

MONTH TYPE

Project Name: Pulsarlube PLC

CONTENTS

Description	5
Bill Of Material	6
Controller	6
Modules	6
Hardware Configuration	7
MyController - TM221ME16T/G	7
Digital Inputs	7
Digital Outputs	7
Analog Inputs	7
Fast Counters	7
High Speed Counters	8
Pulse Generators	8
ETH1	8
Modbus TCP	8
SL1 (Serial line)	9
IO Bus	10
TM3DI8/G	10
Digital Inputs	10
TM3DQ8U/G	11
Digital Outputs	11
Software Configuration	12
Constant Words	12
KW	12
KD	12
KF	12
Network Objects	13
Input Assembly (Ethernet/Ip)	13
Output Assembly (Ethernet/Ip)	13
Input Registers (Modbus Tcp)	13
Output Registers (Modbus Tcp)	13
Digital inputs (IOScanner)	13
Digital outputs (IOScanner)	13
Input registers (IOScanner)	13
Output registers (IOScanner)	13
Software Objects	14
Timers	14
Counters	14

LIFO/FIFO Registers	14
Drums	14
Shift Bit Registers	14
Step Counters	15
Schedule Blocks	15
RTC	15
PID	15
Grafcet Steps	15
Program	16
Behavior	16
Memory Consumption	17
Application Architecture	18
Master Task	18
Periodic Task	18
POU	19
Master Task	19
1 - COMMON	19
Rung0 - LUBRICATOR START	19
2 - MONTH_LUB_1	20
Rung0 - OVERLOAD CHECK	20
Rung1 - NO ALARM	20
Rung2 - END OF CYCLE	20
Rung3 - RUNNING_COUNTER	21
Rung4 - RUNNING_COUNTER_SEC	21
Rung5 - RUNNING_COUNTER_MIN	21
Rung6 - RUNNING_COUNTER_HOUR	21
Rung7 - RUNNING_TIME	22
Rung8 - PAUSE_COUNTER	22
Rung9 - PAUSE_COUNTER_SEC	23
Rung10 - PAUSE_COUNTER_MIN	23
Rung11 - PAUSE_COUNTER_HOUR	23
Rung12 - PAUSE_TIME	24
Rung13 - LUBRICATOR_RUN	24
Rung14 - INITIAL_VALUE_SET	25
3 - MONTH_LUB_2	26
Rung0 - OVERLOAD CHECK	26
Rung1 - NO ALARM	26
Rung2 - END OF CYCLE	26
Rung3 - RUNNING_COUNTER	27

Rung4 - RUNNING_COUNTER_SEC	27
Rung5 - RUNNING_COUNTER_MIN	27
Rung6 - RUNNING_COUNTER_HOUR	27
Rung7 - RUNNING_TIME	28
Rung8 - PAUSE_COUNTER	28
Rung9 - PAUSE_COUNTER_SEC	29
Rung10 - PAUSE_COUNTER_MIN	29
Rung11 - PAUSE_COUNTER_HOUR	29
Rung12 - PAUSE_TIME	30
Rung13 - LUBRICATOR_RUN	30
Rung14 - INITIAL_VALUE_SET	31
Symbols	32
Cross-Reference Table	34
Animation table	39
Animation table_0	39

PROGRAM

Behavior

Functional level:	Level 5.0
Starting mode:	Start In Previous State
Watchdog:	250 ms
Fallback behavior:	Fallback value

Memory consumption

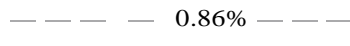
Last compilation: 091111201715:58:28

Program lines

99.14%

Program lines used 103 Lines

Program lines remaining 11897 Lines



Cache memory

97.30%

Periodic and Event tasks 3 bytes

Reserved for System 868 bytes

Memory remaining 31385 bytes



RAM memory

74.81%

Master task and subroutines 806 bytes

Configuration 1096 bytes

Memory objects 16512 bytes

Display 37456 bytes

Memory remaining 165906 bytes

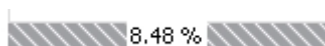


Non-program data

91.52%

Non-program data used 3822 bytes

Non-program data remaining 41234 bytes



Application Architecture

Master Task

Scan mode: Normal

POU list:

- 1 - COMMON
- 2 - MONTH_LUB_1
- 3 - MONTH_LUB_2

Periodic Task

Period: 255 ms

TECHNICAL INFORMATION

POU

Master Task

1 - COMMON

Master Task

Rung0 - LUBRICATOR START



Variables used:

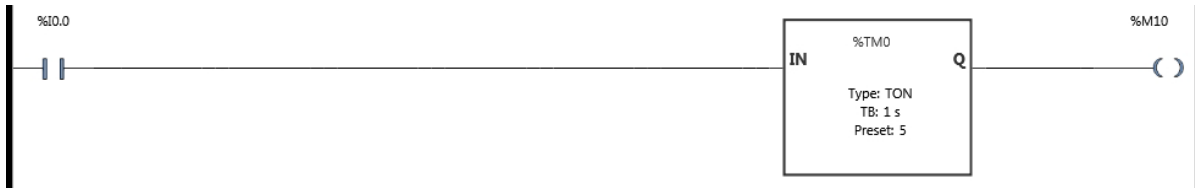
%M0	LUBRICATOR_START_BIT	Auto Start Bit
%M1	LUBRICATOR_STOP_BIT	Lubricator Stop Switch - If using the HMI
%S12	SB_RUNMODE	The controller is running

TECHNICAL INFORMATION

2 - MONTH_LUB_1

Master Task

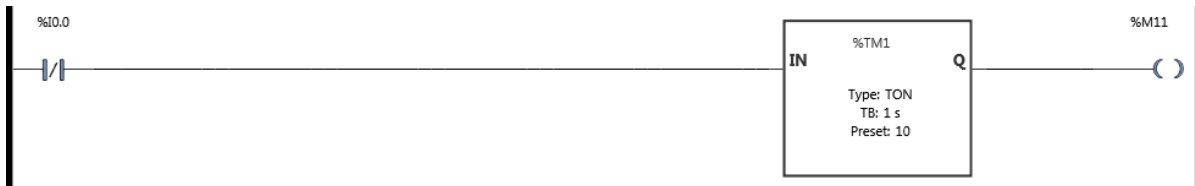
Rung0 - OVERLOAD CHECK



Variables used:

%I0.0	MON_IN_LUB_1	Month Mode Input Signal - Lubricator #1
%M10	OVERLOAD_MON_1	Overload Fault Signal - Lubricator #1
%TM0	OVERLOAD_CHECK_MON_1	Overload Check Timer - Lubricator #1

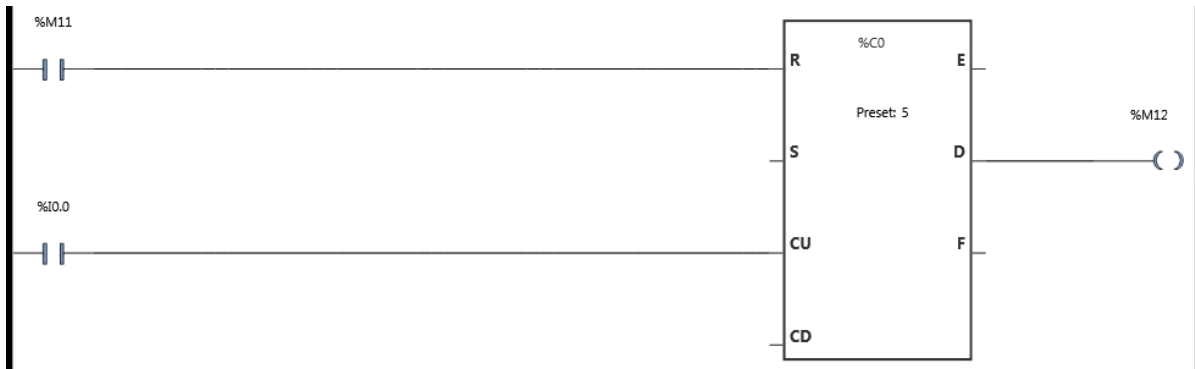
Rung1 - NO ALARM



Variables used:

%I0.0	MON_IN_LUB_1	Month Mode Input Signal - Lubricator #1
%M11	NO_FAULT_MON_1	No Fault Signal - Lubricator #1
%TM1	NO_FAULT_CHECK_MON_1	No Fault Check Timer - Lubricator #1

Rung2 - END OF CYCLE



Variables used:

%C0	END_OF_CYCLE_CHECK_INT_1	End of Cycle Check Counter - Lubricator #1
%I0.0	MON_IN_LUB_1	Month Mode Input Signal - Lubricator #1
%M11	NO_FAULT_MON_1	No Fault Signal - Lubricator #1
%M12	END_OF_CYCLE_MON_1	End of Cycle Signal - Lubricator #1

TECHNICAL INFORMATION

Rung3 - RUNNING_COUNTER



Variables used:

%M0	LUBRICATOR_START_BIT	Auto Start Bit
%M10	OVERLOAD_MON_1	Overload Fault Signal - Lubricator #1
%M11	NO_FAULT_MON_1	No Fault Signal - Lubricator #1
%M12	END_OF_CYCLE_MON_1	End of Cycle Signal - Lubricator #1
%M15	RUNNING_SEC_1	Running Time (Sec) Signal - Lubricator #1
%M18	PAUSE_SIGNAL_MON_1	Pause Signal - Lubricator #1
%TM2	RUNNING_TIMER_MON_1	Running Time Data Timer - Lubricator #1

Rung4 - RUNNING_COUNTER_SEC



Variables used:

%M15	RUNNING_SEC_1	Running Time (Sec) Signal - Lubricator #1
%MW10	RUNNING_SEC_MON_1	Running_Second Time Data - Lubricator #1

Rung5 - RUNNING_COUNTER_MIN



Variables used:

%MW10	RUNNING_SEC_MON_1	Running_Second Time Data - Lubricator #1
%MW11	RUNNING_MIN_MON_1	Running_Minute Time Data - Lubricator #1

Rung6 - RUNNING_COUNTER_HOUR

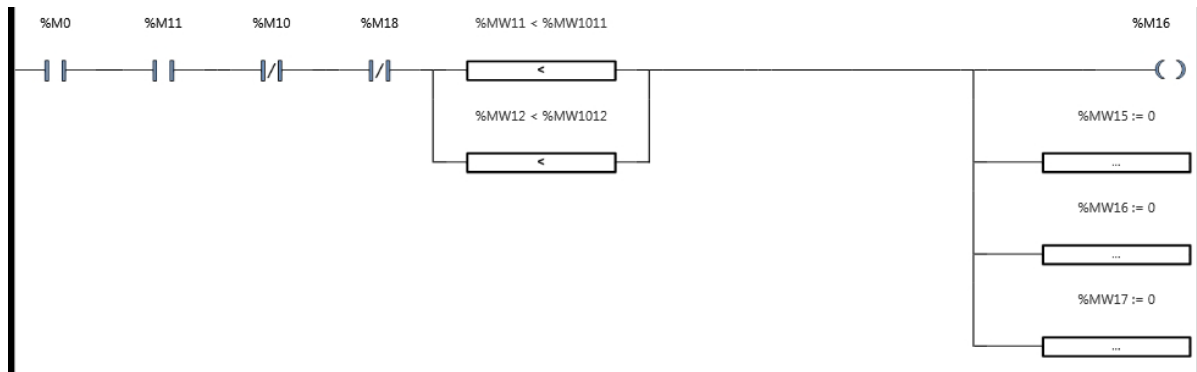


Variables used:

%MW11	RUNNING_MIN_MON_1	Running_Minute Time Data - Lubricator #1
%MW12	RUNNING_HOUR_MON_1	Running_Hour Time Data - Lubricator #1

TECHNICAL INFORMATION

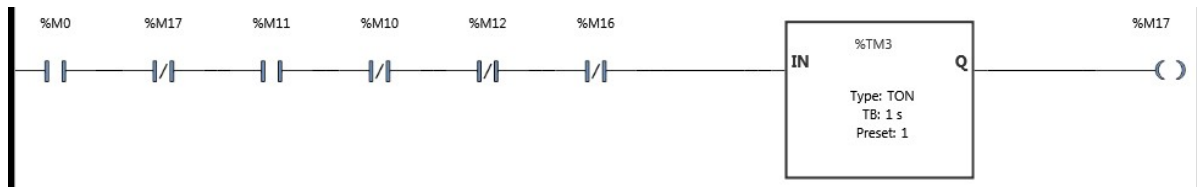
Rung7 - RUNNING_TIME



Variables used:

%M0	LUBRICATOR_START_BIT	Auto Start Bit
%M10	OVERLOAD_MON_1	Overload Fault Signal - Lubricator #1
%M11	NO_FAULT_MON_1	No Fault Signal - Lubricator #1
%M16	RUNNING_SIGNAL_MON_1	Running Signal - Lubricator #1
%M18	PAUSE_SIGNAL_MON_1	Pause Signal - Lubricator #1
%MW11	RUNNING_MIN_MON_1	Running_Minute Time Data - Lubricator #1
%MW12	RUNNING_HOUR_MON_1	Running_Hour Time Data - Lubricator #1
%MW15	PAUSE_SEC_MON_1	Pause_Second Time Data - Lubricator #1
%MW16	PAUSE_MIN_MON_1	Pause_Minute Time Data - Lubricator #1
%MW17	PAUSE_HOUR_MON_1	Pause_Hour Time Data - Lubricator #1
%MW1011	RUNNING_SET_MIN_MON_1	Running_Set the Minute Time Data - Lubricator #1
%MW1012	RUNNING_SET_HOUR_MON_1	Running_Set the Hour Time Data - Lubricator #1

Rung8 - PAUSE_COUNTER



Variables used:

%M0	LUBRICATOR_START_BIT	Auto Start Bit
%M10	OVERLOAD_MON_1	Overload Fault Signal - Lubricator #1
%M11	NO_FAULT_MON_1	No Fault Signal - Lubricator #1
%M12	END_OF_CYCLE_MON_1	End of Cycle Signal - Lubricator #1
%M16	RUNNING_SIGNAL_MON_1	Running Signal - Lubricator #1
%M17	PAUSE_SEC_1	Pause Time (Sec) Signal - Lubricator #1
%TM3	PAUSE_TIMER_MON_1	Pause Time Data Timer - Lubricator #1

TECHNICAL INFORMATION

Rung9 - PAUSE_COUNTER_SEC



Variables used:

%M17	PAUSE_SEC_1	Pause Time (Sec) Signal - Lubricator #1
%MW15	PAUSE_SEC_MON_1	Pause_Second Time Data - Lubricator #1

Rung10 - PAUSE_COUNTER_MIN



Variables used:

%MW15	PAUSE_SEC_MON_1	Pause_Second Time Data - Lubricator #1
%MW16	PAUSE_MIN_MON_1	Pause_Minute Time Data - Lubricator #1

Rung11 - PAUSE_COUNTER_HOUR

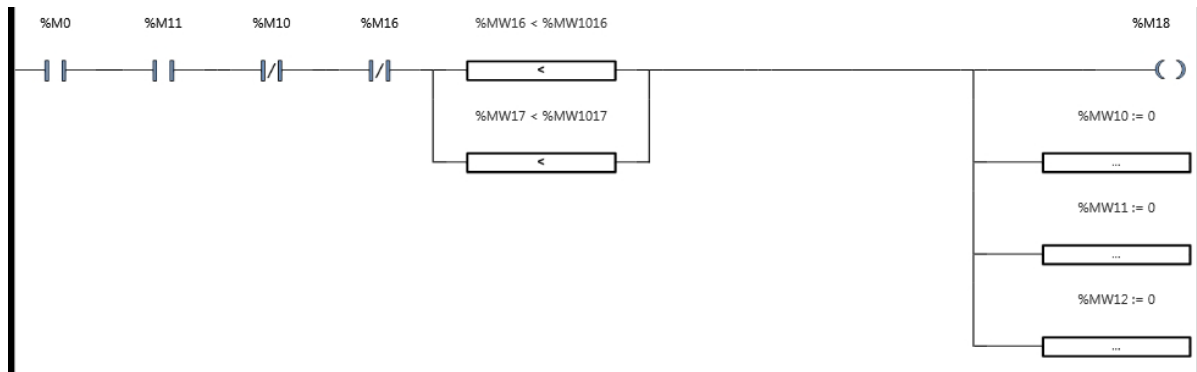


Variables used:

%MW16	PAUSE_MIN_MON_1	Pause_Minute Time Data - Lubricator #1
%MW17	PAUSE_HOUR_MON_1	Pause_Hour Time Data - Lubricator #1

TECHNICAL INFORMATION

Rung12 - PAUSE_TIME



Variables used:

%M0	LUBRICATOR_START_BIT	Auto Start Bit
%M10	OVERLOAD_MON_1	Overload Fault Signal - Lubricator #1
%M11	NO_FAULT_MON_1	No Fault Signal - Lubricator #1
%M16	RUNNING_SIGNAL_MON_1	Running Signal - Lubricator #1
%M18	PAUSE_SIGNAL_MON_1	Pause Signal - Lubricator #1
%MW10	RUNNING_SEC_MON_1	Running_Second Time Data - Lubricator #1
%MW11	RUNNING_MIN_MON_1	Running_Minute Time Data - Lubricator #1
%MW12	RUNNING_HOUR_MON_1	Running_Hour Time Data - Lubricator #1
%MW16	PAUSE_MIN_MON_1	Pause_Minute Time Data - Lubricator #1
%MW17	PAUSE_HOUR_MON_1	Pause_Hour Time Data - Lubricator #1
%MW1016	PAUSE_SET_MIN_MON_1	Pause_Set the Minute Time Data - Lubricator #1
%MW1017	PAUSE_SET_HOUR_MON_1	Pause_Set the Hour Time Data - Lubricator #1

Rung13 - LUBRICATOR_RUN



Variables used:

%M1	LUBRICATOR_STOP_BIT	Lubricator Stop Switch - If using the HMI
%M16	RUNNING_SIGNAL_MON_1	Running Signal - Lubricator #1
%M18	PAUSE_SIGNAL_MON_1	Pause Signal - Lubricator #1
%Q0.0	MON_OUT_LUB_1	Month Mode Output Signal - Lubricator #1

TECHNICAL INFORMATION

Rung14 - INITIAL_VALUE_SET



Variables used:

%M0	LUBRICATOR_START_BIT	Auto Start Bit
%MW1011	RUNNING_SET_MIN_MON_1	Running_Set the Minute Time Data - Lubricator #1
%MW1012	RUNNING_SET_HOUR_MON_1	Running_Set the Hour Time Data - Lubricator #1
%MW1016	PAUSE_SET_MIN_MON_1	Pause_Set the Minute Time Data - Lubricator #1
%MW1017	PAUSE_SET_HOUR_MON_1	Pause_Set the Hour Time Data - Lubricator #1

TECHNICAL INFORMATION

3 - MONTH_LUB_2

Master Task

Rung0 - OVERLOAD CHECK



Variables used:

%I0.1	MON_IN_LUB_2	Month Mode Input Signal - Lubricator #2
%M20	OVERLOAD_MON_2	Overload Fault Signal - Lubricator #2
%TM4	OVERLOAD_CHECK_MON_2	Overload Check Timer - Lubricator #2

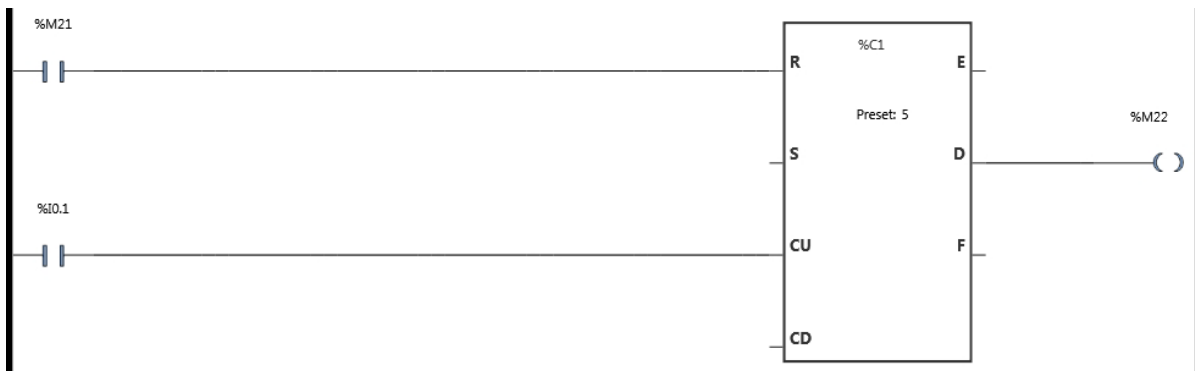
Rung1 - NO ALARM



Variables used:

%I0.1	MON_IN_LUB_2	Month Mode Input Signal - Lubricator #2
%M21	NO_FAULT_MON_2	No Fault Signal - Lubricator #2
%TM5	NO_FAULT_CHECK_MON_2	No Fault Check Timer - Lubricator #2

Rung2 - END OF CYCLE

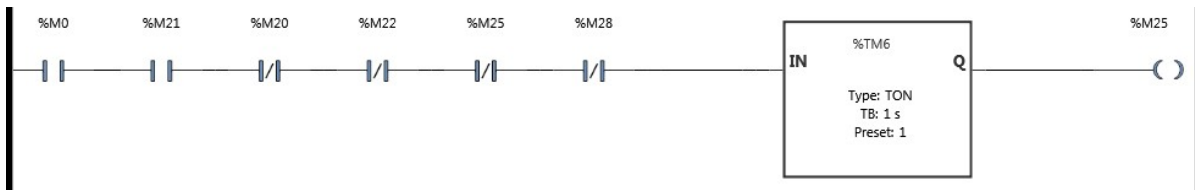


Variables used:

%C1	END_OF_CYCLE_CHECK_INT_2	End of Cycle Check Counter - Lubricator #2
%I0.1	MON_IN_LUB_2	Month Mode Input Signal - Lubricator #2
%M21	NO_FAULT_MON_2	No Fault Signal - Lubricator #2
%M22	END_OF_CYCLE_MON_2	End of Cycle Signal - Lubricator #2

TECHNICAL INFORMATION

Rung3 - RUNNING_COUNTER



Variables used:

%M0	LUBRICATOR_START_BIT	Auto Start Bit
%M20	OVERLOAD_MON_2	Overload Fault Signal - Lubricator #2
%M21	NO_FAULT_MON_2	No Fault Signal - Lubricator #2
%M22	END_OF_CYCLE_MON_2	End of Cycle Signal - Lubricator #2
%M25	RUNNING_SEC_2	Running Time (Sec) Signal - Lubricator #2
%M28	PAUSE_SIGNAL_MON_2	Pause Signal - Lubricator #2
%TM6	RUNNING_TIMER_MON_2	Running Time Data Timer - Lubricator #2

Rung4 - RUNNING_COUNTER_SEC



Variables used:

%M25	RUNNING_SEC_2	Running Time (Sec) Signal - Lubricator #2
%MW20	RUNNING_SEC_MON_2	Running_Second Time Data - Lubricator #2

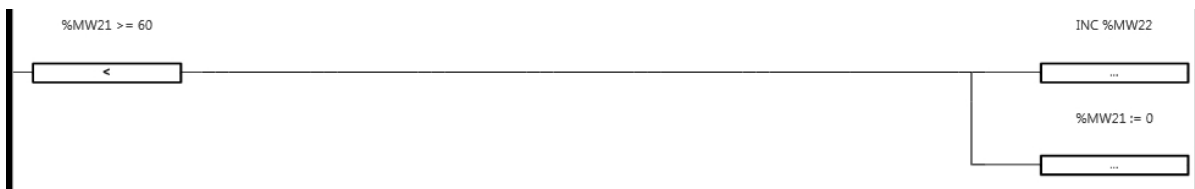
Rung5 - RUNNING_COUNTER_MIN



Variables used:

%MW20	RUNNING_SEC_MON_2	Running_Second Time Data - Lubricator #2
%MW21	RUNNING_MIN_MON_2	Running_Minute Time Data - Lubricator #2

Rung6 - RUNNING_COUNTER_HOUR

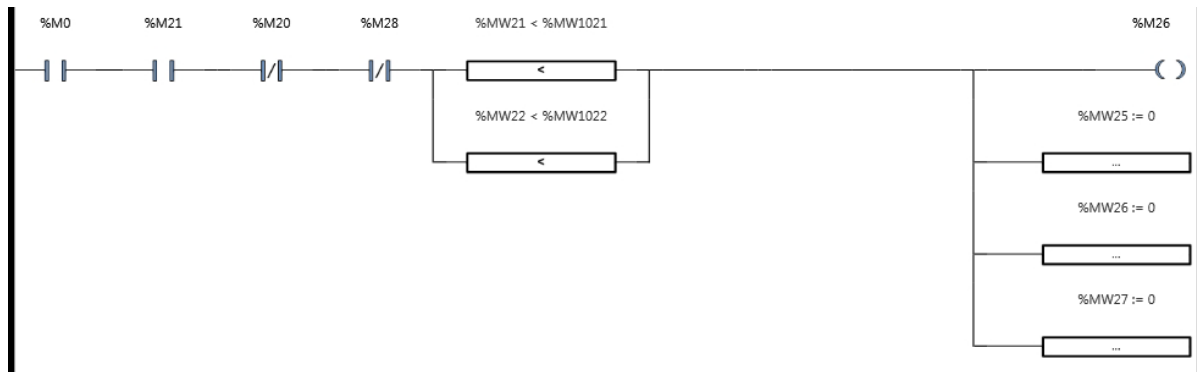


Variables used:

%MW21	RUNNING_MIN_MON_2	Running_Minute Time Data - Lubricator #2
%MW22	RUNNING_HOUR_MON_2	Running_Hour Time Data - Lubricator #2

TECHNICAL INFORMATION

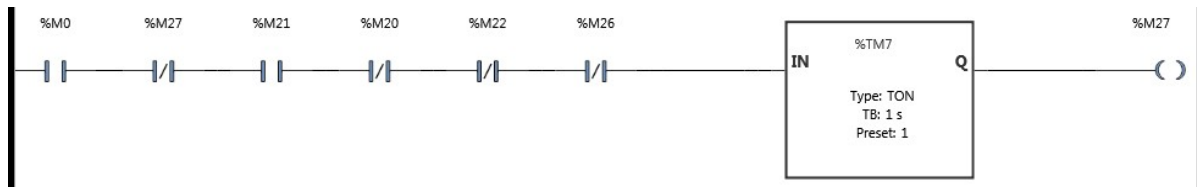
Rung7 - RUNNING_TIME



Variables used:

%M0	LUBRICATOR_START_BIT	Auto Start Bit
%M20	OVERLOAD_MON_2	Overload Fault Signal - Lubricator #2
%M21	NO_FAULT_MON_2	No Fault Signal - Lubricator #2
%M26	RUNNING_SIGNAL_MON_2	Running Signal - Lubricator #2
%M28	PAUSE_SIGNAL_MON_2	Pause Signal - Lubricator #2
%MW21	RUNNING_MIN_MON_2	Running_Minute Time Data - Lubricator #2
%MW22	RUNNING_HOUR_MON_2	Running_Hour Time Data - Lubricator #2
%MW25	PAUSE_SEC_MON_2	Pause_Second Time Data - Lubricator #2
%MW26	PAUSE_MIN_MON_2	Pause_Minute Time Data - Lubricator #2
%MW27	PAUSE_HOUR_MON_2	Pause_Hour Time Data - Lubricator #2
%MW1021	RUNNING_SET_MIN_MON_2	Running_Set the Minute Time Data - Lubricator #2
%MW1022	RUNNING_SET_HOUR_MON_2	Running_Set the Hour Time Data - Lubricator #2

Rung8 - PAUSE_COUNTER



Variables used:

%M0	LUBRICATOR_START_BIT	Auto Start Bit
%M20	OVERLOAD_MON_2	Overload Fault Signal - Lubricator #2
%M21	NO_FAULT_MON_2	No Fault Signal - Lubricator #2
%M22	END_OF_CYCLE_MON_2	End of Cycle Signal - Lubricator #2
%M26	RUNNING_SIGNAL_MON_2	Running Signal - Lubricator #2
%M27	PAUSE_SEC_2	Pause Time (Sec) Signal - Lubricator #2
%TM7	PAUSE_TIMER_MON_2	Pause Time Data Timer - Lubricator #2

TECHNICAL INFORMATION

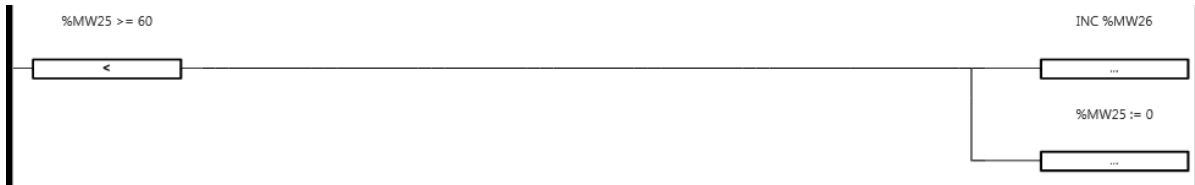
Rung9 - PAUSE_COUNTER_SEC



Variables used:

%M27	PAUSE_SEC_2	Pause Time (Sec) Signal - Lubricator #2
%MW25	PAUSE_SEC_MON_2	Pause_Second Time Data - Lubricator #2

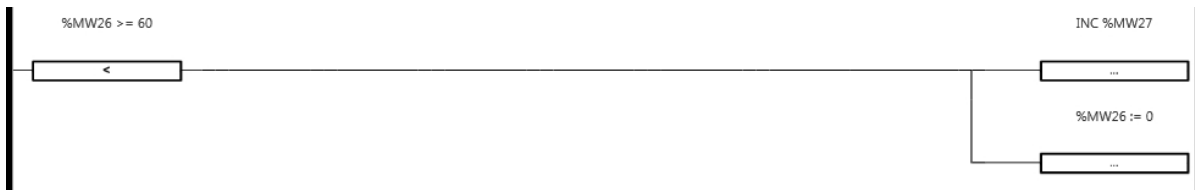
Rung10 - PAUSE_COUNTER_MIN



Variables used:

%MW25	PAUSE_SEC_MON_2	Pause_Second Time Data - Lubricator #2
%MW26	PAUSE_MIN_MON_2	Pause_Minute Time Data - Lubricator #2

Rung11 - PAUSE_COUNTER_HOUR

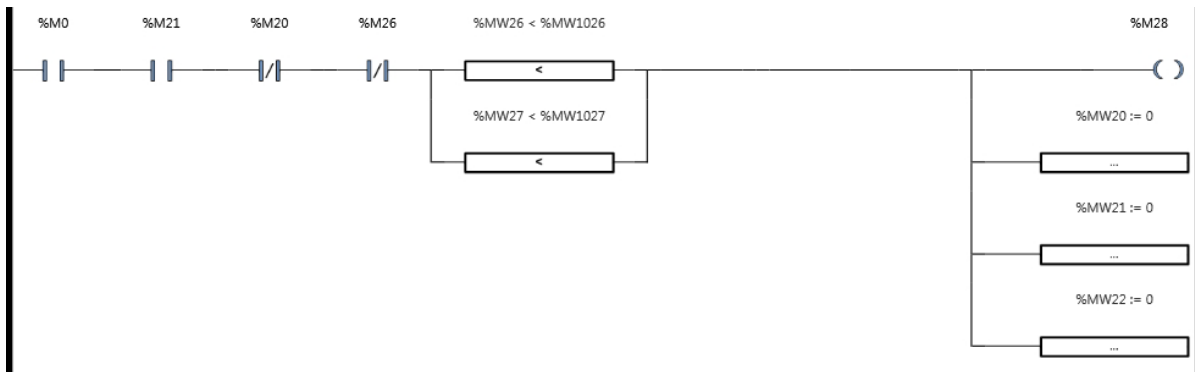


Variables used:

%MW26	PAUSE_MIN_MON_2	Pause_Minute Time Data - Lubricator #2
%MW27	PAUSE_HOUR_MON_2	Pause_Hour Time Data - Lubricator #2

TECHNICAL INFORMATION

Rung12 - PAUSE_TIME



Variables used:

%M0	LUBRICATOR_START_BIT	Auto Start Bit
%M20	OVERLOAD_MON_2	Overload Fault Signal - Lubricator #2
%M21	NO_FAULT_MON_2	No Fault Signal - Lubricator #2
%M26	RUNNING_SIGNAL_MON_2	Running Signal - Lubricator #2
%M28	PAUSE_SIGNAL_MON_2	Pause Signal - Lubricator #2
%MW20	RUNNING_SEC_MON_2	Running_Second Time Data - Lubricator #2
%MW21	RUNNING_MIN_MON_2	Running_Minute Time Data - Lubricator #2
%MW22	RUNNING_HOUR_MON_2	Running_Hour Time Data - Lubricator #2
%MW26	PAUSE_MIN_MON_2	Pause_Minute Time Data - Lubricator #2
%MW27	PAUSE_HOUR_MON_2	Pause_Hour Time Data - Lubricator #2
%MW1026	PAUSE_SET_MIN_MON_2	Pause_Set the Minute Time Data - Lubricator #2
%MW1027	PAUSE_SET_HOUR_MON_2	Pause_Set the Hour Time Data - Lubricator #2

Rung13 - LUBRICATOR_RUN



Variables used:

%M1	LUBRICATOR_STOP_BIT	Lubricator Stop Switch - If using the HMI
%M26	RUNNING_SIGNAL_MON_2	Running Signal - Lubricator #2
%M28	PAUSE_SIGNAL_MON_2	Pause Signal - Lubricator #2
%Q0.1	MON_OUT_LUB_2	Month Mode Output Signal - Lubricator #2

TECHNICAL INFORMATION

Rung14 - INITIAL_VALUE_SET



Variables used:

%M0	LUBRICATOR_START_BIT	Auto Start Bit
%MW1021	RUNNING_SET_MIN_MON_2	Running_Set the Minute Time Data - Lubricator #2
%MW1022	RUNNING_SET_HOUR_MON_2	Running_Set the Hour Time Data - Lubricator #2
%MW1026	PAUSE_SET_MIN_MON_2	Pause_Set the Minute Time Data - Lubricator #2
%MW1027	PAUSE_SET_HOUR_MON_2	Pause_Set the Hour Time Data - Lubricator #2

SYMBOLS

Used	Address	Symbol	Comment
X	%C0	END_OF_CYCLE_CHECK_INT_1	End of Cycle Check Counter - Lubricator #1
X	%C1	END_OF_CYCLE_CHECK_INT_2	End of Cycle Check Counter - Lubricator #2
X	%I0.0	MON_IN_LUB_1	Month Mode Input Signal - Lubricator #1
X	%I0.1	MON_IN_LUB_2	Month Mode Input Signal - Lubricator #2
X	%M0	LUBRICATOR_START_BIT	Auto Start Bit
X	%M1	LUBRICATOR_STOP_BIT	Lubricator Stop Switch - If using the HMI
X	%M10	OVERLOAD_MON_1	Overload Fault Signal - Lubricator #1
X	%M11	NO_FAULT_MON_1	No Fault Signal - Lubricator #1
X	%M12	END_OF_CYCLE_MON_1	End of Cycle Signal - Lubricator #1
X	%M15	RUNNING_SEC_1	Running Time (Sec) Signal - Lubricator #1
X	%M16	RUNNING_SIGNAL_MON_1	Running Signal - Lubricator #1
X	%M17	PAUSE_SEC_1	Pause Time (Sec) Signal - Lubricator #1
X	%M18	PAUSE_SIGNAL_MON_1	Pause Signal - Lubricator #1
X	%M20	OVERLOAD_MON_2	Overload Fault Signal - Lubricator #2
X	%M21	NO_FAULT_MON_2	No Fault Signal - Lubricator #2
X	%M22	END_OF_CYCLE_MON_2	End of Cycle Signal - Lubricator #2
X	%M25	RUNNING_SEC_2	Running Time (Sec) Signal - Lubricator #2
X	%M26	RUNNING_SIGNAL_MON_2	Running Signal - Lubricator #2
X	%M27	PAUSE_SEC_2	Pause Time (Sec) Signal - Lubricator #2
X	%M28	PAUSE_SIGNAL_MON_2	Pause Signal - Lubricator #2
X	%MW10	RUNNING_SEC_MON_1	Running_Second Time Data - Lubricator #1
X	%MW11	RUNNING_MIN_MON_1	Running_Minute Time Data - Lubricator #1
X	%MW12	RUNNING_HOUR_MON_1	Running_Hour Time Data - Lubricator #1
X	%MW15	PAUSE_SEC_MON_1	Pause_Second Time Data - Lubricator #1
X	%MW16	PAUSE_MIN_MON_1	Pause_Minute Time Data - Lubricator #1
X	%MW17	PAUSE_HOUR_MON_1	Pause_Hour Time Data - Lubricator #1
X	%MW20	RUNNING_SEC_MON_2	Running_Second Time Data - Lubricator #2
X	%MW21	RUNNING_MIN_MON_2	Running_Minute Time Data - Lubricator #2

TECHNICAL INFORMATION

Used	Address	Symbol	Comment
X	%MW22	RUNNING_HOUR_MON_2	Running_Hour Time Data - Lubricator #2
X	%MW25	PAUSE_SEC_MON_2	Pause_Second Time Data - Lubricator #2
X	%MW26	PAUSE_MIN_MON_2	Pause_Minute Time Data - Lubricator #2
X	%MW27	PAUSE_HOUR_MON_2	Pause_Hour Time Data - Lubricator #2
X	%MW1011	RUNNING_SET_MIN_MON_1	Running_Set the Minute Time Data - Lubricator #1
X	%MW1012	RUNNING_SET_HOUR_MON_1	Running_Set the Hour Time Data - Lubricator #1
X	%MW1016	PAUSE_SET_MIN_MON_1	Pause_Set the Minute Time Data - Lubricator #1
X	%MW1017	PAUSE_SET_HOUR_MON_1	Pause_Set the Hour Time Data - Lubricator #1
X	%MW1021	RUNNING_SET_MIN_MON_2	Running_Set the Minute Time Data - Lubricator #2
X	%MW1022	RUNNING_SET_HOUR_MON_2	Running_Set the Hour Time Data - Lubricator #2
X	%MW1026	PAUSE_SET_MIN_MON_2	Pause_Set the Minute Time Data - Lubricator #2
X	%MW1027	PAUSE_SET_HOUR_MON_2	Pause_Set the Hour Time Data - Lubricator #2
X	%Q0.0	MON_OUT_LUB_1	Month Mode Output Signal - Lubricator #1
X	%Q0.1	MON_OUT_LUB_2	Month Mode Output Signal - Lubricator #2
X	%S12	SB_RUNMODE	The controller is running
X	%TM0	OVERLOAD_CHECK_MON_1	Overload Check Timer - Lubricator #1
X	%TM1	NO_FAULT_CHECK_MON_1	No Fault Check Timer - Lubricator #1
X	%TM2	RUNNING_TIMER_MON_1	Running Time Data Timer - Lubricator #1
X	%TM3	PAUSE_TIMER_MON_1	Pause Time Data Timer - Lubricator #1
X	%TM4	OVERLOAD_CHECK_MON_2	Overload Check Timer - Lubricator #2
X	%TM5	NO_FAULT_CHECK_MON_2	No Fault Check Timer - Lubricator #2
X	%TM6	RUNNING_TIMER_MON_2	Running Time Data Timer - Lubricator #2
X	%TM7	PAUSE_TIMER_MON_2	Pause Time Data Timer - Lubricator #2

CROSS-REFERENCE TABLE

Address	Object	Rung	Code	
%C0.....	2 - MONTH_LUB_1	Rung2 - END OF CYCLE	%C0	
%C1.....	3 - MONTH_LUB_2	Rung2 - END OF CYCLE	%C1	
%I0.0.....	2 - MONTH_LUB_1	Rung0 - OVERLOAD CHECK	-- --	
		Rung1 - NO ALARM	-- / --	
		Rung2 - END OF CYCLE	-- --	
%I0.1.....	3 - MONTH_LUB_2	Rung0 - OVERLOAD CHECK	-- --	
		Rung1 - NO ALARM	-- / --	
		Rung2 - END OF CYCLE	-- --	
%M0.....	1 - COMMON	Rung0 - LUBRICATOR START	--()--	
		Rung3 - RUNNING_COUNTER	-- --	
	2 - MONTH_LUB_1	Rung7 - RUNNING_TIME	-- --	
		Rung8 - PAUSE_COUNTER	-- --	
		Rung12 - PAUSE_TIME	-- --	
	3 - MONTH_LUB_2	Rung14 - INITIAL_VALUE_SET	-- P --	
		Rung3 - RUNNING_COUNTER	-- --	
		Rung7 - RUNNING_TIME	-- --	
		Rung8 - PAUSE_COUNTER	-- --	
		Rung12 - PAUSE_TIME	-- --	
	%M1.....	1 - COMMON	Rung0 - LUBRICATOR START	-- / --
			Rung13 - LUBRICATOR_RUN	-- / --
3 - MONTH_LUB_2		Rung13 - LUBRICATOR_RUN	-- / --	
%M10.....	2 - MONTH_LUB_1	Rung0 - OVERLOAD CHECK	--()--	
		Rung3 - RUNNING_COUNTER	-- / --	
		Rung7 - RUNNING_TIME	-- / --	
		Rung8 - PAUSE_COUNTER	-- / --	
		Rung12 - PAUSE_TIME	-- / --	
%M11.....	2 - MONTH_LUB_1	Rung1 - NO ALARM	--()--	
		Rung2 - END OF CYCLE	-- --	
		Rung3 - RUNNING_COUNTER	-- --	

TECHNICAL INFORMATION

Address	Object	Rung	Code
%M12.....	2 - MONTH_LUB_1	Rung7 - RUNNING_TIME	-- --
		Rung8 - PAUSE_COUNTER	-- --
		Rung12 - PAUSE_TIME	-- --
		Rung2 - END OF CYCLE	--()--
		Rung3 - RUNNING_COUNTER	-- / --
%M15.....	2 - MONTH_LUB_1	Rung8 - PAUSE_COUNTER	-- / --
		Rung3 - RUNNING_COUNTER	--()--
			-- / --
%M16.....	2 - MONTH_LUB_1	Rung4 - RUNNING_COUNTER_SEC	-- P --
		Rung7 - RUNNING_TIME	--()--
		Rung8 - PAUSE_COUNTER	-- / --
		Rung12 - PAUSE_TIME	-- / --
		Rung13 - LUBRICATOR_RUN	-- --
%M17.....	2 - MONTH_LUB_1	Rung8 - PAUSE_COUNTER	--()--
			-- / --
		Rung9 - PAUSE_COUNTER_SEC	-- P --
%M18.....	2 - MONTH_LUB_1	Rung3 - RUNNING_COUNTER	-- / --
		Rung7 - RUNNING_TIME	-- / --
		Rung12 - PAUSE_TIME	--()--
		Rung13 - LUBRICATOR_RUN	-- / --
			-- / --
%M20.....	3 - MONTH_LUB_2	Rung0 - OVERLOAD CHECK	--()--
		Rung3 - RUNNING_COUNTER	-- / --
		Rung7 - RUNNING_TIME	-- / --
		Rung8 - PAUSE_COUNTER	-- / --
		Rung12 - PAUSE_TIME	-- / --
%M21.....	3 - MONTH_LUB_2	Rung1 - NO ALARM	--()--
		Rung2 - END OF CYCLE	-- --
		Rung3 - RUNNING_COUNTER	-- --
		Rung7 - RUNNING_TIME	-- --
		Rung8 - PAUSE_COUNTER	-- --
%M22.....	3 - MONTH_LUB_2	Rung12 - PAUSE_TIME	-- --
		Rung2 - END OF CYCLE	--()--
		Rung3 - RUNNING_COUNTER	-- / --

TECHNICAL INFORMATION

Address	Object	Rung	Code
%M25.....	3 - MONTH_LUB_2	Rung8 - PAUSE_COUNTER	-- / --
		Rung3 - RUNNING_COUNTER	--()--
			-- / --
%M26.....	3 - MONTH_LUB_2	Rung4 - RUNNING_COUNTER_SEC	-- P --
		Rung7 - RUNNING_TIME	--()--
		Rung8 - PAUSE_COUNTER	-- / --
		Rung12 - PAUSE_TIME	-- / --
%M27.....	3 - MONTH_LUB_2	Rung13 - LUBRICATOR_RUN	-- --
		Rung8 - PAUSE_COUNTER	--()--
			-- / --
%M28.....	3 - MONTH_LUB_2	Rung9 - PAUSE_COUNTER_SEC	-- P --
		Rung3 - RUNNING_COUNTER	-- / --
		Rung7 - RUNNING_TIME	-- / --
		Rung12 - PAUSE_TIME	--()--
%MW10.....	2 - MONTH_LUB_1	Rung13 - LUBRICATOR_RUN	-- / --
		Rung4 - RUNNING_COUNTER_SEC	--[...]-- INC %MW10
		Rung5 - RUNNING_COUNTER_MIN	--[<]-- %MW10 >= 60
%MW11.....	2 - MONTH_LUB_1		--[...]-- %MW10 := 0
		Rung12 - PAUSE_TIME	--[...]-- %MW10 := 0
		Rung5 - RUNNING_COUNTER_MIN	--[...]-- INC %MW11
		Rung6 - RUNNING_COUNTER_HOUR	--[<]-- %MW11 >= 60
%MW12.....	2 - MONTH_LUB_1		--[...]-- %MW11 := 0
		Rung7 - RUNNING_TIME	--[<]-- %MW11 < %MW1011
		Rung12 - PAUSE_TIME	--[...]-- %MW11 := 0
%MW15.....	2 - MONTH_LUB_1	Rung6 - RUNNING_COUNTER_HOUR	--[...]-- INC %MW12
		Rung7 - RUNNING_TIME	--[<]-- %MW12 < %MW1012
		Rung12 - PAUSE_TIME	--[...]-- %MW12 := 0
%MW16.....	2 - MONTH_LUB_1	Rung7 - RUNNING_TIME	--[...]-- %MW15 := 0
		Rung9 - PAUSE_COUNTER_SEC	--[...]-- INC %MW15
		Rung10 - PAUSE_COUNTER_MIN	--[<]-- %MW15 >= 60
			--[...]-- %MW15 := 0
%MW16.....	2 - MONTH_LUB_1	Rung7 - RUNNING_TIME	--[...]-- %MW16 := 0

TECHNICAL INFORMATION

Address	Object	Rung	Code
%MW17.....	2 - MONTH_LUB_1	Rung10 - PAUSE_COUNTER_MIN	--[...]-- INC %MW16
		Rung11 - PAUSE_COUNTER_HOUR	--[<]-- %MW16 >= 60 --[...]-- %MW16 := 0
		Rung12 - PAUSE_TIME	--[<]-- %MW16 < %MW1016
%MW20.....	3 - MONTH_LUB_2	Rung7 - RUNNING_TIME	--[...]-- %MW17 := 0
		Rung11 - PAUSE_COUNTER_HOUR	--[...]-- INC %MW17
		Rung12 - PAUSE_TIME	--[<]-- %MW17 < %MW1017
%MW21.....	3 - MONTH_LUB_2	Rung4 - RUNNING_COUNTER_SEC	--[...]-- INC %MW20
		Rung5 - RUNNING_COUNTER_MIN	--[<]-- %MW20 >= 60 --[...]-- %MW20 := 0
		Rung12 - PAUSE_TIME	--[...]-- %MW20 := 0
%MW22.....	3 - MONTH_LUB_2	Rung5 - RUNNING_COUNTER_MIN	--[...]-- INC %MW21
		Rung6 - RUNNING_COUNTER_HOUR	--[<]-- %MW21 >= 60 --[...]-- %MW21 := 0
		Rung7 - RUNNING_TIME	--[<]-- %MW21 < %MW1021
%MW25.....	3 - MONTH_LUB_2	Rung12 - PAUSE_TIME	--[...]-- %MW21 := 0
		Rung6 - RUNNING_COUNTER_HOUR	--[...]-- INC %MW22
		Rung7 - RUNNING_TIME	--[<]-- %MW22 < %MW1022
%MW26.....	3 - MONTH_LUB_2	Rung12 - PAUSE_TIME	--[...]-- %MW22 := 0
		Rung7 - RUNNING_TIME	--[...]-- %MW25 := 0
		Rung9 - PAUSE_COUNTER_SEC	--[...]-- INC %MW25
%MW27.....	3 - MONTH_LUB_2	Rung10 - PAUSE_COUNTER_MIN	--[<]-- %MW25 >= 60 --[...]-- %MW25 := 0
		Rung7 - RUNNING_TIME	--[...]-- %MW26 := 0
		Rung10 - PAUSE_COUNTER_MIN	--[...]-- INC %MW26
%MW28.....	3 - MONTH_LUB_2	Rung11 - PAUSE_COUNTER_HOUR	--[<]-- %MW26 >= 60 --[...]-- %MW26 := 0
		Rung12 - PAUSE_TIME	--[<]-- %MW26 < %MW1026
		Rung7 - RUNNING_TIME	--[...]-- %MW27 := 0
%MW29.....	3 - MONTH_LUB_2	Rung11 - PAUSE_COUNTER_HOUR	--[...]-- INC %MW27
		Rung12 - PAUSE_TIME	--[<]-- %MW27 < %MW1027

TECHNICAL INFORMATION

Address	Object	Rung	Code
%MW1011....	2 - MONTH_LUB_1	Rung7 - RUNNING_TIME Rung14 - INITIAL_VALUE_SET	--[<]-- %MW11 < %MW1011 --[...]-- %MW1011 := 30
%MW1012....	2 - MONTH_LUB_1	Rung7 - RUNNING_TIME Rung14 - INITIAL_VALUE_SET	--[<]-- %MW12 < %MW1012 --[...]-- %MW1012 := 1
%MW1016....	2 - MONTH_LUB_1	Rung12 - PAUSE_TIME Rung14 - INITIAL_VALUE_SET	--[<]-- %MW16 < %MW1016 --[...]-- %MW1016 := 30
%MW1017....	2 - MONTH_LUB_1	Rung12 - PAUSE_TIME Rung14 - INITIAL_VALUE_SET	--[<]-- %MW17 < %MW1017 --[...]-- %MW1017 := 1
%MW1021....	3 - MONTH_LUB_2	Rung7 - RUNNING_TIME Rung14 - INITIAL_VALUE_SET	--[<]-- %MW21 < %MW1021 --[...]-- %MW1021 := 30
%MW1022....	3 - MONTH_LUB_2	Rung7 - RUNNING_TIME Rung14 - INITIAL_VALUE_SET	--[<]-- %MW22 < %MW1022 --[...]-- %MW1022 := 1
%MW1026....	3 - MONTH_LUB_2	Rung12 - PAUSE_TIME Rung14 - INITIAL_VALUE_SET	--[<]-- %MW26 < %MW1026 --[...]-- %MW1026 := 30
%MW1027....	3 - MONTH_LUB_2	Rung12 - PAUSE_TIME Rung14 - INITIAL_VALUE_SET	--[<]-- %MW27 < %MW1027 --[...]-- %MW1027 := 1
%Q0.0.....	2 - MONTH_LUB_1	Rung13 - LUBRICATOR_RUN	--()--
%Q0.1.....	3 - MONTH_LUB_2	Rung13 - LUBRICATOR_RUN	--()--
%S12.....	1 - COMMON	Rung0 - LUBRICATOR START	-- --
%TM0.....	2 - MONTH_LUB_1	Rung0 - OVERLOAD CHECK	%TM0
%TM1.....	2 - MONTH_LUB_1	Rung1 - NO ALARM	%TM1
%TM2.....	2 - MONTH_LUB_1	Rung3 - RUNNING_COUNTER	%TM2
%TM3.....	2 - MONTH_LUB_1	Rung8 - PAUSE_COUNTER	%TM3
%TM4.....	3 - MONTH_LUB_2	Rung0 - OVERLOAD CHECK	%TM4
%TM5.....	3 - MONTH_LUB_2	Rung1 - NO ALARM	%TM5
%TM6.....	3 - MONTH_LUB_2	Rung3 - RUNNING_COUNTER	%TM6
%TM7.....	3 - MONTH_LUB_2	Rung8 - PAUSE_COUNTER	%TM7

ANIMATION TABLE

Animation table_0

Used	Address	Symbol	Comment
X	%M1	LUBRICATOR_STO P_BIT	Lubricator Stop Switch - If using the HMI
X	%MW10	RUNNING_SEC_MO N_1	Running_Second Time Data - Lubricator #1
X	%MW11	RUNNING_MIN_MO N_1	Running_Minute Time Data - Lubricator #1
X	%MW12	RUNNING_HOUR_M ON_1	Running_Hour Time Data - Lubricator #1
X	%MW1011	RUNNING_SET_MI N_MON_1	Running_Set the Minute Time Data - Lubricator #1
X	%MW1012	RUNNING_SET_HO UR_MON_1	Running_Set the Hour Time Data - Lubricator #1
	%M13		
X	%MW15	PAUSE_SEC_MON_ 1	Pause_Second Time Data - Lubricator #1
X	%MW16	PAUSE_MIN_MON_ 1	Pause_Minute Time Data - Lubricator #1
X	%MW17	PAUSE_HOUR_MON_ 1	Pause_Hour Time Data - Lubricator #1
X	%MW1016	PAUSE_SET_MIN_ MON_1	Pause_Set the Minute Time Data - Lubricator #1
X	%MW1017	PAUSE_SET_HOUR_ MON_1	Pause_Set the Hour Time Data - Lubricator #1