

Model 715



Features

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

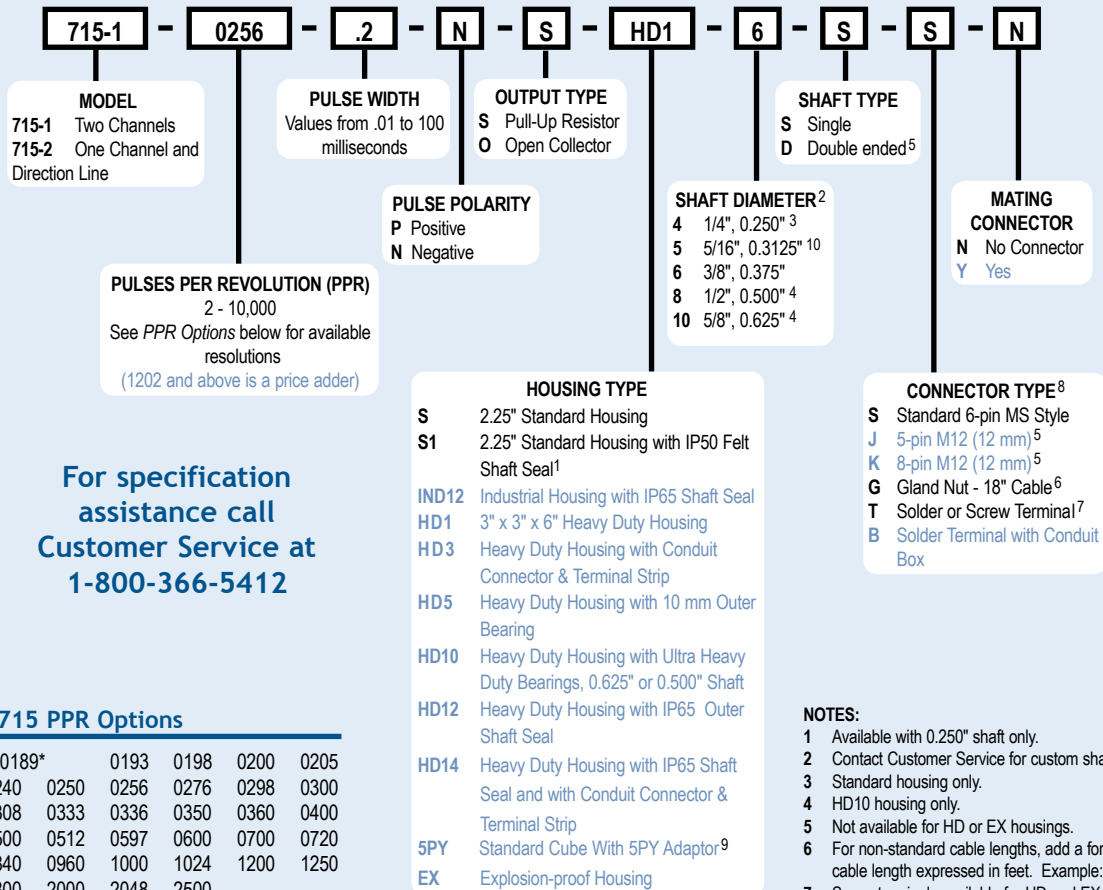
The Model 715 Accu-Coder™ is ideally suited for applications requiring bi-directional feedback with a constant pulse width. The Model 715 is available in two versions. The Model 715-1 provides output pulses for clockwise shaft rotation on one channel and pulses for counterclockwise rotation on another. 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.
- 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

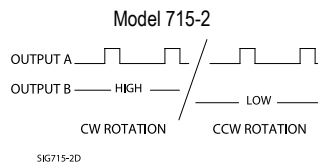
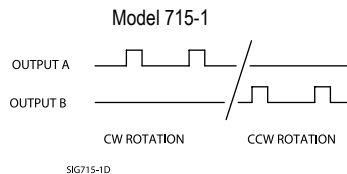
Mechanical

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



Model 715-1 - Bi-directional Encoder

The 715-1 provides two output channels, one with a constant pulse width output on one channel for clockwise shaft rotation, and on the other channel for counterclockwise shaft rotation. Specify PPR in any even numbered value between 2 and 5000 std cube, or 2 and 10,000 for E-Cube™. Specify any pulse width from 10 microseconds to 100 milliseconds and pulse polarity. Some options require Heavy Duty housing. The Line Driver output option is not available.

Model 715-2 - Bi-directional Encoder

The 715-2 provides two output channels, one channel has a constant pulse width output regardless of shaft rotation. The other channel an up/down direction line with logic level "1" for clockwise shaft rotation, and level "0" for counterclockwise shaft rotation. Options are the same as for the Model 715-1.

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	---	---	---	---

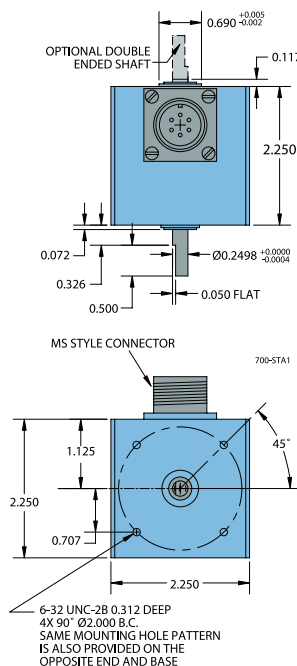
Standard Cube Housing (S, S1)

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 10⁻⁶ oz-in-sec²
 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)

