

# Series 700

SERIES 700



## Design Features

The Series 700 encoder has been designed specifically for industrial applications requiring a rugged and reliable unit, sealed against dust, oil vapour and moisture. This encoder employs well-proven circuitry, designed to minimize the effects of LED ageing.

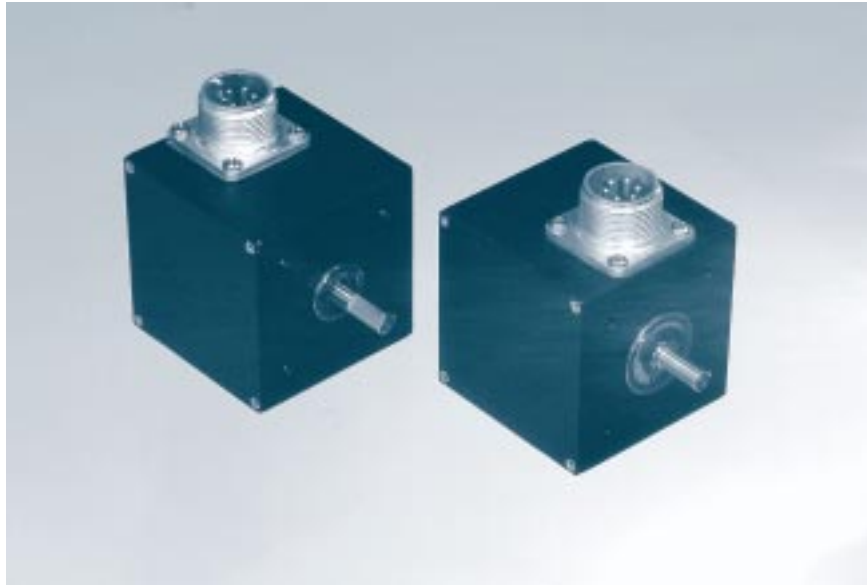
## Specifications

Input Voltage range .....	5/24V (see output circuits)	Starting torque .....	0.002 Nm
Regulation, for 5V operation .....	5%, with 2% maximum ripple	Radial loading .....	100 N operating
Current consumption .....	80mA typical	Axial loading .....	100 N operating
Output circuits .....	See Ordering Information	Moment of inertia .....	300 g/cm
Frequency response .....	50 KHz standard	Acceleration .....	10 <sup>5</sup> radians/sec <sup>2</sup>
Symmetry .....	180° electrical ±5% (9°e)	Weight .....	0.4 Kg
Quadrature Phasing .....	90° electrical ±10% (9°e)	Housing .....	Aluminum w/protective finish
Minimum edge separation .....	72° electrical	Mounting .....	4 fixing holes X 3 positions
Rise time .....	Less than 1 microsecond	Operating temperature .....	0°C to + 70°C
Accuracy (cycle to cycle) .....	±0.017° or 1 Arc/Min	Storage temperature .....	-25°C to +85°C
LED life .....	100,000 hrs typical	Humidity .....	98% RHNC
Pulses per revolution .....	See Ordering Information	Vibration .....	10 G's @ 58 to 500 Hz
Max shaft speed .....	6,000 rpm continuous	Shock .....	50 G's for 11 mSec
Shaft sizes and types .....	See Ordering Information	Protection .....	IP50
Shaft tolerance .....	g6, sliding fit for H7		
Bearings .....	ABEC 3, Double Sealed		

## Ordering Information

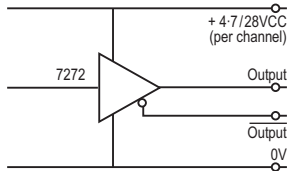
71	Signal Configuration	VCC/Output Circuit	Shaft	PPR
1 = Single A (A, HV only) 6 = Quadrature A+B (A+B, HV only) 3 = A+Z (A+Z, HV only)	HV = 5/24V RS422 Differential Driver PP = 5/24V Push Pull OC = 5/24V NPN Open Collector		S4 = Single ended .250" S6 = Single ended .375" D4 = Double ended .250" D6 = Double ended .375"	See Pages 48 & 49 Table C (and 2000, 2048 & 2500 by special order only)



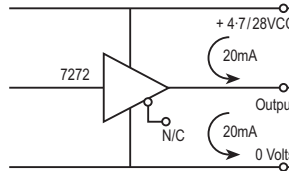


## Output Circuits

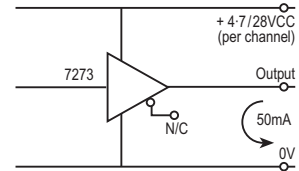
HV  
Universal  
Differential  
Line Driver



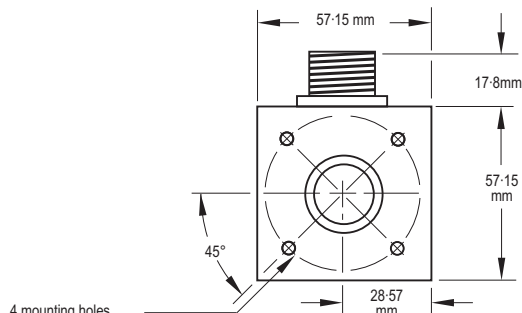
PP  
Push-Pull



OC  
NPN Open  
Collector



## Dimensions



4 mounting holes  
tapped 6-32 x 7.9mm deep  
(50.8mm B.C. at 90°)  
Same mounting hole pattern is also provided  
on opposite end and base

