



# Model 225

Incremental Thru-Bore & Motor Mount Encoders

## 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- 20 mA max (1.5K)  
 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 Size.....0.250" to 0.875"  
 7 mm to 22 mm (See Ordering Guide)

Bore Tolerance.....Bore H7 fit for g6 shaft Class LC5 per ANSI B-4.1 Standard

Running Torque.....10 oz-in typical  
 Housing.....Black non-corrosive finish  
 Bearings.....Precision ABEC ball bearings  
 Electrical Conn.....6 feet cable with strain relief (shielded, 24 AWG conductors), 9-pin D-subminiature, 5- or 8-pin M12 (12 mm), Terminal Block  
 Weight.....8 oz typical

### Environmental

Operating Temp.....0° to +70° C  
 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- 20 mA max per channel (1.5K)  
 Max Frequency.....0 to 6 kHz  
 Rise Time.....Less than 1 microsecond  
 Cycles Per Rev.....1 to 100

### Mechanical

Max. Shaft Speed.....4000 RPM  
 Bore Size.....0.250" through 0.875"  
 7 mm through 22 mm (see Ordering Guide)

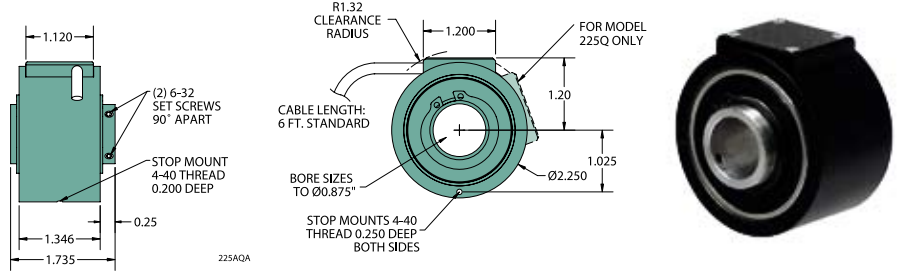
Bore Tolerance.....Bore H7 fit for g6 shaft Class LC5 per ANSI B-4.1 Standard

Running Torque.....10 oz-in typical  
 Housing.....Black non-corrosive finish  
 Bearings.....Precision ABEC ball bearings  
 Electrical Conn.....6 feet cable with strain relief (shielded, 24 AWG conductors), 9-pin D-subminiature, 5- or 8-pin M12 (12 mm), Terminal Block  
 Weight.....10 oz typical

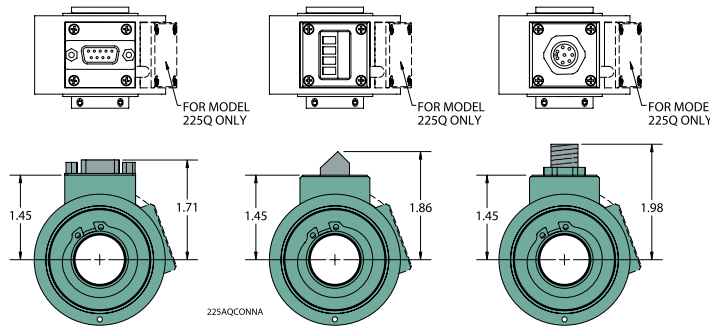
### Environmental

Operating Temp.....0° to +70° C  
 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

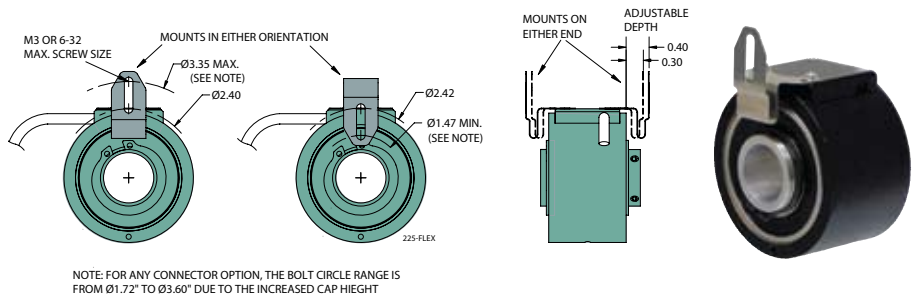


## Model 225 Connector Options



## 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.



NOTE: FOR ANY CONNECTOR OPTION, THE BOLT CIRCLE RANGE IS FROM Ø1.72" TO Ø3.60" DUE TO THE INCREASED CAP HEIGHT

All dimensions are in inches with a tolerance of  $\pm 0.005"$  or  $\pm 0.01"$  unless otherwise specified

### Wiring Table

Function	Gland Cable Wire Color	5-pin M12	8-pin M12	Term. Block	D-sub 9-pin
Com	Black	3	7	1	9
+VDC	Red	1	2	2	1
A	White	4	1	3	2
B	Green	2	4	4	4
Shield	Bare	---	---	---	---

### Waveform Diagram Models 225A/Q

