

Valve Leak Check Station Control

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Additional internal memory:

Symbol	Address	
INT_RESET	B3/1	Internal reset
STEP_1 to STEP_6	B20/1 to B20/6	Step-in-progress bits
WAIT_TMR	T4:1	Times leak test

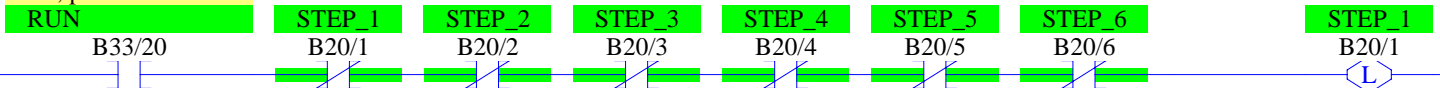
Conversion formulas

$$HD_HGT = ((HGT_MEAS - 6241) / 24965) * (150 - 75) + 75$$

$$VLV_PRES = ((PRES_MEAS - 6241) / 24965) * (100)$$

Initial start.

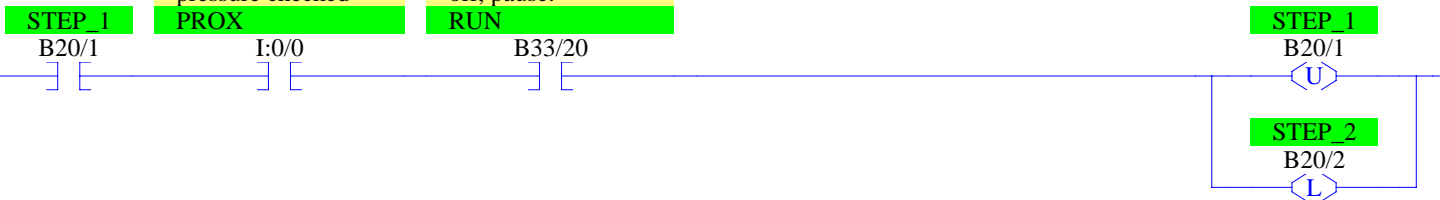
When on, allow pressure check station to run. When off, pause.



Step 1. Wait for valve.

Reflective proximity switch that is on when valve is in position to be pressure checked

When on, allow pressure check station to run. When off, pause.

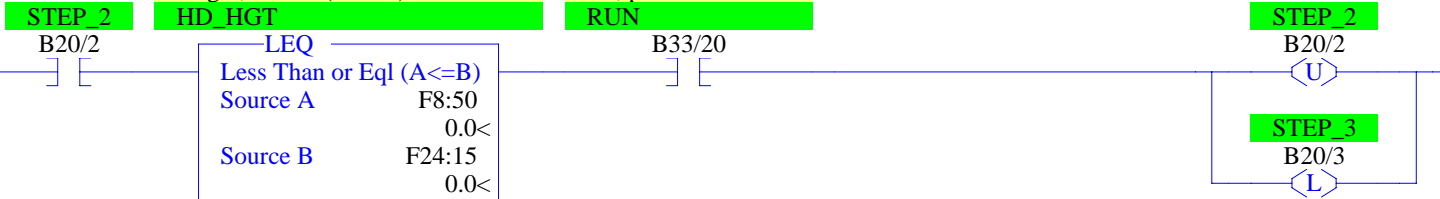


Step 2. Head down.

Pressurizing head height, in mm (REAL)

LESS Than or Eql (A<=B)
Source A F8:50 0.0<
Source B F24:15 0.0<

When on, allow pressure check station to run. When off, pause.

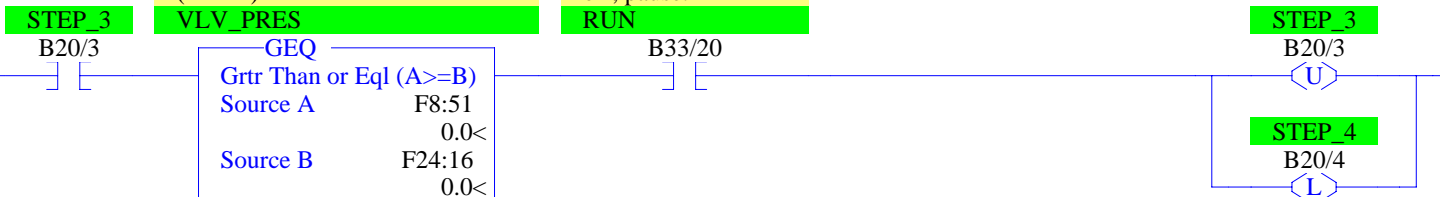


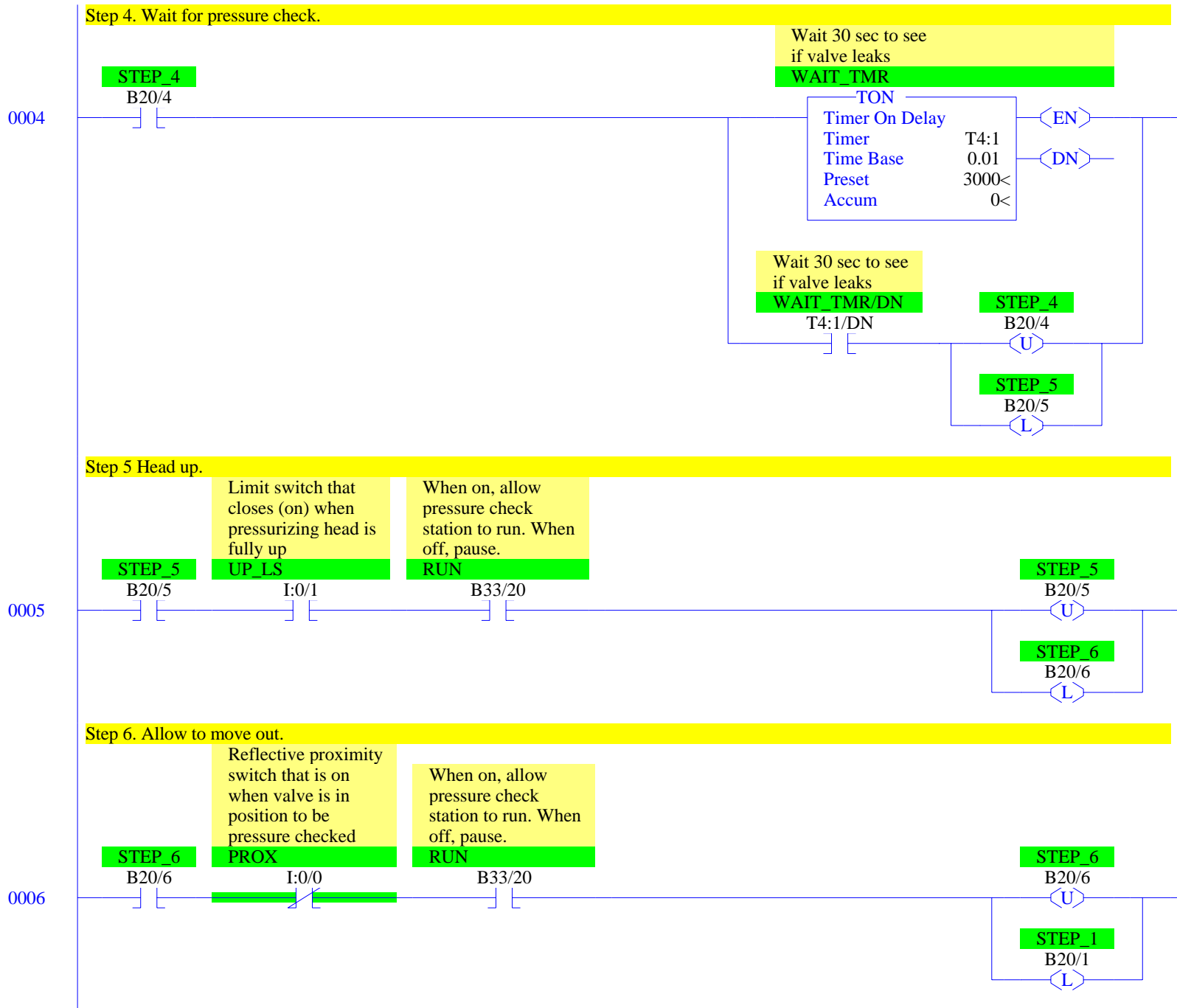
Step 3. Pressurize.

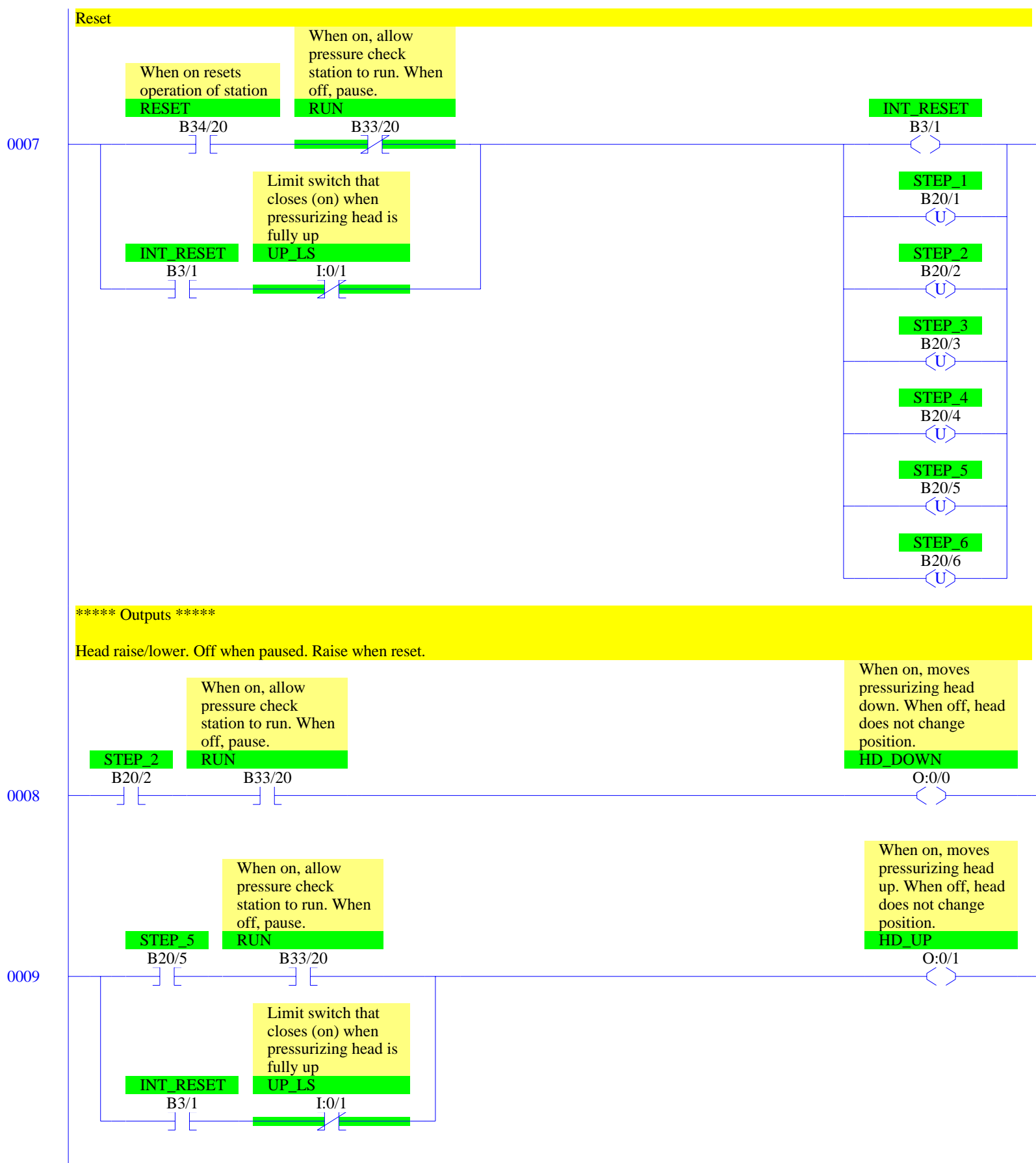
Pressure, in psi (REAL)

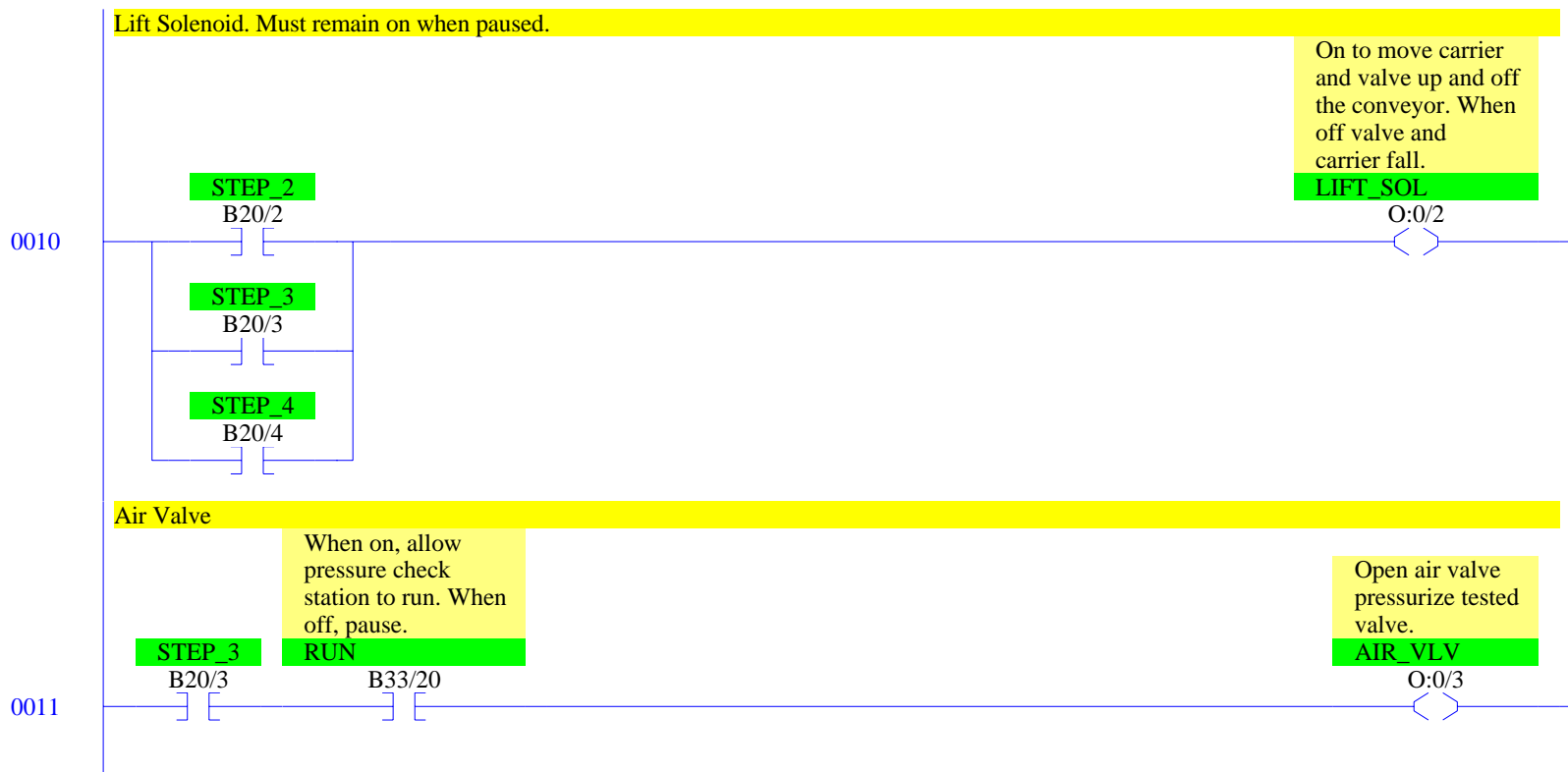
Grtr Than or Eql (A>=B)
Source A F8:51 0.0<
Source B F24:16 0.0<

When on, allow pressure check station to run. When off, pause.









Calculate Height of Head

SUB

Subtract

Source A I:1.0

0<

Source B 6241.0

6241.0<

Dest F8:0

0.0<

DIV

Divide

Source A F8:0

0.0<

Source B 24965.0

24965.0<

Dest F8:0

0.0<

MUL

Multiply

Source A F8:0

0.0<

Source B 75.0

75.0<

Dest F8:0

0.0<

Pressurizing head
height, in mm (REAL)

HD_HGT

ADD

Add

Source A F8:0

0.0<

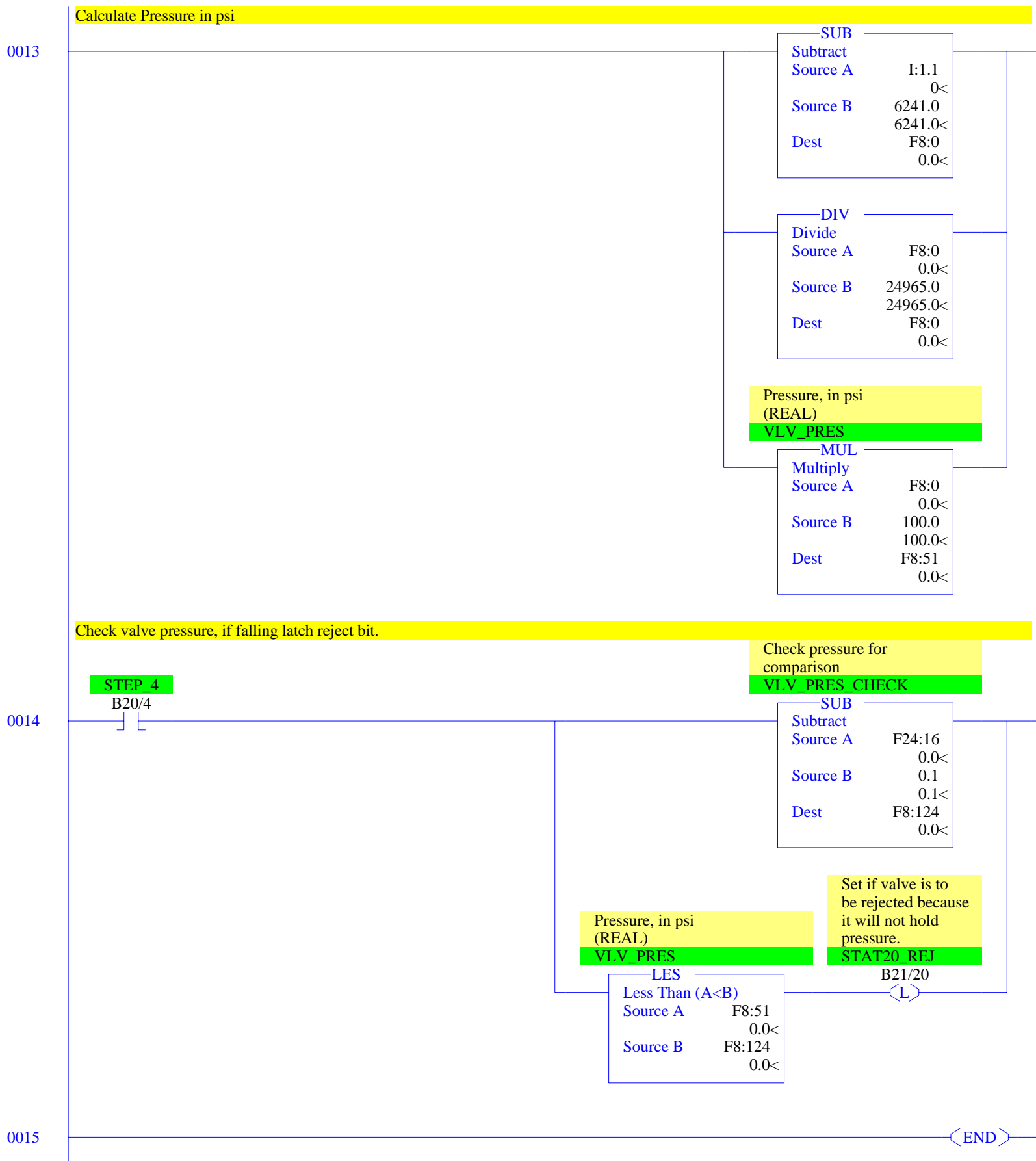
Source B 75.0

75.0<

Dest F8:50

0.0<

0012



RSLogix 500 Cross Reference Report - Sorted by Address

O:0/0	- {HD_DOWN} When on, moves pressurizing head down. When off, head does not change position. OTE - File #2 - 8
O:0/1	- {HD_UP} When on, moves pressurizing head up. When off, head does not change position. OTE - File #2 - 9
O:0/2	- {LIFT_SOL} On to move carrier and valve up and off the conveyor. When off valve and carrier stop. OTE - File #2 - 10
O:0/3	- {AIR_VLV} Open air valve pressurize tested valve. OTE - File #2 - 11
I:0/0	- {PROX} Reflective proximity switch that is on when valve is in position to be pressurized. XIC - File #2 - 1 XIO - File #2 - 6
I:0/1	- {UP_LS} Limit switch that closes (on) when pressurizing head is fully up. XIC - File #2 - 5 XIO - File #2 - 7, 9
I:1.0	- {HGT_MEAS} Measurement of pressurizing head height, represents 75 to 150 mm. SUB - File #2 - 12
I:1.1	- {PRES_MEAS} Measurement of pressure, represents 0 to 100 psi. SUB - File #2 - 13
B3/1	- {INT_RESET} OTE - File #2 - 7 XIC - File #2 - 7, 9
T4:1	- {WAIT_TMR} Wait 30 sec to see if valve leaks. TON - File #2 - 4
T4:1/DN	- XIC - File #2 - 4
F8:0	- ADD - File #2 - 12 SUB - File #2 - 12, 13 MUL - File #2 - 12, 13 DIV - File #2 - 12, 13
F8:50	- {HD_HGT} Pressurizing head height, in mm (REAL) ADD - File #2 - 12 LEQ - File #2 - 2
F8:51	- {VLV_PRES} Pressure, in psi (REAL) MUL - File #2 - 13 GEQ - File #2 - 3 LES - File #2 - 14
F8:124	- {VLV_PRES_CHECK} Check pressure for comparison. SUB - File #2 - 14 LES - File #2 - 14
B20/1	- {STEP_1} OTL - File #2 - 0, 6 OTU - File #2 - 1, 7 XIC - File #2 - 1 XIO - File #2 - 0
B20/2	- {STEP_2} OTL - File #2 - 1 OTU - File #2 - 2, 7 XIC - File #2 - 2, 8, 10 XIO - File #2 - 0
B20/3	- {STEP_3} OTL - File #2 - 2 OTU - File #2 - 3, 7 XIC - File #2 - 3, 10, 11 XIO - File #2 - 0
B20/4	- {STEP_4} OTL - File #2 - 3 OTU - File #2 - 4, 7 XIC - File #2 - 4, 10, 14 XIO - File #2 - 0
B20/5	- {STEP_5} OTL - File #2 - 4 OTU - File #2 - 5, 7 XIC - File #2 - 5, 9 XIO - File #2 - 0
B20/6	- {STEP_6} OTL - File #2 - 5 OTU - File #2 - 6, 7

RSLogix 500 Cross Reference Report - Sorted by Address

	XIC - File #2 - 6
	XIO - File #2 - 0
B21/20	- {STAT20_REJ} Set if valve is to be rejected because it will not hold pressure.
	OTL - File #2 - 14
F24:15	- {VLV_HGT} Height of valve, desired height of pressurizing head to do pressure check
	LEQ - File #2 - 2
F24:16	- {DES_PRES} Desired test pressure, in psi (REAL)
	SUB - File #2 - 14
	GEQ - File #2 - 3
B33/20	- {RUN} When on, allow pressure check station to run. When off, pause.
	XIC - File #2 - 0, 1, 2, 3, 5, 6, 8, 9, 11
	XIO - File #2 - 7
B34/20	- {RESET} When on resets operation of station
	XIC - File #2 - 7