

# Model 715



## Features

- The Original Industry-Standard Cube
- Five Versatile Housing Styles
- Thousands of Configurations
- Many New Resolutions Available!

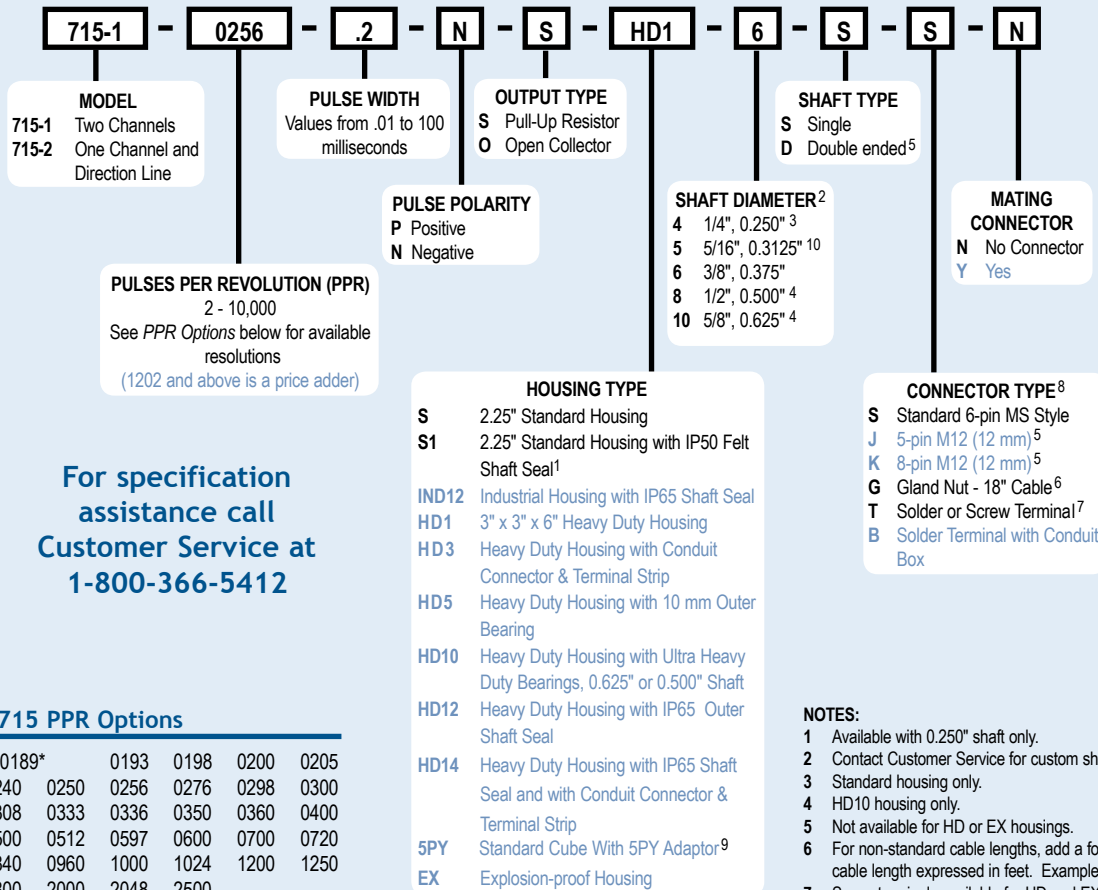
The Model 715 Accu-Coder™ is ideally suited for applications requiring bi-directional feedback with a constant pulse width. The Model 715 is available in two versions. The Model 715-1 provides output pulses for clockwise shaft rotation on one channel and pulses for counterclockwise rotation on another. The Model 715-2 provides output pulses for counting on one channel while the other channel indicates direction of rotation. Increasing critical performance specifications for the most popular resolutions and features advanced Opto-ASIC circuitry, a single chip design that eliminates many board level components. This increases the reliability of an already dependable and durable encoder. With new options continually being added, we just keep getting better, and better!

## Common Applications

Measuring for Cut-To-Length, Labeling & Filling, Position Control, Motion Following, or Slaving Applications

## Model 715 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 1-800-366-5412

### Model 715 PPR Options

0001 thru 0189*	0193	0198	0200	0205
0210	0240	0250	0256	0276
0298	0300	0305	0308	0333
0336	0350	0360	0400	
0480	0500	0512	0597	0600
0700	0720	0800	0840	0960
1000	1024	1200	1250	
1270	1800	2000	2048	2500

1x, 2x, and 4x, of all of the above resolutions are available

\*Contact Customer Service For Availability

Contact Customer Service for other disk resolutions; not all disk resolutions available with all output types

### NOTES:

- 1 Available with 0.250" shaft only.
- 2 Contact Customer Service for custom shaft lengths and diameters.
- 3 Standard housing only.
- 4 HD10 housing only.
- 5 Not available for HD or EX housings.
- 6 For non-standard cable lengths, add a forward slash (/) plus cable length expressed in feet. Example: G/6 = 6 feet of cable.
- 7 Screw terminals available for HD and EX housings. Solder terminals available for S and S1 housings.
- 8 For Mating Connectors, Cables, and Cordsets see Electrical Accessories at [www.encoder.com](http://www.encoder.com).
- 9 Only available with 5/16" (0.3125") shaft.
- 10 Standard or 5PY housing only.

# Model 715

## Model 715 Specifications Common to All Cube Housing Styles

### Electrical

Input Voltage.....4.75 to 28 VDC max for temperatures up to 85° C 4.75 to 24 VDC for temperatures between 85° to 100°C  
 Input Current.....80 mA maximum with no output load  
 Input Ripple .....100 mV peak-to-peak at 0 to 100 kHz  
 Output Format .....Incremental- Square wave with timed output  
 Output Types .....Open Collector- 250 mA max per channel  
 Pull-Up- 250 mA max per channel  
 Max Frequency.....0 to 125 kHz  
 Rise Time.....Less than 1 microsecond  
 Accuracy.....Within 0.05° mechanical from one cycle to any other cycle, or 3 arc minutes

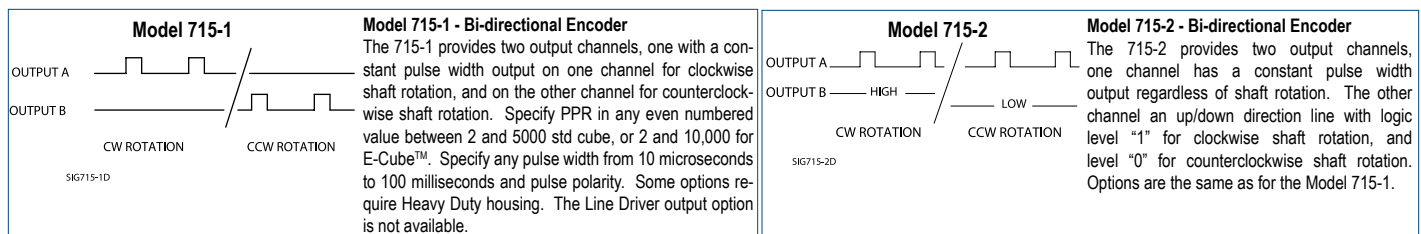
### Mechanical

Max Speed.....6000 RPM. Higher shaft speeds achievable, contact Customer Service.  
 Shaft Material.....303 stainless steel  
 Housing.....Black non-corrosive finished 6063-T6 aluminum  
 Bearings .....Precision ABEC Ball Bearings  
 Electrical Conn.....5- or 8-pin M12 (12 mm), gland nut with 18" cable (foil and braid shield, 24 AWG conductors), Solder or Screw Terminal, with or without Conduit Box.

### Environmental

Operating Temp.....0° to 85° C or 0° to 100° C at 5 to 24 VDC  
 Storage Temp.....-25° to +85° C  
 Humidity.....98% RH non-condensing  
 Vibration.....10 g @ 58 to 500 Hz  
 Shock.....50 g @ 11 ms duration

## Waveform Diagrams



## Wiring Table

Function	Gland Cable Wire Color	5-pin M12	8-pin M12	6-pin MS	Term. Block
Com	Black	3	7	A, F	1, 6
+VDC	Red	1	2	B	2
A	White	4	1	D	4
B	Blue	2	4	E	5
Shield	Bare	---	---	---	---

## Cube Pivot Bracket



- 176430-01  
Single Pivot Mounting Bracket
- 176431-01  
Double Pivot Mounting Bracket
- 176430-02  
Spring Loaded Single Pivot Mounting Bracket
- 176431-02  
Spring Loaded Double Pivot Mounting Bracket



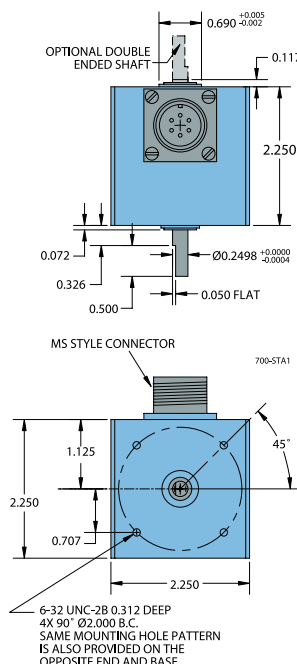
## Standard Cube Housing (S, S1)

### Standard Cube Housing (S, S1) Specifications

#### Mechanical

Shaft Size.....0.250" or 0.375"  
 Shaft Type .....Single or double-ended (specify choice)  
 Radial Loading .....15 lb maximum (0.250" diameter shaft)  
 40 lb maximum (0.375" diameter shaft)  
 Axial Loading.....10 lb maximum (0.250" diameter shaft)  
 30 lb maximum (0.375" diameter shaft)  
 Starting Torque .....0.13 oz-in typical for 0.250" shaft  
 0.38 oz-in typical for 0.375" shaft  
 Moment of Inertia .....6.5 x 10<sup>-6</sup> oz-in-sec<sup>2</sup>  
 Mounting.....Tapped mounting holes on three sides for base or face mounting  
 Weight.....10 oz for standard housing

### Cube Housing With 1/4" Shaft (4)



### Cube Housing With 3/8" Shaft (6)

