



TECHNICAL NOTE #:	TN-VFD-COM044
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SUPERSEDES DATE:	N/A
ORIGINATOR:	Saftronics Inc.
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## FP5/GP5 Spec. "F" Modbus Address

### Modbus Address for FP5/GP5

#### Start/Stop 0001H

- Bit 0 Run Command
- Bit 1 Forward/Reverse run
- Bit 2 Eternal Fault
- Bit 3 Fault Reset
- Bit 4 Close Terminal S3
- Bit 5 Close Terminal S4
- Bit 6 Close Terminal S5
- Bit 7 Close Terminal S6

#### Frequency Reference 0002H

This is scaled on .01 hertz

#### Multi-function Outputs 0009H

- Bit 0 Multi-function Output 1
- Bit 1 Multi-function Output 2

#### Monitor Data 0020H

- Bit 0 During run
- Bit 1 During reverse
- Bit 2 Inverter operation ready
- Bit 3 Major Fault
- Bit 4 Data setting error
- Bit 5 Multi-function (MA-MC) contact output
- Bit 6 Multi-function (M1-M2) contact output

#### Monitor Data 0021H

- Bit 0 Overcurrent (oC), Ground fault (GF), Load short circuit (SC)
- Bit 1 Overvoltage (oV)
- Bit 2 Inverter overload (oL2)
- Bit 3 Inverter overheat (oH1, oH2)
- Bit 4 –
- Bit 5 Main circuit fault (PUF)
- Bit 6 Braking Transistor fault (rr), Braking transistor overheat fault (rH)
- Bit 7 External fault (EF0, EF3 – EF6)
- Bit 8 Hardware fault (CPFx)
- Bit 9 Motor overload (oL1, oL3)
- Bit A –
- Bit B During undervoltage
- Bit C Power loss (UV1, UV2, UV3)
- Bit D Input phase (SPI), Output phase (SPO)

**Monitor Data 0022H**

Bit 0 During data write-in  
 Bit 3 Upper/Lower limit fault  
 Bit 4 Matching fault

**0023H** Frequency reference (0.1Hz resolution)  
**0024H** Output frequency (0.1Hz resolution)  
**0027H** Output current (0.1A resolution)  
**0028H** Output voltage (1V resolution)  
**002AH** External terminal input value  
**0031H** DC Bus Voltage (1 V resolution)

**Monitor Data 002BH**

Bit 0 During run  
 Bit 1 During zero speed  
 Bit 2 Frequency agreed  
 Bit 3 Desired frequency agree  
 Bit 4 Frequency detection 1  
 Bit 5 Frequency detection 2  
 Bit 6 Inverter operation ready  
 Bit 7 During undervoltage detection  
 Bit 8 During output braking  
 Bit 9 Frequency reference mode  
 Bit A Run command mode  
 Bit B Overtorque detection  
 Bit C During frequency reference missing  
 Bit D –  
 Bit E Major fault (including communication fault)  
 Bit F Communication fault

**002DH** Multi-function contact output monitor  
**0031H** Main circuit DC voltage

**Monitor Data 003DH**

Bit 0 CRC error  
 Bit 1 Data length error  
 Bit 2 –  
 Bit 3 Parity error  
 Bit 4 Overrun error  
 Bit 5 Frame error  
 Bit 6 Time-over

**Parameter register values**

**001** – Parameter Selection/Initialization (**101H**)  
**002** – Operation Mode Selection (**102H**)  
**003** – Input Voltage (**103H**)  
**004** – Stop Method (**104H**)  
**005** – Motor Rotation (**105H**)  
**006** – Prohibit Reverse Operation (**106H**)  
**007** – Local/Remote Key Function (**107H**)  
**008** – Stop Key Function (**108H**)  
**009** – Frequency reference Setting (**109H**)  
**010** – V/F Pattern Selection (**10AH**)  
**011** – Max Frequency (**10BH**)  
**012** – Max. Voltage (**10CH**)  
**013** – Base Frequency (**10DH**)

- 014 – Mid. Output Frequency (10EH)**
- 015 – Mid. Frequency Voltage (10FH)**
- 016 – Min. Output Frequency (110H)**
- 017 – Min. Output Voltage (111H)**
- 018 – Acceleration Time 1 (112H)**
- 019 – Deceleration Time 1 (113H)**
- 020 – Acceleration Time 2 (114H)**
- 021 – Deceleration Time 2 (115H)**
- 022 – S-curve Selection (116H)**
- 023 – Display Mode (117H)**
- 024 – Frequency Reference 1 (118H)**
- 025 – Frequency Reference 2 (119H)**
- 026 – Frequency Reference 3 (11AH)**
- 027 – Frequency Reference 4 (11BH)**
- 028 – Not Used (11CH)**
- 029 – Not Used (11DH)**
- 030 – Jog Frequency (11EH)**
- 031 – Frequency Upper Limit (11FH)**
- 032 – Frequency Lower Limit (120H)**
- 033 – Motor Rated Current (121H)**
- 034 – Motor Thermal Protection (122H)**
- 035 – Stop Method Selection for OH1 (123H)**
- 036 – Multi-function Input Selection 1 (124H)**
- 037 – Multi-function Input Selection 2 (125H)**
- 038 – Multi-function Input Selection 3 (126H)**
- 039 – Multi-function Input Selection 4 (127H)**
- 040 – Multi-function Input Selection 5 (128H)**
- 041 – Multi-function Output Selection 1 (129H)**
- 042 – Multi-Function Output Selection 2 (12AH)**
- 043 – Multi-analog Input Selection (12BH)**
- 044 – FI terminal input selection (12CH)**
- 045 – Frequency Reference Retention (12DH)**
- 046 – Operation Method for Frequency Loss Detection (12EH)**
- 047 – Frequency Reference Level at Loss of Frequency (12FH)**
- 048 – Terminal FV Gain (130H)**
- 049 – Terminal FV Bias (131H)**
- 050 – Terminal FI Gain (132H)**
- 051 – Terminal FI Bias (133H)**
- 052 – Multi-function analog Output – AM (134H)**
- 053 – Analog Monitor Gain (135H)**
- 054 – Carrier Frequency (136H)**
- 055 – Momentary Power Loss Ride through (137H)**
- 056 – Speed Search Level (138H)**
- 057 – Min. Baseblock Time (139H)**
- 058 – V/F Reduction Level during Speed Search (13AH)**
- 059 – Power Loss Ride-through Time (13BH)**
- 060 – Automatic Retry Attempts (13CH)**
- 061 – Fault Contacts Selection during (13DH)**
- 062 – Jump Frequency 1 (13EH)**
- 063 – Jump Frequency 2 (13FH)**
- 064 – Jump Frequency Bandwidth (140H)**
- 065 – Elapsed Time Selection (141H)**
- 066 – Elapsed Timer 1 (142H)**
- 067 – Elapsed Timer 2 (143H)**
- 068 – DC Injection Current (144H)**
- 069 – DC Injection Time at stop (145H)**

- 070** – DC Injection Time at start (**146H**)
- 071** – Torque Compensation Gain (**147H**)
- 072** – Stall Prevention during decel (**148H**)
- 073** – Stall Prevention Level during Accel (**149H**)
- 074** – Stall Prevention Level during running (**14AH**)
- 075** – Frequency Agree Set Point (**14BH**)
- 076** – Frequency Agree Detection Width (**14CH**)
- 077** – Over/under Torque Detection Selection (**14DH**)
- 078** – Over/under Torque Detection Level (**14EH**)
- 079** – Over/under Torque Detection Delay Time (**14FH**)
- 080** – On-delay Timer (**150H**)
- 081** – Off-delay Timer (**151H**)
- 082** – dB Resistor Overheat Protection (**152H**)
- 083** – Input Phase Loss Detection Level (**153H**)
- 084** – PID Selection (**154H**)
- 085** – Feedback Calibration Gain – PID (**155H**)
- 086** – Proportional gain – PID (**156H**)
- 087** – Integral Time – PID (**157H**)
- 088** – Derivative Time – PID (**158H**)
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- 090** – Feedback Loss Detection Selection – PID (**15AH**)
- 091** – Feedback Loss Detection Level – PID (**15BH**)
- 092** – Feedback Loss Detection Delay Time – PID (**15CH**)
- 093** – PID output selection (**15DH**)
- 094** – Sleep Function Start Level – PID (**15EH**)
- 095** – Sleep Function Delay Time – PID (**15FH**)
- 096** – Energy Saving Selection (**160H**)
- 097** – Energy-savings Gain (**161H**)
- 098** – Energy-savings Gain (**162H**)
- 099** – Energy-saving Voltage Lower limit at 6HZ (**163H**)
- 100** – Time of Average kW (**164H**)
- 101** – Modbus Time over Detection (**165H**)
- 102** – Modbus stopping Method at Communication (**166H**)
- 103** – Modbus Frequency Reference Unit (**167H**)
- 104** – Modbus Slave Address (**168H**)
- 105** – Modbus BPS Selection (**169H**)
- 106** – Modbus Parity Selection (**16AH**)
- 107** – Slip compensation Gain (**16BH**)
- 108** – Motor No-load current (**16CH**)
- 109** – Slip Compensation (**16DH**)
- 110** – Operator Connection Fault Detection Selection (**16EH**)
- 111** – Local / Remote Changeover Function Selection (**16FH**)
- 112** – Low Frequency OL Start Point (**170H**)
- 113** – 0HZ Continuous Operation Level (**171H**)
- 114** – Not Used (**172H**)
- 115** – KVA Selection (**173H**)
- 116** – CT/VT Selection (**174H**)