

MODEL 225A/Q - INCREMENTAL ENCODER



FEATURES

Single Channel & Quadrature Models
Easy to Mount Economical Thru-Bore Design
Metal Construction
Bore Sizes to 0.875" or 22 mm

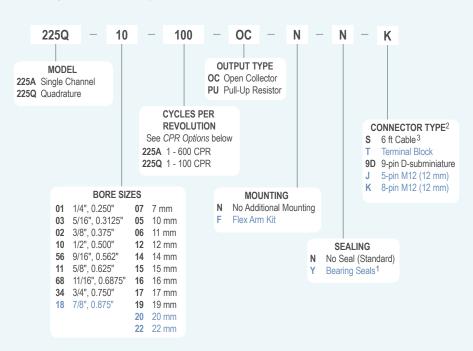
Controlling motor speed is essential for many production assembly machines or robotic equipment. For tachometer feedback, or motor speed control applications, the Model 225 Accu-Coder™ is the ideal encoder choice. The Model 225 Accu-Coder™ is a thru-bore encoder available in both single channel (225A) and quadrature (225Q) models that provides a cost-effective solution for simple measurement. Features including an all metal housing, a variety of connector options, and easy installation due to the thru-bore design, make the Model 225 Accu-Coder™ ideal for many motion control and manufacturing applications.

COMMON APPLICATIONS

Brushless Servo Motor Commutation, Robotics, Motor-Mounted Feedback, Assembly Machines, Digital Plotters, High Power Motors

MODEL 225A/Q ORDERING GUIDE

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



MODEL 225A/Q CPR OPTIONS

225A

1-600 CPR, all resolutions

225Q							
001	002	003	004	005	006	010	011
015	016	020	022	025	030	032	040
048	050	060	062	080	083	090	099
100							

Contact Customer Service for other disk resolutions.

NOTES:

- 1 Shaft speed limited to 400 RPM.
- 2 For mating connectors, cables, and cordsets see <u>Accessories</u> at encoder.com. For Connector Pin Configuration Diagrams, see Technical Information or see <u>Connector Pin Configuration Diagrams</u> at encoder.com.
- 3 For Non-Standard Cable Lengths add a forward slash (/) plus cable length expressed in feet. Example: S/12 = 12 feet of cable.



MODEL 225A SPECIFICATIONS SINGLE CHANNEL

Electrical

Input Voltage.....4.75 to 24 VDC

Input Current 32 mA max with Pull-Up option Input Ripple......100 mV peak-to-peak at 0 to 100 kHz

Output Format Square wave 50% duty cycle

Output Types..... Open Collector - 100 mA max Pull-Up - Open Collector with 1.5K ohm

internal resistor, 20 mA max per channel

Max Frequency 0 to 6 kHz

Rise Time.....Less than 1 microsecond

Cycles per Rev.....1 to 600

Mechanical

Max. Shaft Speed 4000 RPM

Bore Tolerance Bore H7 fit for g6 shaft Class LC5

per ANSI B-4.I Standard

Running Torque...... 10 oz-in typical Housing Black non-corrosive finish

Bearings......Precision ABEC ball bearings

Weight.....8 oz typical

Environmental

Storage Temp-25° to 85° C

Humidity......95% RH non-condensing Vibration......3 g @ 5 to 1000 Hz Shock......20 g @ 10 ms duration

MODEL 225Q SPECIFICATIONS QUADRATURE

Electrical

Input Voltage.....4.75 to 24 VDC

Input Current 64 mA max with Pull-Up option Input Ripple......100 mV peak-to-peak at 0 to 100 kHz

Output Format Square wave 50% duty cycle in quadrature Output Types......Open Collector – 100 mA max per channel

Pull-Up – Open Collector with 1.5K ohm

resistor, 20 mA max per channel

Max Frequency 0 to 6 kHz

Electrical Protection .. Reverse voltage and output short circuit protected. NOTE: Sustained reverse

voltage may result in permanent

damage.

Rise Time.....Less than 1 microsecond

Cycles Per Rev......1 to 100

Mechanical

Max. Shaft Speed 4000 RPM

Bore Tolerance Bore H7 fit for g6 shaft Class LC5 per

ANSI B-4.I Standard

Running Torque...... 10 oz-in typical

Housing Black non-corrosive finish Bearings......Precision ABEC ball bearings

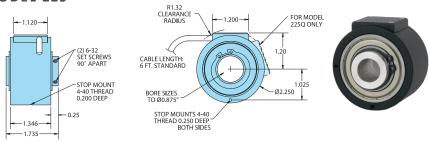
Weight.....10 oz typical

Environmental

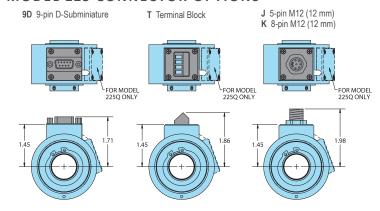
Storage Temp-25° to 85° C

Humidity......95% RH non-condensing Vibration...... 3 g @ 5 to 1000 Hz Shock......20 g @ 10 ms duration

MODEL 225

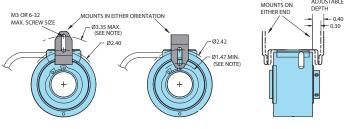


MODEL 225 CONNECTOR OPTIONS



MODEL 225 MOUNTING OPTION (F) FLEX ARM KIT

To order Model 225 Flexible Mounting Arm Kit as an accessory, order part #140106-01. Kit may be mounted in either an up or down orientation.





All dimensions are in inches with a tolerance of ±0.005" or ±0.01" unless otherwise specified.

WIRING TABLE

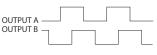
For EPC-supplied mating cables, refer to wiring table provided with cable. Trim back and insulate unused wires.

Function	Flying Leads Cable [†] Wire Color	5-pin M12	8-pin M12	Term Block	9-pin D-Sub
Com	Black	3	7	1	9
+VDC	Red	1	2	2	1
Α	White	4	1	3	2
В	Green	2	4	4	4
Shield	Bare				

†Standard cable is 24 AWG conductors with foil and braid shield.

WAVEFORM DIAGRAM MODELS 225A/Q

AD JUSTABI F



NOTE: MODEL 225A INCLUDES OUTPUT A ONLY