

OB1 - <offline>

""

Name:

Family:

Author:Version: 0.1

Block version: 2

Time stamp Code:12/31/2015 10:26:42 AM

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

Lengths (block/logic/data): 01344 01144 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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SP7-15 Part Width Sorter Control with Parallel Branches

Additional internal memory:

Symbol	Address		
Step_1 to Step_5	M0.1 to M0.5	BOOL	Step-in-progress bits
Bin1_Tmr	DB3	SFB4	Times eject pulse for bin 1
Bin2_Tmr	DB4	SFB4	Times eject pulse for bin 2
Bin3_Tmr	DB5	SFB4	Times eject pulse for bin 3
Bin1	M20.0	BOOL	Width in range of 0.9 - 1.1
Bin2	M20.1	BOOL	Width in range of 1.9 - 2.1
Bin3	M20.3	BOOL	Widht in range not one of above
UX1_Inch	MD80	REAL	UX1 reading in inches
UX2_Inch	MD84	REAL	UX2 reading in inches
UX3_Inch	MD88	REAL	UX3 reading in inches
Part_Width	MD92	REAL	Part width in inches
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

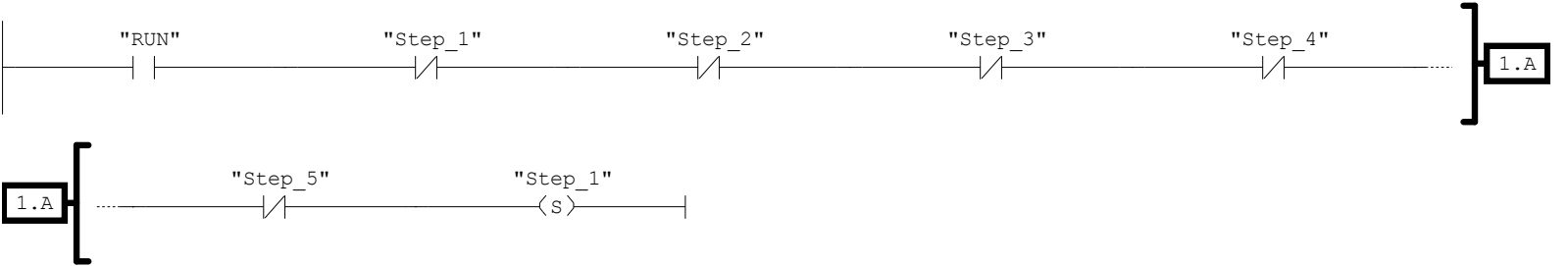
Conversion formulas:

UXn_INCH = (UXn_MEAS-5530)/22118.0) * (30.0-4.0) + 4.0

Part_Width = 16 - (UX1+UX2)

Network: 1

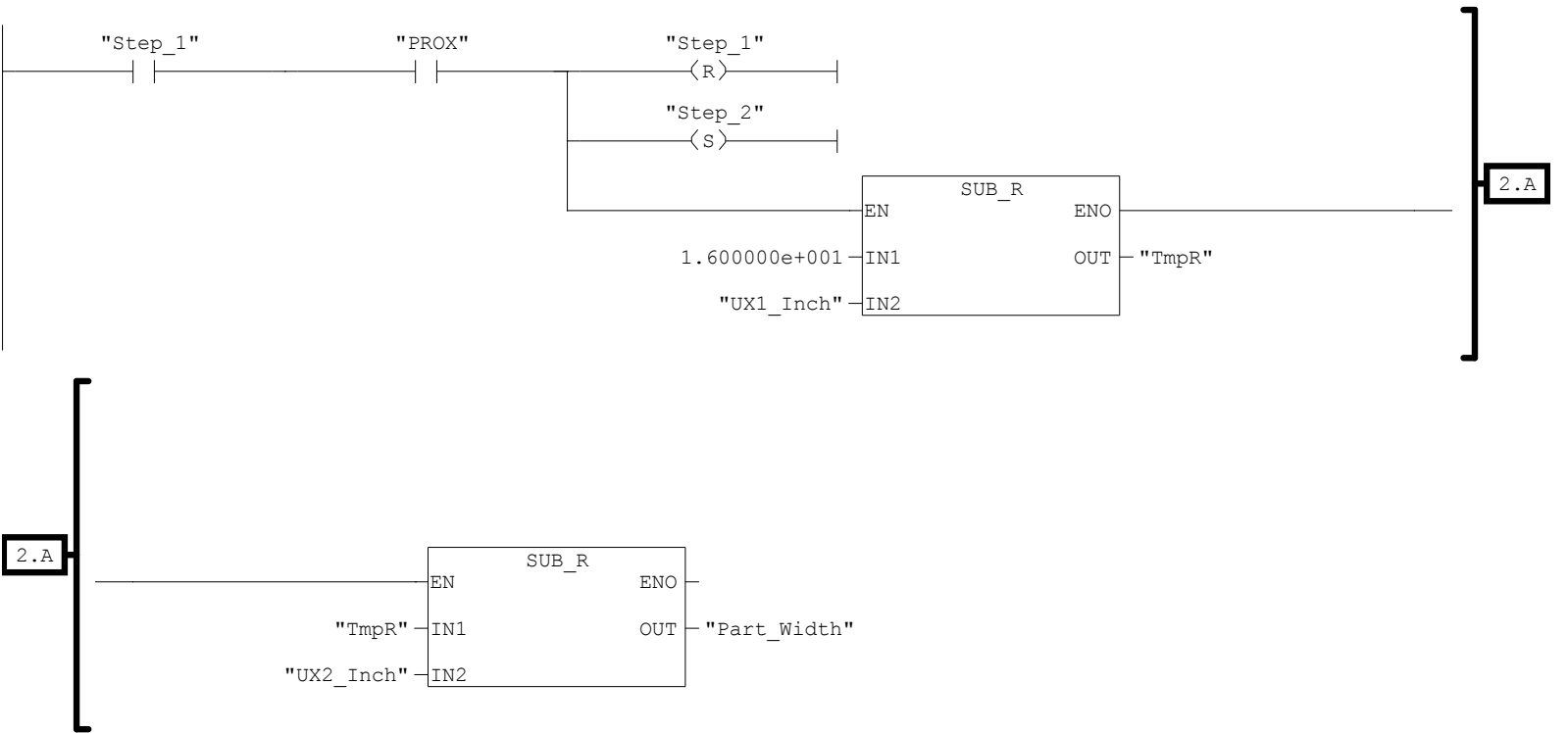
Initial Start



Network: 2

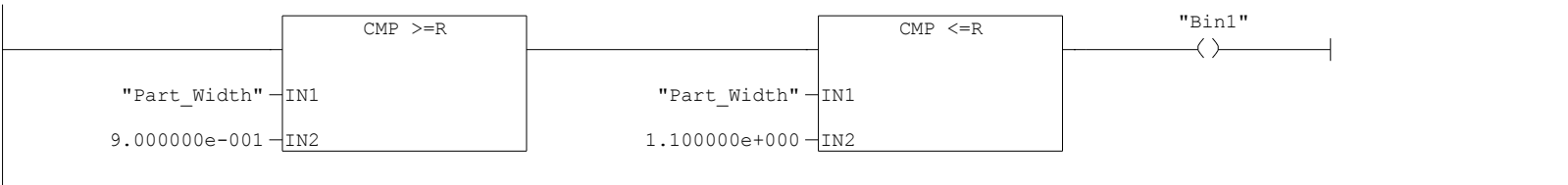
Step 1 Wait for part in measure position

Calculate part width on transition



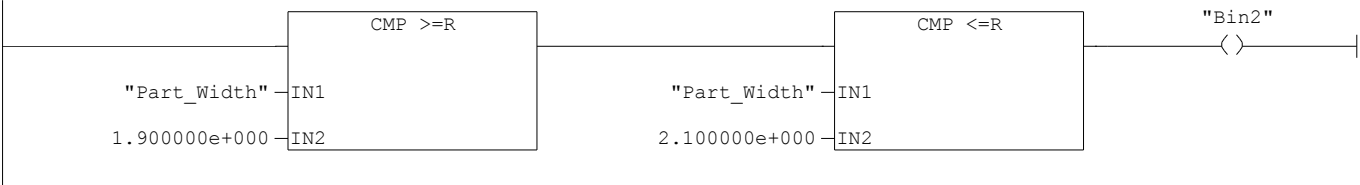
Network: 3

Size range for 1" part



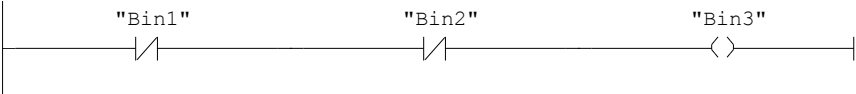
Network: 4

Size range for 2" part



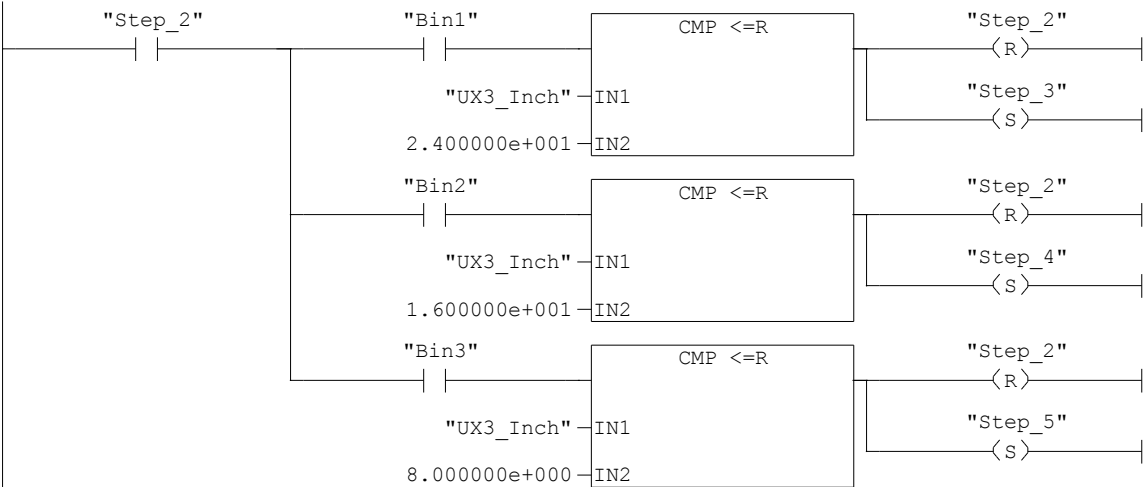
Network: 5

Width not in one of above ranges



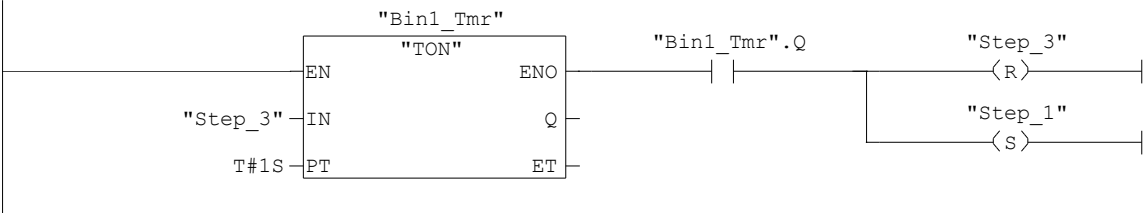
Network: 6

Step 2 - Wait for part in ejection position



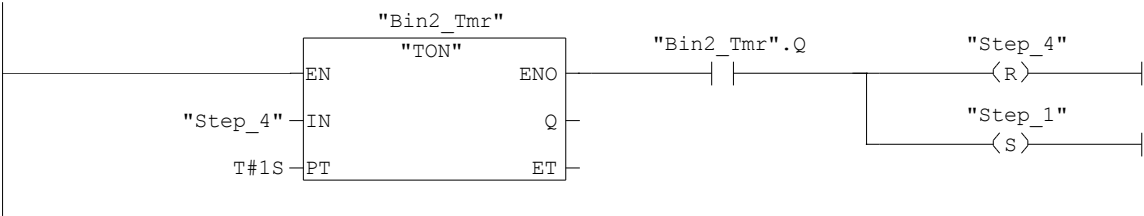
Network: 7

Step 3 Eject part into bin 1



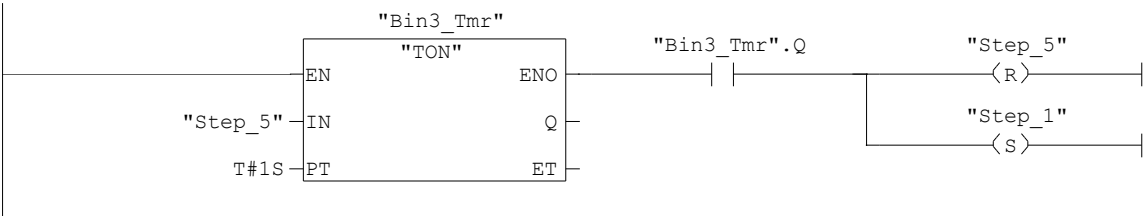
Network: 8

Step 4 Eject part into bin 2



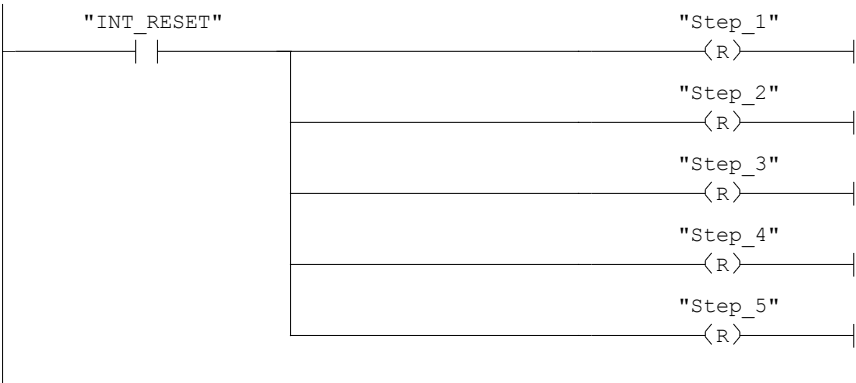
Network: 9

Step 5 Eject part into bin 3



Network: 10

Reset



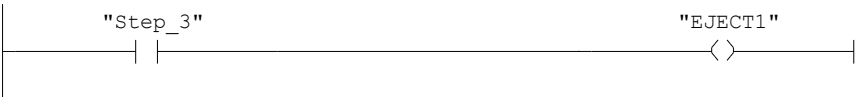
Network: 11

Conveyor



Network: 12

Eject 1



Network: 13

Eject 2



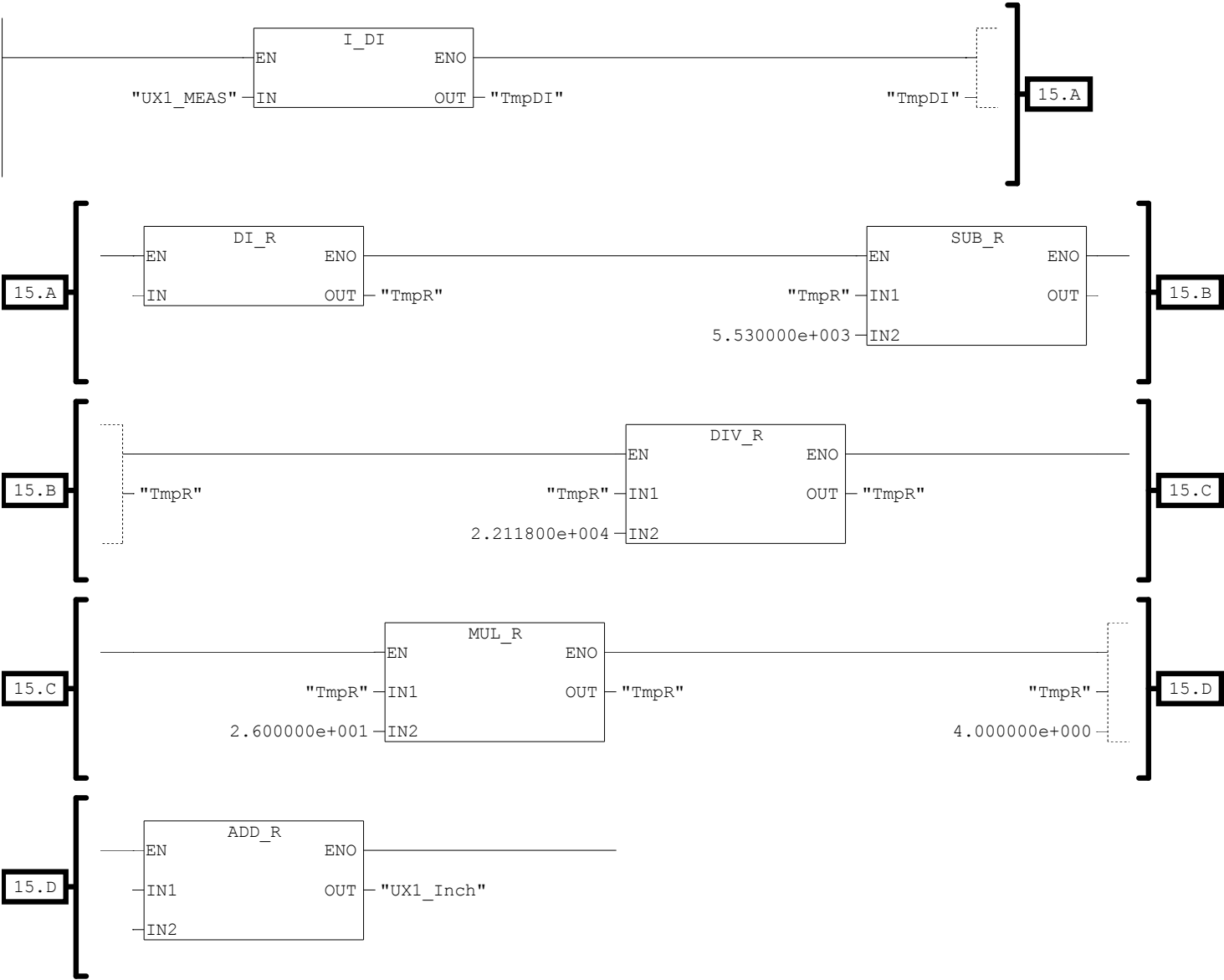
Network: 14

Eject 3



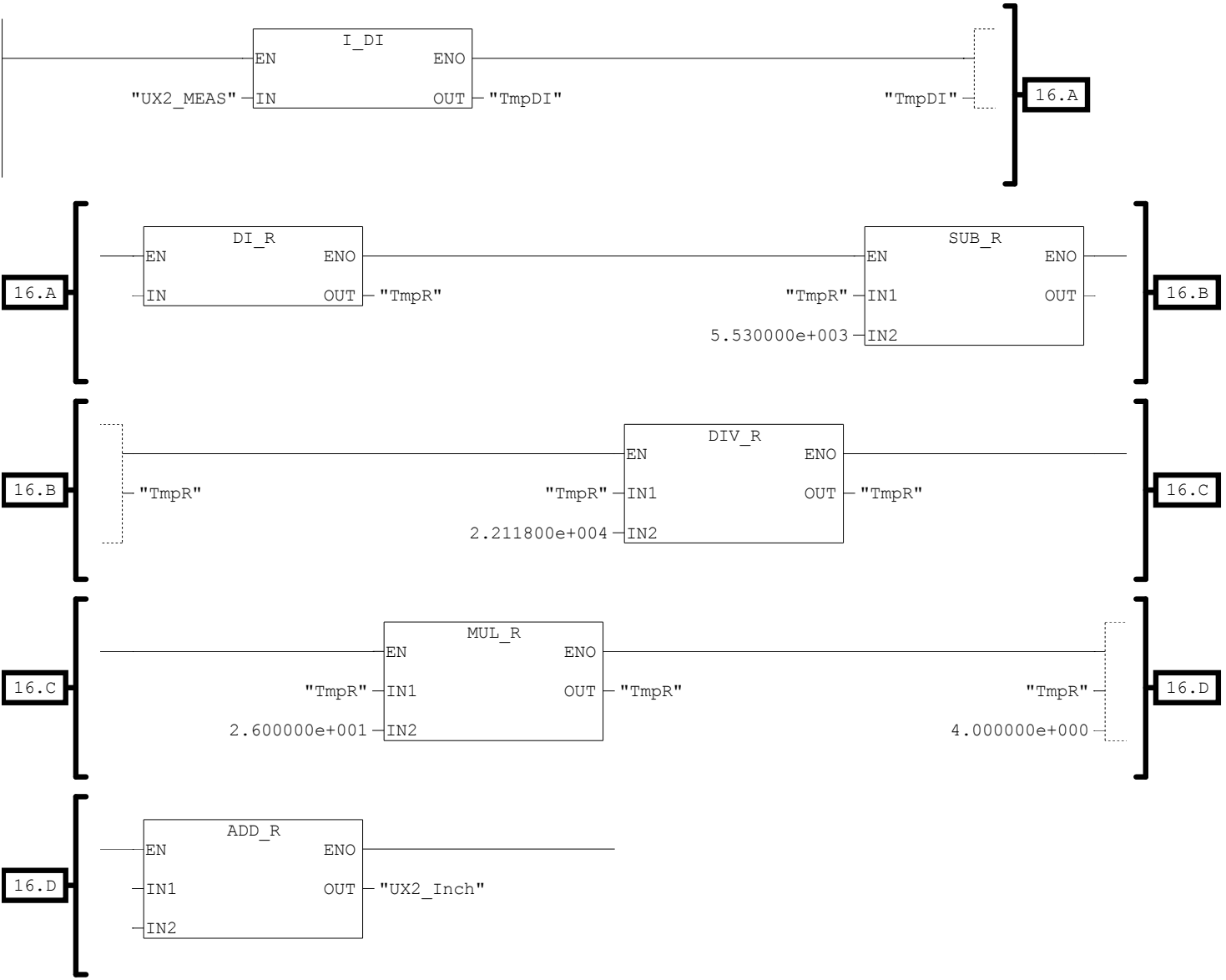
Network: 15

Convert UX1 measurement to inches.
Uses individual computation blocks.



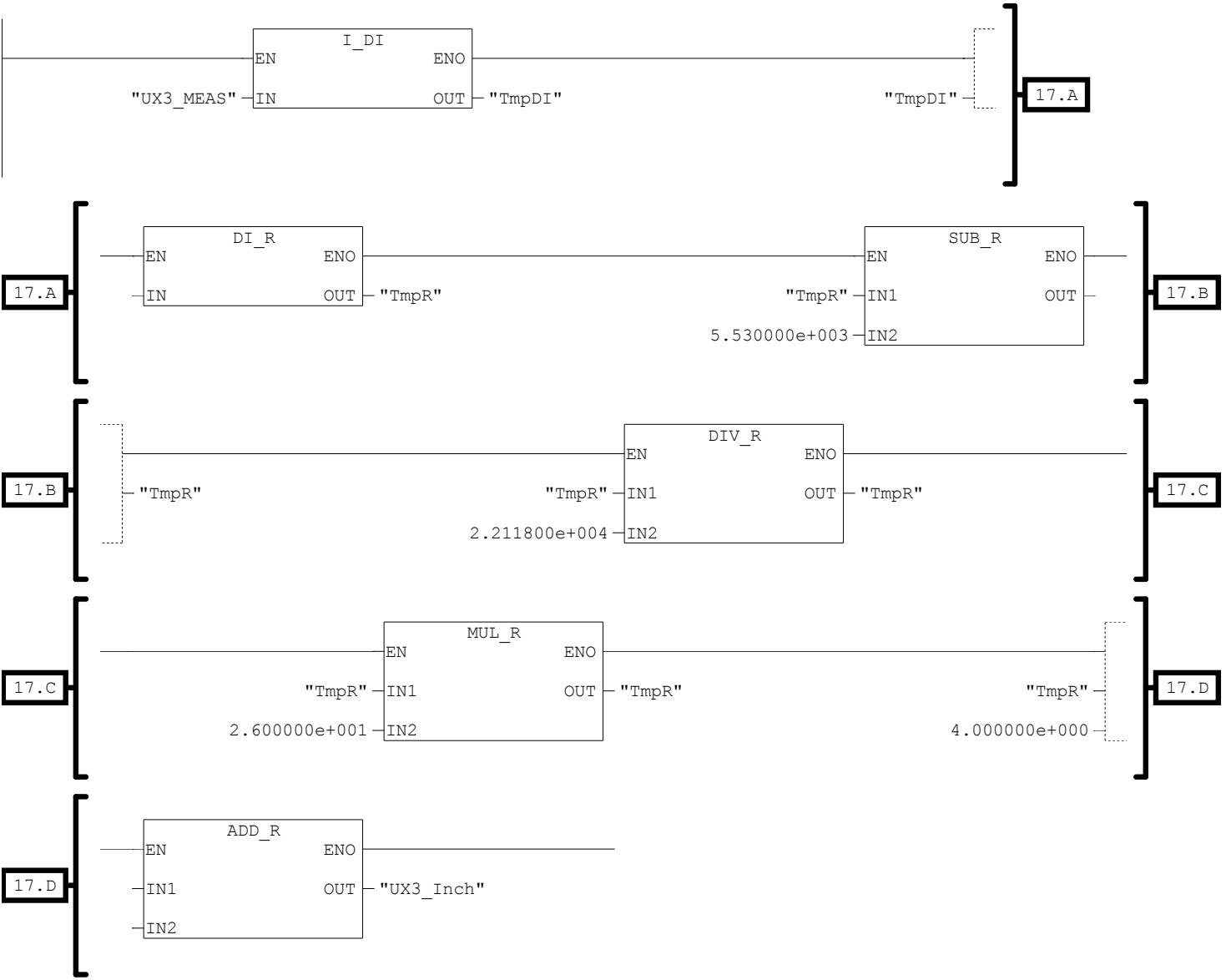
Network: 16

Convert UX2 measurement to inches.
Uses individual computation blocks.



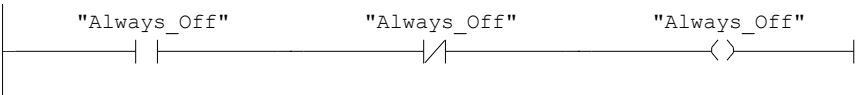
Network: 17

Convert UX3 measurement to inches.
Uses individual computation blocks.



Network: 18

Always Off



Network: 19

Convert UX measurements.
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).

