

EC30 EtherCAT Objects

PDOs

Index/ Sub-Index	Name	PDO/ SDO	R/W	Type	Default Value	Description
0x6000	DIGITAL_INPUTS		R			
0	Reserved		R	USINT	N/A	
1	PhotoEyes, Faults	PDO	R	UINT	N/A	Bit 0 – PhotoEye 1 Bit 1 – PhotoEye 2 Bit 2 – Motor 1 Fault Bit 3 – Motor 2 Fault Bit 4 – ZPA Upstream Package Ready Bit 5 – ZPA Downstream Ready
0x6002	ANALOG_INPUTS		R			
0	Reserved		R	USINT	N/A	
1	Motor 1 Current MilliAmp	PDO	R	UINT	N/A	Current flowing through Motor 1 in Milliamps
2	Motor 2 Current MilliAmp	PDO	R	UINT	N/A	Current flowing through Motor 2 in Milliamps
3	Input Power Volts MilliVolt	PDO	R	UINT	N/A	Voltage at the motor power input in Millivolts
4	Motor 1 Peak Current MilliAmp	PDO	R	UINT	N/A	Max Current detected on Motor 1 since startup
5	Motor 2 Peak Current MilliAmp	PDO	R	UINT	N/A	Max Current detected on Motor 2 since startup
0x7000	DIGITAL_OUTPUTS		W			
0	Reserved		W	USINT	N/A	
1	Enables, Direction	PDO	W	UINT	0	Bit 0 – Motor 1 Enable Bit 1 – Motor 2 Enable Bit 2 – Motor 1 Direction Bit 3 – Motor 2 Direction Bit 4 – ZPA Ready Output to Upstream Bit 5 – ZPA Package Available Output to Downstream (Zone 2 Photo Eye State)
0x7002	ANALOG_OUTPUTS		W			
0	Reserved		R	USINT	N/A	
1	Speed Command 1	PDO	W	UINT	0	Speed for Motor 1. Range of 0-100 for 0-10Volts on the wire.
2	Speed Command 2	PDO	W	UINT	0	Speed for Motor 2. Range of 0-100 for 0-10Volts on the wire.

SDOs

Index/ Sub-Index	Name	PDO/ SDO	R/W	Type	Default Value	Description
0xB000	MOTOR_CURRENT_CALIBRATION		RW			Note: These are configuration values and should only be written through SDO.
0	Reserved		R	USINT	N/A	
1	M1 Current Offset	SDO	RW	INT	2048 Cnts	Offset value for Motor 1 Current reading. Scaled by M1 MicroAmps Per Count value. Value Range: 0-4096
2	M2 Current offset	SDO	RW	INT	2048 Cnts	Offset value for Motor 2 Current reading. Scaled by M2 MicroAmps Per Count value. Value Range: 0-4096
3	M1 MicroAmps Per Count	SDO	RW	UINT	7800 mA/Cnt	Sets the scale of the values read by the Current sensor. 7.8 mA per count by default.
4	M2 MicroAmps Per Count	SDO	RW	UINT	7800 mA/Cnt	Sets the scale of the values read by the Current sensor. 7.8 mA per count by default.
5	Reset Current Peak	SDO	W	UINT	N/A	When written to, will reset the Peak Current values in objects 0x6002 4/5
6	Force Recalibrate Offset	SDO	W	UINT	N/A	If written to with a value of 1234, after a power cycle will auto-detect current offsets for objects 0x8000 1/2. Note that you must disconnect motors before performing this auto-detection.
7	Motor Acceleration (milliseconds for 0 to Max RPM)	SDO	RW	UINT	150ms	The acceleration value for both motors. It is set in terms of the number of milliseconds it takes to go from stopped to max RPM.
8	Motor Deceleration (milliseconds for Max to 0 RPM)	SDO	RW	UINT	150ms	The deceleration value for both motors. It is set in terms of the number of milliseconds it takes to go from max RPM to stopped.
9	Firmware Version	SDO	R	UINT	N/A	The firmware version that is currently loaded on the EC30.
10	Board Version	SDO	R	UINT	N/A	The hardware version of the EC30.