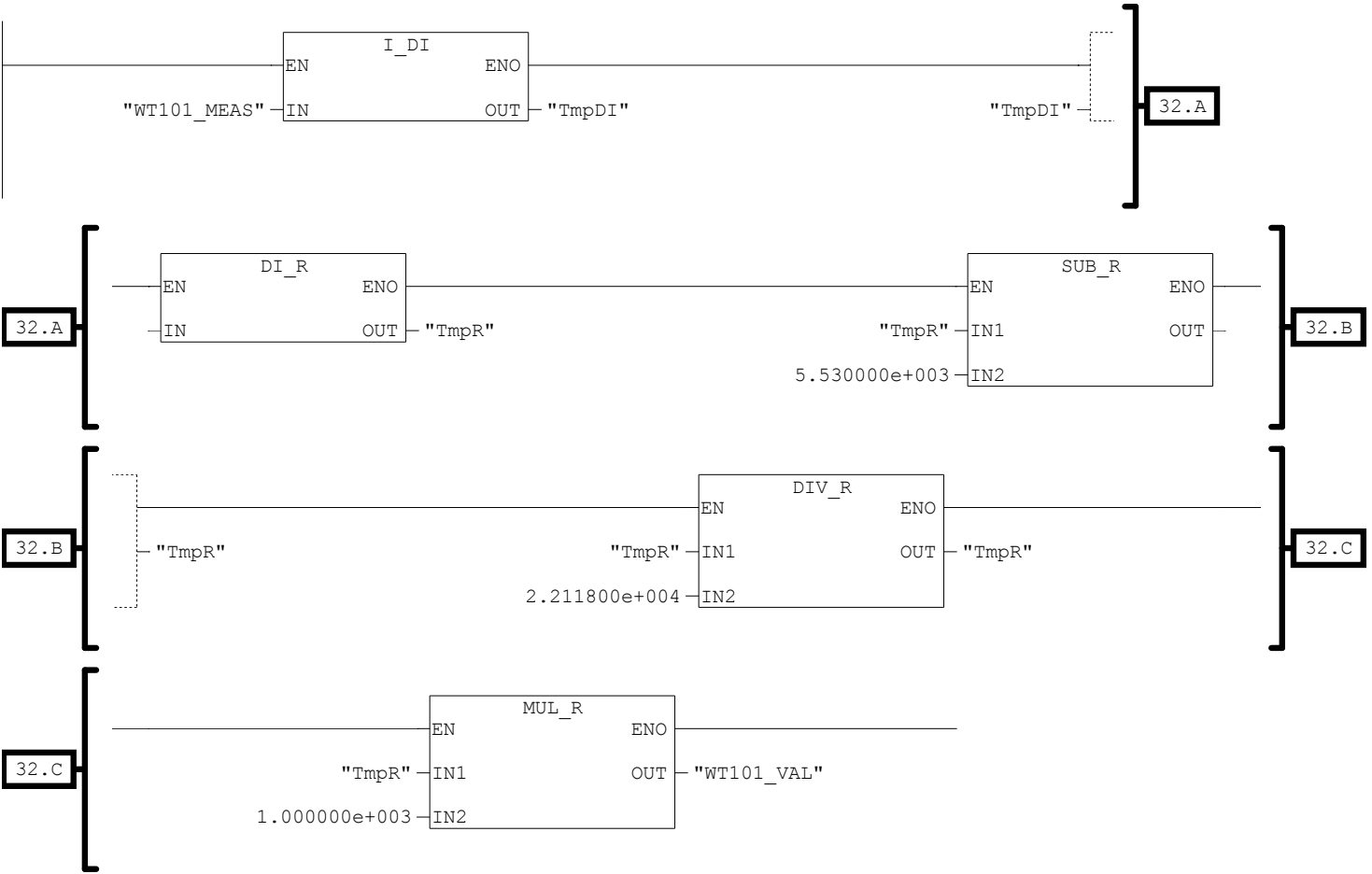
Vibrator



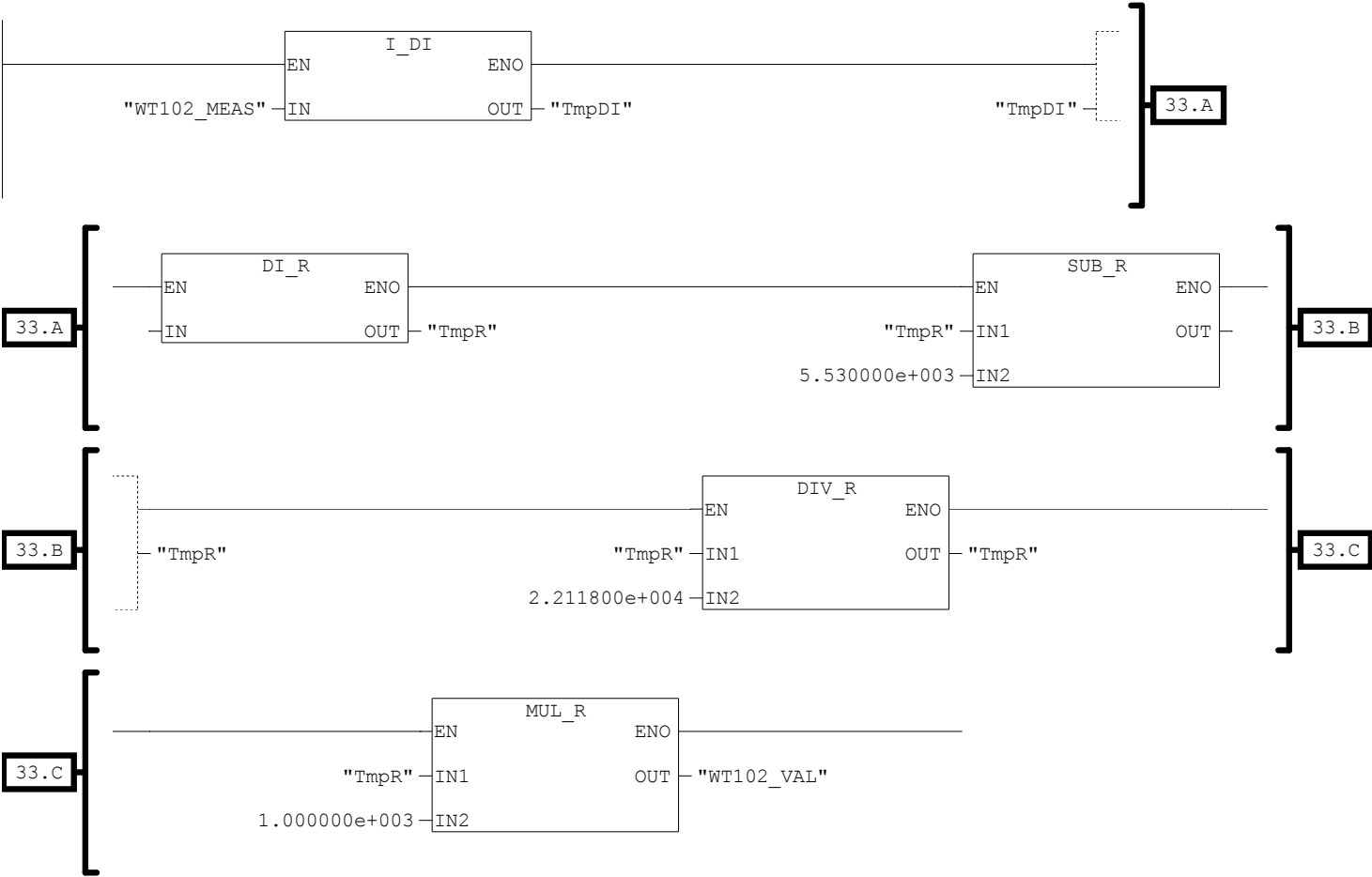


Network: 32

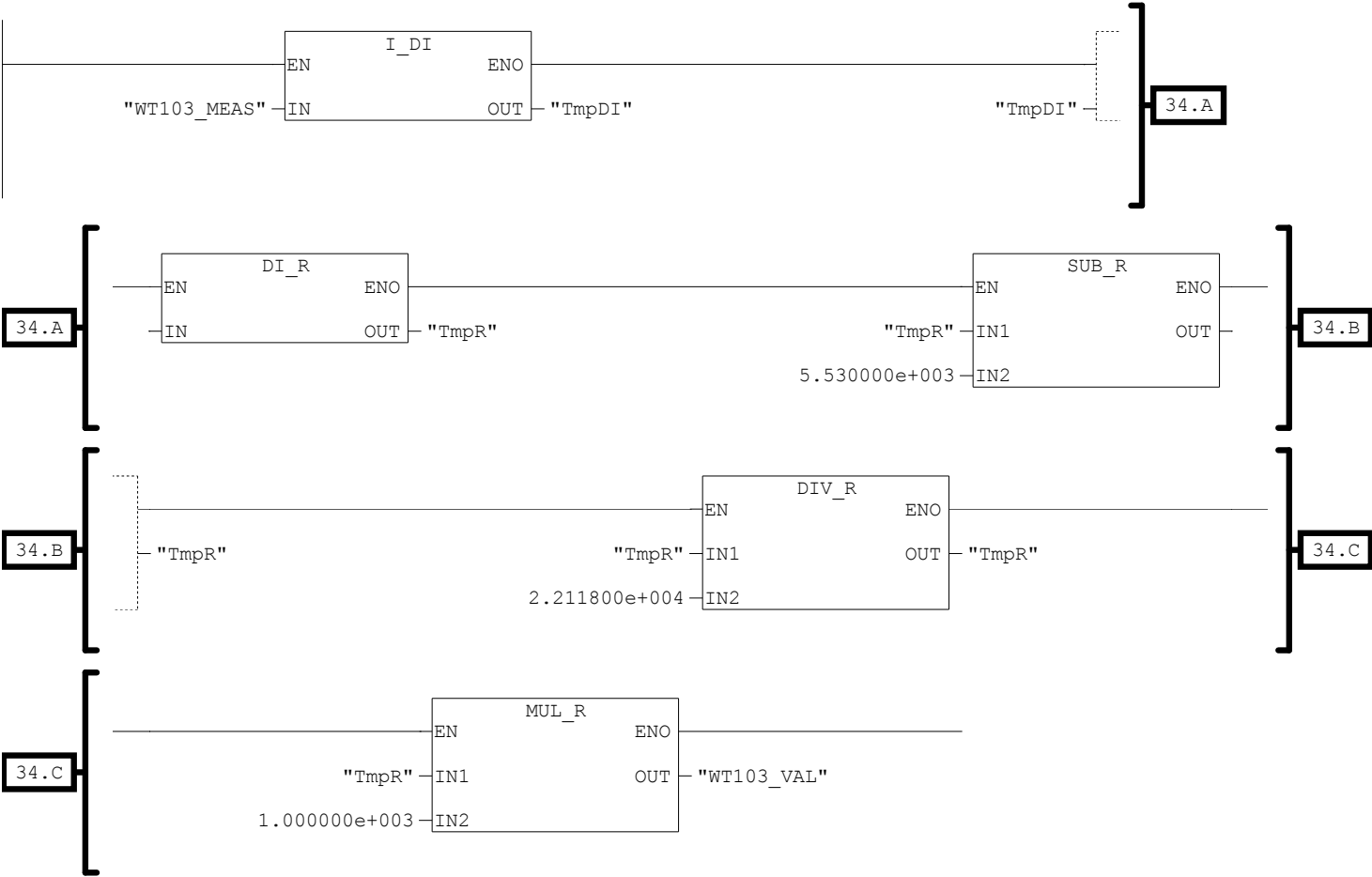
Convert weight measurements to pounds.  
Uses individual computation blocks.



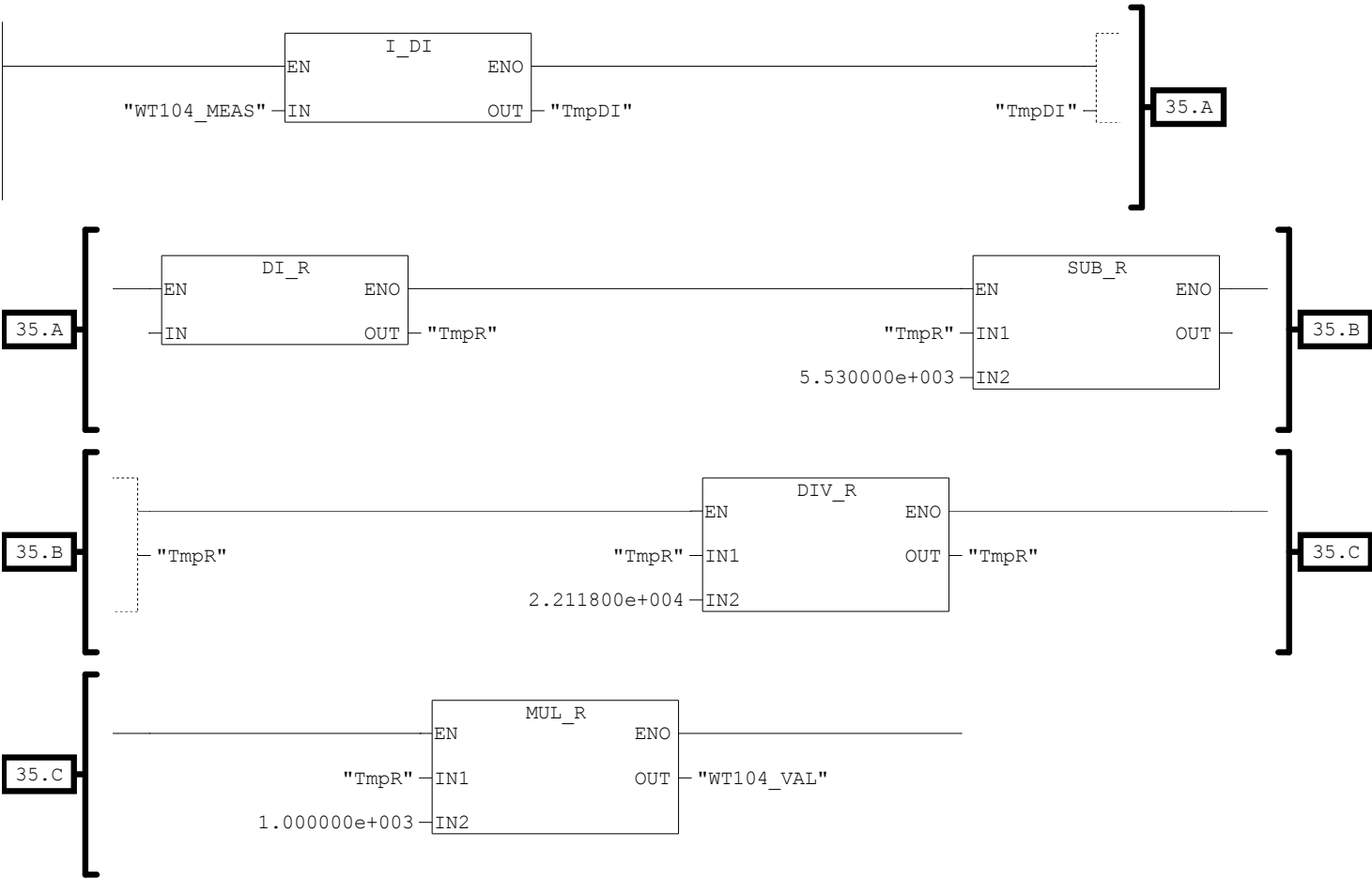
Network: 33



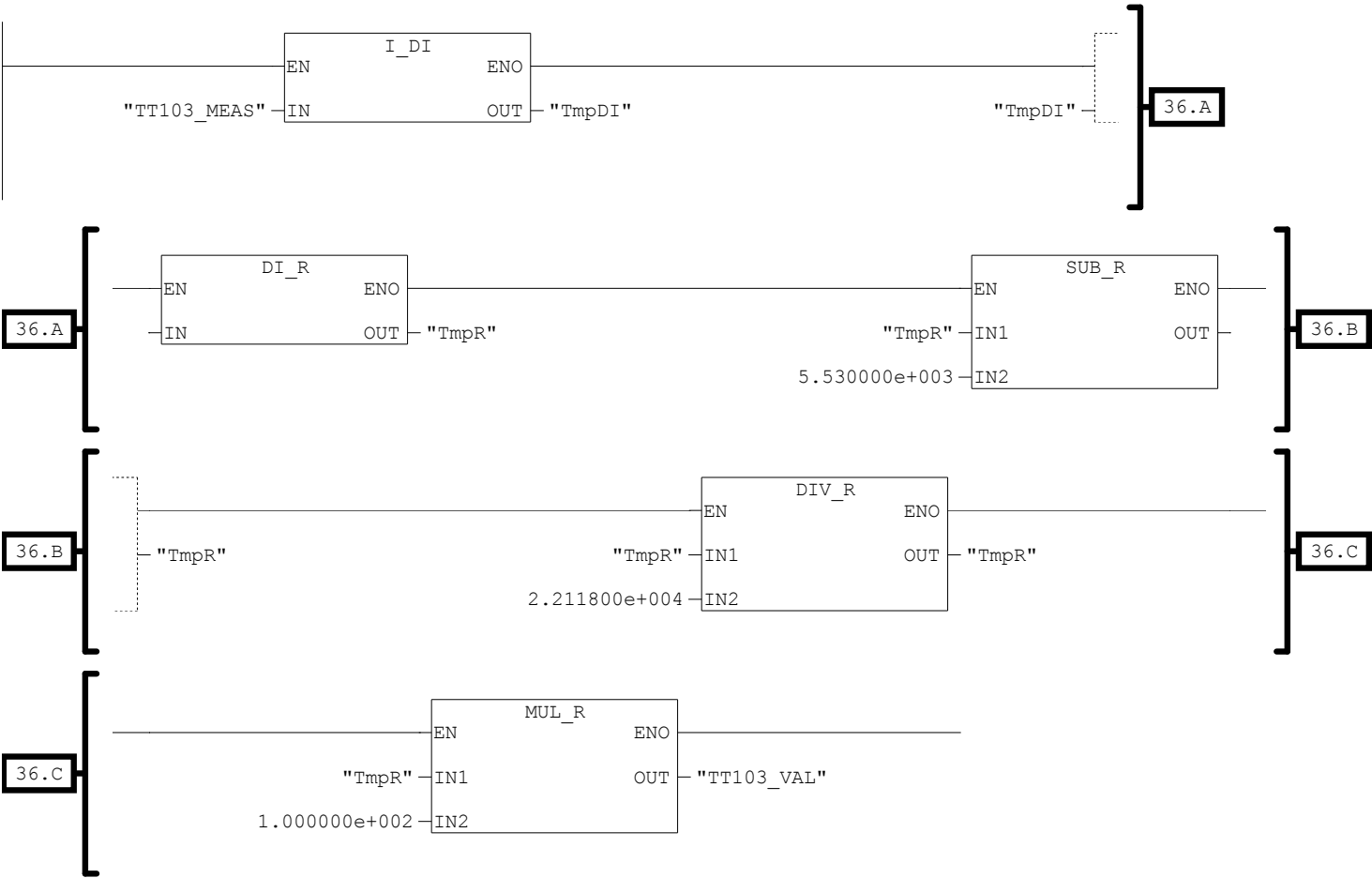
Network: 34



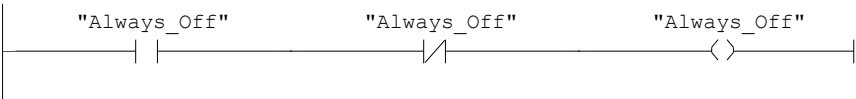
Network: 35



Network: 36      Convert temperature measurement

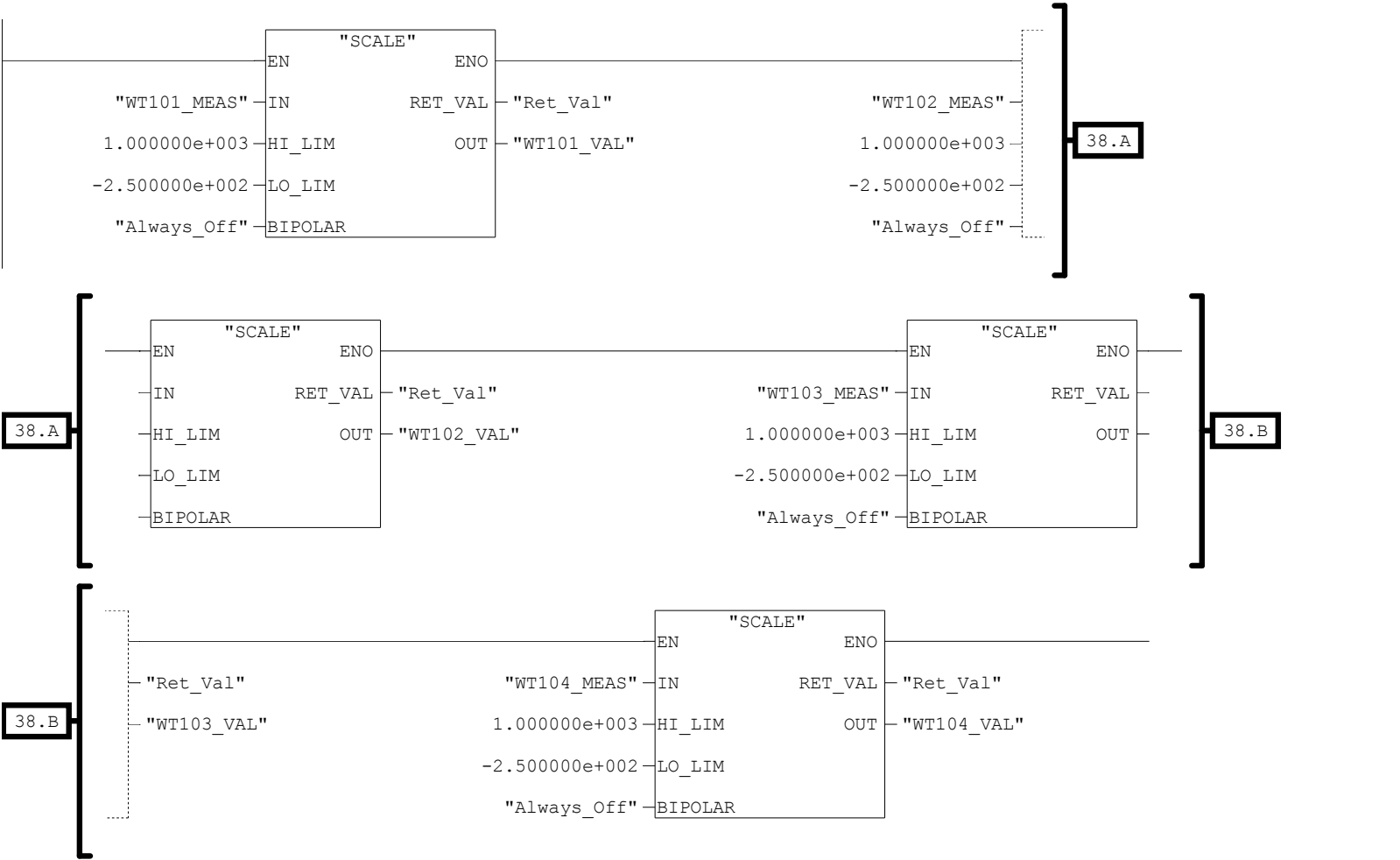


Network: 37      Always Off



Network: 38

Convert weight measurements to pounds.  
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).



Network: 39

Convert temperature measurement.  
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).

