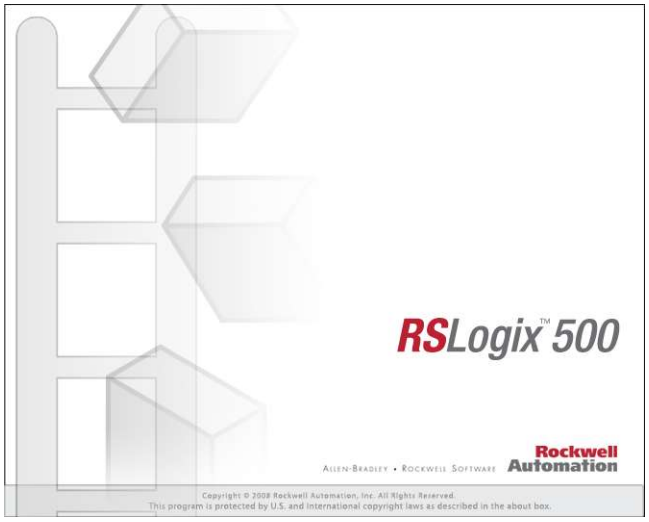
RSLogix Micro Project Report



Processor Information

Processor Type: Bul.1763 MicroLogix 1100 Series B

Processor Name: BRAIN_1

Total Memory Used: 534 Instruction Words Used - 148 Data Table Words Used

Total Memory Left: 6122 Instruction Words Left

Program Files: 10

Data Files: 10

Program ID: 7555

I/O Configuration

0	Bul.1763	MicroLogix 1100 Series B
1	1762-IF2OF2	Analog 2 Chan. Input, 2 Chan. Output
2	1762-IT4	4-Channel Thermocouple Input Module
3		
4		

Channel Configuration

CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex
   CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex Edit Resource/Owner Timeout: 60
   CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex Passthru Link ID: 1
   CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex Write Protected: No
   CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex Comms Servicing Selection: Yes
   CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex Message Servicing Selection: Yes
   CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex 1st AWA Append Character: \d
   CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex 2nd AWA Append Character: \a

   Source ID: 1 (decimal)
   Baud: 19200
   Parity: NONE
   Control Line : No Handshaking
   Error Detection: CRC
   Embedded Responses: Auto Detect
   Duplicate Packet Detect: Yes
   ACK Timeout(x20 ms): 50
   NAK Retries: 3
   ENQ Retries: 3

CHANNEL 1 (SYSTEM) - Driver: Ethernet
   CHANNEL 1 (SYSTEM) - Driver: Ethernet Edit Resource/Owner Timeout: 60
   CHANNEL 1 (SYSTEM) - Driver: Ethernet Passthru Link ID: 1
   CHANNEL 1 (SYSTEM) - Driver: Ethernet Write Protected: No
   CHANNEL 1 (SYSTEM) - Driver: Ethernet Comms Servicing Selection: Yes
   CHANNEL 1 (SYSTEM) - Driver: Ethernet Message Servicing Selection: Yes

   Hardware Address: 00:00:00:00:00:00
   IP Address: 0.0.0.0
   Subnet Mask: 0.0.0.0
   Gateway Address: 0.0.0.0
   Msg Connection Timeout (x 1mS): 15000
   Msg Reply Timeout (x mS): 3000
   Inactivity Timeout (x Min): 30
   Bootp Enable: Yes
   Dhcp Enable No
   SNMP Enable: No
   HTTP Enable: Yes
   Auto Negotiate Enable: Yes
   Port Speed Enable: 10/100 Mbps Full Duplex/Half Duplex
   Contact:
   Location:

Program File List

Name	Number	Type	Rungs	Debug	Bytes
[SYSTEM]	0	SYS	0	No	0
	1	SYS	0	No	0
MAIN	2	LADDER	10	No	116
DIGI IN	3	LADDER	9	No	131
DIGI OUT	4	LADDER	6	No	83
ANG IN	5	LADDER	3	No	290
ANG OUT	6	LADDER	2	No	121
CONTROLS	7	LADDER	13	No	641
ALARMS	9	LADDER	21	No	920
DISPLAY	10	LADDER	2	No	42

Data File List

Name	Number	Type	Scope	Debug	Words	Elements	Last
OUTPUT	0	O	Global	No	18	6	O:5
INPUT	1	I	Global	No	54	18	I:17
STATUS	2	S	Global	No	0	66	S:65
BINARY	3	B	Global	No	6	6	B3:5
TIMER	4	T	Global	No	27	9	T4:8
COUNTER	5	C	Global	No	3	1	C5:0
CONTROL	6	R	Global	No	3	1	R6:0
INTEGER	7	N	Global	No	10	10	N7:9
FLOAT	8	F	Global	No	4	2	F8:1
PID	9	PD	Global	No	23	1	PD9:0

SETTING THE BLOWER IN OFF, MANUAL OR HAND MODE

0000

First Pass
S:1
15

SYSTEM MODE
0 = OFF
1 = ON
2 = FAULTED
SYSTEM_MODE

MOV
Move
Source 0
0<
Dest N7:0
0<

BLOWER MODE
0 = OFF
1 = HAND
2 = AUTO
BLOWER_MODE

MOV
Move
Source 2
2<
Dest N7:1
0<

CALLING OTHER PROGRAM FILES

0001

DIGITAL INPUT
JSR
Jump To Subroutine
SBR File Number U:3

0002

DIGITALOUTPUT
JSR
Jump To Subroutine
SBR File Number U:4

0003

ANALOG INPUT
JSR
Jump To Subroutine
SBR File Number U:5

0004

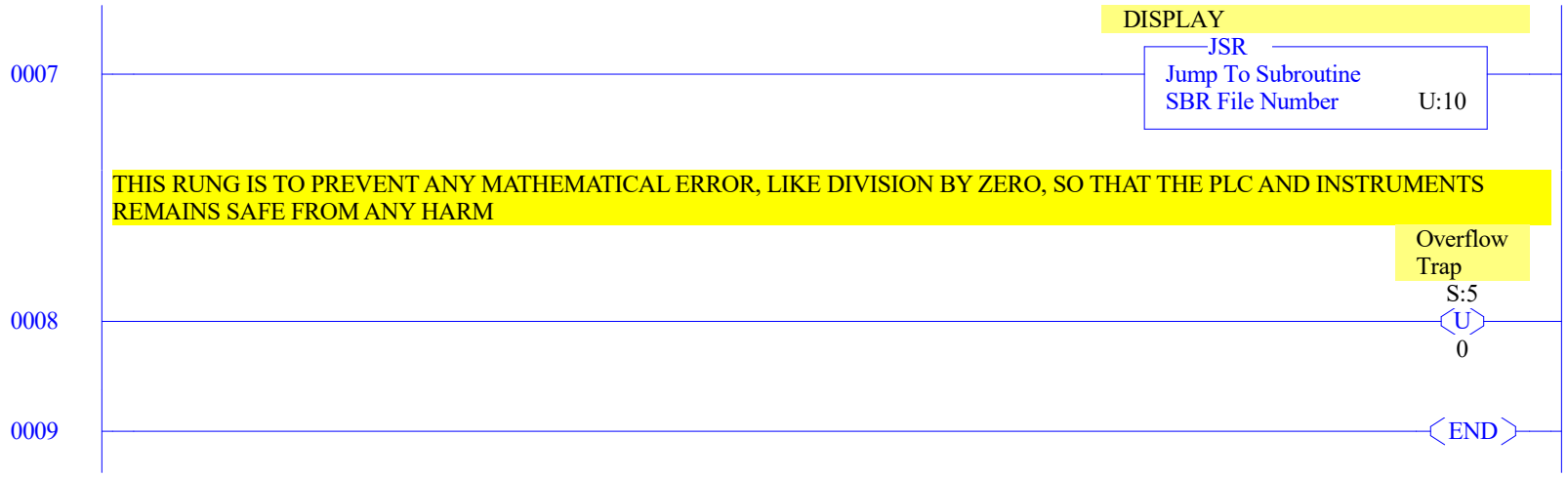
ANALOG OUTPUT
JSR
Jump To Subroutine
SBR File Number U:6

0005

CONTROLS
JSR
Jump To Subroutine
SBR File Number U:7

0006

ALARMS &
NOTIFICATION
JSR
Jump To Subroutine
SBR File Number U:9


DISPLAY
0007
JSR
Jump To Subroutine
SBR File Number U:10
THIS RUNG IS TO PREVENT ANY MATHEMATICAL ERROR, LIKE DIVISION BY ZERO, SO THAT THE PLC AND INSTRUMENTS REMAINS SAFE FROM ANY HARM
Overflow Trap
S:5
0008
U
0
0009
END

PHYSICAL BUTTONS TO 'ON' & 'OFF' THE SYSTEM

0000

BUTTON ON
I:0
0
Bul.1763

BUTTON ON IN BIT
B3:0
0

0001

BUTTON OFF
I:0
1
Bul.1763

BUTTON OFF IN BIT
B3:0
1

INPUTS FOR PUMP
PRESSURE & FLOW

0002

PRESSURE SWITCH IN
I:0
2
Bul.1763

PRESSURE SWITCH IN BIT
PRESSURE_SWITCH
B3:0
2

0003

FLOW SWITCH
I:0
3
Bul.1763

FLOW SWITCH IN BIT
FLOW_SWITCH
B3:0
3

INPUTS FOR TANK LEVEL CONTROL
HH, H, L, LL

0004

LOW LOW LEVEL SWITCH
I:0
4
Bul.1763

LOW LOW SWITCH IN BIT
LOW_LOW_SWITCH
B3:0
4

0005

LOW SWITCH
I:0
5
Bul.1763

LOW SWITCH IN BIT
LOW_SWITCH
B3:0
5

0006

HIGH SWITCH
I:0
6
Bul.1763

HIGH SWITCH IN BIT
HIGH_SWITCH
B3:0
6

0007

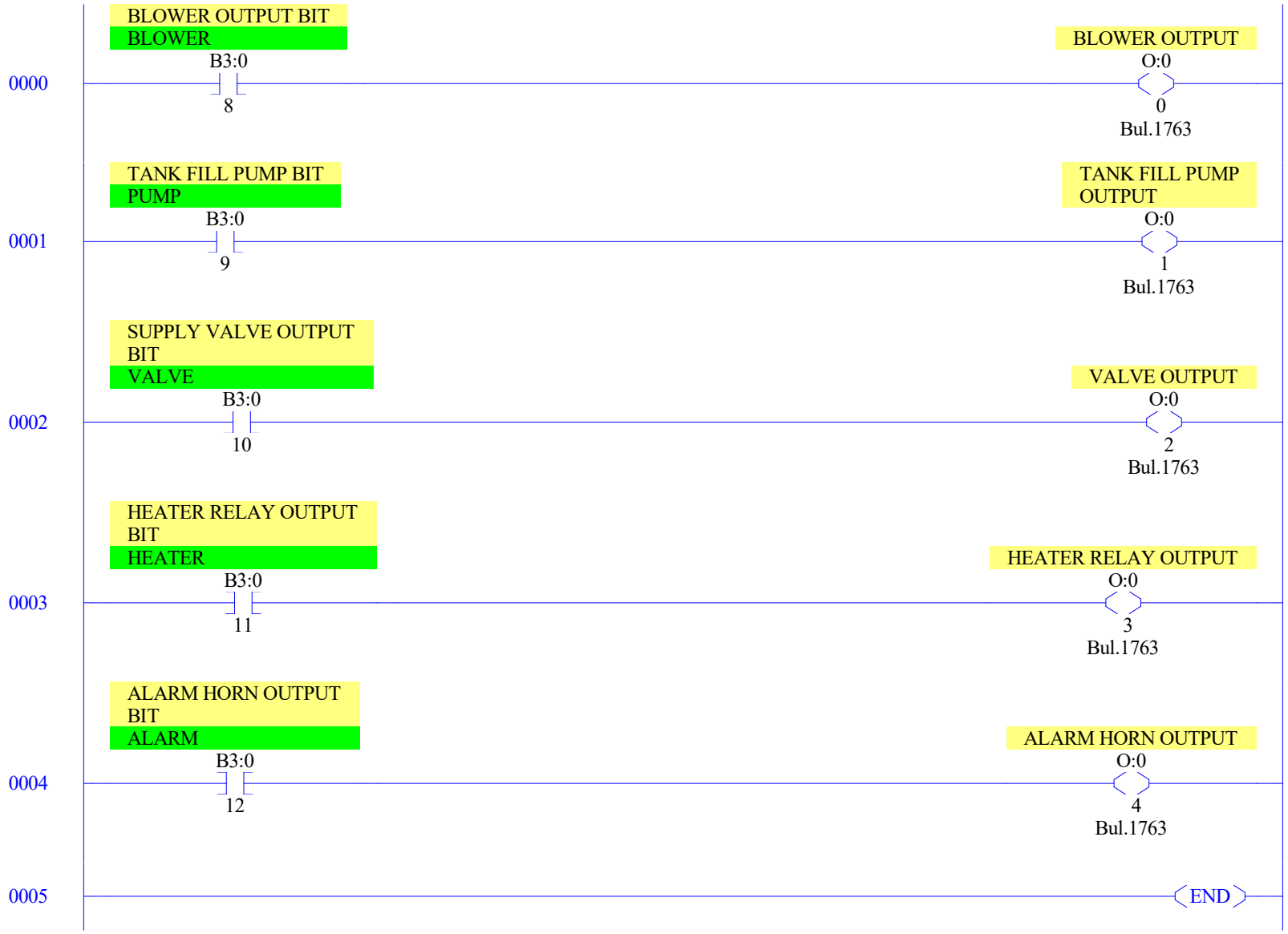
HIGH HIGH SWITCH
I:0
7
Bul.1763

HIGH HIGH SWITCH IN BITS
HIGH_HIGH_SWITCH
B3:0
7

0008

END

LAD 4 - DIGI OUT - Digital Output --- Total Rungs in File = 6



THE LIM, LES & GRT COMMAND MAKE SURE THAT THE PLC IS SAFE FROM UNUSUAL INPUTS, SINCE ANALOG SENSORS ARE PRONE TO VAGUENESS

0000

LEVEL SENSOR INPUT

LIM
Limit Test
Low Lim 0
0<
Test I:1.0
0<
High Lim 16383
16383<

TANK LEVEL
SCALED 0-100%
TANK_LEVEL

SCP
Scale w/Parameters
Input I:1.0
0<
Input Min. 0.0
0.0<
Input Max. 16383.0
16383.0<
Scaled Min. 0.0
0.0<
Scaled Max. 100.0
100.0<
Output F8:0
0.0<

LEVEL SENSOR INPUT

LES
Less Than (A<B)
Source A I:1.0
0<
Source B 0
0<

TANK LEVEL
SCALED 0-100%
TANK_LEVEL

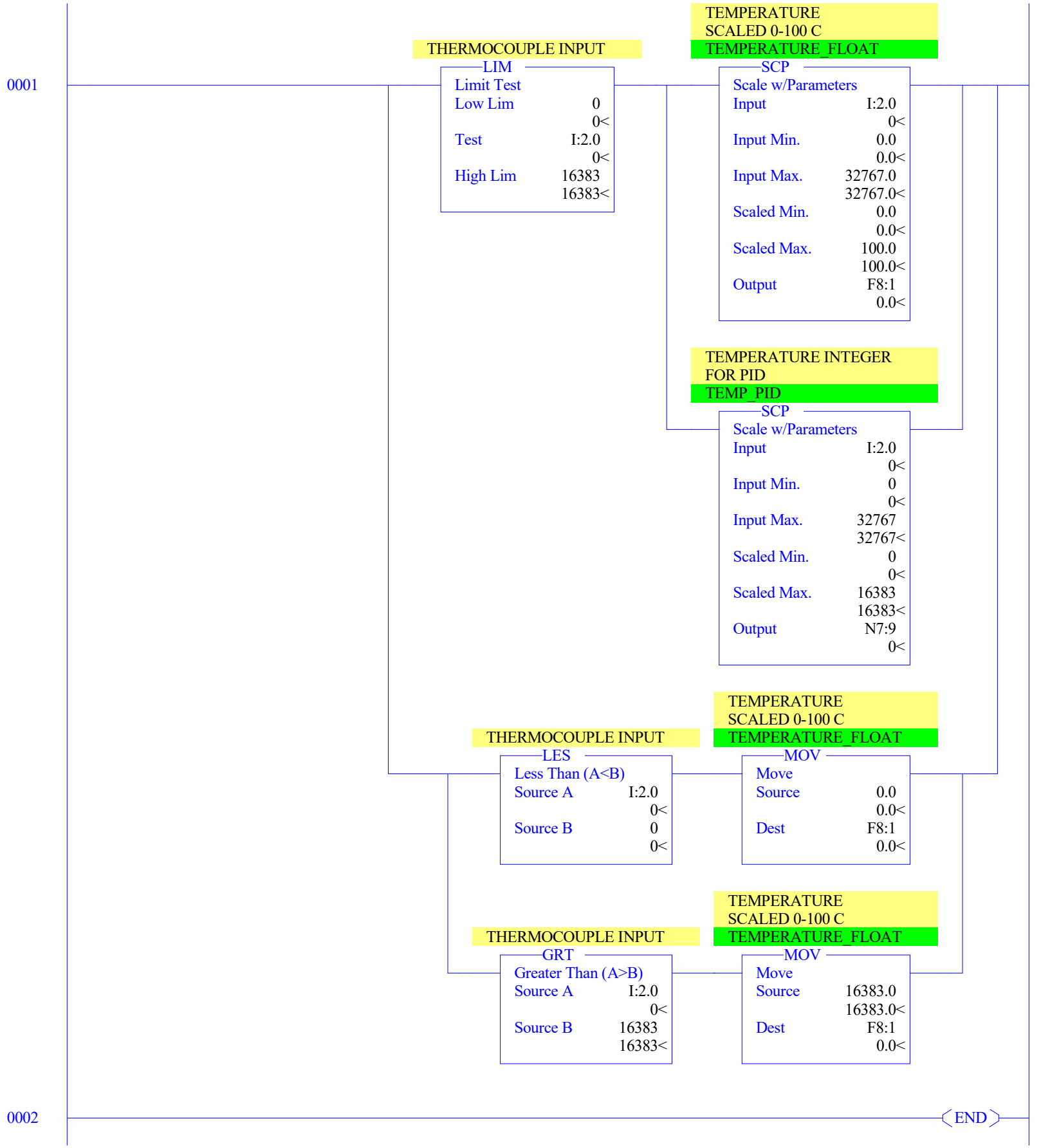
MOV
Move
Source 0.0
0.0<
Dest F8:0
0.0<

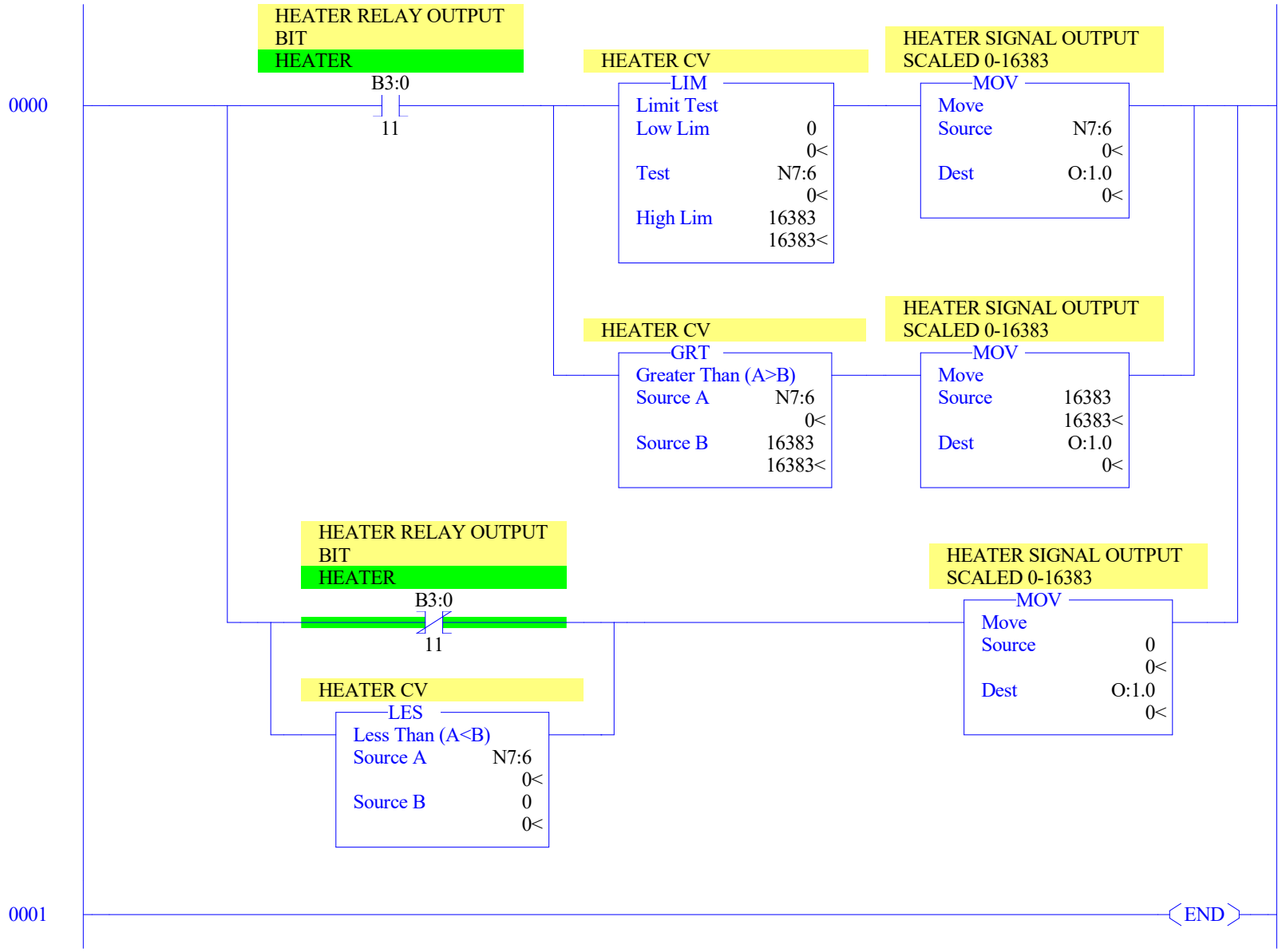
LEVEL SENSOR INPUT

GRT
Greater Than (A>B)
Source A I:1.0
0<
Source B 16383
16383<

TANK LEVEL
SCALED 0-100%
TANK_LEVEL

MOV
Move
Source 16383.0
16383.0<
Dest F8:0
0.0<


0001
THERMOCOUPLE INPUT
LIM
Limit Test
Low Lim 0
0<
Test I:2.0
0<
High Lim 16383
16383<
TEMPERATURE
SCALED 0-100 C
TEMPERATURE_FLOAT
SCP
Scale w/Parameters
Input I:2.0
0<
Input Min. 0.0
0.0<
Input Max. 32767.0
32767.0<
Scaled Min. 0.0
0.0<
Scaled Max. 100.0
100.0<
Output F8:1
0.0<
TEMPERATURE INTEGER
FOR PID
TEMP_PID
SCP
Scale w/Parameters
Input I:2.0
0<
Input Min. 0
0<
Input Max. 32767
32767<
Scaled Min. 0
0<
Scaled Max. 16383
16383<
Output N7:9
0<
THERMOCOUPLE INPUT
LES
Less Than (A<B)
Source A I:2.0
0<
Source B 0
0<
TEMPERATURE
SCALED 0-100 C
TEMPERATURE_FLOAT
MOV
Move
Source 0.0
0.0<
Dest F8:1
0.0<
THERMOCOUPLE INPUT
GRT
Greater Than (A>B)
Source A I:2.0
0<
Source B 16383
16383<
TEMPERATURE
SCALED 0-100 C
TEMPERATURE_FLOAT
MOV
Move
Source 16383.0
16383.0<
Dest F8:1
0.0<
0002
END


0000
HEATER RELAY OUTPUT BIT
HEATER
B3:0
11
HEATER CV
LIM
Limit Test
Low Lim 0 0<
Test N7:6 0<
High Lim 16383 16383<
HEATER SIGNAL OUTPUT SCALED 0-16383
MOV
Move
Source N7:6 0<
Dest O:1.0 0<
HEATER CV
GRT
Greater Than (A>B)
Source A N7:6 0<
Source B 16383 16383<
HEATER SIGNAL OUTPUT SCALED 0-16383
MOV
Move
Source 16383 16383<
Dest O:1.0 0<
HEATER RELAY OUTPUT BIT
HEATER
B3:0
11
HEATER CV
LES
Less Than (A<B)
Source A N7:6 0<
Source B 0 0<
HEATER SIGNAL OUTPUT SCALED 0-16383
MOV
Move
Source 0 0<
Dest O:1.0 0<
0001
END

SETTING THE SYSTEM IN OFF, ON & FAULTED MODE.

0000

BUTTON ON IN BIT
B3:0
0

SYSTEM ON PB FROM HMI
PB_ON
B3:0
14

SYSTEM MODE
0 = OFF
1 = ON
2 = FAULTED
SYSTEM_MODE

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

BUTTON ON (ONE-SHOT)
B3:0
ONS
13

HEATER RELAY OUTPUT BIT
HEATER
B3:0
11

SYSTEM MODE
0 = OFF
1 = ON
2 = FAULTED
SYSTEM_MODE

EQU
Equal
Source A N7:0 0<
Source B 2 2<

SYSTEM MODE
0 = OFF
1 = ON
2 = FAULTED
SYSTEM_MODE

MOV
Move
Source 1 1<
Dest N7:0 0<

SETTING THE SYSTEM IN OFF, ON & FAULTED MODE.

0001

BUTTON OFF IN BIT
B3:0
15

SYSTEM OFF PB FROM HMI
PB_OFF
B3:1
1

BUTTON OFF ONS BIT
B3:1
ONS
0

SYSTEM MODE
0 = OFF
1 = ON
2 = FAULTED
SYSTEM_MODE

MOV
Move
Source 0 0<
Dest N7:0 0<

SETTING THE SYSTEM IN OFF, ON & FAULTED MODE.

0002

GENERAL ALARM NOTIFIACTION BIT
B3:1
2

FAULTED ONS BIT
B3:1
ONS
3

SYSTEM MODE
0 = OFF
1 = ON
2 = FAULTED
SYSTEM_MODE

MOV
Move
Source 2
2<
Dest N7:0
0<

SETTING THE BLOWER IN OFF, MANUAL OR HAND MODE

0003

BLOWER OFF PB FROM HMI
BLOWER_OFF_PB
B3:1
4

BLOWER OFF ONS BIT
B3:1
ONS
5

BLOWER MODE
0 = OFF
1 = HAND
2 = AUTO
BLOWER_MODE

MOV
Move
Source 0
0<
Dest N7:1
0<

BLOWER HAND PB FROM HMI
BLOWER_HAND_PB
B3:1
6

BLOWER HAND ONS BIT
B3:1
ONS
7

BLOWER MODE
0 = OFF
1 = HAND
2 = AUTO
BLOWER_MODE

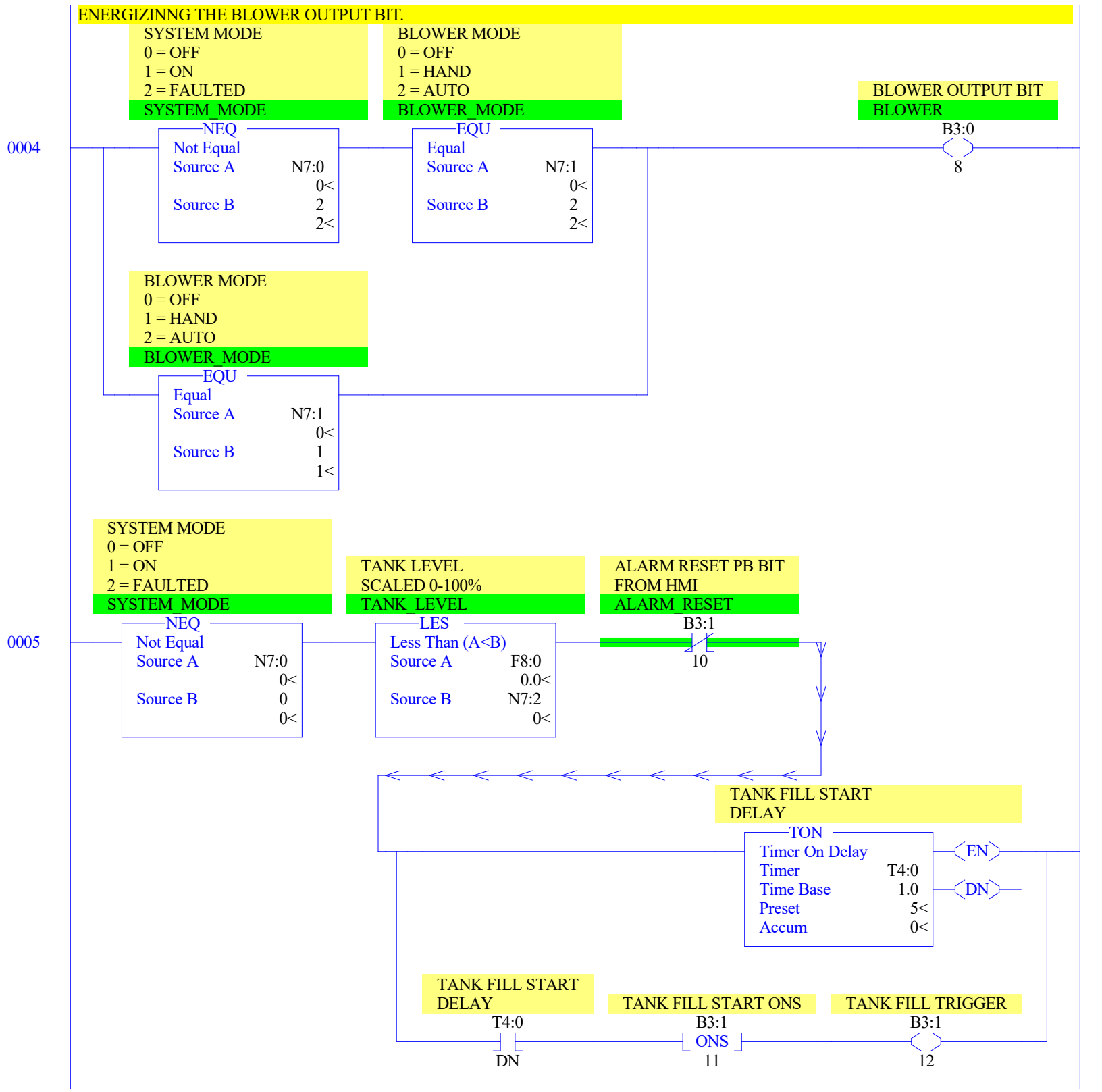
MOV
Move
Source 1
1<
Dest N7:1
0<

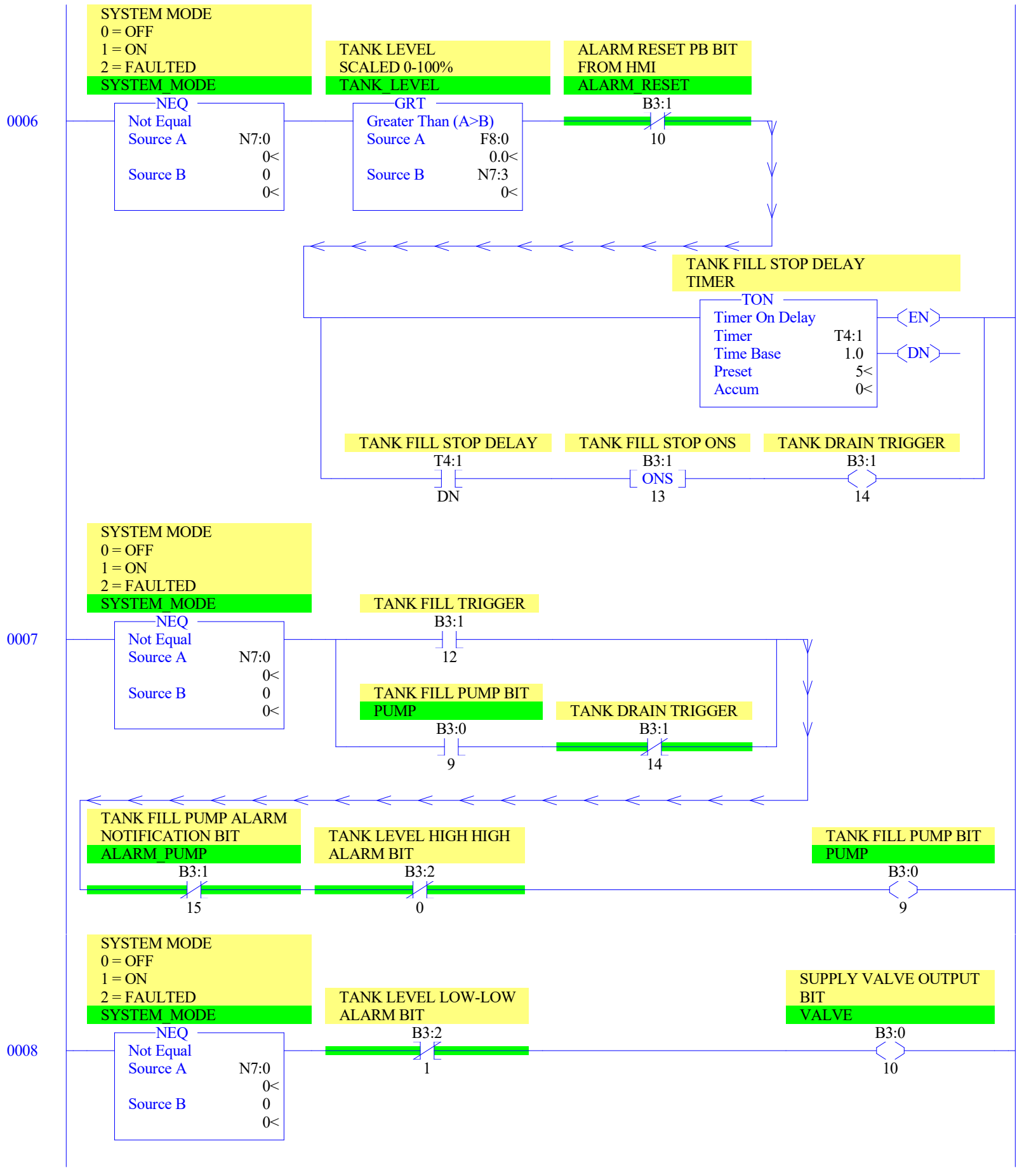
BLOWER AUTO PB FROM HMI
BLOWER_AUTO_PB
B3:1
8

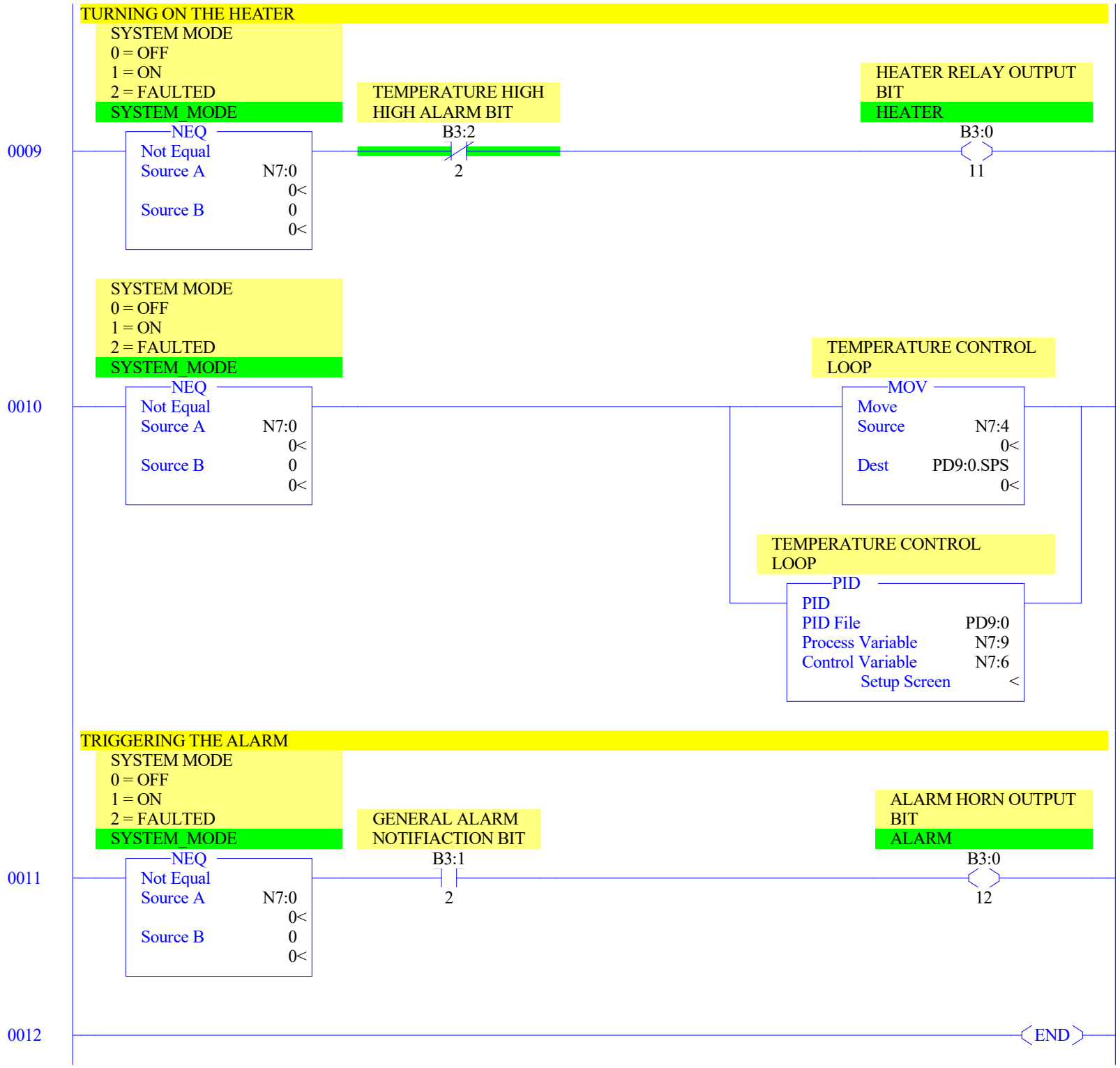
BLOWER AUTO ONS BIT
B3:1
ONS
9

BLOWER MODE
0 = OFF
1 = HAND
2 = AUTO
BLOWER_MODE

MOV
Move
Source 2
2<
Dest N7:1
0<


ENERGIZINNG THE BLOWER OUTPUT BIT.
SYSTEM MODE
0 = OFF
1 = ON
2 = FAULTED
SYSTEM_MODE
BLOWER MODE
0 = OFF
1 = HAND
2 = AUTO
BLOWER_MODE
BLOWER OUTPUT BIT
BLOWER
B3:0
8
0004
NEQ
Not Equal
Source A N7:0
0<
Source B 2
2<
EQU
Equal
Source A N7:1
0<
Source B 2
2<
BLOWER MODE
0 = OFF
1 = HAND
2 = AUTO
BLOWER_MODE
EQU
Equal
Source A N7:1
0<
Source B 1
1<
SYSTEM MODE
0 = OFF
1 = ON
2 = FAULTED
SYSTEM_MODE
TANK LEVEL
SCALED 0-100%
TANK_LEVEL
ALARM RESET PB BIT
FROM HMI
ALARM_RESET
B3:1
10
0005
NEQ
Not Equal
Source A N7:0
0<
Source B 0
0<
LES
Less Than (A<B)
Source A F8:0
0.0<
Source B N7:2
0<
TANK FILL START
DELAY
TON
Timer On Delay
Timer T4:0
Time Base 1.0
Preset 5<
Accum 0<
EN
DN
TANK FILL START
DELAY
T4:0
DN
TANK FILL START ONS
B3:1
ONS
11
TANK FILL TRIGGER
B3:1
12


SYSTEM MODE
0 = OFF
1 = ON
2 = FAULTED
SYSTEM_MODE
NEQ
Not Equal
Source A N7:0
0<
Source B 0
0<
TANK LEVEL
SCALED 0-100%
TANK_LEVEL
GRT
Greater Than (A>B)
Source A F8:0
0.0<
Source B N7:3
0<
ALARM RESET PB BIT
FROM HMI
ALARM_RESET
B3:1
10
0006
TANK FILL STOP DELAY
TIMER
TON
Timer On Delay
Timer T4:1
Time Base 1.0
Preset 5<
Accum 0<
EN
DN
TANK FILL STOP DELAY
T4:1
DN
TANK FILL STOP ONS
B3:1
ONS
13
TANK DRAIN TRIGGER
B3:1
14
SYSTEM MODE
0 = OFF
1 = ON
2 = FAULTED
SYSTEM_MODE
NEQ
Not Equal
Source A N7:0
0<
Source B 0
0<
TANK FILL TRIGGER
B3:1
12
0007
TANK FILL PUMP BIT
PUMP
B3:0
9
TANK DRAIN TRIGGER
B3:1
14
TANK FILL PUMP ALARM
NOTIFICATION BIT
ALARM_PUMP
B3:1
15
TANK LEVEL HIGH HIGH
ALARM BIT
B3:2
0
TANK FILL PUMP BIT
PUMP
B3:0
9
SYSTEM MODE
0 = OFF
1 = ON
2 = FAULTED
SYSTEM_MODE
NEQ
Not Equal
Source A N7:0
0<
Source B 0
0<
TANK LEVEL LOW-LOW
ALARM BIT
B3:2
1
0008
SUPPLY VALVE OUTPUT
BIT
VALVE
B3:0
10


TURNING ON THE HEATER
SYSTEM MODE
0 = OFF
1 = ON
2 = FAULTED
SYSTEM_MODE
NEQ
Not Equal
Source A N7:0
0<
Source B 0
0<
TEMPERATURE HIGH HIGH ALARM BIT
B3:2
2
HEATER RELAY OUTPUT BIT
HEATER
B3:0
11
0009
SYSTEM MODE
0 = OFF
1 = ON
2 = FAULTED
SYSTEM_MODE
NEQ
Not Equal
Source A N7:0
0<
Source B 0
0<
TEMPERATURE CONTROL LOOP
MOV
Move
Source N7:4
0<
Dest PD9:0.SPS
0<
TEMPERATURE CONTROL LOOP
PID
PID
PID File PD9:0
Process Variable N7:9
Control Variable N7:6
Setup Screen <
0010
TRIGGERING THE ALARM
SYSTEM MODE
0 = OFF
1 = ON
2 = FAULTED
SYSTEM_MODE
NEQ
Not Equal
Source A N7:0
0<
Source B 0
0<
GENERAL ALARM NOTIFIACTION BIT
B3:1
2
ALARM HORN OUTPUT BIT
ALARM
B3:0
12
0011
0012
END

TRIGGERING THE LOW LOW ALARM BIT WHEN THE SIGNAL FROM ANALOG SENSOR OR DIGITAL SIGNAL HITS THE DESIGNATED VALUE

0000

TANK LEVEL
SCALED 0-100%
TANK_LEVEL

LES
Less Than (A<B)
Source A F8:0 0.0<
Source B N7:2 0<

ALARM RESET PB BIT
FROM HMI
ALARM_RESET
B3:1
10

LOW-LOW LEVEL BUTTON
IN BIT
LVL_LL_SW
B3:3
3

TANK LEVEL LOW LOW
ALARM DELAY

TON
Timer On Delay
Timer T4:2
Time Base 1.0
Preset 5<
Accum 0<
EN
DN

TANK LEVEL LOW LOW
ALARM DELAY
T4:2
DN

TANK LEVEL LOW-LOW
ALARM BIT
B3:3
4

TANK LEVEL LOW LOW
ALARM TRIGGER ONS
B3:3
ONS
5

TANK LEVEL LOW LOW
ALARM TRIGGER BIT
B3:3
6

HOLD-IN AND INTERRUPT FOR THE LOW LOW ALARM

0001

TANK LEVEL LOW LOW
ALARM TRIGGER BIT
B3:3
6

ALARM RESET PB BIT
FROM HMI
ALARM_RESET
B3:1
10

ALARM SILENCE PB BIT
FROM HMI
ALARM_SILENCE
B3:3
7

ALARM LEVEL LOW -LOW
NOTIFIACTION BIT
ALARM_LVL_LL
B3:3
8

ALARM LEVEL LOW -LOW
NOTIFIACTION BIT
ALARM_LVL_LL
B3:3
8

TRIGGERING THE HIGH HIGH ALARM BIT WHEN THE SIGNAL FROM ANALOG SENSOR OR DIGITAL SIGNAL HITS THE DESIGNATED VALUE

0002

TANK LEVEL SCALED 0-100%
TANK_LEVEL

GRT
Greater Than (A>B)
Source A F8:0 0.0<
Source B N7:2 0<

ALARM RESET PB BIT FROM HMI
ALARM_RESET
B3:1
10

HIGH HIGH LEVEL SWITCH IN BIT
LVL_HH_SW
B3:3
9

TANK LEVEL HIGH HIGH ALARM DELAY

TON
Timer On Delay
Timer T4:3
Time Base 1.0
Preset 5<
Accum 0<
EN
DN

TANK LVL HIGH HIGH ALARM DELAY
T4:3
DN

TANK LEVEL HIGH HIGH ALARM BIT
B3:3
10

TANK LEVEL HIGH HIGH ALARM TRIGGER ONS
B3:3
ONS
11

TANK LEVEL HIGH HIGH ALARM TRIGGER BIT
B3:3
12

HOLD-IN AND INTERRUPT FOR THE HIGH HIGH ALARM

0003

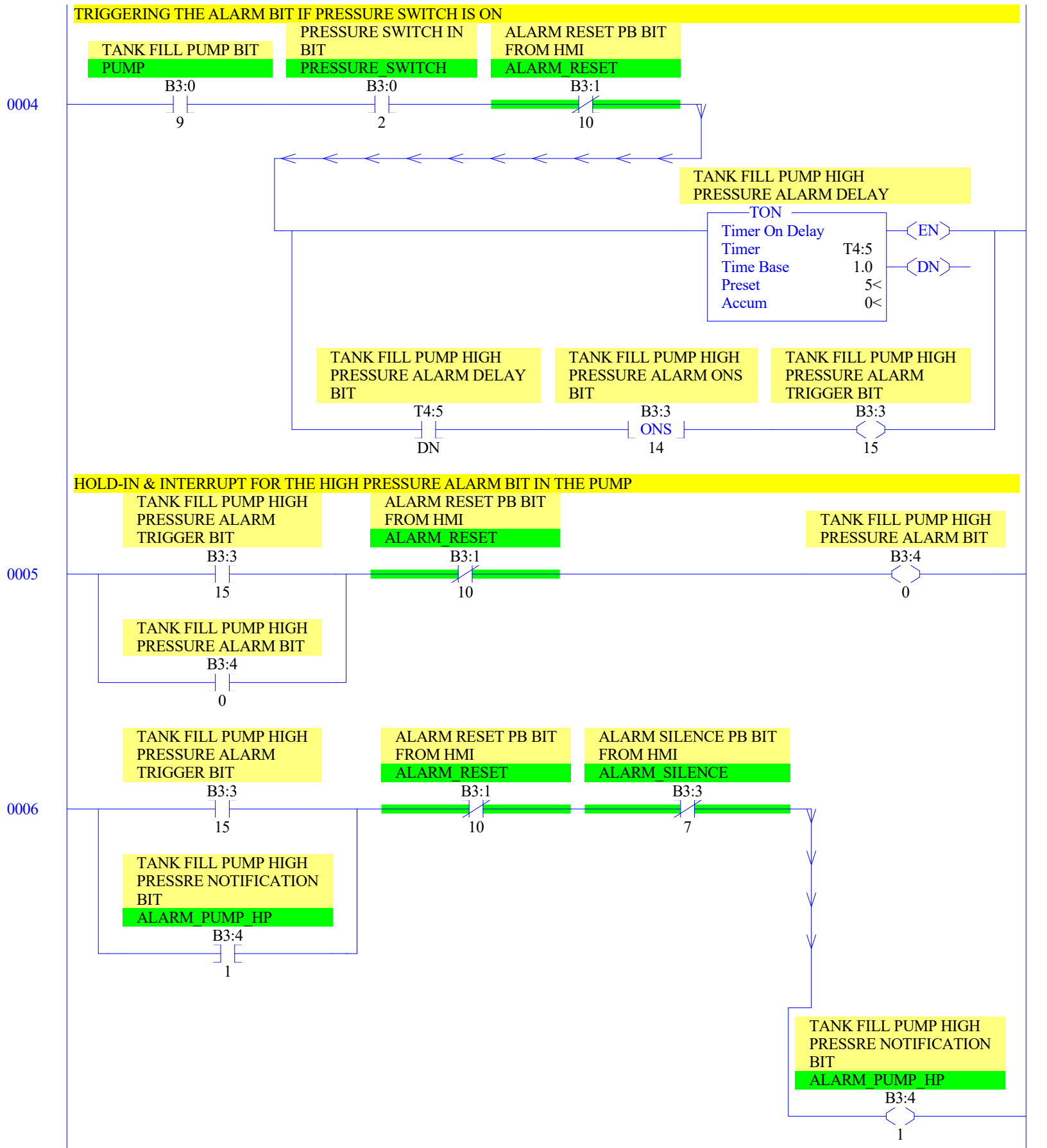
TANK LEVEL HIGH HIGH ALARM TRIGGER BIT
B3:3
12

ALARM RESET PB BIT FROM HMI
ALARM_RESET
B3:1
10

ALARM SILENCE PB BIT FROM HMI
ALARM_SILENCE
B3:3
7

ALARM LEVEL HIGH HIGH NOTIFICATION BIT
ALARM_LEVEL_HH
B3:3
13

ALARM LEVEL HIGH HIGH NOTIFICATION BIT
ALARM_LEVEL_HH
B3:3
13


TRIGGERING THE ALARM BIT IF PRESSURE SWITCH IS ON
TANK FILL PUMP BIT
PUMP
B3:0
9
PRESSURE SWITCH IN BIT
PRESSURE_SWITCH
B3:0
2
ALARM RESET PB BIT FROM HMI
ALARM_RESET
B3:1
10
0004
TANK FILL PUMP HIGH PRESSURE ALARM DELAY
TON
Timer On Delay
Timer T4:5
Time Base 1.0
Preset 5<
Accum 0<
EN
DN
TANK FILL PUMP HIGH PRESSURE ALARM DELAY BIT
T4:5
DN
TANK FILL PUMP HIGH PRESSURE ALARM ONS BIT
B3:3
ONS
14
TANK FILL PUMP HIGH PRESSURE ALARM TRIGGER BIT
B3:3
15
HOLD-IN & INTERRUPT FOR THE HIGH PRESSURE ALARM BIT IN THE PUMP
TANK FILL PUMP HIGH PRESSURE ALARM TRIGGER BIT
B3:3
15
ALARM RESET PB BIT FROM HMI
ALARM_RESET
B3:1
10
TANK FILL PUMP HIGH PRESSURE ALARM BIT
B3:4
0
0005
TANK FILL PUMP HIGH PRESSURE ALARM BIT
B3:4
0
TANK FILL PUMP HIGH PRESSURE ALARM TRIGGER BIT
B3:3
15
ALARM RESET PB BIT FROM HMI
ALARM_RESET
B3:1
10
ALARM SILENCE PB BIT FROM HMI
ALARM_SILENCE
B3:3
7
0006
TANK FILL PUMP HIGH PRESSRE NOTIFICATION BIT
ALARM_PUMP_HP
B3:4
1
TANK FILL PUMP HIGH PRESSRE NOTIFICATION BIT
ALARM_PUMP_HP
B3:4
1

ENERGIZING THE PUMP LOW FLOW ALARM TRIGGER BIT

0007

TANK FILL PUMP BIT
PUMP
B3:0
9

FLOW SWITCH IN BIT
FLOW_SWITCH
B3:0
3

ALARM RESET PB BIT FROM HMI
ALARM_RESET
B3:1
10

TANK FILL PUMP LOW FLOW ALARM DELAY
TON
Timer On Delay
Timer T4:6
Time Base 1.0
Preset 5<
Accum 0<
EN
DN

TANK FILL PUMP LOW FLOW ALARM DELAY
T4:6
DN

TANK FILL PUMP LOW FLOW ALARM ONS BIT
B3:4
ONS
3

TANK FILL PUMP LOW FLOW ALARM TRIGGER BIT
B3:4
4

HOLD-IN & INTERRUPT FOR THE PUMP LOW FLOW ALARM BIT

0008

TANK FILL PUMP LOW FLOW ALARM TRIGGER BIT
B3:4
4

ALARM RESET PB BIT FROM HMI
ALARM_RESET
B3:1
10

TANK FILL PUMP LOW FLOW ALARM BIT
B3:4
5

TANK FILL PUMP LOW FLOW ALARM BIT
B3:4
5

0009

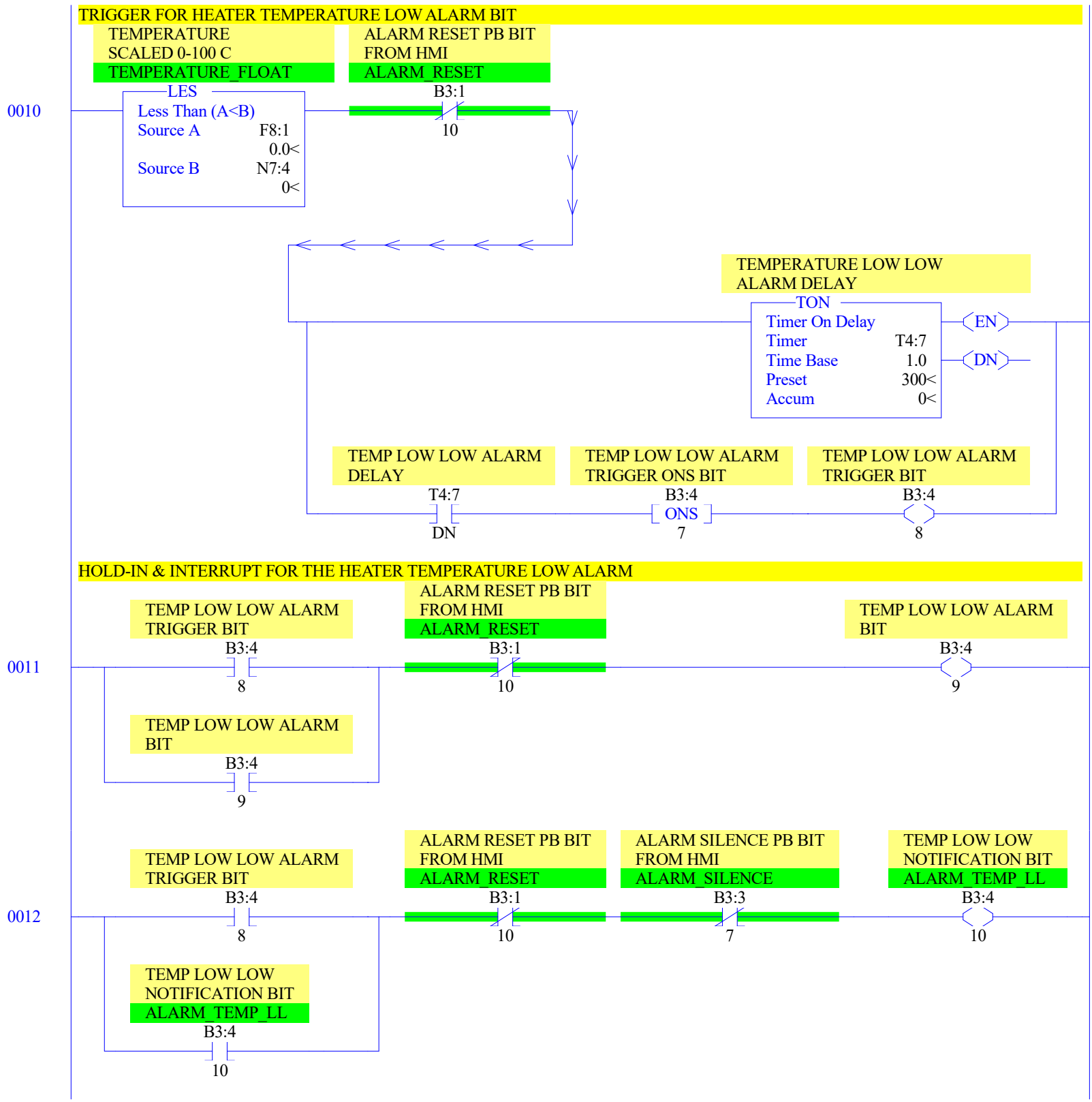
TANK FILL PUMP LOW FLOW ALARM TRIGGER BIT
B3:4
4

ALARM RESET PB BIT FROM HMI
ALARM_RESET
B3:1
10

ALARM SILENCE PB BIT FROM HMI
ALARM_SILENCE
B3:3
7

TANK FILL PUMP LOW FLOW NOTIFICATION BIT
ALARM_PUMP_LF
B3:4
6

TANK FILL PUMP LOW FLOW NOTIFICATION BIT
ALARM_PUMP_LF
B3:4
6


TRIGGER FOR HEATER TEMPERATURE LOW ALARM BIT
TEMPERATURE SCALED 0-100 C
TEMPERATURE_FLOAT
ALARM RESET PB BIT FROM HMI
ALARM_RESET
B3:1
10
0010
LES
Less Than (A<B)
Source A F8:1
0.0<
Source B N7:4
0<
TEMPERATURE LOW LOW ALARM DELAY
TON
Timer On Delay
Timer T4:7
Time Base 1.0
Preset 300<
Accum 0<
EN
DN
TEMP LOW LOW ALARM DELAY
T4:7
DN
TEMP LOW LOW ALARM TRIGGER ONS BIT
B3:4
ONS
7
TEMP LOW LOW ALARM TRIGGER BIT
B3:4
8
HOLD-IN & INTERRUPT FOR THE HEATER TEMPERATURE LOW ALARM
TEMP LOW LOW ALARM TRIGGER BIT
B3:4
8
ALARM RESET PB BIT FROM HMI
ALARM_RESET
B3:1
10
TEMP LOW LOW ALARM BIT
B3:4
9
0011
TEMP LOW LOW ALARM BIT
B3:4
9
TEMP LOW LOW ALARM TRIGGER BIT
B3:4
8
ALARM RESET PB BIT FROM HMI
ALARM_RESET
B3:1
10
ALARM SILENCE PB BIT FROM HMI
ALARM_SILENCE
B3:3
7
TEMP LOW LOW NOTIFICATION BIT
ALARM_TEMP_LL
B3:4
10
0012
TEMP LOW LOW NOTIFICATION BIT
ALARM_TEMP_LL
B3:4
10

TRIGGER FOR HEATER TEMPERATURE HIGH ALARM BIT

0013

TEMPERATURE SCALED 0-100 C
TEMPERATURE_FLOAT

GRT
Greater Than (A>B)
Source A F8:1 0.0<
Source B N7:5 0<

ALARM RESET PB BIT FROM HMI
ALARM_RESET
B3:1
10

TEMP HIGH HIGH ALARM DELAY

TON
Timer On Delay
Timer T4:8
Time Base 1.0
Preset 10<
Accum 0<
EN
DN

TEMP HIGH HIGH ALARM DELAY
T4:8
DN

TEMP HIGH HIGH ALARM TRIGGER ONS BIT
B3:4
ONS
11

TEMP HIGH HIGH ALARM TRIGGER BIT
B3:4
12

HOLD-IN & INTERRUPT FOR THE HEATER TEMPERATURE LOW ALARM

0014

TEMP HIGH HIGH ALARM TRIGGER BIT
B3:4
12

ALARM RESET PB BIT FROM HMI
ALARM_RESET
B3:1
10

TEMP HIGH HIGH ALARM BIT
B3:4
13

TEMP HIGH HIGH ALARM BIT
B3:4
13

0015

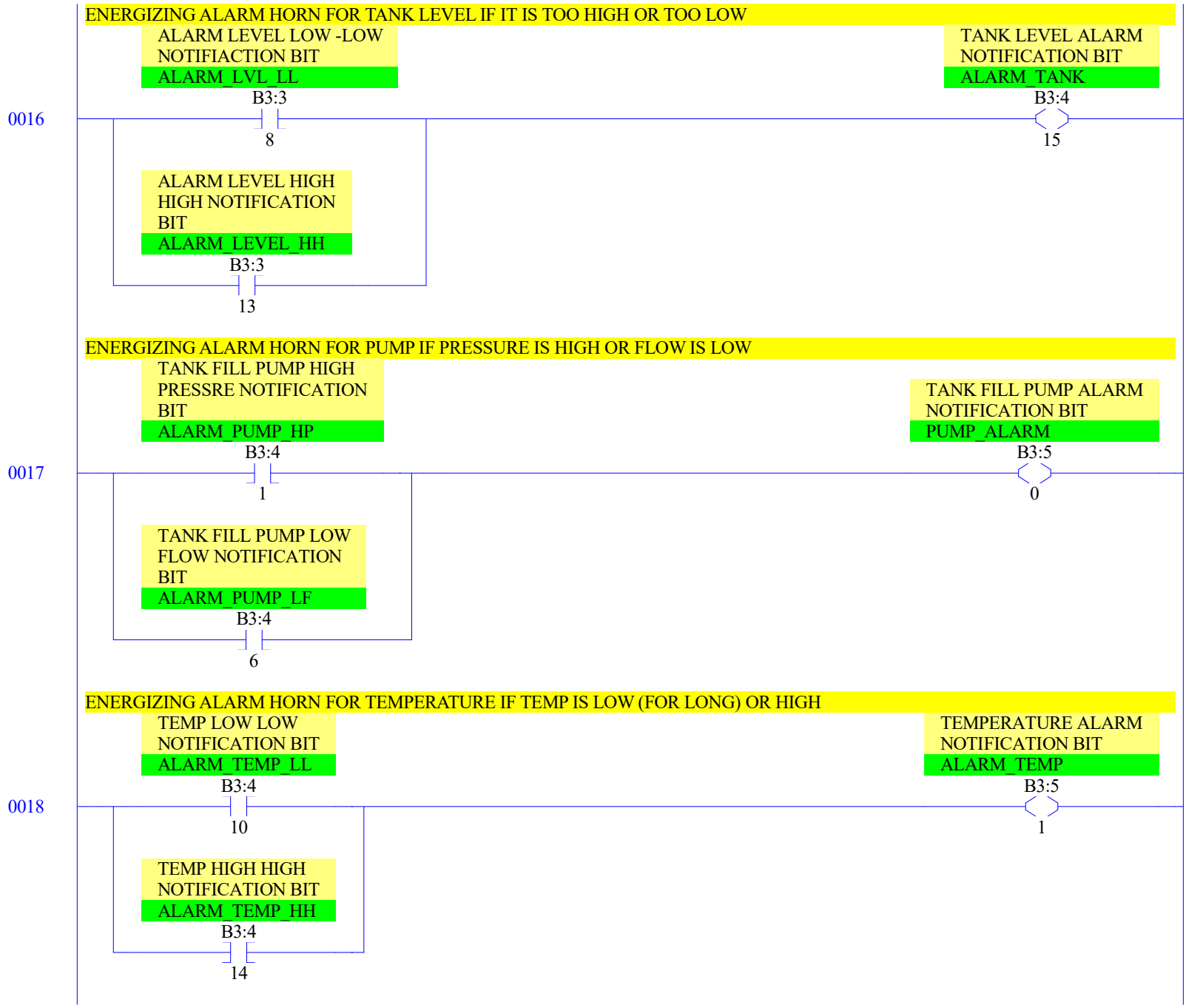
TEMP HIGH HIGH ALARM TRIGGER BIT
B3:4
12

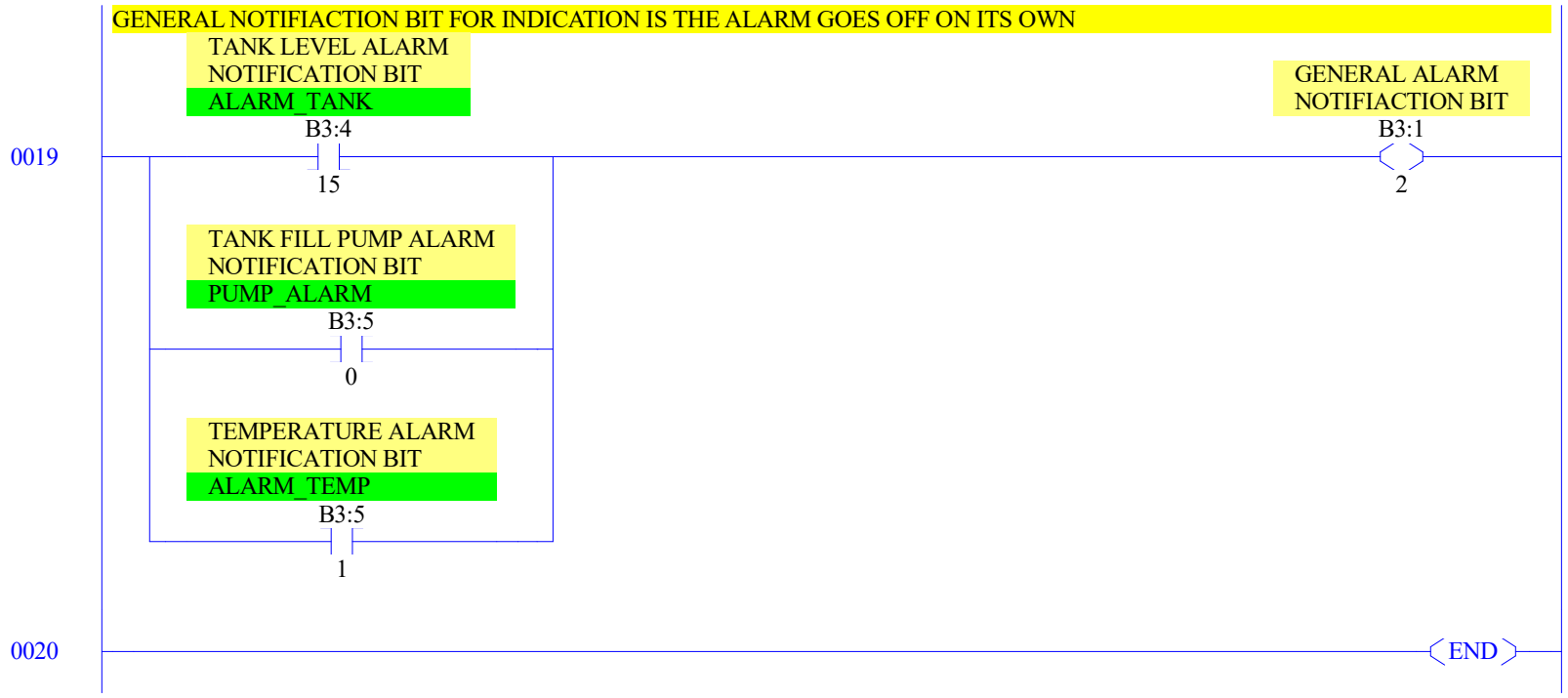
ALARM RESET PB BIT FROM HMI
ALARM_RESET
B3:1
10

ALARM SILENCE PB BIT FROM HMI
ALARM_SILENCE
B3:3
7

TEMP HIGH HIGH NOTIFICATION BIT
ALARM_TEMP_HH
B3:4
14

TEMP HIGH HIGH NOTIFICATION BIT
ALARM_TEMP_HH
B3:4
14


ENERGIZING ALARM HORN FOR TANK LEVEL IF IT IS TOO HIGH OR TOO LOW
ALARM LEVEL LOW -LOW NOTIFIACTION BIT
ALARM_LVL_LL
B3:3
8
TANK LEVEL ALARM NOTIFICATION BIT
ALARM_TANK
B3:4
15
0016
ALARM LEVEL HIGH HIGH NOTIFICATION BIT
ALARM_LEVEL_HH
B3:3
13
ENERGIZING ALARM HORN FOR PUMP IF PRESSURE IS HIGH OR FLOW IS LOW
TANK FILL PUMP HIGH PRESSRE NOTIFICATION BIT
ALARM_PUMP_HP
B3:4
1
TANK FILL PUMP ALARM NOTIFICATION BIT
PUMP_ALARM
B3:5
0
0017
TANK FILL PUMP LOW FLOW NOTIFICATION BIT
ALARM_PUMP_LF
B3:4
6
ENERGIZING ALARM HORN FOR TEMPERATURE IF TEMP IS LOW (FOR LONG) OR HIGH
TEMP LOW LOW NOTIFICATION BIT
ALARM_TEMP_LL
B3:4
10
TEMPERATURE ALARM NOTIFICATION BIT
ALARM_TEMP
B3:5
1
0018
TEMP HIGH HIGH NOTIFICATION BIT
ALARM_TEMP_HH
B3:4
14


GENERAL NOTIFIACTION BIT FOR INDICATION IS THE ALARM GOES OFF ON ITS OWN
TANK LEVEL ALARM
NOTIFICATION BIT
ALARM_TANK
B3:4
15
GENERAL ALARM
NOTIFIACTION BIT
B3:1
2
0019
TANK FILL PUMP ALARM
NOTIFICATION BIT
PUMP_ALARM
B3:5
0
TEMPERATURE ALARM
NOTIFICATION BIT
ALARM_TEMP
B3:5
1
0020
END

TEMPERATURE DISPLAY

0000

TEMP DISPLAY
SCALED 0-100%
HEATER_OUTPUT

SCP
Scale w/Parameters

Input	N7:6
	0<
Input Min.	0
	0<
Input Max.	16383
	16383<
Scaled Min.	0
	0<
Scaled Max.	100
	100<
Output	N7:7
	0<

0001

END

Data File O0 (bin) -- OUTPUT

Offset	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	
O:0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763 MicroLogix 1100 Series B
O:0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763 MicroLogix 1100 Series B
O:0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763 MicroLogix 1100 Series B
O:0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763 MicroLogix 1100 Series B
O:1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1762-IF2OF2 - Analog 2 Chan. Input, 2 Chan. O
O:1.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1762-IF2OF2 - Analog 2 Chan. Input, 2 Chan. O

Data File I1 (bin) -- INPUT

Offset	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	
I:0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763 MicroLogix 1100 Series B
I:0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763 MicroLogix 1100 Series B
I:0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763 MicroLogix 1100 Series B
I:0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763 MicroLogix 1100 Series B
I:0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763 MicroLogix 1100 Series B-Analog
I:0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763 MicroLogix 1100 Series B-Analog
I:1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1762-IF2OF2 - Analog 2 Chan. Input, 2 Chan. O
I:1.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1762-IF2OF2 - Analog 2 Chan. Input, 2 Chan. O
I:1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1762-IF2OF2 - Analog 2 Chan. Input, 2 Chan. O
I:1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1762-IF2OF2 - Analog 2 Chan. Input, 2 Chan. O
I:1.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1762-IF2OF2 - Analog 2 Chan. Input, 2 Chan. O
I:1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1762-IF2OF2 - Analog 2 Chan. Input, 2 Chan. O
I:2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1762-IT4 - 4-Channel Thermocouple Input Modul
I:2.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1762-IT4 - 4-Channel Thermocouple Input Modul
I:2.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1762-IT4 - 4-Channel Thermocouple Input Modul
I:2.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1762-IT4 - 4-Channel Thermocouple Input Modul
I:2.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1762-IT4 - 4-Channel Thermocouple Input Modul
I:2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1762-IT4 - 4-Channel Thermocouple Input Modul

Main

Processor Mode S:1/0 - S:1/4 = Remote Program Mode
On Power up Go To Run (Mode Behavior) S:1/12 = 0
First Pass S:1/15 = No
Free Running Clock S:4 = 0000-0000-0000-0000

Proc

OS Catalog Number S:57 = 1100
OS Series S:58 = A
OS FRS S:59 =
Processor Catalog Number S:60 =
Processor Series S:61 = A
Processor FRN S:62 =
User Program Type S:63 = 8001h
Compiler Revision Number S:64 =

Scan Times

Maximum (x10 ms) S:22 = 0
Watchdog (x10 ms) S:3 (high byte) = 10
Last 100 uSec Scan Time S:35 = 0
Scan Toggle Bit S:33/9 = 0

Math

Math Overflow Selected S:2/14 = 0
Overflow Trap S:5/0 = 0
Carry S:0/0 = 0
Overflow S:0/1 = 0
Zero Bit S:0/2 = 0
Sign Bit S:0/3 = 0
Math Register (lo word) S:13 = 0
Math Register (high word) S:14-S:13 = 0
Math Register (32 Bit) S:14-S:13 = 0

Chan 0

Processor Mode S:1/0- S:1/4 = Remote Program Mode
Node Address S:15 (low byte) = 0
Baud Rate S:15 (high byte) = ?
Channel Mode S:33/3 = 0
Comms Active S:33/4 = 0
Incoming Cmd Pending S:33/0 = 0
Msg Reply Pending S:33/1 = 0
Outgoing Msg Cmd Pending S:33/2 = 0

Debug

Suspend Code S:7 = 0
Suspend File S:8 = 0

Errors

Fault Override At Power Up S:1/8 = 0
Startup Protection Fault S:1/9 = 0
Major Error Halt S:1/13 = 0
Overflow Trap S:5/0 = 0
Control Register Error S:5/2 = 0
Major Error Executing User Fault Rtn. S:5/3 = 0
Battery Low S:5/11 = 0
Input Filter Selection Modified S:5/13 = 0
ASCII String Manipulation error S:5/15 = 0
Fault Routine S:29 = 0
Major Error S:6 = 0h
Error Description:

Protection

Deny Future Access S:1/14 = No
Data File Overwrite Protection Lost S:36/10 = False

Mem Module

Memory Module Loaded On Boot S:5/8 = 0
Password Mismatch S:5/9 = 0
Load Memory Module On Memory Error S:1/10 = 0
Load Memory Module Always S:1/11 = 0
On Power up Go To Run (Mode Behavior) S:1/12 = 0
Program Compare S:2/9 = 0
Data File Overwrite Protection Lost S:36/10 = 0

Forces

Forces Enabled S:1/5 = Yes
Forces Installed S:1/6 = No

Data File B3 (bin) -- BINARY

Offset	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	(Symbol) Description
B3:0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Data File T4 -- TIMER

Offset	EN	TT	DN	BASE	PRE	ACC	(Symbol) Description
T4:0	0	0	0	1.0 sec	5	0	TANK FILL START DELAY
T4:1	0	0	0	1.0 sec	5	0	TANK FILL STOP DELAY TIMER
T4:2	0	0	0	1.0 sec	5	0	TANK LEVEL LOW LOW ALARM DELAY
T4:3	0	0	0	1.0 sec	5	0	TANK LEVEL HIGH HIGH ALARM DELAY
T4:4	0	0	0	.01 sec	0	0	
T4:5	0	0	0	1.0 sec	5	0	TANK FILL PUMP HIGH PRESSURE ALARM DELAY
T4:6	0	0	0	1.0 sec	5	0	TANK FILL PUMP LOW FLOW ALARM DELAY
T4:7	0	0	0	1.0 sec	300	0	TEMPERATURE LOW LOW ALARM DELAY
T4:8	0	0	0	1.0 sec	10	0	TEMP HIGH HIGH ALARM DELAY

Data File C5 -- COUNTER

Offset	CU	CD	DN	OV	UN	UA	PRE	ACC	(Symbol)	Description
C5:0	0	0	0	0	0	0	0	0		

Data File R6 -- CONTROL

Offset	EN	EU	DN	EM	ER	UL	IN	FD	LEN	POS	(Symbol)	Description
R6:0	0	0	0	0	0	0	0	0	0	0		

Data File N7 (dec) -- INTEGER

Offset	0	1	2	3	4	5	6	7	8	9
N7:0	0	0	0	0	0	0	0	0	0	0

Data File F8 -- FLOAT

Offset	0	1	2	3	4
F8:0	0	0			

Data File PD9 -- PID

Offset	TM	AM	CM	OL	RG	SC	TF	DA	DB	UL	LL	SP	PV	DN	EN	SPS	KC	Ti	TD	MAXS	MINS	ZCD
PD9:0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Address/Symbol Database

Address	Symbol	Scope	Description	Sym Group	Dev. Code	ABV
	EQU	Global				
	MOV	Global				
	PID	Global				
B3:0/0			BUTTON ON IN BIT			
B3:0/1			BUTTON OFF IN BIT			
B3:0/2	PRESSURE_SWITCH	Global	PRESSURE SWITCH IN BIT			
B3:0/3	FLOW_SWITCH	Global	FLOW SWITCH IN BIT			
B3:0/4	LOW_LOW_SWITCH	Global	LOW LOW SWITCH IN BIT			
B3:0/5	LOW_SWITCH	Global	LOW SWITCH IN BIT			
B3:0/6	HIGH_SWITCH	Global	HIGH SWITCH IN BIT			
B3:0/7	HIGH_HIGH_SWITCH	Global	HIGH HIGH SWITCH IN BITS			
B3:0/8	BLOWER	Global	BLOWER OUTPUT BIT			
B3:0/9	PUMP	Global	TANK FILL PUMP BIT			
B3:0/10	VALVE	Global	SUPPLY VALVE OUTPUT BIT			
B3:0/11	HEATER	Global	HEATER RELAY OUTPUT BIT			
B3:0/12	ALARM	Global	ALARM HORN OUTPUT BIT			
B3:0/13			BUTTON ON (ONE-SHOT)			
B3:0/14	PB_ON	Global	SYSTEM ON PB FROM HMI			
B3:0/15			BUTTON OFF IN BIT			
B3:1/0			BUTTON OFF ONS BIT			
B3:1/1	PB_OFF	Global	SYSTEM OFF PB FROM HMI			
B3:1/2			GENERAL ALARM NOTIFIACTION BIT			
B3:1/3			FAULTED ONS BIT			
B3:1/4	BLOWER_OFF_PB	Global	BLOWER OFF PB FROM HMI			
B3:1/5			BLOWER OFF ONS BIT			
B3:1/6	BLOWER_HAND_PB	Global	BLOWER HAND PB FROM HMI			
B3:1/7			BLOWER HAND ONS BIT			
B3:1/8	BLOWER_AUTO_PB	Global	BLOWER AUTO PB FROM HMI			
B3:1/9			BLOWER AUTO ONS BIT			
B3:1/10	ALARM_RESET	Global	ALARM RESET PB BIT FROM HMI			
B3:1/11			TANK FILL START ONS			
B3:1/12			TANK FILL TRIGGER			
B3:1/13			TANK FILL STOP ONS			
B3:1/14			TANK DRAIN TRIGGER			
B3:1/15	ALARM_PUMP	Global	TANK FILL PUMP ALARM NOTIFICATION BIT			
B3:2/0			TANK LEVEL HIGH HIGH ALARM BIT			
B3:2/1			TANK LEVEL LOW-LOW ALARM BIT			
B3:2/2			TEMPERATURE HIGH HIGH ALARM BIT			
B3:3/3	LVL_LL_SW	Global	LOW-LOW LEVEL BUTTON IN BIT			
B3:3/4			TANK LEVEL LOW-LOW ALARM BIT			
B3:3/5			TANK LEVEL LOW LOW ALARM TRIGGER ONS			
B3:3/6			TANK LEVEL LOW LOW ALARM TRIGGER BIT			
B3:3/7	ALARM_SILENCE	Global	ALARM SILENCE PB BIT FROM HMI			
B3:3/8	ALARM_LVL_LL	Global	ALARM LEVEL LOW -LOW NOTIFIACTION BIT			
B3:3/9	LVL_HH_SW	Global	HIGH HIGH LEVEL SWITCH IN BIT			
B3:3/10			TANK LEVEL HIGH HIGH ALARM BIT			
B3:3/11			TANK LEVEL HIGH HIGH ALARM TRIGGER ONS			
B3:3/12			TANK LEVEL HIGH HIGH ALARM TRIGGER BIT			
B3:3/13	ALARM_LEVEL_HH	Global	ALARM LEVEL HIGH HIGH NOTIFICATION BIT			
B3:3/14			TANK FILL PUMP HIGH PRESSURE ALARM ONS BIT			
B3:3/15			TANK FILL PUMP HIGH PRESSURE ALARM TRIGGER BIT			
B3:4/0			TANK FILL PUMP HIGH PRESSURE ALARM BIT			
B3:4/1	ALARM_PUMP_HP	Global	TANK FILL PUMP HIGH PRESSRE NOTIFICATION BIT			
B3:4/2			FLOW SWITCH IN BIT			
B3:4/3			TANK FILL PUMP LOW FLOW ALARM ONS BIT			
B3:4/4			TANK FILL PUMP LOW FLOW ALARM TRIGGER BIT			
B3:4/5			TANK FILL PUMP LOW FLOW ALARM BIT			
B3:4/6	ALARM_PUMP_LF	Global	TANK FILL PUMP LOW FLOW NOTIFICATION BIT			
B3:4/7			TEMP LOW LOW ALARM TRIGGER ONS BIT			
B3:4/8			TEMP LOW LOW ALARM TRIGGER BIT			
B3:4/9			TEMP LOW LOW ALARM BIT			
B3:4/10	ALARM_TEMP_LL	Global	TEMP LOW LOW NOTIFICATION BIT			
B3:4/11			TEMP HIGH HIGH ALARM TRIGGER ONS BIT			
B3:4/12			TEMP HIGH HIGH ALARM TRIGGER BIT			
B3:4/13			TEMP HIGH HIGH ALARM BIT			
B3:4/14	ALARM_TEMP_HH	Global	TEMP HIGH HIGH NOTIFICATION BIT			
B3:4/15	ALARM_TANK	Global	TANK LEVEL ALARM NOTIFICATION BIT			
B3:5/0	PUMP_ALARM	Global	TANK FILL PUMP ALARM NOTIFICATION BIT			
B3:5/1	ALARM_TEMP	Global	TEMPERATURE ALARM NOTIFICATION BIT			
B4:1/5			BLOWER OFF ONS BIT			
B4:1/7			BLOWER HAND ONS BIT			
B4:1/9			BLOWER AUTO ONS BIT			
F8:0	TANK_LEVEL	Global	TANK LEVEL SCALED 0-100%			
F8:1	TEMPERATURE_FLOAT	Global	TEMPERATURE SCALED 0-100 C			
I:0/0			BUTTON ON			
I:0/1			BUTTON OFF			
I:0/2			PRESSURE SWITCH IN			
I:0/3			FLOW SWITCH			
I:0/4			LOW LOW LEVEL SWITCH			
I:0/5			LOW SWITCH			
I:0/6			HIGH SWITCH			
I:0/7			HIGH HIGH SWITCH			
I:1.0			LEVEL SENSOR INPUT			
I:1/0			LEVEL SENSOR INPUT			

Address/Symbol Database

Address	Symbol	Scope	Description	Sym Group	Dev. Code	ABV
I:1/1						
I:2.0			THERMOCOUPLE INPUT			
I:2/0			THERMOCOUPLE INPUT			
N7:0	SYSTEM_MODE	Global	SYSTEM MODE 0 = OFF 1 = ON 2 = FAULTED			
N7:1	BLOWER_MODE	Global	BLOWER MODE 0 = OFF 1 = HAND 2 = AUTO			
N7:2	TANK_LOW_SP	Global	TANK LOW SETPOINT			
N7:3	TANK_HIGH_SP	Global	TANK HIGH SETPOINT			
N7:4	TEMP_SETPOINT	Global	TEMP SETPOINT			
N7:5	TEMP_HH_SETPOINT	Global	TEMP HIGH HIGH SETPOINT			
N7:6			HEATER CV			
N7:7	HEATER_OUTPUT	Global	TEMP DISPLAY SCALED 0-100%			
N7:8						
N7:9	TEMP_PID	Global	TEMPERATURE INTEGER FOR PID			
O:0/0			BLOWER OUTPUT			
O:0/1			TANK FILL PUMP OUTPUT			
O:0/2			VALVE OUTPUT			
O:0/3			HEATER RELAY OUTPUT			
O:0/4			ALARM HORN OUTPUT			
O:1.0			HEATER SIGNAL OUTPUT SCALED 0-16383			
O:1/0			HEATER SIGNAL OUTPUT SCALED 0-16383			
PD9:0			TEMPERATURE CONTROL LOOP			
PD9:0/SP						
PD9:0.SPS			TEMPERATURE CONTROL LOOP			
S:0			Arithmetic Flags			
S:0/0			Processor Arithmetic Carry Flag			
S:0/1			Processor Arithmetic Underflow/ Overflow Flag			
S:0/2			Processor Arithmetic Zero Flag			
S:0/3			Processor Arithmetic Sign Flag			
S:1			Processor Mode Status/ Control			
S:1/0			Processor Mode Bit 0			
S:1/1			Processor Mode Bit 1			
S:1/2			Processor Mode Bit 2			
S:1/3			Processor Mode Bit 3			
S:1/4			Processor Mode Bit 4			
S:1/5			Forces Enabled			
S:1/6			Forces Present			
S:1/7			Comms Active			
S:1/8			Fault Override at Powerup			
S:1/9			Startup Protection Fault			
S:1/10			Load Memory Module on Memory Error			
S:1/11			Load Memory Module Always			
S:1/12			Load Memory Module and RUN			
S:1/13			Major Error Halted			
S:1/14			Access Denied			
S:1/15			First Pass			
S:2/0			STI Pending			
S:2/1			STI Enabled			
S:2/2			STI Executing			
S:2/3			Index Addressing File Range			
S:2/4			Saved with Debug Single Step			
S:2/5			DH-485 Incoming Command Pending			
S:2/6			DH-485 Message Reply Pending			
S:2/7			DH-485 Outgoing Message Command Pending			
S:2/15			Comms Servicing Selection			
S:3			Current Scan Time/ Watchdog Scan Time			
S:4			Time Base			
S:5/0			Overflow Trap			
S:5/2			Control Register Error			
S:5/3			Major Err Detected Executing UserFault Routine			
S:5/4			M0-M1 Referenced on Disabled Slot			
S:5/8			Memory Module Boot			
S:5/9			Memory Module Password Mismatch			
S:5/10			STI Overflow			
S:5/11			Battery Low			
S:6			Major Error Fault Code			
S:7			Suspend Code			
S:8			Suspend File			
S:9			Active Nodes			
S:10			Active Nodes			
S:11			I/O Slot Enables			
S:12			I/O Slot Enables			
S:13			Math Register			
S:14			Math Register			
S:15			Node Address/ Baud Rate			
S:16			Debug Single Step Rung			
S:17			Debug Single Step File			
S:18			Debug Single Step Breakpoint Rung			
S:19			Debug Single Step Breakpoint File			
S:20			Debug Fault/ Powerdown Rung			
S:21			Debug Fault/ Powerdown File			
S:22			Maximum Observed Scan Time			
S:23			Average Scan Time			
S:24			Index Register			
S:25			I/O Interrupt Pending			

Address/Symbol Database

Address	Symbol	Scope	Description	Sym Group	Dev. Code	ABV
S:26			I/O Interrupt Pending			
S:27			I/O Interrupt Enabled			
S:28			I/O Interrupt Enabled			
S:29			User Fault Routine File Number			
S:30			STI Setpoint			
S:31			STI File Number			
S:32			I/O Interrupt Executing			
S:33			Extended Proc Status Control Word			
S:33/0			Incoming Command Pending			
S:33/1			Message Reply Pending			
S:33/2			Outgoing Message Command Pending			
S:33/3			Selection Status User/DF1			
S:33/4			Communicat Active			
S:33/5			Communicat Servicing Selection			
S:33/6			Message Servicing Selection Channel 0			
S:33/7			Message Servicing Selection Channel 1			
S:33/8			Interrupt Latency Control Flag			
S:33/9			Scan Toggle Flag			
S:33/10			Discrete Input Interrupt Reconfigur Flag			
S:33/11			Online Edit Status			
S:33/12			Online Edit Status			
S:33/13			Scan Time Timebase Selection			
S:33/14			DTR Control Bit			
S:33/15			DTR Force Bit			
S:34			Pass-thru Disabled			
S:34/0			Pass-Thru Disabled Flag			
S:34/1			DH+ Active Node Table Enable Flag			
S:34/2			Floating Point Math Flag Disable,Fl			
S:35			Last 1 ms Scan Time			
S:36			Extended Minor Error Bits			
S:36/8			DII Lost			
S:36/9			STI Lost			
S:36/10			Memory Module Data File Overwrite Protection			
S:37			Clock Calendar Year			
S:38			Clock Calendar Month			
S:39			Clock Calendar Day			
S:40			Clock Calendar Hours			
S:41			Clock Calendar Minutes			
S:42			Clock Calendar Seconds			
S:43			STI Interrupt Time			
S:44			I/O Event Interrupt Time			
S:45			DII Interrupt Time			
S:46			Discrete Input Interrupt- File Number			
S:47			Discrete Input Interrupt- Slot Number			
S:48			Discrete Input Interrupt- Bit Mask			
S:49			Discrete Input Interrupt- Compare Value			
S:50			Processor Catalog Number			
S:51			Discrete Input Interrupt- Return Number			
S:52			Discrete Input Interrupt- Accumulat			
S:53			Reserved/ Clock Calendar Day of the Week			
S:55			Last DII Scan Time			
S:56			Maximum Observed DII Scan Time			
S:57			Operating System Catalog Number			
S:58			Operating System Series			
S:59			Operating System FRN			
S:61			Processor Series			
S:62			Processor Revision			
S:63			User Program Type			
S:64			User Program Functional Index			
S:65			User RAM Size			
S:66			Flash EEPROM Size			
S:67			Channel 0 Active Nodes			
S:68			Channel 0 Active Nodes			
S:69			Channel 0 Active Nodes			
S:70			Channel 0 Active Nodes			
S:71			Channel 0 Active Nodes			
S:72			Channel 0 Active Nodes			
S:73			Channel 0 Active Nodes			
S:74			Channel 0 Active Nodes			
S:75			Channel 0 Active Nodes			
S:76			Channel 0 Active Nodes			
S:77			Channel 0 Active Nodes			
S:78			Channel 0 Active Nodes			
S:79			Channel 0 Active Nodes			
S:80			Channel 0 Active Nodes			
S:81			Channel 0 Active Nodes			
S:82			Channel 0 Active Nodes			
S:83			DH+ Active Nodes			
S:84			DH+ Active Nodes			
S:85			DH+ Active Nodes			
S:86			DH+ Active Nodes			
T4:0			TANK FILL START DELAY			
T4:0/DN						
T4:1			TANK FILL STOP DELAY TIMER			

Address/Symbol Database

Address	Symbol	Scope	Description	Sym Group	Dev. Code	ABV
T4:1/DN			TANK FILL STOP DELAY			
T4:2			TANK LEVEL LOW LOW ALARM DELAY			
T4:2/DN						
T4:3			TANK LEVEL HIGH HIGH ALARM DELAY			
T4:3/DN			TANK LVL HIGH HIGH ALARM DELAY			
T4:5			TANK FILL PUMP HIGH PRESSURE ALARM DELAY			
T4:5/DN			TANK FILL PUMP HIGH PRESSURE ALARM DELAY BIT			
T4:6			TANK FILL PUMP LOW FLOW ALARM DELAY			
T4:6/DN			TANK FILL PUMP LOW FLOW ALARM DELAY			
T4:7			TEMPERATURE LOW LOW ALARM DELAY			
T4:7/DN			TEMP LOW LOW ALARM DELAY			
T4:8			TEMP HIGH HIGH ALARM DELAY			
T4:8/DN			TEMP HIGH HIGH ALARM DELAY			
U:3			DIGITAL INPUT			
U:4			DIGITALOUTPUT			
U:5			ANALOG INPUT			
U:6			ANALOG OUTPUT			
U:7			CONTROLS			
U:8			COTROLS			
U:9			ALARMS & NOTIFICATION			
U:10			DISPLAY			

Instruction Comment Database

Address	Instruction	Description

Symbol Group Database

Group_Name	Description