

# Series 702

SERIES 702



## Design Features

The Series 702 encoder is a heavy duty, extremely rugged and reliable, yet compact encoder which conforms to the industry standard 'Size 2' 50mm/2" configuration. The double shielded bearings are rated to 120 N (Max) axial and radial loading to ensure a long operating life in the harshest of applications. When fitted with a shaft seal and PG9 cable gland with flying lead, this device meets a protection level of IP65. Higher resolution options are now available to 30,000 PPR.

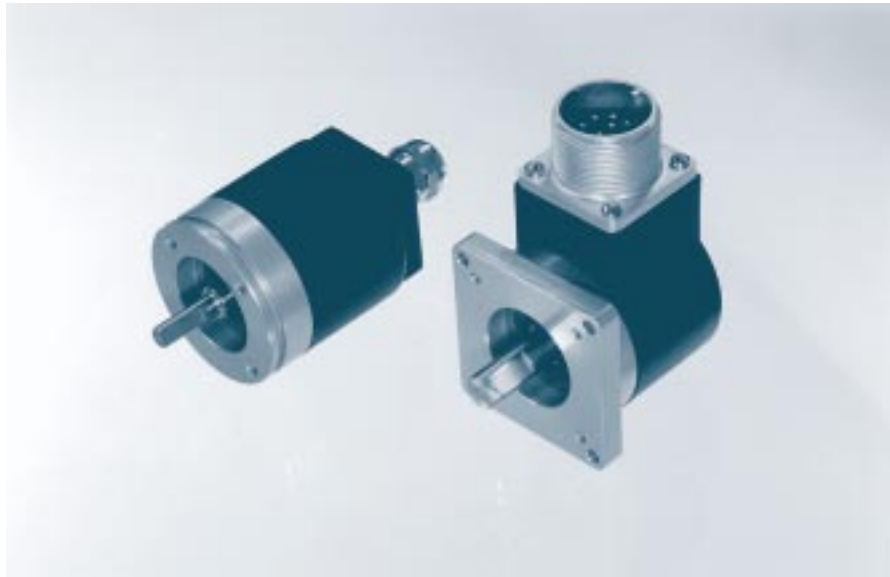
## Specifications

Input Voltage range .....	<b>5/24V (see output circuits)</b>	Starting torque.....	<b>0.02 Nm</b>
Regulation, for 5V operation .....	<b>5%, with 2% maximum ripple</b>	Radial loading.....	<b>120 N operating</b>
Current consumption .....	<b>80mA typical</b>	Axial loading.....	<b>120 N operating</b>
Output circuits .....	<b>See Ordering Information</b>	Moment of inertia.....	<b>200 g/cm</b>
Frequency response .....	<b>200 KHz standard</b>	Acceleration.....	<b>10<sup>5</sup> radians/sec<sup>2</sup></b>
Symmetry .....	<b>180° electrical ±5% (9°e)</b>	Weight.....	<b>300 g</b>
Quadrature Phasing .....	<b>90° electrical ±10% (9°e)</b>	Housing.....	<b>Aluminum w/protective finish</b>
Minimum edge separation .....	<b>72° electrical</b>	Mounting.....	<b>Servo mount or square flange</b>
Reference marker pulse .....	<b>Gated (A • Z = F)</b>	Operating temperature.....	<b>-10°C to +70°C</b>
Rise time .....	<b>Less than 1 microsecond</b>	High temperature option.....	<b>0°C to +100°C</b>
Accuracy (cycle to cycle) .....	<b>±0.017° or 1 Arc/Min</b>	Storage temperature.....	<b>-25°C to +85°C</b>
LED life .....	<b>100,000 hrs typical</b>	Humidity.....	<b>98% RHNC</b>
Pulses per revolution .....	<b>See Ordering Information</b>	Vibration.....	<b>10 G's @ 58 to 500 Hz</b>
Max shaft speed .....	<b>8,000 rpm continuous</b>	Shock.....	<b>75 G's for 11 mSec</b>
Shaft sizes and types .....	<b>See Ordering Information</b>	Protection.....	<b>IP50 standard</b>
Shaft tolerance .....	<b>g6, sliding fit for H7</b>		<b>IP64 w/seal (S20)</b>
Bearings .....	<b>ABEC 3</b>		<b>IP66 w/seal (S26)</b>

## Ordering Information

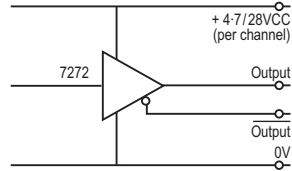
702	Range	VCC/ Output Circuit	Body Configuration	Shaft	Connector	PPR	Sealing
	1 = 0100 to 1000 2 = 1024 to 3000 3 = 3600 to 10000 4 = 10240 to 30000	HV = 5/24V RS422 Differential Driver PP = 5/24V Push Pull	S = Servo Flange 1 C = Servo Flange 2 F = Square Flange	A = 6mm B = .375" Shaft C = 10mm Shaft D = .250" Shaft	E06 = End 6 pin connector (PP) S06 = Side 6 pin connector (PP) S10 = Side 10 pin connector (HV)	STD = Standard IP50 S20 = IP64 Sealed Bearing S26 = IP66	See Pages 48 & 49 Table D



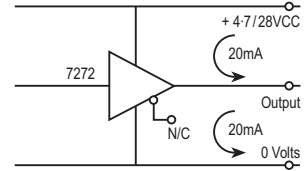


## Output Circuits

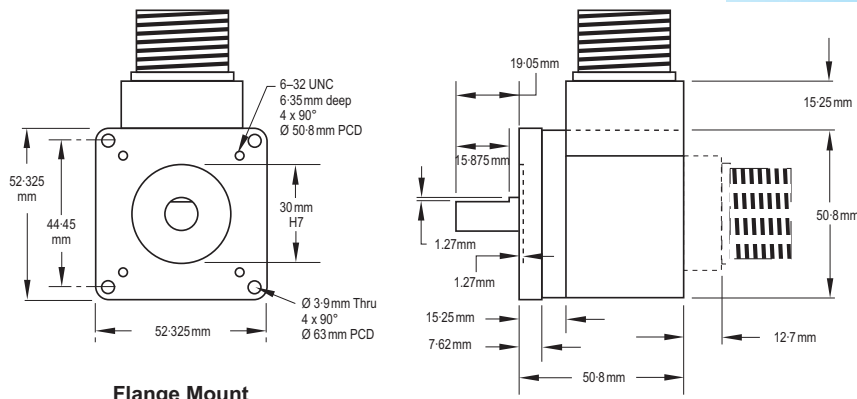
HV  
Universal  
Differential  
Line Driver



PP  
Push-Pull



## Dimensions



Optional F.O.C. Male Pilot Spigot  
for Flange and Servo Mounts

