

Totally Integrated Automation Portal		
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Flow\_PIDs [OB34]

Flow\_PIDs Properties

General

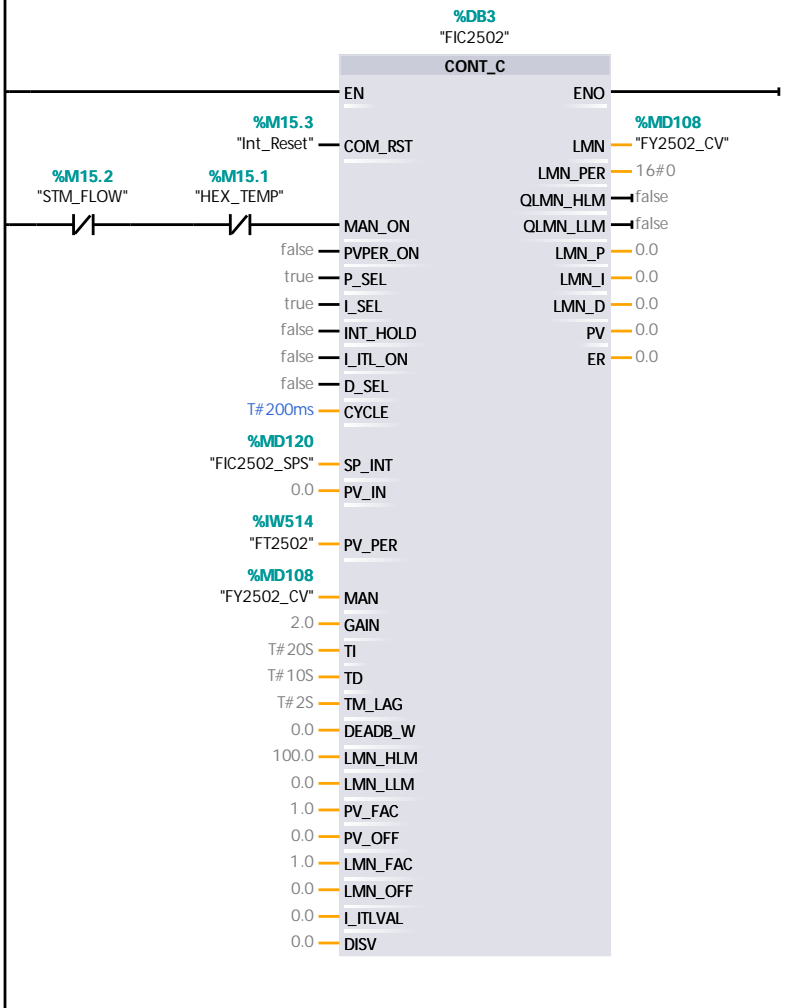
Name	Flow_PIDs	Number	34	Type	OB
Language	LAD	Numbering	Manual		

Information

Title	"Cyclic Interrupt"	Author		Comment	
Family		Version	0.1	User-defined ID	

Name	Data type	Default value
▼ Temp		
OB34_EV_CLASS	Byte	
OB34_STRT_INF	Byte	
OB34_PRIORITY	Byte	
OB34_OB_NUMBR	Byte	
OB34_RESERVED_1	Byte	
OB34_RESERVED_2	Byte	
OB34_PHS_OFFSET	Int	
OB34_RESERVED_3	Int	
OB34_EXC_FREQ	Int	
OB34_DATE_TIME	Date_And_Time	
Constant		

Network 1: FIC 2502 Slave flow loop



# Main\_Program [OB1]

## Main\_Program Properties

### General

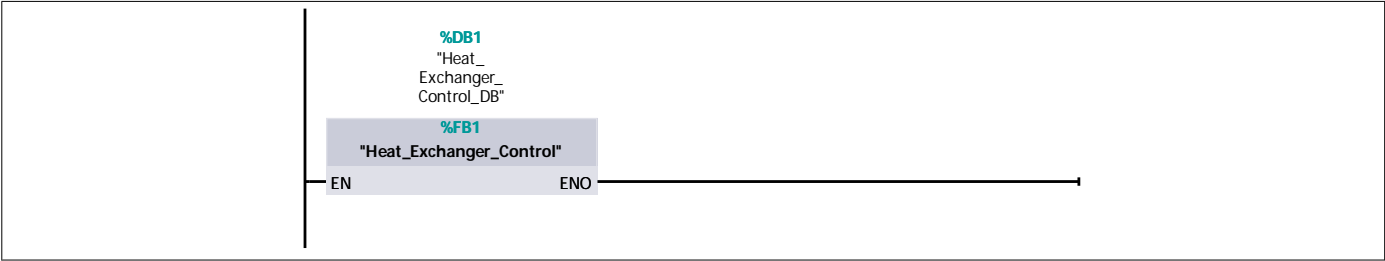
Name	Main_Program	Number	1	Type	OB
Language	LAD	Numbering	Manual		

### Information

Title	"Main Program Sweep (Cycle)"	Author		Comment	Example 10.8 Cascade Control  Copyright (c) 2022 Dogwood Valley Press, LLC
Family		Version	0.1	User-defined ID	

Name	Data type	Default value
▼ Temp		
OB1_EV_CLASS	Byte	
OB1_SCAN_1	Byte	
OB1_PRIORITY	Byte	
OB1_OB_NUMBR	Byte	
OB1_RESERVED_1	Byte	
OB1_RESERVED_2	Byte	
OB1_PREV_CYCLE	Int	
OB1_MIN_CYCLE	Int	
OB1_MAX_CYCLE	Int	
OB1_DATE_TIME	Date_And_Time	
Constant		

## Network 1: Heat Exchanger control



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Temp\_PIDs [OB32]

Temp\_PIDs Properties

General

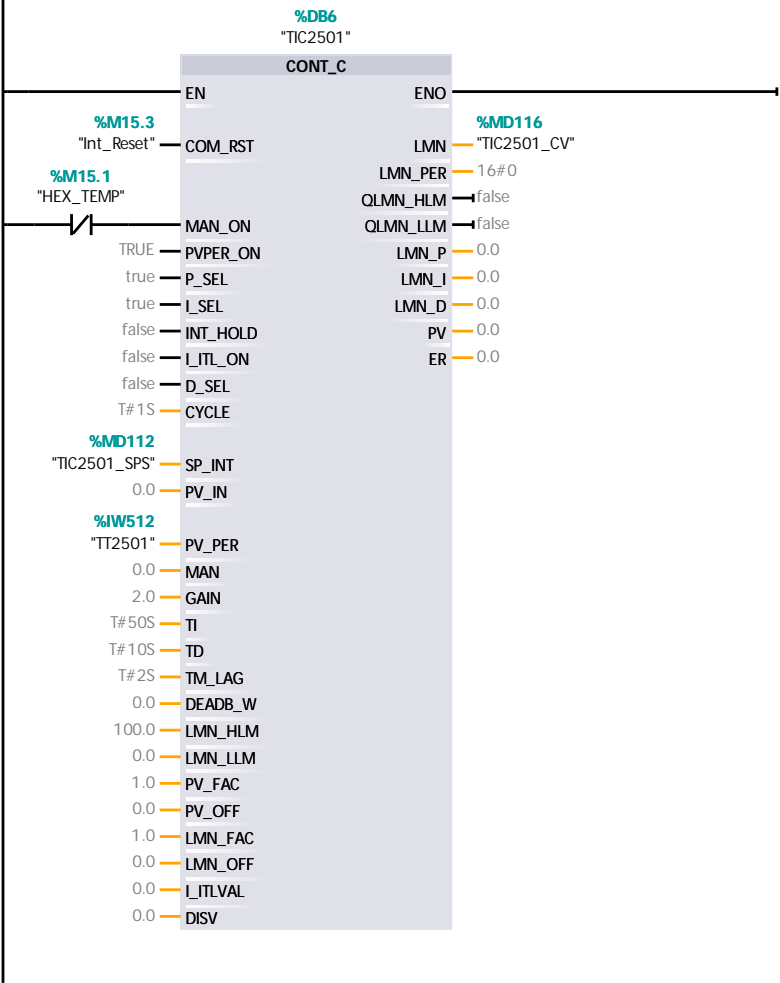
Name	Temp_PIDs	Number	32	Type	OB
Language	LAD	Numbering	Manual		

Information

Title	"Cyclic Interrupt"	Author		Comment	
Family		Version	0.1	User-defined ID	

Name	Data type	Default value
▼ Temp		
OB32_EV_CLASS	Byte	
OB32_STRT_INF	Byte	
OB32_PRIORITY	Byte	
OB32_OB_NUMBR	Byte	
OB32_RESERVED_1	Byte	
OB32_RESERVED_2	Byte	
OB32_PHS_OFFSET	Int	
OB32_RESERVED_3	Int	
OB32_EXC_FREQ	Int	
OB32_DATE_TIME	Date_And_Time	
Constant		

Network 1: TIC2501 Heat Exchanger temp. master loop



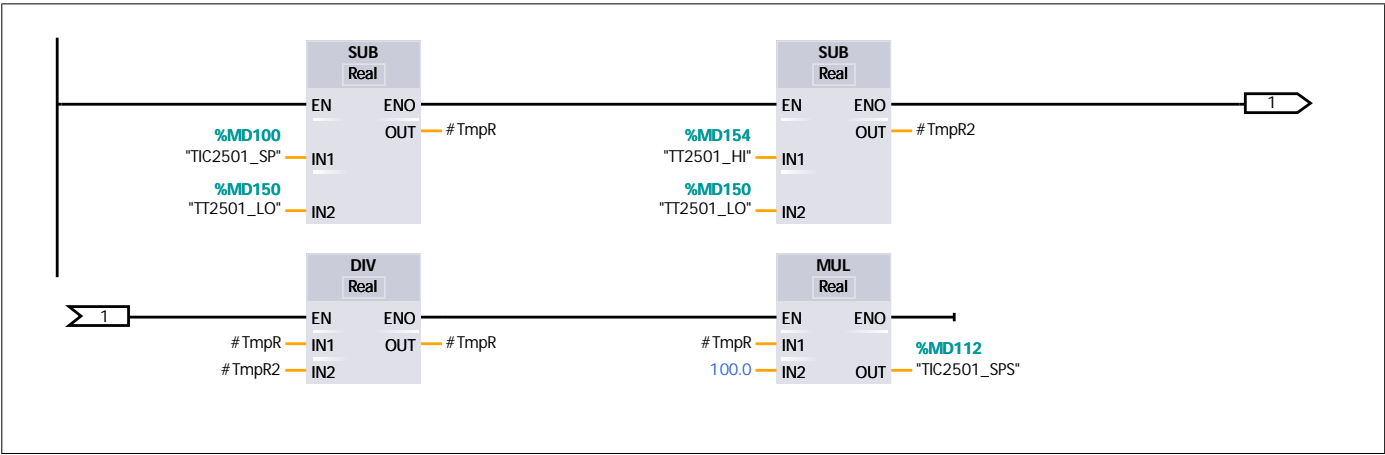
# Heat\_Exchanger\_Control [FB1]

## Heat\_Exchanger\_Control Properties

General					
Name	Heat_Exchanger_Control	Number	1	Type	FB
Language	LAD	Numbering	Automatic		
Information					
Title		Author		Comment	
Family		Version	0.1	User-defined ID	

Name	Data type	Default value
Input		
Output		
InOut		
▼ Static		
TmpR	Real	0.0
TmpR2	Real	0.0
Temp		
Constant		

## Network 1: Scale TIC operator setpoint to 0-100 required by PID



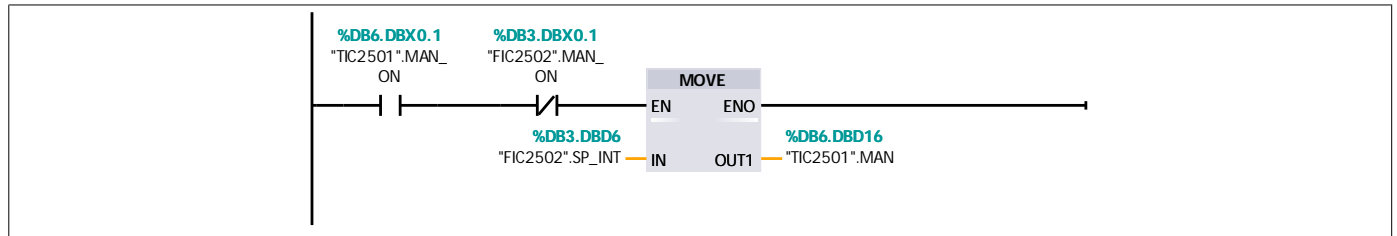
## Network 2: Handle both loops auto

When both loops auto, copy TIC out to FIC SP.

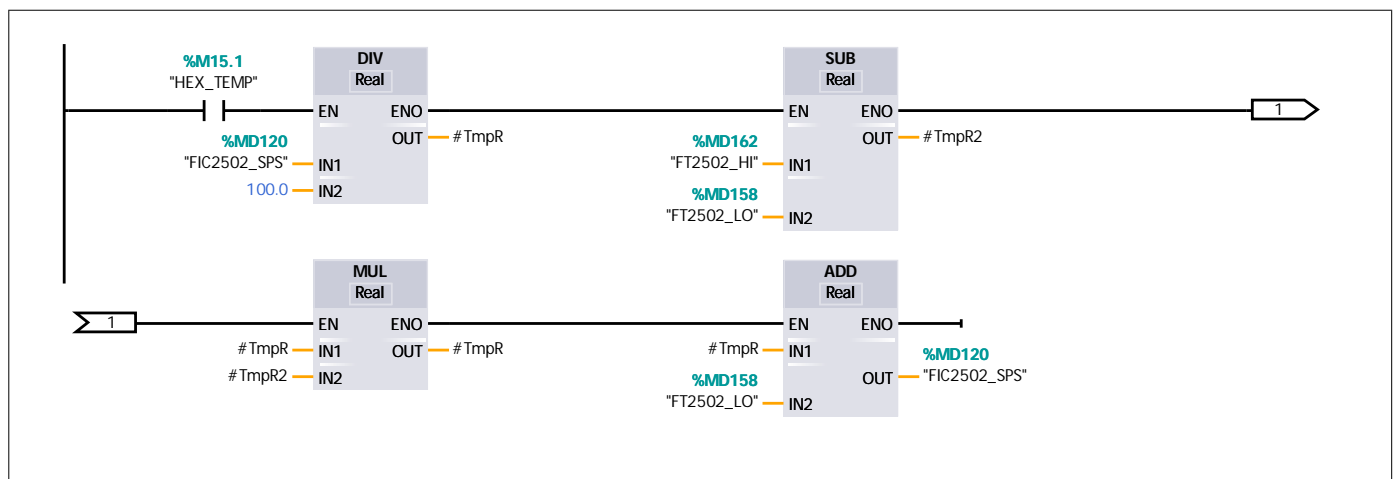


### Network 3: Master in manual and slave in auto

Copy flow SP to TIC manual out.



### Network 4: If controlling temperature, scale flow SP back to 0-8 gpm fange for operator.



### Network 5: If not controlling temperature, scale operator SP to 0-100 for PID.

