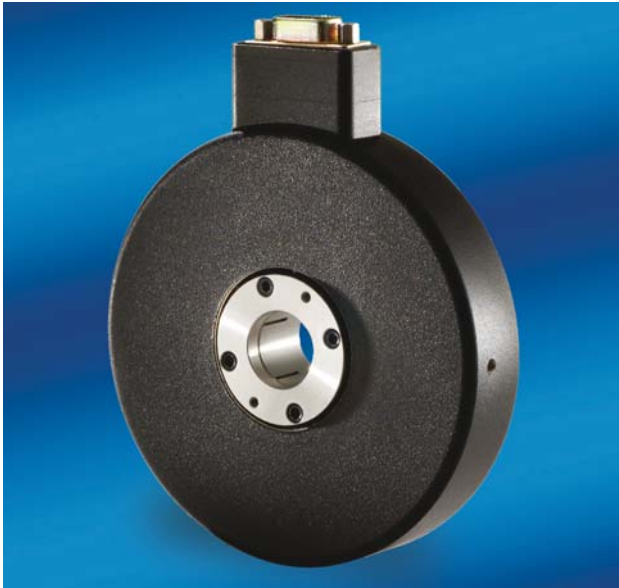


# Model 775 Slim Thru-Bore



# Principle Engineering



## Features

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

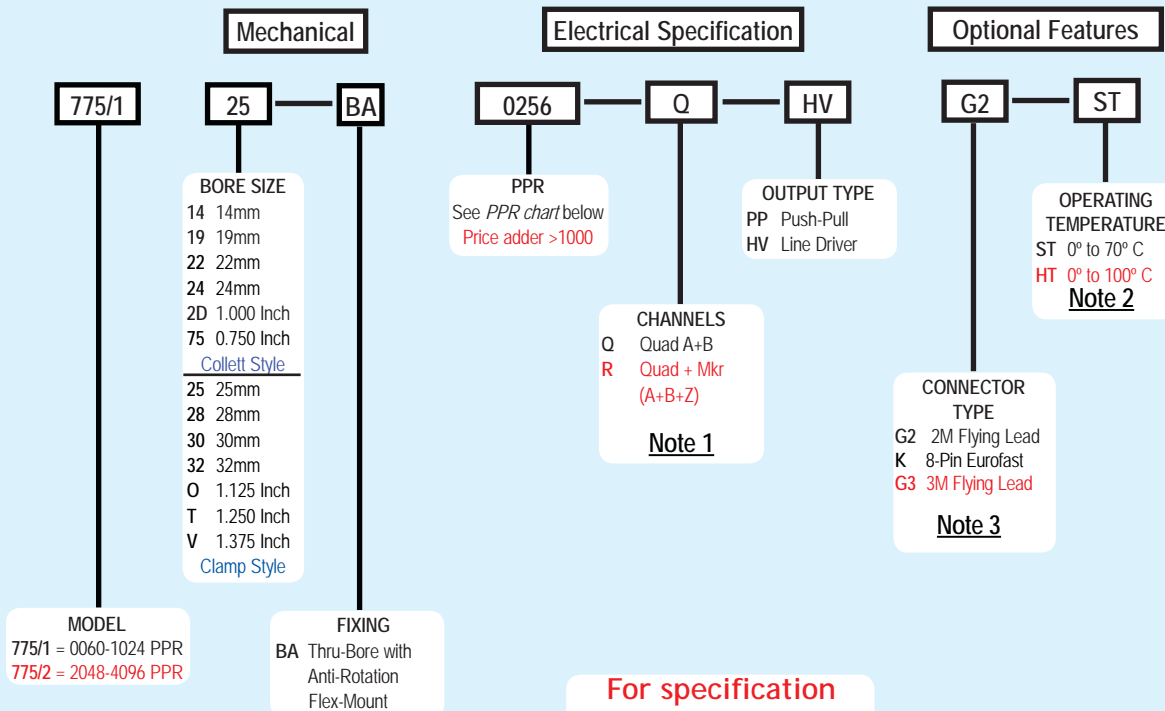
The sleek design of the Model 775 Thru-Bore Encoder makes form and function a successful reality. The slim profile and Thru-Bore design, makes installation easy by simply slipping the bore over motor shafts up to 1.375" in diameter. The advanced Opto-ASIC based electronics provide the superior noise 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

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



**For specification assistance call Customer Service**

### Model 775 PPR Options

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

### NOTES:

- 1 Contact Sales Office for index gating options.
- 2 5 to 24 VCC max for high temperature option.
- 3 For non-standard cable lengths, Please Contact the Sales Office.

## Model 775 Specifications

### Electrical

Input Voltage..... 4.75 to 28 VCC max for temperatures up to 70° C  
 4.75 to 24 VCC for temperatures between 70° C to 100° C

Input Current..... 100 mA max with no output load

Input Ripple ..... 100 mV peak-to-peak at 0 to 100 kHz

Output Format..... Incremental- Two square waves in quadrature with channel A leading B for clockwise shaft rotation, as viewed from the mounting face. See *Waveform Diagrams* below.

Output Types..... Push-Pull- 20 mA max per channel  
 Line Driver- 20 mA max per channel (Meets RS 422 at 5 VCC supply)

Index..... Once per revolution.  
 0500 to 4096 PPR: Gated to output A  
 0001 to 0500 PPR: Ungated  
 See *Waveform Diagrams* below.

Freq. Response..... 200 kHz

Noise Immunity..... Tested to BS EN61000-4-2:IEC801-3; BS EN61000-4-4:DDENV 50141;DDENV 50204; BS EN55022:BS EN61000-6-2:BS EN50081-2

Symmetry ..... 180° (±18°) electrical

Quad. Phasing..... 90° (±22.5°) electrical

Min. Edge Sep..... 67.5° electrical

Rise Time..... Less than 1 microsecond

### Mechanical

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

Bore Size..... See [ordering chart](#)

User Shaft Tolerances  
 Radial Runout ..... 0.15mm TIR  
 Axial Endplay ..... ±0.70mm with style BA flex-mount  
 Electrical Conn..... Gland nut with 2M cable (foil and braid shield, 24 AWG conductors), or 8-pin M12 (12 mm)

Housing..... All metal construction

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

Weight..... 455 gms  
 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

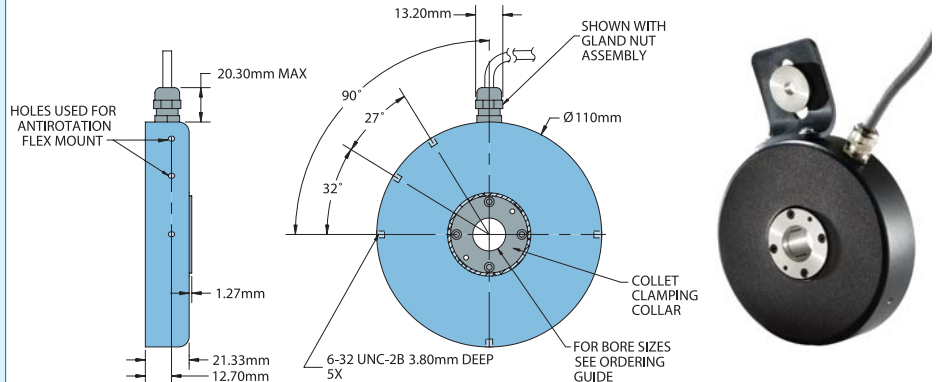
Humidity..... 98% RH non-condensing

Vibration..... 10 g @ 58 to 500 Hz

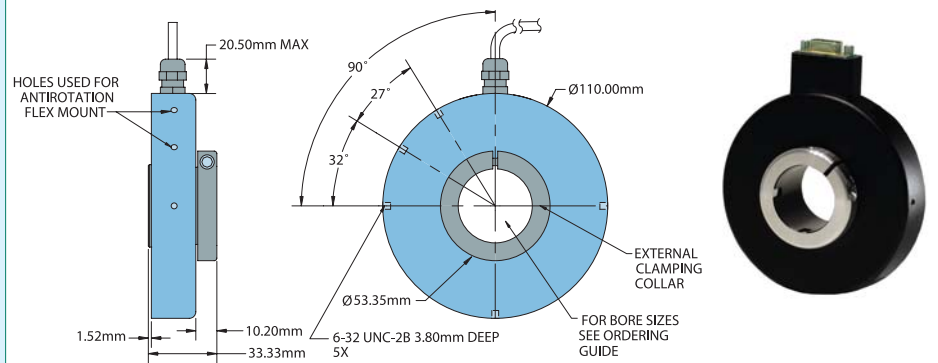
Shock..... 50 g @ 11 ms duration

Sealing..... IP50

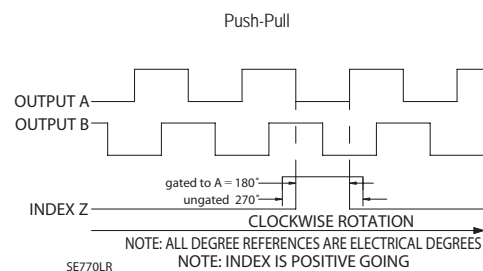
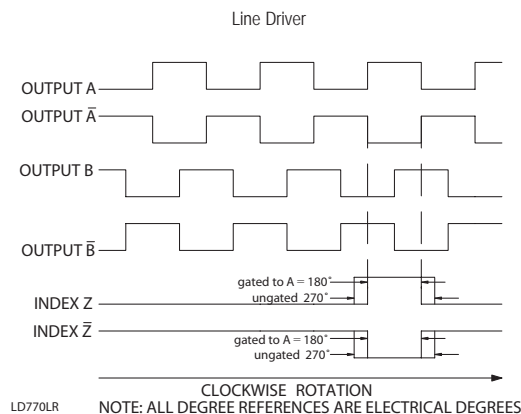
## Model 775 Collet Style



## Model 775 Clamp Style



## Waveform Diagrams



## Wiring Table

Function	Gland Cable Wire Color	8-pin M12
Com	Black	7
+VCC	Red	2
A	White	1
A'	Brown	3
B	Blue	4
B'	Violet	5
Z	Orange	6
Z'	Yellow	8
Shield	Bare	----
Case	----	----