

# Series 755



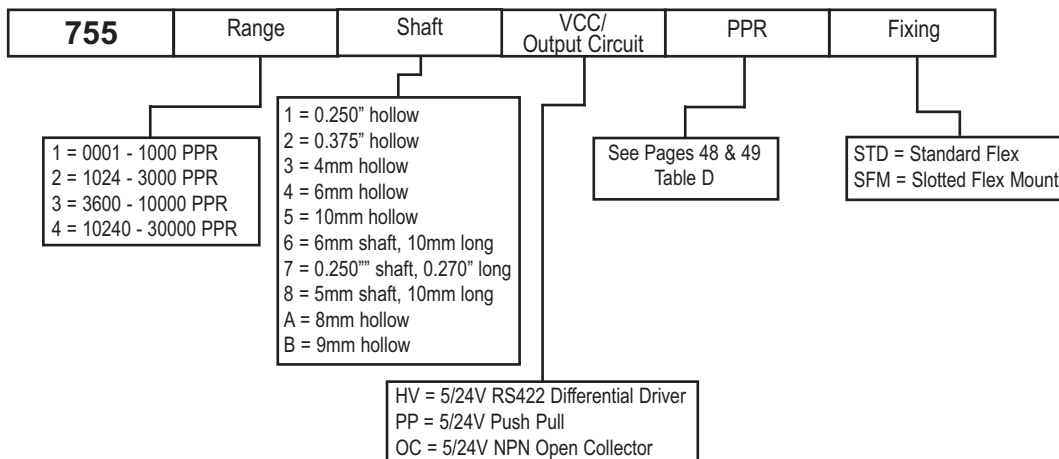
## Design Features

The Series 755 encoder is ideal for applications requiring a miniature, high precision, low cost encoder. One version has a flexible mounting and a blind hollow shaft, with bore sizes from 4mm to 10mm, for mounting directly onto motors. The second type has a normal shaft and servo flange.

## Specifications

Input Voltage range .....	<b>5/24V (see output circuits)</b>	Starting torque .....	<b>0.001 Nm (normal or hollow shaft)</b>
Regulation, for 5V operation .....	<b>5%, with 2% maximum ripple</b>	Radial loading (normal shaft) .....	<b>8 N operating</b>
Current consumption .....	<b>80mA typical</b>	Axial loading (normal shaft) .....	<b>4.5 N operating</b>
Output circuits .....	<b>See Ordering Information</b>	Radial loading (hollow shaft) .....	<b>Being the mass of the encoder</b>
Frequency response .....	<b>125 KHz standard, 200 KHz special</b>	Axial loading (hollow shaft) .....	<b>Being the mass of the encoder</b>
Symmetry .....	<b>180° electrical ±5% (±9°e)</b>	Host shaft max. TIR .....	<b>0.15mm</b>
Quadrature Phasing .....	<b>90° electrical ±10% (±9°e)</b>	Host shaft max. endplay .....	<b>±0.70mm</b>
Minimum edge separation .....	<b>72° electrical</b>	Moment of inertia .....	<b>20 g/cm</b>
Reference marker pulse .....	<b>Gated (A • B • Z = F) [A • Z = F optional]</b>	Acceleration .....	<b>10<sup>5</sup> radians/sec<sup>2</sup></b>
Rise time .....	<b>Less than 1 microsecond</b>	Weight .....	<b>0.2 kg</b>
Accuracy (cycle to cycle) .....	<b>±0.017° or 1 Arc/Min</b>	Housing .....	<b>Aluminum w/protective finish</b>
LED life .....	<b>100,000 hrs typical</b>	Operating temperature .....	<b>0°C to +70°C</b>
Pulses per revolution .....	<b>See Ordering Information</b>	Storage temperature .....	<b>-25°C to +85°C</b>
Max shaft speed .....	<b>7,500 rpm continuous</b>	Humidity .....	<b>98% RHNC</b>
Shaft sizes and types .....	<b>See ordering information</b>	Vibration .....	<b>10 G's @ 58 to 500 Hz</b>
Shaft tolerance .....	<b>Hollow: H7, sliding fit for g6 Standard: g6, sliding fit for H7</b>	Shock .....	<b>50 G's for 11 mSec</b>
Bearings .....	<b>Double Sealed ABEC 3</b>	Protection .....	<b>IP54 IP64 by special order</b>

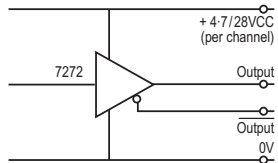
## Ordering Information



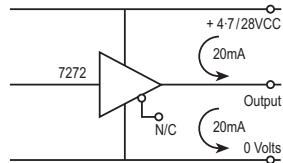


## Output Circuits

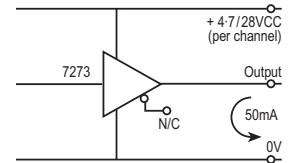
**HV**  
Universal  
Differential  
Line Driver



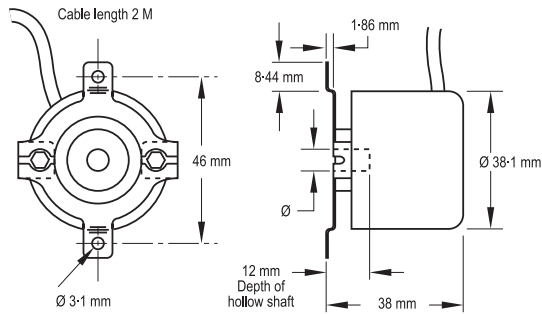
**PP**  
Push-Pull



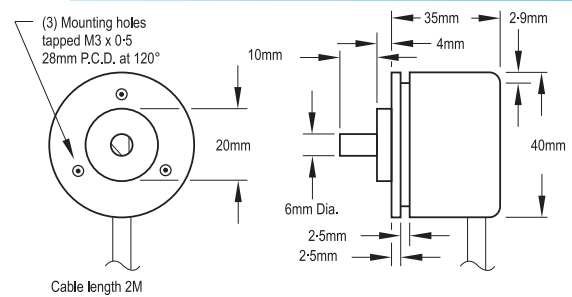
**OC**  
NPN Open  
Collector



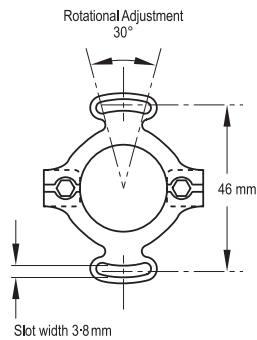
## Dimensions



**Hollow Shaft / Flexible Mount ("STD")**



**Servo Mount**



**Hollow Shaft / Flexible Mount ("SFM")**

