

The parameters listed below show their description, factory setting, and the values that should be set when first programming the drive for pump applications.

REFER TO PAGE(S)

PARAMETER TECH MANUAL	DESCRIPTION	FACTORY SETTING	INITIAL SETTING	IN
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N084 5-45, A1-12	PID Selection	Disabled	Enabled D = FDBK	
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Function: Allows the PID function to be activated.

N085 5-47, A1-12	Feedback Calibration Gain	1.0	.93	
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Function: Used to adjust the feedback signal level.

N086 5-47, A1-12	Proportional Gain	1.0	3 or 4	
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Function: It is the value by which the error signal is multiplied to generate the new speed reference. As the proportional gain is raised, the feedback signal will start tracking closer to the setpoint. If the proportional gain is set too high, the VFD will start oscillating and not maintain the setpoint. Ideally, the proportional gain should be set to a point just below where the VFD starts oscillating in speed when the feedback signal is upset.

N087 5-48, A1-12	Integral Gain	10 seconds	3 or 4	
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Function: It determines how fast the integral gain increase is added to the control loop. The longer the integration time, the larger the integration window is. This results in slowing the VFD response to any change in the feedback signal. In most pumping applications, the integral time should be short to respond quickly to changes in the feedback signal. If this value is too large for the application, the VFD response will be sluggish. Conversely, if the value is too small for an application, the feedback signal may never reach the setpoint and constantly be hunting around the correct value.

N093 A1-13	PID Output Selection	Not Inverted	Not Inverted	
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Function: Determines whether or not the PID output is inverted.

N002 5-46, A1-1	Operation Mode Selection	Seq= TRM, Ref=TRM	See Note 1	
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Function: Determines where the Run command and speed reference will come from.

Note 1:

If using an External Run command at Terminals S1 / SC and the setpoint adjustment will be from digital operator then N002 = (Seq = TRM, Ref = OPR)

If both the Run command and set point adjustment will be from the digital operator then N002 = (Seq= OPR, Ref = OPR)

