AID OptiPumpMD PID Startup Guide

Date: 28-Sept-2022

Version: 2





Login Screen—Select "Master Parameter Entry" to access all parameters.

Default Password = "0"

Setup—Main Menu Options



Application:

PUMP SETUP	Speed control parameters
START/STOP ENTRY EDIT	Start/Stop control parameters
ANALOG SENSOR SETUP SCREEN	Parameters to configure analog devices connected to controller. (ie: transducers)
DIGITAL INPUT CONFIGURATION	Parameters to configure digital devices connected to controller. (ie: switches / contacts)
VFD PARAMETERS	Fuji Mega VFD Parameters. (If unit has other brand VFD keypad on door: FLA/Overload, Min/ Max Hz, etc. will need to be entered on VFD Keypad)

System:

CONTROLLER CONFIGURATION	Select main screen, save parameters to SD card.
COMMUNICA- TIONS SETTINGS	Configure RS-485 & Ethernet for SCADA connectivity.
SCREEN ACCESS EDIT	Select which options "User" & "Supervisor" users get access to.
PASSWORD EDIT	Select passwords for each user.

Configure unit for maintaining a level (PID):



Configure unit for maintaining a level (PID):





Configuring your sensors:



Analog Input 3 Sensor Setup

AI3 9.8 ma		Low Range		Range	Units
Tank Level	0.0		23	.5	FEET
Low shutdown/alarm 3.0 FEET	Start De 000000.	lay Det 00 001	ect Delay 0004.00	Restart 00024	: Delay 1 <mark>0.00</mark>
High shutdown/alarm 20.0 FEET	Start De 000004.	elay Det 00 000	Detect Delay Resta		: Delay 1 <mark>0.00</mark>
Low 0=Used fo 1=Used fo	r shutdowr r shutdowr	ns and rec n but resta	quires man arts after re	ual resel estart del	t Iay
High 2=Alarm 0 High 3=Alarm 0 4=Monitor	2=Alarm Only, Manual Res 3=Alarm Only, Auto Reset 4=Monitor Only		Adv	vanced Setup	k
5=Sensor	Disabled Return	to Men	u		>

These are additional shutdowns/alarms (in addition to your Start/Stop control)

You can use "Alarm Only" to give you a message that can be read with your SCADA system to tell you if the level gets to high for instance without actually shutting the unit down.

Shutdowns could use a transducer to stop a pump if suction pressure or discharge pressure was too low and indicated a leak or something.

The only thing that must be configured on this page is the low & high range, name, and engineering units

Low Range	Level @ 4mA
High Range	Level @ 20mA
Units	Engineering units to display. (feet / PSI)
Low Shutdown	Faults if input is below this level.
High Shutdown	Faults if intput is above this level.
Low Action	Action to take when low level occurs.
High Action	Action to take when high level occurs.
Detection Time	If contact indicates problem, wait this long before acting on it.
Restart Time	Wait this long before restarting if timed reset is enabled
Action	Select if this input will shutdown unit, if it will restart automatically.

Configuring your Digital Inputs:

Digita	l Input	#5 (iť	5) Config	uration
Name:	SAFE	TY SH	UTDOWN	
EXPECTED	(Defa	ault):Low I	Lubrication Oil Le	vel
STATE	NO	Startup	o detection delay:	000004.00
[NO] -Fault	when contac	t closes.	Detection time:	000002.00
CONT/ CURRENT	ACT IS TLY OPEN		Restart time:	000020.00
0=Shutdown manual reset, 1=Shutdown timed reset 2=Alarm only manual reset, 3=Alarm only timed reset 4=Momentary input to start, 5=Momentary input to stop 6=Maintained start signal, 7=Input not used				
< ====	== F	Return to	Menu	====>

These are additional shutdowns/alarms (in addition to your Start/Stop control)

A digital input may be a device like a switch, or a contact, that closes or opens to tell the panel it is unsafe to run.

Name	Name of sensor
Expected State	Does contact open or close to indicate a problem?
Startup Delay	Wait this long when pump starts be- fore looking at this input
Detection Time	If contact indicates problem, wait this long before acting on it.
Restart Time	Wait this long before restarting if timed reset is enabled
Action	Select if this input will shutdown unit, if it will restart automatically.