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.

Mechanical			Electrical Specification			Optional Features	
776/1	35	BA	0256	Q	HV	G2	ST

MODEL
776/1 = 0060-1024 PPR
776/2 = 2048-4096 PPR

BORE SIZE
35 35mm
38 38mm
40 40mm
42 42mm
43 43mm
2C 1.500 Inch
2E 1.875 Inch
Clamp Style

FIXING
BA Thru-Bore with Anti-Rotation Flex-Mount

PPR
See *PPR chart* below
Price adder >1000

CHANNELS
Q Quad A+B
R Quad + Mkr (A+B+Z)
Note 1

OUTPUT TYPE
PP Push-Pull
HV Line Driver

CONNECTOR TYPE
G2 2M Flying Lead
K 8-Pin Eurofast
G3 3M Flying Lead
Note 3

OPERATING TEMPERATURE
ST 0º to 70º C
HT 0º to 100º C
Note 2

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 70º C
4.75 to 24 VCC for temperatures between 70º C to 100º 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 .....180º (±18º) electrical
Quad. Phasing.....90º (±22.5º) electrical
Min. Edge Sep.....67.5º electrical
Rise Time.....Less than 1 microsecond

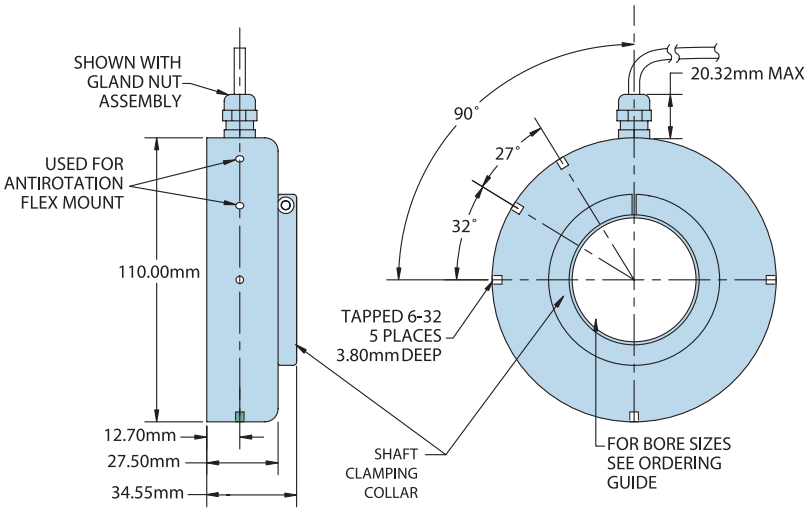
Mechanical

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

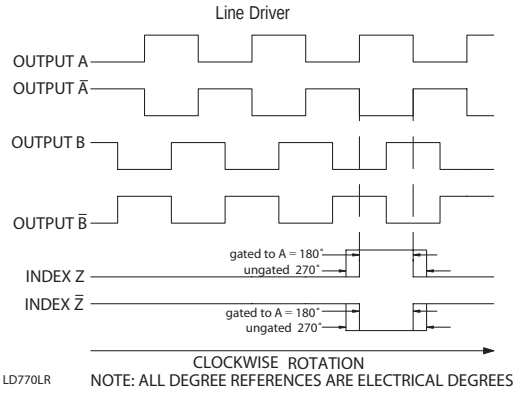
Environmental

Operating Temp.....0º to 70º C for standard models
0º to 100º C for high temperature option
Storage Temp .....-25º to 100º C
Humidity.....98% RH non-condensing
Vibration.....10 g @ 58 to 500 Hz
Shock.....50 g @ 11 ms duration
Sealing.....IP50

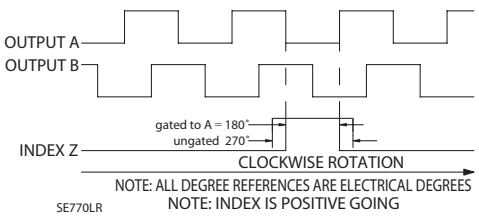
Model 776 With Gland



Waveform Diagrams



LD770LR
NOTE: ALL DEGREE REFERENCES ARE ELECTRICAL DEGREES



SE770LR
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NOTE: INDEX IS POSITIVE GOING

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	----	----

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