

Model 771

Model 771 Specifications

Electrical

- Input Voltage.....4.75 to 28 VDC max for temperatures up to 70° C
4.75 to 24 VDC 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.....Open Collector- 100 mA max per channel
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.
- Freq. Response.....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
- Symmetry.....180° (±18°) electrical
- Quad. Phasing.....90° (±22.5°) electrical
- Min. Edge Sep.....67.5° electrical
- Rise Time.....Less than 1 microsecond

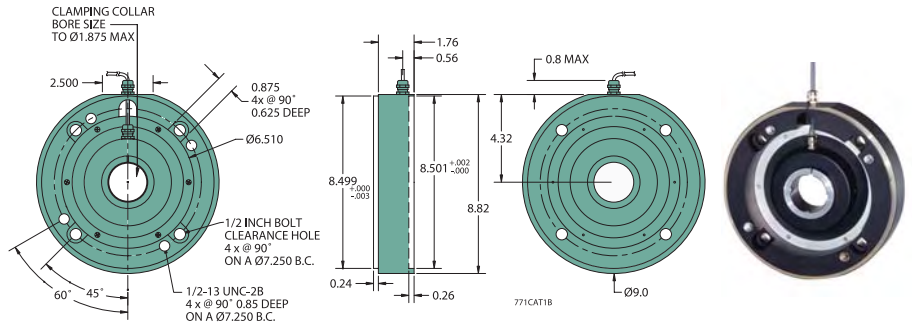
Mechanical

- Max Shaft Speed.....3500 RPM. Higher shaft speeds may be achievable, contact Customer Service.
6000 RPM for 1.125", 1.250", 1.375", 28 mm, 30 mm, 32 mm bore diameter
- Bore Size.....1.125", 1.250", 1.375", 1.500", 1.625", 1.750", 1.875", 28 mm, 30 mm, 32 mm, 35 mm, 38 mm, 40 mm, 42 mm, and 43 mm
- User Shaft Tolerances
Radial Runout.....0.005"
Axial Endplay.....±0.1"
Moment of Inertia.....3.3 x 10⁻³ oz-in-sec² typical
- Electrical Conn.....Gland nut with 24" cable (foil and braid shield, 24 AWG conductors), Terminal Strip in conduit box, 7- or 10-pin MS Style, 5- or 8-pin M12 (12 mm), 10-pin Industrial Clamp
- Housing.....All metal construction
- Mounting.....NEMA 182TC-256TC (8.5" AK)
- Weight.....7.0 lb typical

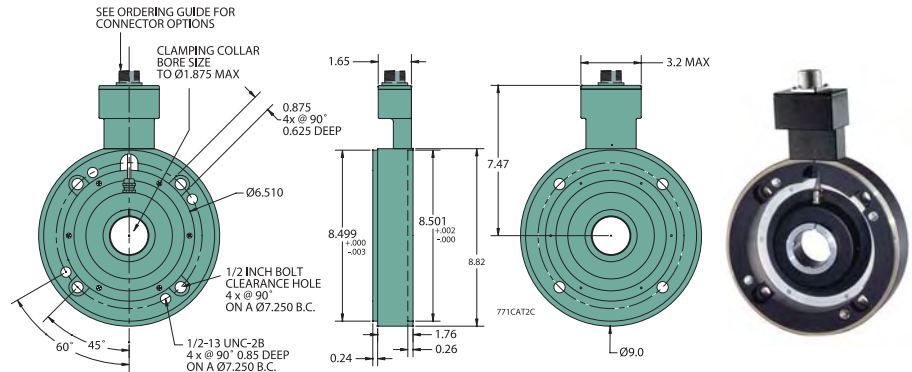
Environmental

- 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.....IP65 for Option A housing style with gasket kit
IP50 for Option B housing style

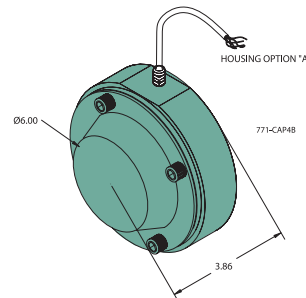
Model 771 With Gland Nut Cable (P)



Model 771 With Conduit Box (B, X, Y, J, K)



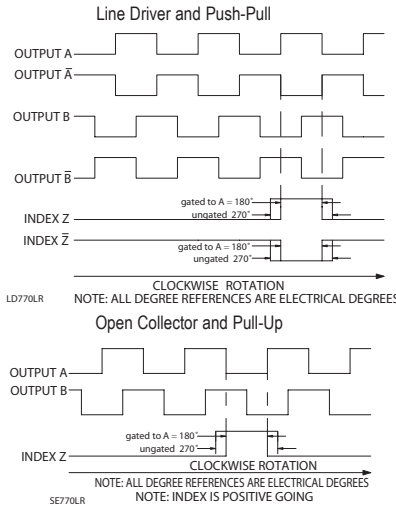
Optional Housing Style (A) Protective Cover



CONNECTOR TYPE	HEIGHT
6- or 7-PIN MS	0.67"
10-PIN MS	0.90"
5- or 8-PIN M12	0.50"

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

Waveform Diagrams



Wiring Table

Function	Gland Cable Wire Color	5-pin M12 ⁴ PU, PP, OC	8-pin M12 ⁴	10-pin MS	7-pin MS HV	7-pin MS PU, PP, OC	Term. Block	10-pin Indust. Clamp
Com	Black	3	7	F	F	F	2	1
+VDC	Red	1	2	D	D	D	1	6
A	White	4	1	A	A	A	3	3
A'	Brown	---	3	H	C	---	4	8
B	Blue	2	4	B	B	B	5	2
B'	Violet	---	5	I	E	---	6	7
Z	Orange	5	6	C	---	C	7	4
Z'	Yellow	---	8	J	---	---	8	9
Shield	Bare ¹	---	---	---	---	---	---	---
Case	---	---	---	G ²	G ²	G ²	G ³	10 ³

¹CE Option: Cable shield (bare wire) is connected to internal Case
²CE Option: Pin G is connected to Case
 Non CE Option: Pin G has No Connection
³CE Option: Pin 10 is connected to Case
 Non CE Option: Pin has No Connection
⁴CE Option: Read Technical Bulletin "TB111" at Encoder site