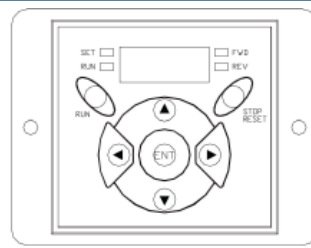
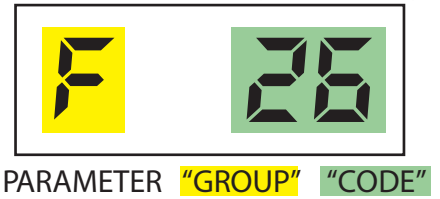


GS Series VFD V2.1

Quick Start Guide



Using the LCD keypad display



PARAMETER "GROUP" "CODE"

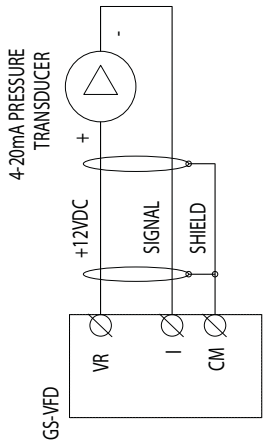
Use the ◀ (Left), ▶ (Right) keys to scroll through the five parameter groups: DRV ▶ F ▶ H ▶ I ▶ DRV
 Use the ▲ (Up), ▼ (Down) keys to scroll through parameter codes within each parameter group.

Parameter	Description	Fan & Pump - Recommended Settings
NOTE: When entering parameters, any changes made will only be stored if the Enter button is pressed twice after making the change.		
DRV-00	Frequency Command / Reference (Parameter that first appears when VFD is powered up)	Local Speed Control: Set target speed in Hz (*PID see below)
DRV	Drive Start / Stop Control Method (Looks like DRU on display)	Local Control: 0 (Keypad) Remote Control: 1
FRQ	Frequency Setting Method (Looks like FR9 on display)	Local: 1 (KeyPad-2) Remote: 3 for 0-10V or PID Control: 0 (KeyPad-1) 4 for 4-20mA
F-1	Forward / Reverse Run Disable	Reverse Run Disable: 2
F-24	High / Low Frequency Limit Enable	If Needed: 1 (Do not use for PID control)
F-26	Minimum Frequency Limit. (Only visible if FU1-33 = Yes)	Set desired low limit in Hz (Do not use for PID control)
F-39	Output Voltage Adjustment (If motor rated voltage is less than input voltage, set this parameter accordingly. For example, if Input Voltage is 480VAC & Motor Voltage is 460VAC, set parameter to 96%)	100% = Output voltage will be the same as input voltage when drive is running at full speed
F-50	Electronic Motor Thermal Overload Protection	1 (Yes)
F-59	Stall Prevention (Stall level can be adjusted if necessary on F60)	111*
H-19	Input/Output Phase Loss Protection	11* - not needed for 1Ø input
H-20	Power on Start (VFD will start if remote start contact is closed at drive power-up)	1 (Yes)
H-21	VFD will Restart After a Fault was Reset	1 (Yes)
H-22	Speed Search (VFD will start on the fly if motor is still spinning)	1110*
H-26	Number of Auto Restart Attempts	3
H-27	Restart Delay (Set as maximum as possible for your application)	60.0sec.
H-30	Motor Size: kW=HP x 0.75	Kilowatt rating of motor
H-31	Number of Motor Poles: # of Poles=7200 ÷ max RPM of motor	Number of motor poles
H-33	Motor Full Load Current = Full Load Amps x Service Factor	Motor Full Load Current
Additional Parameters for Proportional Integral Derivative (PID) Control in Single Motor Applications (Typically used when VFD needs to maintain a desired pressure or temperature based on direct sensor feedback to VFD)		
H-49	PID Control Enable	1 (Parameter "rEF" will not appear until this parameter is set to 1)
*rEF	PID Set Point Reference Parameter	Set Point=(Desired press or temp) x 60Hz ÷ (Max Range of sensor)
H-50	Feedback for PID control: select 0 for 4-20mA or 1 for 0-10V	0 for 4-20mA feedback or 1 for 0-10V feedback
H-51	Proportional Gain for PID Control Response	Higher percentage = greater speed change at same feedback value
H-52	Integral Time for PID Control Response	Higher number = longer response time at same feedback value
H-56	Minimum Frequency Limit for PID Control	Set desired low limit in Hz
H-61	Sleep Mode Delay Time	Desired sleep mode delay time in seconds
H-62	Sleep Mode Frequency (VFD enters sleep mode when VFD speed decreases below frequency entered here for time set on H-61)	Desired sleep frequency in Hz (If minimum frequency is entered on H-56, set H-62 to .5-1Hz. higher than H-56)
H-63	Sleep Mode Wake Up Level (Percentage of sensor range that feedback signal must reach before VFD will wake up from sleep mode)	Desired level in % (for normal PID control, set level slightly lower than desired press. Set opposite for inverted PID control)
NOTE: For reversed PID control (VFD should increase speed when feedback value is higher than desired set-point) change I-8 or I-13 to 60Hz and I-10 or I-15 to 0.0Hz. To calculate a set-point = 60Hz-((Desired press or temp) x 60Hz ÷ (Max Range of sensor)).		
Reset Parameters		
H-93	If Needed, Use this Parameter to Reset all Settings to Default	Reset all Settings: 1 (Will return to 0 when done)

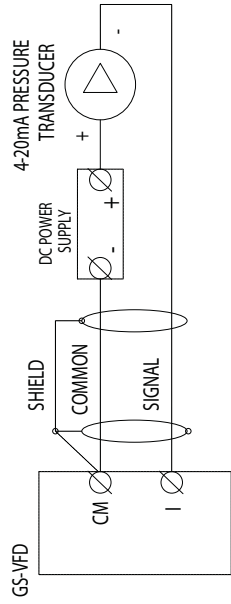
* For Binary Bit parameters the bit must be in the top position to equal On (1) and the bottom position to equal Off (0) and are numbered from right to left. (Example; H-22: 1110 = 1 1 1 0 = Bit 3 on, Bit 2 on, Bit 1 on, Bit 0 off)

GS Wiring Schematics

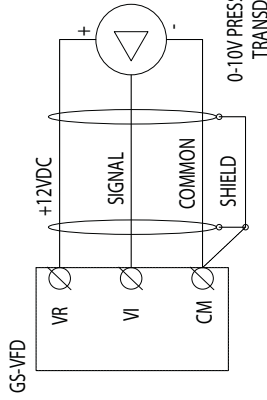
TWO-WIRE SENSOR 4-20mA WITH VFD DC POWER



TWO-WIRE SENSOR 4-20mA WITH EXTERNAL DC POWER



THREE-WIRE SENSOR 0-10V WITH VFD DC POWER



THREE-WIRE SENSOR 0-10V WITH EXTERNAL DC POWER

