

When discrete inputs and coils are mapped into registers, the most significant bit is always at the lowest discrete input/coil address (big endian).

Function Codes:	2	4	1, 5, 15	3, 6, 16, 23, 22	43	7	8, 11, 12, 17			
Description	Discrete Input (R)	Input Register (R)	Coil (R/W)	Holding Register (R/W)	ID (R)	Exception Status (R)	Diagnostics	Values	Notes	Factory Default
Current Limit State	0							0 = Inactive 1 = Active		
Auto/Manual State	1							0 or 1		
Actual speed		0						0 to 65535	rpm	
Ambient Temperature		3								
Alarm Flags									Bitfield of alarm flags.	
Accel/Decel Ramp In Progress	19	4						0 or 1		
Target Speed = 0	22							0 or 1		
S1 (Main) Pickup is Stalled	23								Actual speed is zero when target speed is nonzero.	
Inhibit Function is Activated	26							0 or 1		
Drive is at Maximum Output	28								Will activate at 100%, min-max scaled, target speed.	
"Run" Condition	29								0 or 1	
Inhibit			0					0 = Inhibit off. 1 = Inhibit on.		0
Power Up Target Speed Selection				0				0 = Zero, 1 = Prev. Value, 2 = Power Up Target		1
Enable access exceptions for unimplemented addresses			36					0 = Access exceptions will not be generated. 1 = Access exceptions will be generated.	This only applies to all coil, discrete input, input register and holding register function codes.	1
Enable PID			37					0 = PID disabled. 1 = PID enabled.		0
Target Speed				7				0 to 10000	To be saved to EEPROM after set period of time.	0
Power Up Target Speed				8				0 to 10000		0
Accel				9				0 to 9999		4999
Decel				10				0 to 9999		1
Sensor PPR				11				1 to 60		1
Device Address				13				1 to 247		1

Baud Rate Index				14				0: 110 1: 300 2: 600 3: 1200 4: 2400 5: 4800 6: 9600 7: 14400 8: 19200 9: 38400 10: 57600 11: 115200 12: 230400		8
Parity				15				0: No parity 1: Odd parity 2: Even parity		2
Proportional Gain				27						32
Integral Gain				28						13
Derivative Gain				29						16
Inhibit at start-up				74				0 = Off 1 = Prev. Value 2 = On		1
Speed Max				75						2400
Speed Min				76						0
Device Identification										
Vendor Name*					0			Dart Controls		N / A
Product Code*					1					150 Series
Major Minor Revision*					2			HW [Version]/SW [Version]	Example: HW A/SW 0.7RC	N/A
Vendor url					3			www.dartcontrols.com		N/A
Product Name					4					153D-M51
Exception Status Bits							Bit Pos.			
Current Limit							0			
Diagnostics										
Return Query Data (echo)							0	N/A	Loopback	
Restart Communications Option							1	0 or 255	Restart UART. Deactivate listen only.	
Return Diagnostic Register							2	0 to 65535		
Force Listen Only Mode							4	N/A	No replies will sent. Ignores commands.	

Clear Counters and Diagnostic Register							10	N/A		
Return Bus Message Count							11	0 to 65535		
Return Bus Communication Error Count							12	0 to 65535		
Return Bus Exception Error Count							13	0 to 65535		
Return Server Message Count							14	0 to 65535		
Return Server No Response Count							15	0 to 65535		
Return Server NAK Count							16	0 to 65535		
Return Server Busy Count							17	0 to 65535		
Return Bus Character Overrun Count							18	0 to 65535		
Clear Overrun Counter and Flag							20	N/A		