

# Model 776 Large Bore Slim Thru-Bore



## Features

- Slim Profile - Only 33.5mm In Depth
- Thru-Bore Design For Easy Mounting
- Incorporates Opto-ASIC Technology
- Resolutions to 4096
- Bore Options to 1.875"

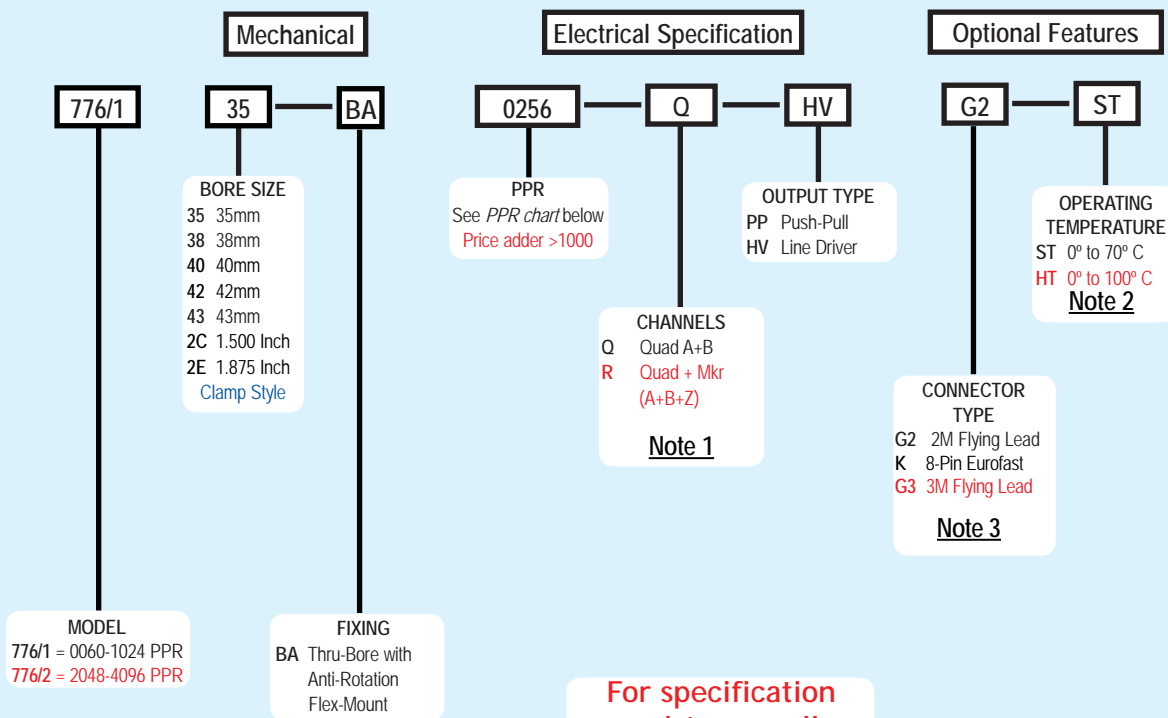
The Thru-Bore Model 776 encoder is designed to fit directly on either a motor or other shaft where position, direction, or velocity information is needed. The advanced Opto-ASIC based electronics provide the superior noise immunity necessary in many industrial applications. The Model 776 conveniently features a clamp type mount for fast and easy mounting over a large range of shaft sizes. An optional anti-rotation flex mount maintains housing stability.

## Common Applications

Motor Feedback, Velocity & Position Control, Robotics, Conveyors, Material Handling

## Model 776 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 at +44 (0)1978 262100**

### 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.

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## Model 776 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 <i>Waveform Diagrams</i> 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 <i>Waveform Diagrams</i> 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

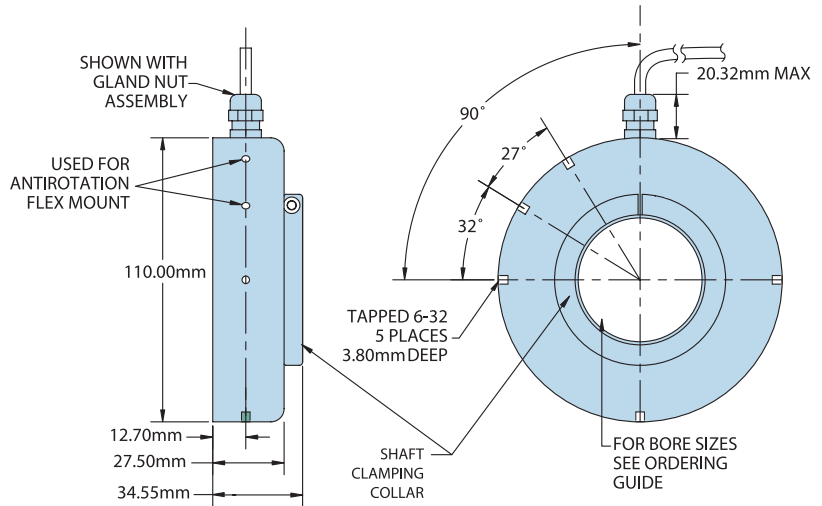
### Mechanical

Max Shaft Speed.....	6000 RPM. Higher shaft speeds may be achievable, contact Customer Service.
Bore Size.....	See <a href="#">ordering chart</a>
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

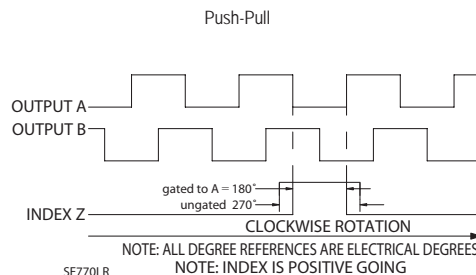
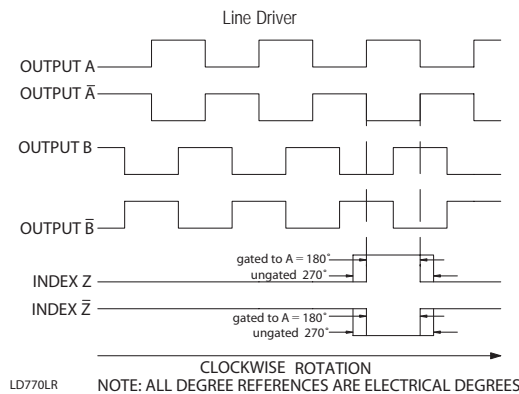
### Environmental

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 776 With Gland



## 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	----	----