Design Features

Due to some major technology enhancements, the 735 encoder is now available in four resolution ranges, from 0001 PPR through to 30,000 PPR. With models 735/2 through 735/4, which use advanced circuitry, it is now possible to provide selected resolutions up to 30,000 PPR. Please note, that within the higher resolution bands, the edge separation specifications reduce minimally, to 50°e. **A stainless steel version is available at a modest surcharge. This version is designed for hostile environments or food applications. It is protected to IP66, and is configured with 2 metres of flying lead. Please call the sales office for details.**

Specifications

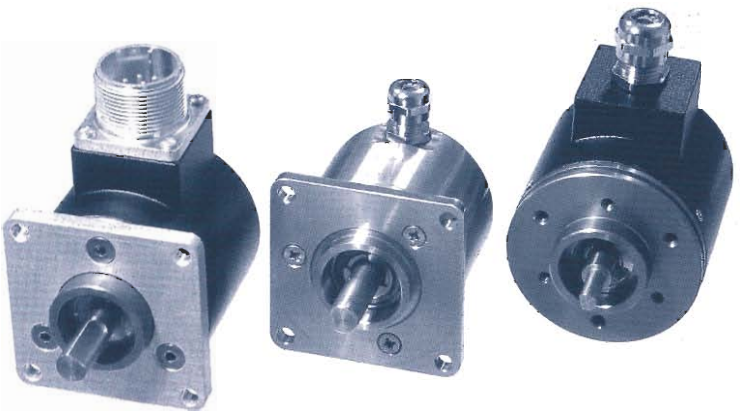
Input Voltage range	**5/24V (see output circuits)**
Regulation, for 5V operation	**5%, with 2% maximum ripple**
Current consumption	**80mA typical**
Output circuits	**See Ordering Information**
Frequency response	**200 KHz (735/1 - 50KHz)**
Symmetry	**180° electrical ±5% (9°e)**
Quadrature Phasing	**90° electrical ±10% (9°e)**
Minimum edge separation	**72° electrical**
Reference marker pulse	**Gated (A • B • Z = F)**
Rise time	**Less than 1 microsecond**
Accuracy (cycle to cycle)	**±0.017° or 1 Arc/Min**
LED life	**100,000 hrs typical**
Pulses per revolution	**See Ordering Information**
Max shaft speed	**6,000 rpm continuous**
Shaft sizes and types	**See Ordering Information**
Shaft tolerance	**g6, sliding fit for H7**
Bearings	**ABEC 3**

Starting torque	**0.002 Nm (0.02 with seal)**
Radial loading	**80 N operating**
Axial loading	**60 N operating**
Moment of inertia	**70 g/cm**
Acceleration	**10^5 radians/sec^2**
Weight	**0.5 kg**
Housing	**Aluminum w/protective finish**
Mounting	**Servo flange or square flange**
Operating temperature	**–10°C to +70°C**
High temperature	**–10°C to +100°C**
Storage temperature	**–30°C to +85°C**
Humidity	**98% RHNC**
Vibration	**10 G's @ 58 to 500 Hz**
Shock	**50 G's for 11 mSec**
Protection	**IP50 standard**
	IP64 w/seal (S30)
	IP66 w/seal (S36)

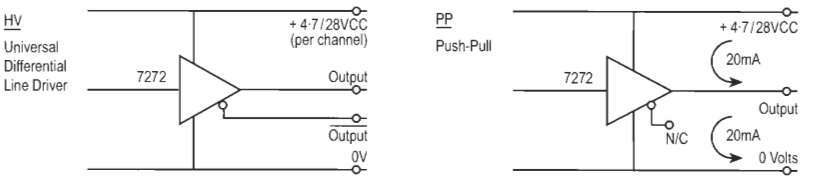
Ordering Information

735	Signal Configuration	VCC/ Output Circuit	Mounting	Shaft	Connector	PPR	Sealing

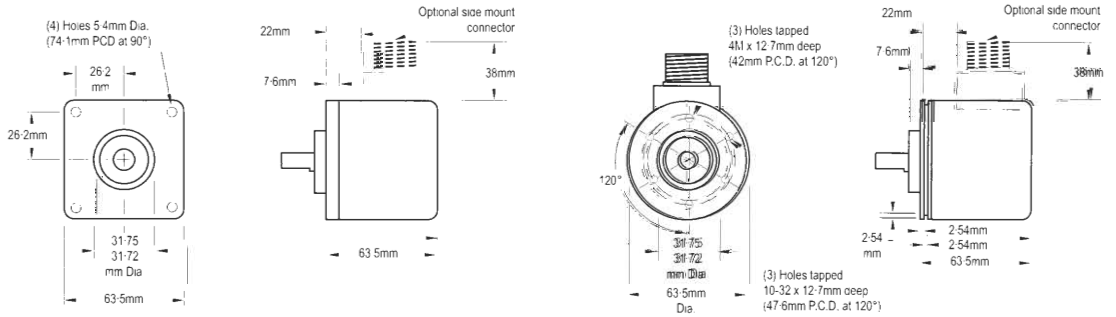
- Signal Configuration: 1 = 0001 - 1000 PPR; 2 = 1024 - 3000 PPR; 3 = 3600 - 10000 PPR; 4 = 10240 - 30000 PPR
- VCC/ Output Circuit: HV = 5/24V RS422 Differential Driver; PP = 5/24V Push Pull
- Mounting: S = Servo Flange; F = Square Flange
- Shaft: 06 = 6mm; 07 = 7mm; 08 = 8mm; 10 = 10mm; 12 = 12mm; OS = 0.375"
- Connector: SG2 = Side Gland + 2m cable; S07 = Side 7 pin connector (PP); S10 = Side 10 pin connector (HV)
- PPR: See Pages 48 & 49 Table D
- Sealing: STD = IP50; S30 = IP64; S36 = IP66
- For Stainless Steel option add SST to the end of the order code.



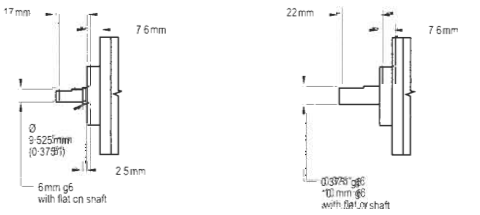
Output Circuits



Dimensions



Flange Mount **Servo Mount**



6mm Shaft **0·375" and 10mm Shafts**