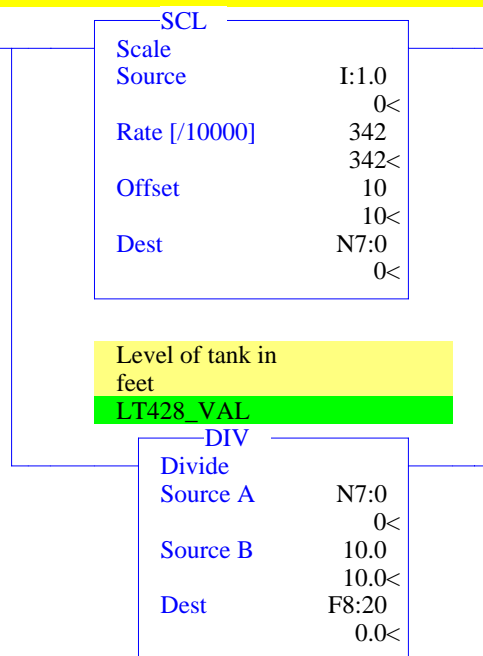


Example 7.5 - Operator Interface for Simple tank level control

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Convert level measurement into units of feet

0000



0001

Control of Physical Outputs

Level of tank in feet

LT428_VAL

Level of tank in feet

LT428_VAL

Enables level control

T428_CNTRL

Inlet valve control

XV427_OPEN

LES

Less Than (A<B)

Source A F8:20

0.0<

Source B F8:21

0.0<

LEQ

Less Than or Eql (A<=B)

Source A F8:20

0.0<

Source B F8:22

0.0<

Inlet valve control

XV427_OPEN

O:0/0

B3/121

O:0/0

0002

Additional ladder logic for Example 7.5

Calculate level for operator display

Current level in
tenths of feet for
operator display

LT428_DISP

— MUL —

Multiply

Source A F8:20

0.0<

Source B 10.0

10.0<

Dest N7:10

13106<

0003

Get minimum level from operator, convert to feet and calculate maximum level

Minimum tank level
for control

T428_MIN

— DIV —

Divide

Source A N7:11

16383<

Source B 10.0

10.0<

Dest F8:21

0.0<

Maximum tank level
for control

T428_MAX

— ADD —

Add

Source A F8:21

0.0<

Source B 1.5

1.5<

Dest F8:22

0.0<

0004

Low alarm lamp when level < 4 feet

Level of tank in
feet

LT428_VAL

— LES —

Less Than (A<B)

Source A F8:20

0.0<

Source B 4.0

4.0<

Low alarm indication

T428_LOLA

B3/10

0005

Level < 2 activates horn

Level of tank in
feet

LT428_VAL

— LES —

Less Than (A<B)

Source A F8:20

0.0<

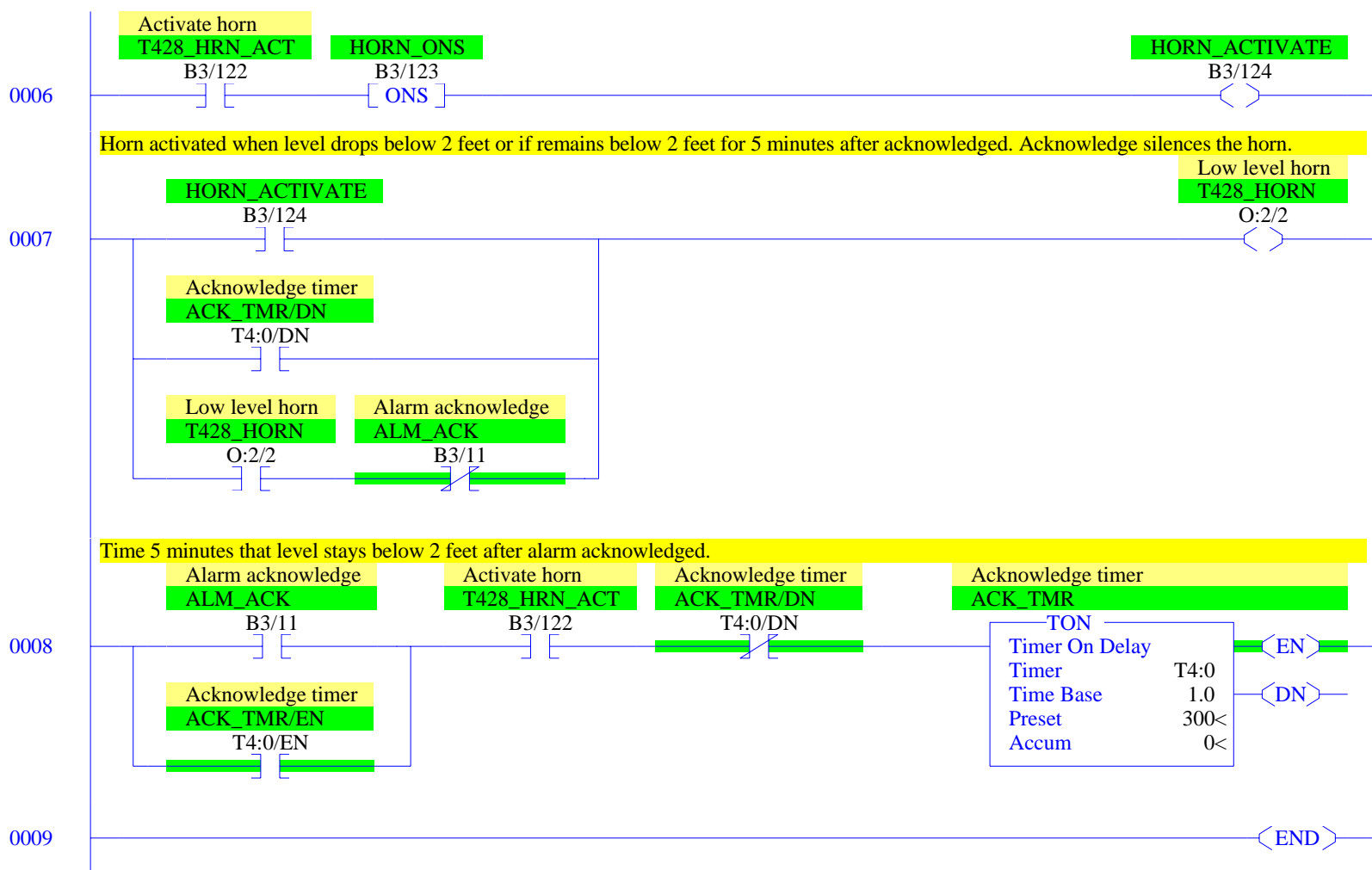
Source B 2.0

2.0<

Activate horn

T428_HRN_ACT

B3/122



RSLogix 500 Cross Reference Report - Sorted by Address

O:0/0	- {XV427_OPEN} Inlet valve control OTE - File #2 - 1 XIC - File #2 - 1
O:2/2	- {T428_HORN} Low level horn OTE - File #2 - 7 XIC - File #2 - 7
I:1.0	- {LT428_MEAS} Level measurement SCL - File #2 - 0
B3/10	- {T428_LOLA} Low alarm indication OTE - File #2 - 4
B3/11	- {ALM_ACK} Alarm acknowledge XIC - File #2 - 8 XIO - File #2 - 7
B3/121	- {T428_CNTRL} Enables level control XIC - File #2 - 1
B3/122	- {T428_HRN_ACT} Activate horn OTE - File #2 - 5 XIC - File #2 - 8, 6
B3/123	- {HORN_ONS} ONS - File #2 - 6
B3/124	- {HORN_ACTIVATE} XIC - File #2 - 7 OTE - File #2 - 6
T4:0	- {ACK_TMR} Acknowledge timer TON - File #2 - 8
T4:0/DN	- XIC - File #2 - 7 XIO - File #2 - 8
T4:0/EN	- XIC - File #2 - 8
N7:0	- DIV - File #2 - 0 SCL - File #2 - 0
N7:10	- {LT428_DISP} Current level in tenths of feet for operator display MUL - File #2 - 2
N7:11	- {LT428_MINDP} Minimum control in tenths of feet. From operator. DIV - File #2 - 3
F8:20	- {LT428_VAL} Level of tank in feet MUL - File #2 - 2 DIV - File #2 - 0 LES - File #2 - 1, 4, 5 LEQ - File #2 - 1
F8:21	- {T428_MIN} Minimum tank level for control ADD - File #2 - 3 DIV - File #2 - 3 LES - File #2 - 1
F8:22	- {T428_MAX} Maximum tank level for control ADD - File #2 - 3 LEQ - File #2 - 1