

Model MA63S Multiturn Absolute

Model MA63S Specifications

Electrical

Input Voltage 10 to 30 VDC max SSI or CAN
 5 VDC SSI Only
 Input Current 50 mA max with no external load
 Power Consumption 0.5 W max
 Resolution (Single) ... 12 bit (CAN)
 8 to 14 bit (SSI)
 Resolution (Multi) ... Up to 40 bit multiturn (CANopen or SSI)
 Accuracy Less than 0.15° (CANopen)
 Less than 0.35° (SSI)

CANopen Interface

Protocol CANopen:
 - Communication profile CiA 301
 - Device profile for encoder CiA 406
 V3.2 class C2
 Node Number 0 to 127 (default 127)
 Baud Rate 10 Kbaud to 1 Mbaud with automatic bit rate detection

The standard settings as well as any customization in the software can be changed via LSS (CiA 305) and the SDO protocol, e.g. PDOs, scaling, heartbeat, node-ID, baud rate, etc

Programmable CAN Transmission Modes

Synchronous When a synchronization telegram (SYNC) is received from another bus node, PDOs are transmitted independently
 Asynchronous A PDO message is triggered by an internal event (e.g. change of measured value, internal timer, etc.)

SSI Interface

Clock Input via opto coupler
 Clock Frequency ... 100KHz to 500KHz
 Data Output RS485 / RS422 compatible
 Output Code Gray or binary
 SSI Output Angular position value
 Parity Bit Optional (even/odd)
 Error Bit Optional
 Turn On Time <1.5 sec
 Pos. Counting Dir.. Connect DIR to GND for CW
 Connect DIR to VDC for CCW
 (when viewed from shaft end)
 Set to Zero Apply VDC for 2 sec

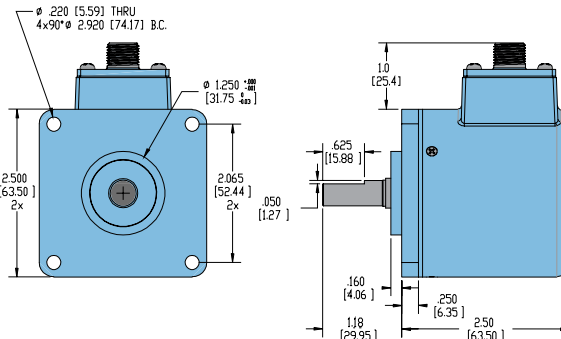
Mechanical

Max Shaft Speed .. 8,000 RPM
 Shaft Size 10 mm, 0.375"
 Shaft Material 303 Stainless Steel
 Radial Shaft Load .80 lb maximum
 Axial Shaft Load ... 80 lb maximum
 Starting Torque 1.0 oz-in typical with no seal
 3.0 oz-in typical with seal
 Housing Black non-corrosive finish
 Mounting Flange or Servo type
 Weight 20 oz typical

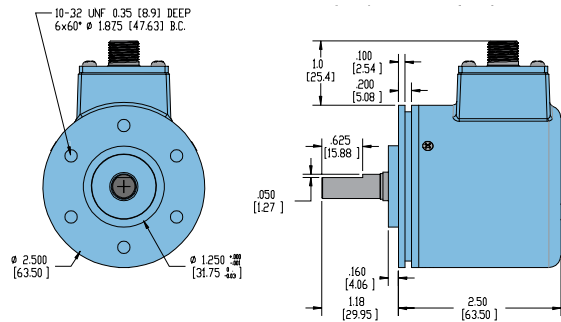
Environmental

Operating Temp 0° to +80° C standard
 -40° to +80° C extended temperature option
 Storage Temp -25° to +100° C
 Humidity 95% RH non-condensing
 Vibration 5 g @ 10 to 2000 Hz
 Shock 100 g @ 6 ms duration
 Sealing IP50, IP66, IP67

Model MA63S Flange Mount (MA)



Model MA63S 2.5" Servo Mount (MB)



All dimensions are in inches with a tolerance of $\pm 0.005"$ or $\pm 0.01"$ unless otherwise specified. Metric dimensions are given in brackets [metric].

Wiring Table

CANopen Encoders

Function	Pin
+VDC	2
Ground (GND)	3
CAN _{High}	4
CAN _{Low}	5
CAN _{GND} / shield	1

5-pin M12

SSI Encoders

Function	Pin
Ground (GND)	1
+VDC	2
SSI CLK+	3
SSI CLK-	4
SSI DATA+	5
SSI DATA-	6
PRESET	7
DIR	8
Shield	housing

8-pin M12