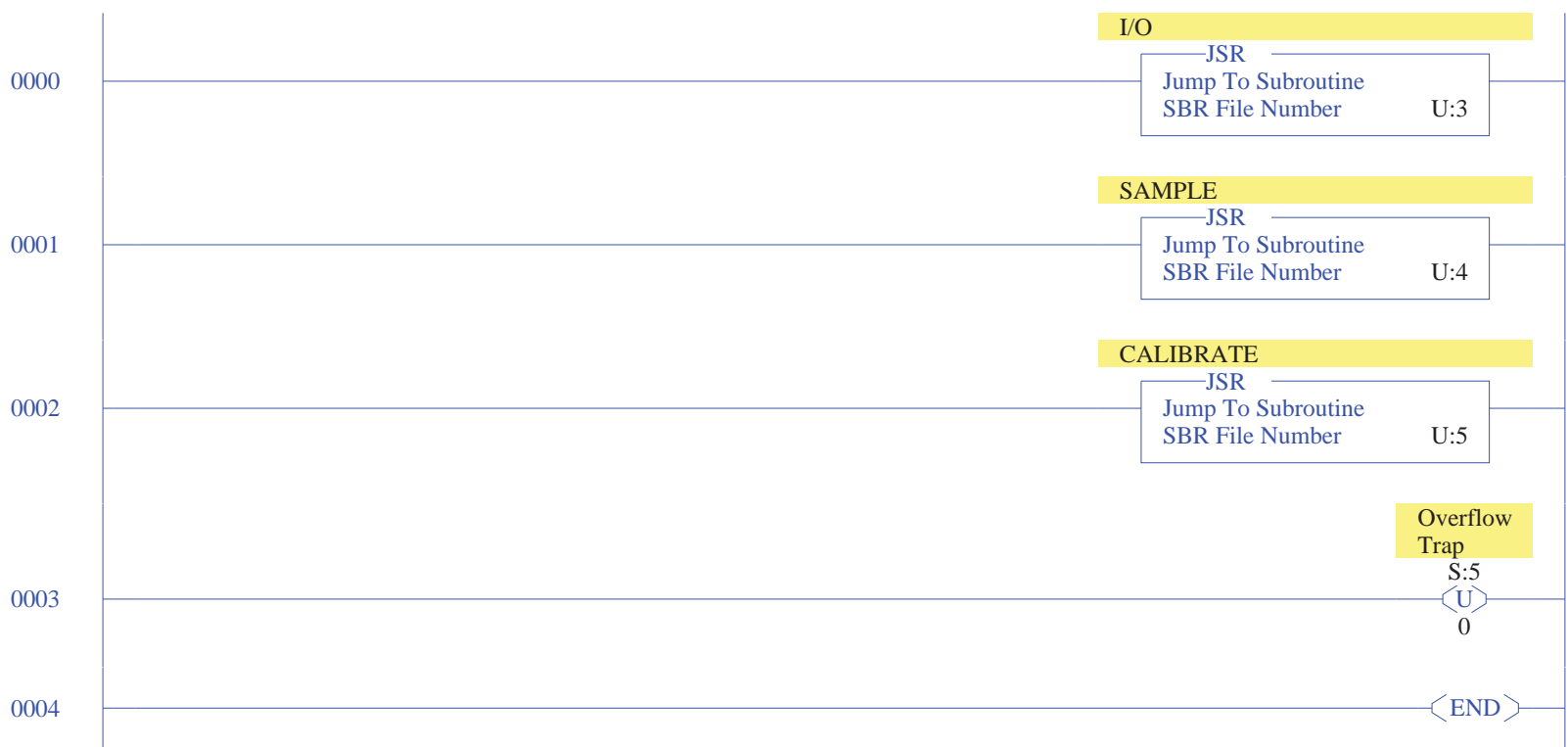
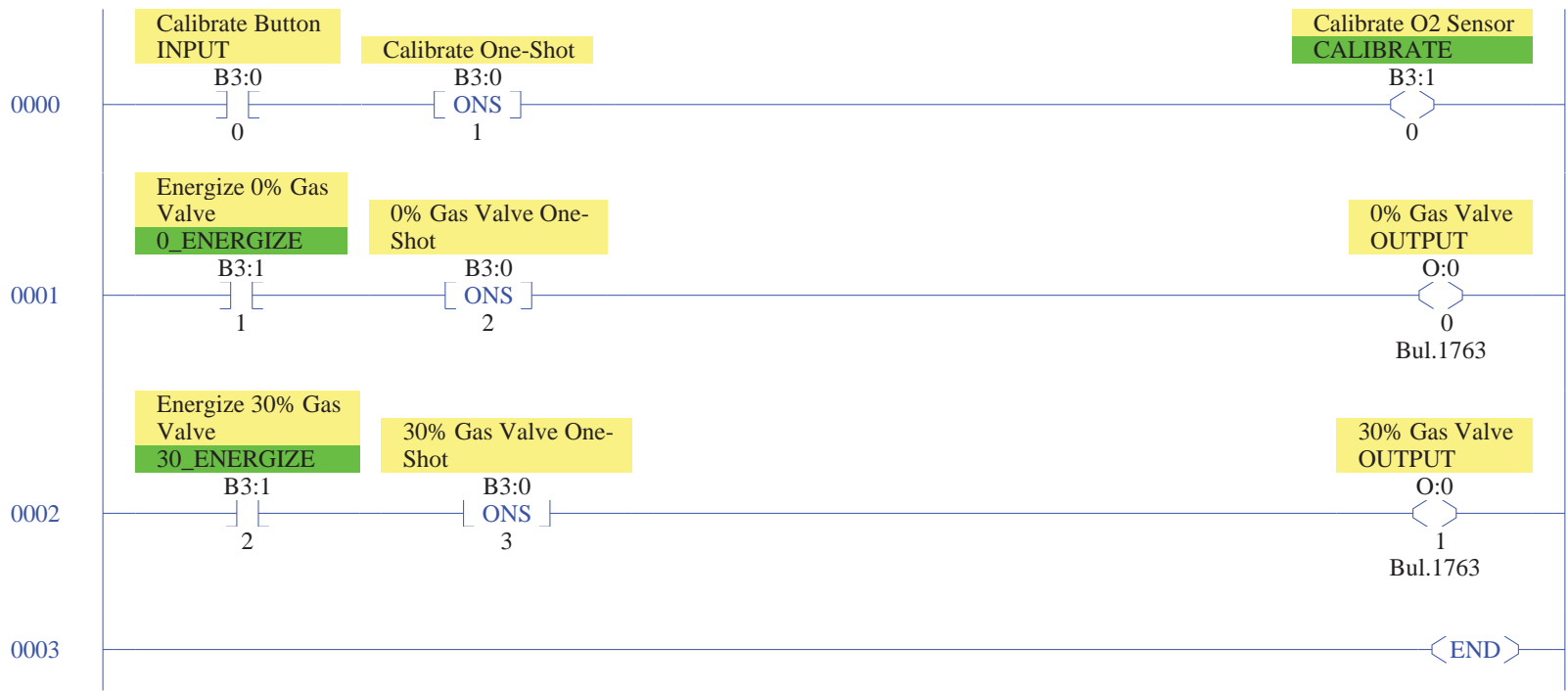
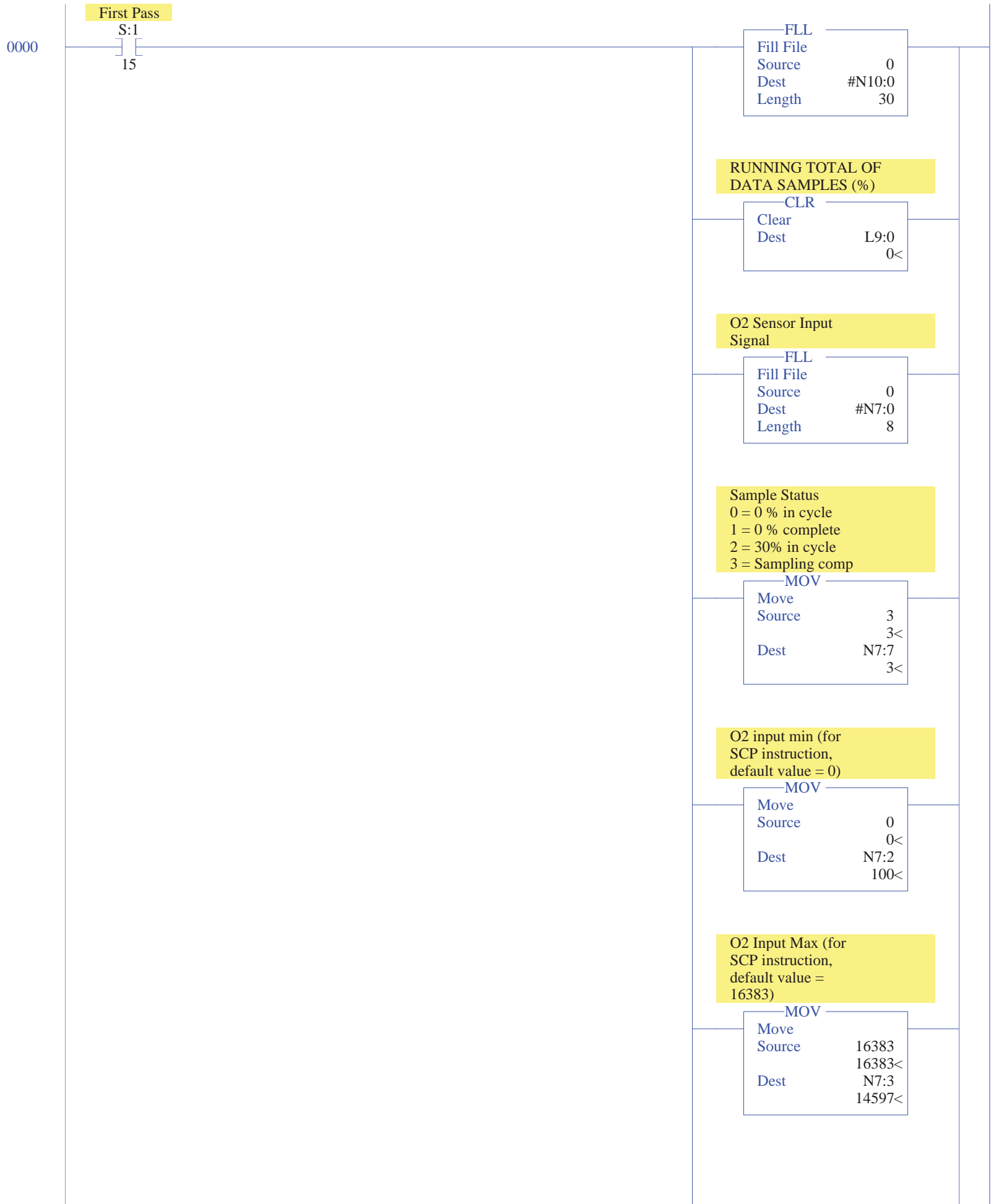
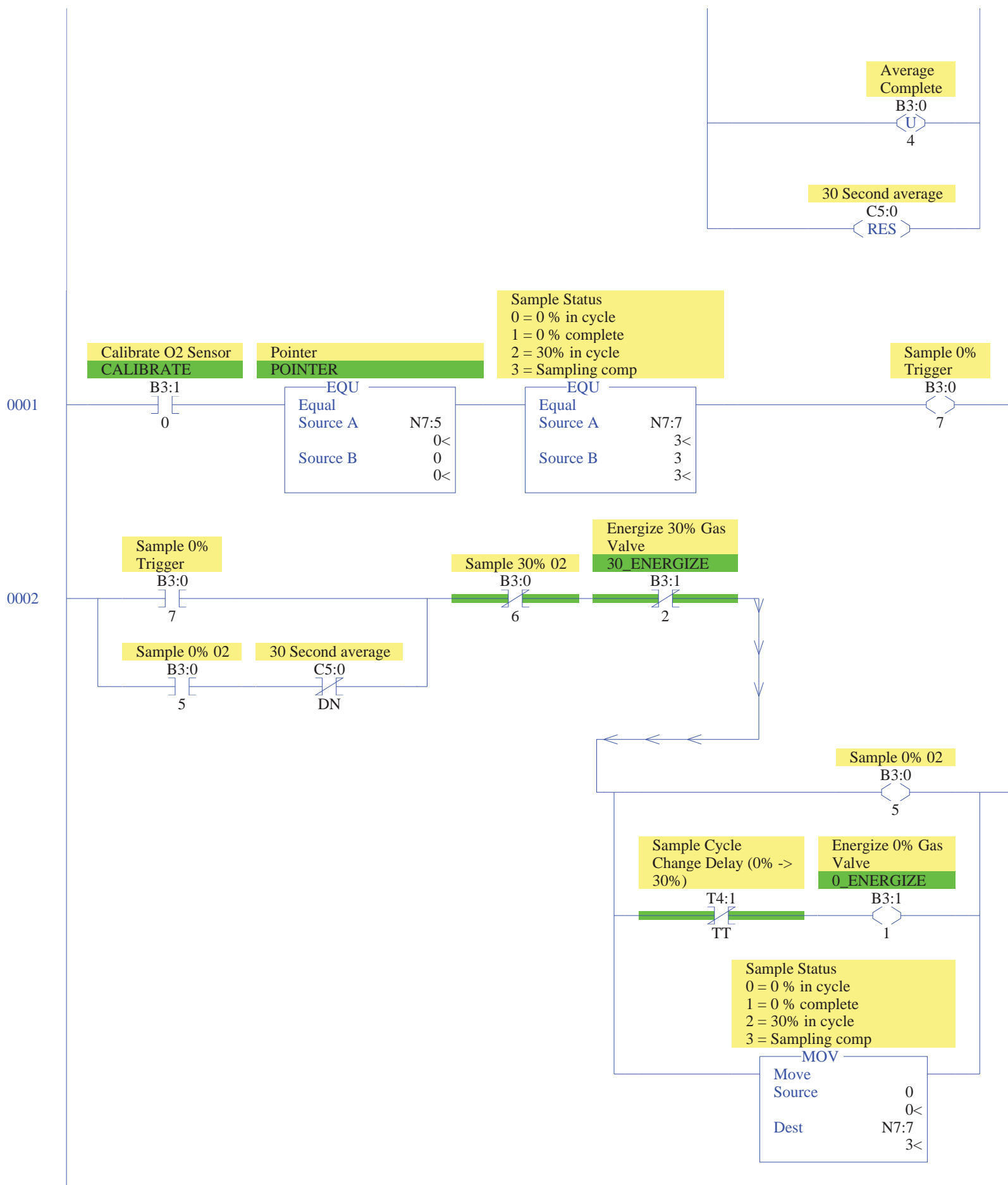


LAD 2 - MAIN --- Total Rungs in File = 5



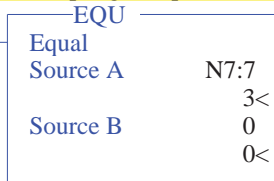






0003

Sample Status
 0 = 0 % in cycle
 1 = 0 % complete
 2 = 30% in cycle
 3 = Sampling comp

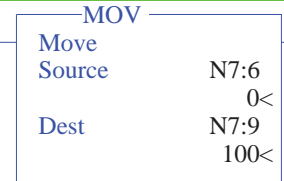


30 Second average

C5:0
 DN

Average Reading
 Sampled During 0%
 gas period

02_ZERO_AVERAGE

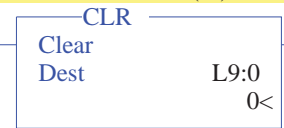


0% O2 Sample
 Complete

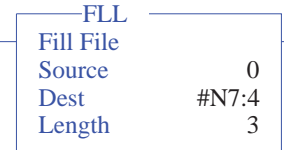
B3:0

9

RUNNING TOTAL OF
 DATA SAMPLES (%)



GAS SAMPLE

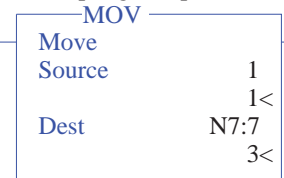


30 Second average

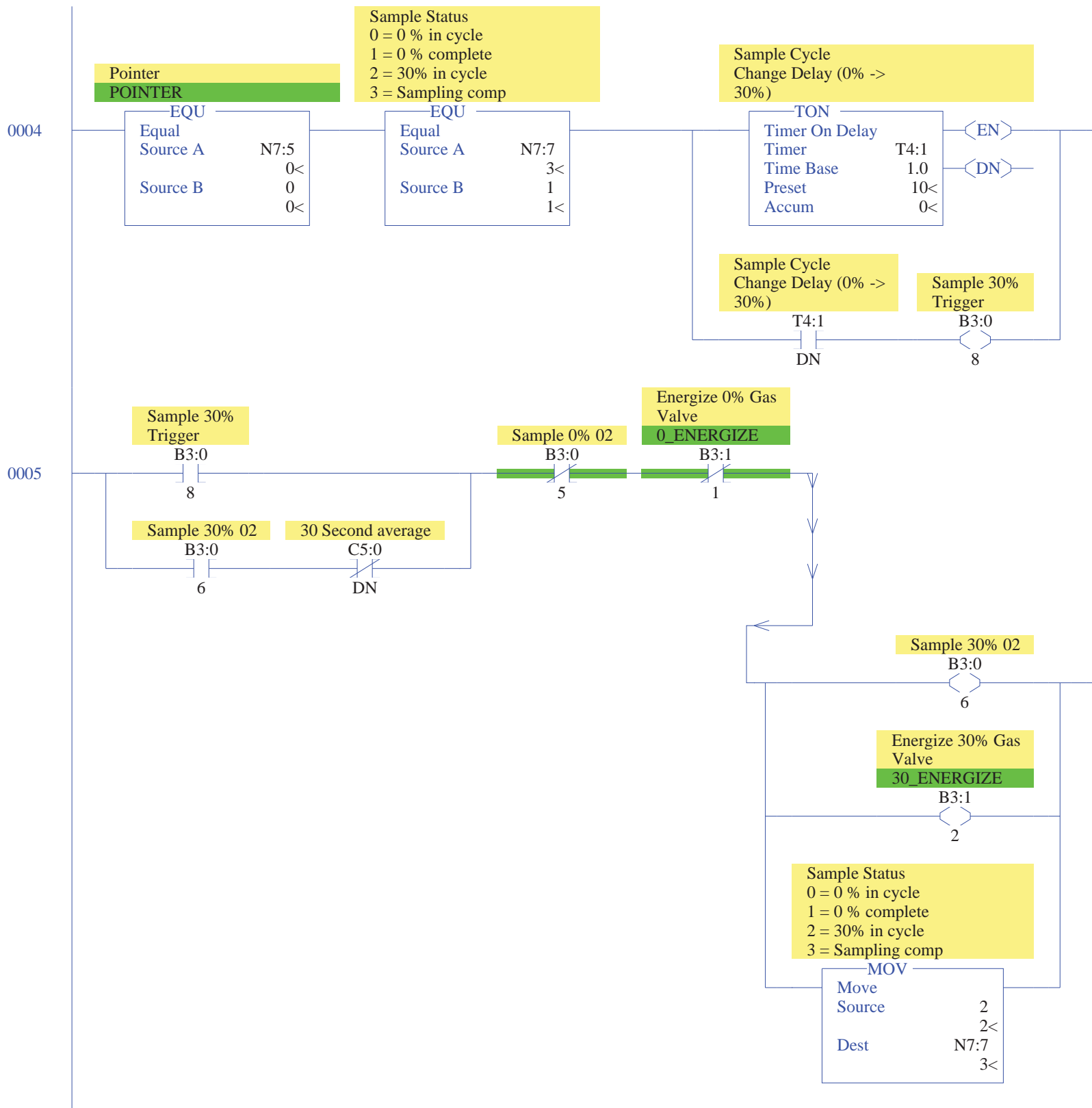
C5:0

< RES >

Sample Status
 0 = 0 % in cycle
 1 = 0 % complete
 2 = 30% in cycle
 3 = Sampling comp

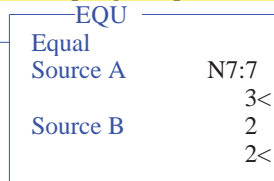


LAD 4 - SAMPLE --- Total Rungs in File = 11



0006

Sample Status
 0 = 0 % in cycle
 1 = 0 % complete
 2 = 30% in cycle
 3 = Sampling comp



30 Second average

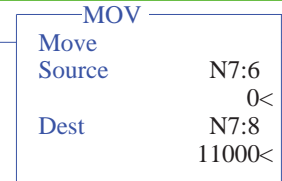


Sample 0% O2



Average reading
 sampled during 30%
 gas period

02_TEST_GAS_AVERAGE

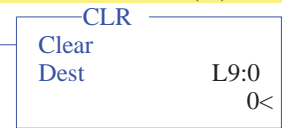


30% O2 Sample
 Complete

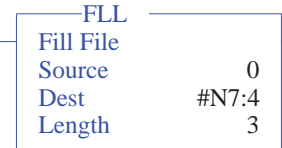
B3:0

11

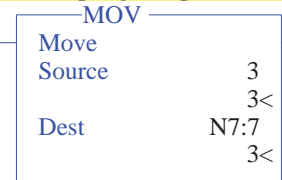
RUNNING TOTAL OF
 DATA SAMPLES (%)

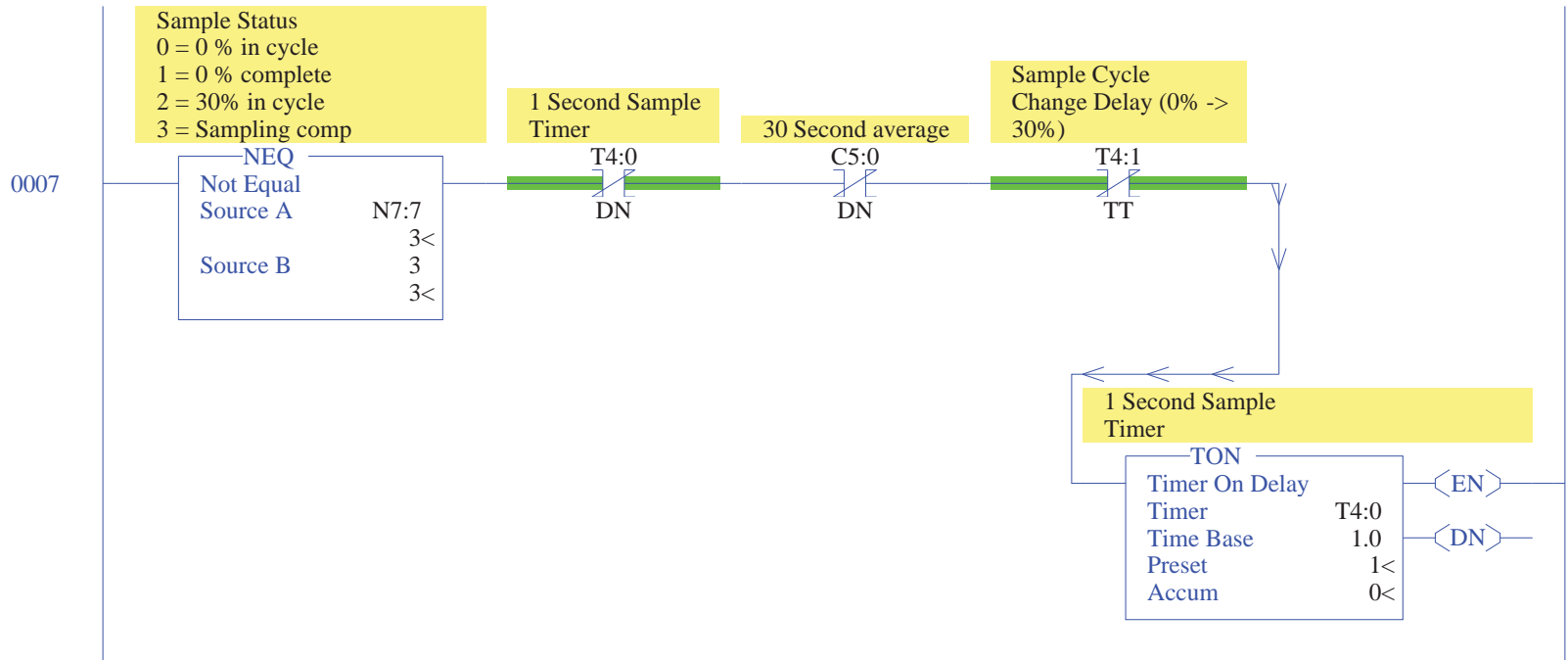


GAS SAMPLE



Sample Status
 0 = 0 % in cycle
 1 = 0 % complete
 2 = 30% in cycle
 3 = Sampling comp





0008

1 Second Sample
Timer

T4:0
DN

Sample Status
0 = 0 % in cycle
1 = 0 % complete
2 = 30% in cycle
3 = Sampling comp

LIM
Limit Test
Low Lim 0
Test N7:7 0<
High Lim 2
2<

N10:[POINTER]

MOV
Move
Source N7:0
14633<
Dest N10:[N7:5]
0<

RUNNING TOTAL OF
DATA SAMPLES (%)

ADD
Add
Source A N7:0
14633<
Source B L9:0
0<
Dest L9:0
0<

Pointer
POINTER

ADD
Add
Source A 1
1<
Source B N7:5
0<
Dest N7:5
0<

AVERAGE

DIV
Divide
Source A L9:0
0<
Source B N7:5
0<
Dest N7:6
0<

Pointer
POINTER

EQU
Equal
Source A N7:5
0<
Source B 30
30<

Average
Complete
B3:0

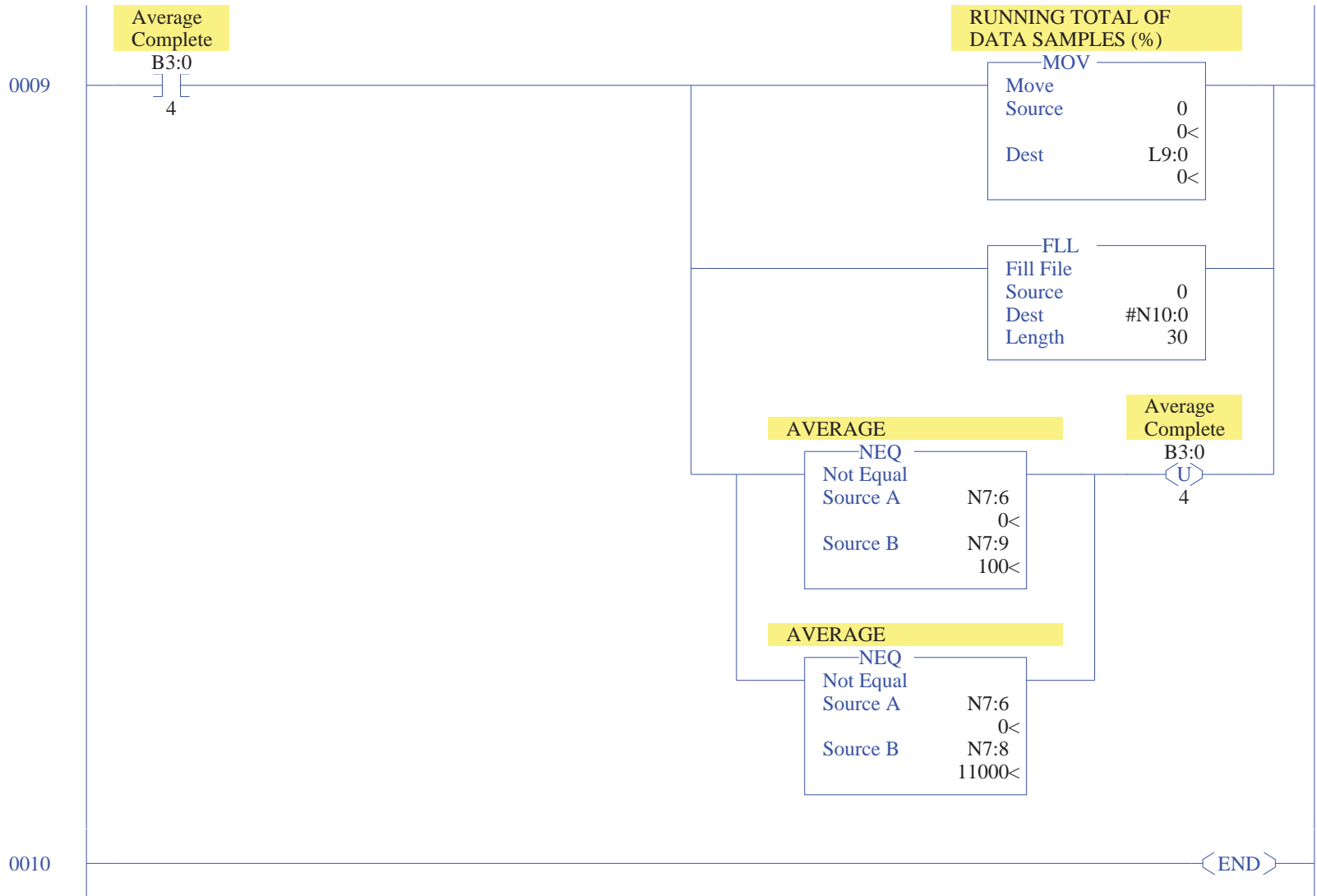
(L)
4

30 Second average

CTU
Count Up
Counter C5:0
Preset 30<
Accum 30<

(CU)
(DN)

LAD 4 - SAMPLE --- Total Rungs in File = 11



CALIBRATION CALCULATIONS:

Input Min = O2_Zero_Average

0% O2 Sample
CompleteB3:0
90% O2 Sample
Complete One-ShotB3:0
[ONS]
10O2 input min (for
SCP instruction,
default value = 0)

MOV	
Move	N7:9
Source	100<
Dest	N7:2
	100<

Input Max = ((O2_Maximum_Concentration / O2_Calibration_Gas_Concentration) *
(O2_Test_Gas_Average - O2_Zero_Average)) + O2_Zero_Average

O2_Maximum_Concentration = 40(%)

O2_Calibration_Gas_Concentration = 30(%)

O2_Test_Gas_Average = average reading sampled during 30% gas period

O2_Zero_Average = average reading sampled during 0% gas period

30% O2 Sample
CompleteB3:0
1130% O2 Sample
Complete One-ShotB3:0
[ONS]
12Difference of
O2_Test_Gas_Average
& O2_Zero_Average

SUB	
Subtract	N7:8
Source A	11000<
Source B	N7:9
	100<
Dest	N7:10
	10900<

MUL	
Multiply	1.33
Source A	1.33<
Source B	N7:10
	10900<
Dest	F8:0
	14597.0<

ADD	
Add	F8:0
Source A	14597.0<
Source B	N7:9
	100<
Dest	F8:0
	14597.0<

O2 Input Max (for
SCP instruction,
default value =
16383)

MOV	
Move	F8:0
Source	14597.0<
Dest	N7:3
	14597<

