



1000/2000 Series

INDEXBLOK® MODULE

120-460 VAC

1-5 Hp/1000 Series

7.5-20 Hp/2000 Series

Features

- Features SensorlessServo™ sinusoidal current and positioning control for use with brushless permanent magnet motors.
- Uses patented technology to calculate exact rotor position from motor current and voltage measurements.
- PC based IndexWare® software sets up inputs, outputs, and motion parameters like distance, velocity, acceleration and deceleration.
- End of Travel Limits
- 16 preset moves selectable through digital inputs
- Controllable via RS485 communications for an infinite combination of moves.
- Ideal for smart conveyors, gate controls, rotary or linear indexing tables, with dynamic moves and position requirements.
- Position may be monitored during operation.
- Position hold is maintained with DC current like a stepper motor. Full motor torque is available during all dynamic moves and positioning.
- Full PID position and velocity servo loops are implemented with performance similar to a full-sensored servo.
- Eight Digital Inputs: Start, Stop, Enable, Fwd and Rev EOT, External Fault, and Preset Functions bits 0-3 (includes Relative and Absolute Moves, Home, Jog, Registration Moves)
- Two Open Collector Outputs: Move Complete, Moving/Not Moving, Drive Running, Fault, Reverse, Current Limit, Set High, Set Low, Auto-Tuning, Dwell, Profiling, Homed, Registered, Homing, Registering
- Two High Speed Digital Inputs: Home and Registration Triggers
- One Analog Input (0-10 Volts): Move Scaling
- Two Analog Outputs: Current, Speed, DC Link Voltage, High Resolution Position (0-10V, 0-1 Elec Cycles), Speed Command

- Two Relay Outputs: Faultcode, Drive Running
- Provision for directly connecting an external braking resistor.

Specifications

Resolution:

- 16 bits or 65,536 counts per electrical cycle
 - 2 pole motor: 65,536 counts per mechanical revolution
 - 4 pole motor: 131, 072 counts per mechanical revolution
 - 6 pole motor 196,608 counts per mechanical revolution
 - 8 pole motor 262,144 counts per mechanical revolution

Repeatability:

- Typically 2.7 arc-min*

Absolute Accuracy:

- +/- 1 Degree*

Absolute Positioning Range:

- 0 to 65,536 electrical cycles

Relative Positioning Range:

- 0 to infinite

Min. Speed:

- 3 to 5 % of Base or No Load Speed

Servo Update Rate:

- 442 µs

Positioning Bandwidth:

- Selectable. Typically 20 Hz with a 3 inch diameter motor.

* Actual results based on motor type, construction and application.

IndexBlok® Technical Specifications

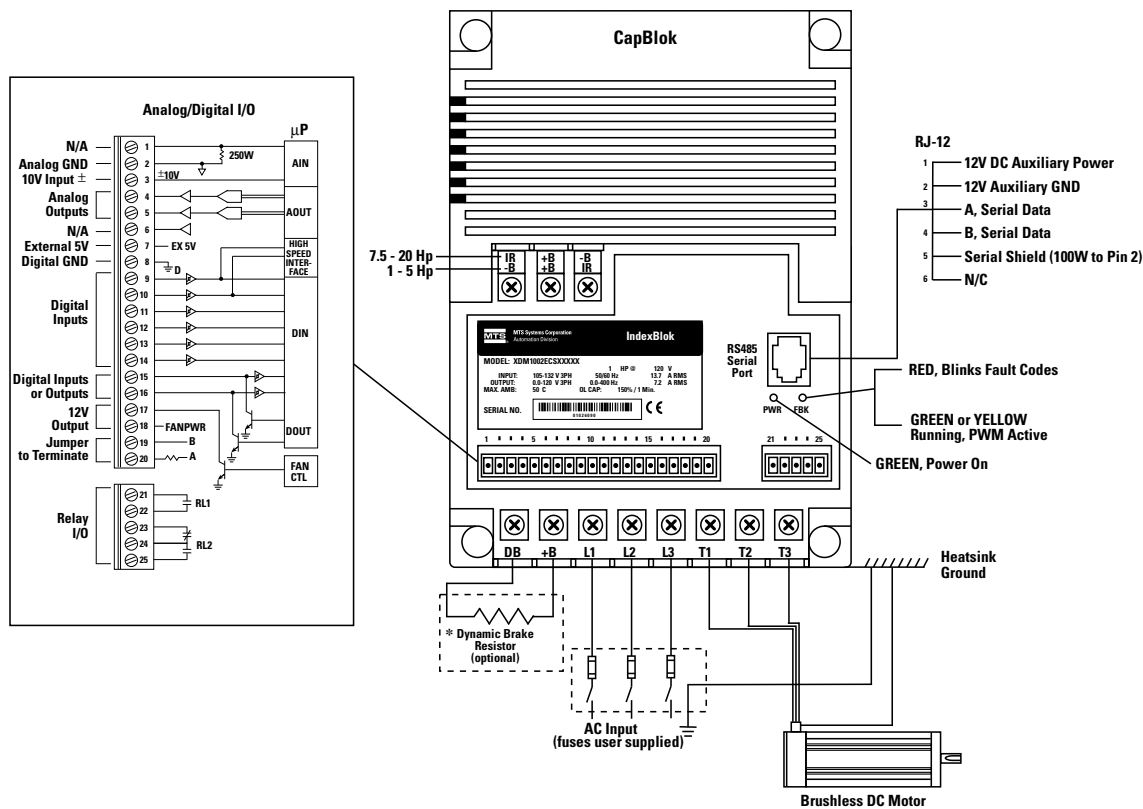
1000 Series

IndexBlok Module Type Number	1001C	1002C	1003C	1001D	1002D	1003D	1005D	1001E	1002E	1003E	1005E	
XDM, Brushless PM Motor												
AC Line Input Voltage	120V±10%			200/240V±10%				380/480V±10%				
Cont. Output Cur.(RMS)	Arms	4.0	7.2	10.4	3.6	6.8	9.6	15.2	1.8	3.4	4.8	7.6
Peak Output Cur.(RMS)	Arms	8.0	14.4	20.8	6.8	13.6	19.2	30.4	3.6	6.8	9.6	15.2

2000 Series

IndexBlok Module Type Number	2007D	2010D	2007E	2010E	2015E	2020E	
XDM, Brushless PM Motor							
AC Line Input Voltage	200/240V±10%			380/480V±10%			
Cont. Output Cur.(RMS)	Arms	22	28	11	14	21	27
Peak Output Cur.(RMS)	Arms	44	56	22	28	31.5	35

Connection Diagram



* Consult Dynamic Brake Resistor Data Sheet for standard available sizes.