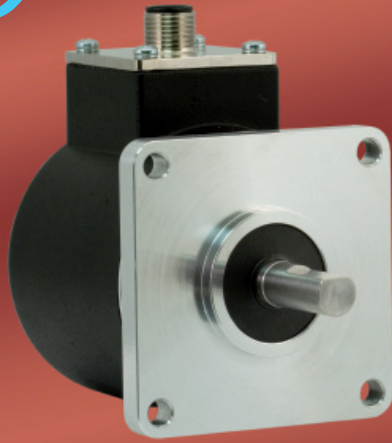


Model MA63S - Solid Shaft 63mm MultiTurn Absolute



Ø63.50

Features

- Standard Size 25 Package 63.50mm Diameter
- Durable Magnetic Technology
- Servo and Flange Mounting
- Multiturn Absolute Encoder (14 Bit/40 Bit)
- SSI and CANopen Communications
- Proven New Turns Counting Technology - No Gears or Batteries

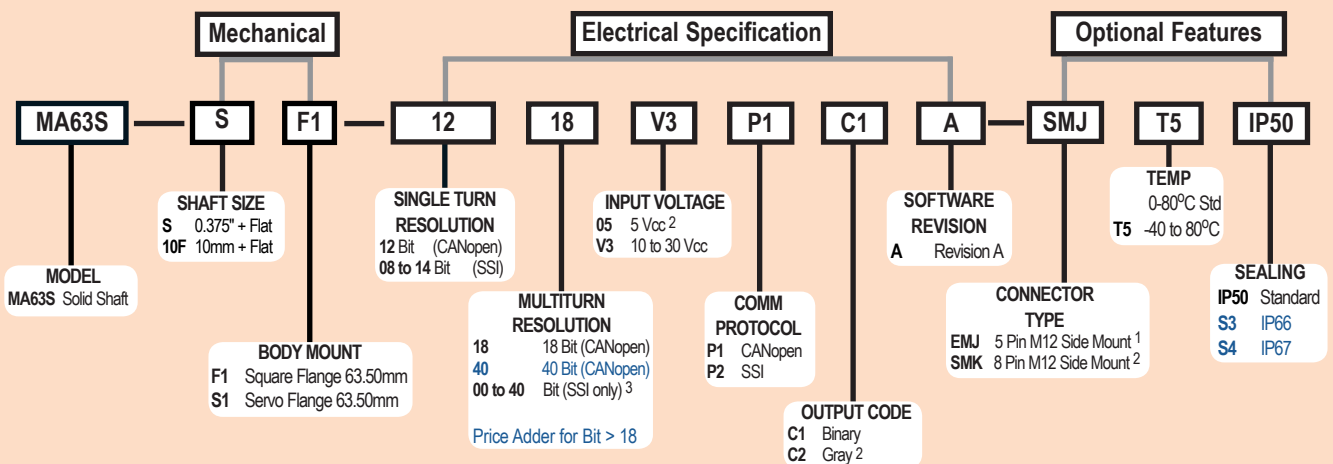
The Model MA63S Multiturn Absolute is ideal for a wide variety of industrial applications that require an encoder with the capability of absolute positioning output, even in power-off scenarios. Its fully digital output and innovative use of battery-free multiturn technology make the Model MA63S exceptionally reliable. The MA63's robust and durable magnetic technology and available IP67 seal readily handle the harshest industrial environments, including those with elevated electrical noise. Available with several shaft sizes and mount styles, the Model MA63S is easily designed into OEM and aftermarket applications.

Common Applications

Robotics, Telescopes, Antennas, Medical Scanners, Windmills, Elevators, Lifts, Motors, Automatic Guided Vehicles, Rotary and X/Y Positioning Tables

Model MA63S Ordering Guide

Blue type indicates price adder options. Not all configuration combinations may be available. Contact Customer Service for details.



For specification assistance call
Customer Service at
+44 (0)1978 262100

NOTES:

- 1 ONLY available with CANopen.
- 2 ONLY available with SSI.
- 2 For Single-Turn resolution, enter '00' (SSI only).

Model MA63S - Solid Shaft 63mm MultiTurn Absolute



Model MA63S Specifications

Electrical

Input Voltage 10 to 30 Vcc max SSI or CAN
5 Vcc 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 +/- 0.35°
Repeatability +/- 0.2°

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 VCC for CCW
(when viewed from shaft end)
Set to Zero Apply Vcc for 2 sec

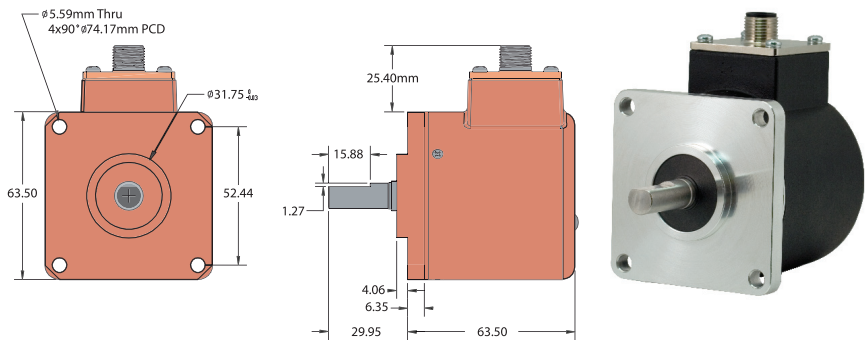
Mechanical

Max Shaft Speed .. 8,000 RPM
Shaft Size 10 mm, 0.375"
Shaft Material 303 Stainless Steel
Radial Shaft Load .. 36 Kg maximum
Axial Shaft Load ... 36 Kg maximum
Starting Torque 0.007061 Nm typical with no seal
0.021183 Nm typical with seal
Housing Black non-corrosive finish
Mounting Flange or Servo type
Weight 570 grams typical

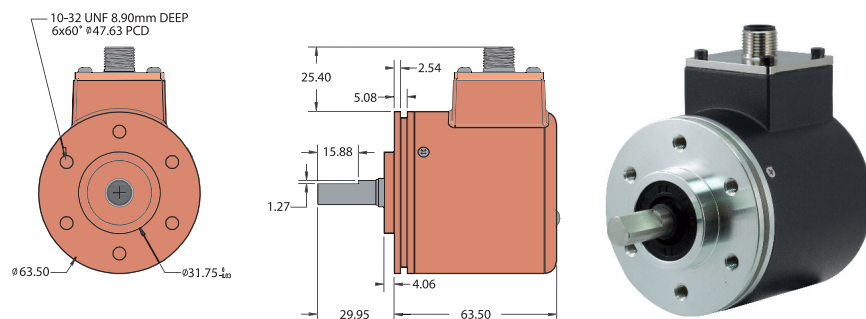
Environmental

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 (F1)



Model MA63S Servo Mount (S1)



All dimensions are in mm with a tolerance of ± 0.127 or ± 0.254 unless otherwise specified.

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