# Model 775





### **Features**

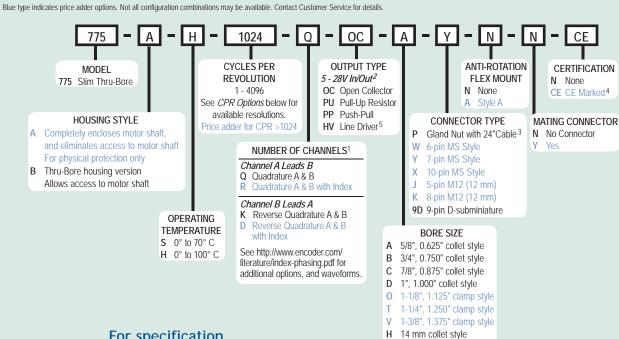
- Thru-Bore Design For Easy Mounting
- · Bore Options to 1.375"
- Incorporates Opto-ASIC Technology
- · Resolutions to 4096 CPR
- 100° C Operating Temperature Available
- CE Marking Available

The sleek design of the Model 775 Thru-Bore Series Accu-Coder™ makes form and function a successful reality. The slim profile and Thru-Bore design, makes installation easy by simply slipping the bore over motor shafts up to 1.375" in diameter. The advanced Opto-ASIC based electronics provide the superior noise immunity necessary in many industrial applications. With a variety of bore sizes, resolutions, and connector types, application possibilities are endless.

## Common Applications

Motor Feedback, Velocity & Position Control, Food Processing, Robotics, Material Handling

## Model 775 Ordering Guide



For specification assistance call **Customer Service at** 1-800-366-5412

### Model 775 CPR Options

| 0060 | 0100 | 0120 | 0240 | 0250 | 0256 |
|------|------|------|------|------|------|
| 0500 | 0512 | 0600 | 1000 | 1024 | 2048 |
| 2500 | 4096 |      |      |      |      |

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

#### NOTES:

19 mm collet style

25 mm clamp style 28 mm clamp style

K 24 mm collet style

Q 30 mm clamp style R 32 mm clamp style

- Contact Customer Service for index gating options.
- 5 to 24 VDC max for high temperature option.
- For non-standard cable lengths, add a forward slash (/) plus cable length expressed in feet. Example: P/6 = 6 feet of cable.
- Please refer to Technical Bulletin TB100: When to Choose The CE Option at www.encoder.com.
- Not available with 5-pin M12 or 6-pin MS connector. Available with 7-pin MS connector only without Index Z.

1-800-366-5412 • WWW.encoder.com • sales@encoder.com/ Rev. 12/16/13

# Model 775

# **Model 775 Specifications**

#### Electrical

Input Voltage......4.75 to 28 VDC max for temperatures up to  $70^{\circ}$  C

4.75 to 24 VDC for temperatures between

70° C to 100° C

shaft rotation, as viewed from the mounting face. See *Waveform Diagrams* below.

Open Collector- 100 mA max per channel

Output Types.........Open Collector- 100 mA max per chann Pull-Up- 100 mA max per channel Push-Pull- 20 mA max per channel Line Driver- 20 mA max per channel

(Meets RS 422 at 5 VDC supply)

Index.....Once per revolution.

0475 to 4096 CPR: Gated to output A 0001 to 0474 CPR: Ungated See *Waveform Diagrams* below.

Max Frequency......200 kHz

Noise Immunity...... Tested to BS EN61000-4-2; IEC801-3; BS

EN61000-4-4; DDENV 50141; DDENV 50204; BS EN55022 (with European compliance option); BS EN61000-6-2; BS

EN50081-2

Quadrature .................67.5° electrical or better is typical, 54° Edge Separation electrical minimum at temperatures > 99° C

Rise Time.....Less than 1 microsecond

#### Mechanical

Max Shaft Speed......6000 RPM. Higher shaft speeds may be achievable, contact Customer Service.

28 mm, 30 mm, 32 mm

Note: Bore sizes 1.125", 1.250", 1.375", 25 mm, 28 mm, 30 mm, 32 mm are clamp style. All others are collet style.

#### User Shaft Tolerances

Radial Runout......0.005"

Axial Endplay ....... $\pm$ 0.030" with appropriate flex mount Moment of Inertia .....3.3 X  $\pm$ 10-3 oz-in-sec<sup>2</sup> typical

Electrical Conn ........Gland nut with 24" cable (foil and braid

shield, 24 AWG conductors), 6-, 7-, or 10-pin MS Style, 5- or 8-pin M12 (12 mm),

9-pin D-subminiature

Housing.....All metal construction

Mounting.....Thru-Bore with collet clamp or single-screw

clamp mount

Weight......1.0 lb with gland nut or D-sub connector

option 1.5 lb with MS connector option Note: All weights typical

### Environmental

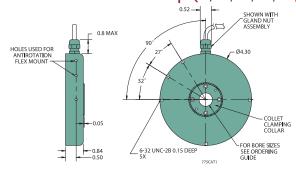
Operating Temp......0° to 70° C for standard models

0° to 100° C for high temperature option

Storage Temp ......25° to 100° C Humidity ......98% RH non-co

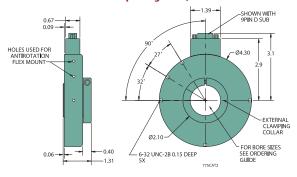
Sealing.....IP50

# Model 775 Collet Clamp (A, B, C, D, H, I, K) -



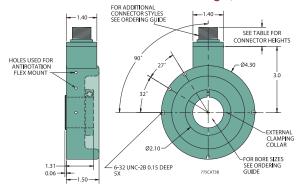


# Model 775 Clamp Style (O, T, V, M, L, Q)





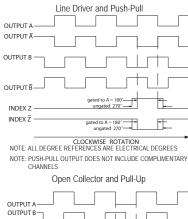
# Model 775 Extended Housing (W, X, Y, J, K)





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

### Waveform Diagrams



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#### Wiring Table

| wiring lable |                                 |  |                           |                |                   |                              |                              |                |  |  |  |  |
|--------------|---------------------------------|--|---------------------------|----------------|-------------------|------------------------------|------------------------------|----------------|--|--|--|--|
| Function     | Gland<br>Cable<br>Wire<br>Color | <b>5-pin M12</b> <sup>4</sup> PU, PP, OC | 8-pin<br>M12 <sup>4</sup> | 10-pin<br>MS   | 7-pin<br>MS<br>H∨ | 7-pin<br>MS<br>PU, PP,<br>OC | 6-pin<br>MS<br>PU, PP,<br>OC | 9-pin<br>D-sub |  |  |  |  |
| Com          | Black                           | 3  | 7                         | F              | F                 | F                            | A, F                         | 9              |  |  |  |  |
| +VDC         | Red                             | 1  | 2                         | D              | D                 | D                            | В                            | 1              |  |  |  |  |
| Α            | White                           | 4  | 1                         | Α              | Α                 | Α                            | D                            | 2              |  |  |  |  |
| A'           | Brown                           |  | 3                         | Н              | O                 |                              |                              | 3              |  |  |  |  |
| В            | Blue                            | 2  | 4                         | В              | В                 | В                            | Е                            | 4              |  |  |  |  |
| B'           | Violet                          |  | 5                         | 1              | Е                 |                              |                              | 5              |  |  |  |  |
| Z            | Orange                          | 5  | 6                         | C              |                   | С                            | С                            | 6              |  |  |  |  |
| Z'           | Yellow                          |  | 8                         | J              |                   |                              |                              | 7              |  |  |  |  |
| Shield       | Bare <sup>1</sup>               |  |                           |                |                   |                              |                              |                |  |  |  |  |
| Case         |                                 |  |                           | G <sup>2</sup> | G <sup>2</sup>    | G <sup>2</sup>               |                              | 8 <sup>3</sup> |  |  |  |  |

CE Option: Cable shield (bare wire) is connected to internal Case

<sup>2</sup>CE Option: Pin G is connected to Case

Non CE Option: Pin G has No Connection

<sup>3</sup>CE Option: Pin 8 is connected to Case Non CE Option: Pin 8 has No Connection

CE Option: Read Technical Bulletin "TB111" at www.encoder.com

CLOCKWISE ROTATION

NOTE: ALL DEGREE REFERENCES ARE ELECTRICAL DEGREES

NOTE: INDEX IS POSITIVE GOING