

FCG Series

Linear Encoder



Feature:

- Precise and small-scale measurement, more stable performance
The repeatability accuracy can reach up to 0.1um at most
- The maximum resolution is available in 0.1um, 0.5um, 1um, 5um and 10um.
- The maximum standard measurement stroke is 50mm
- Output signal: 5V TTL/ differential
- All imported ball linear bearings, manufactured abroad

Details:

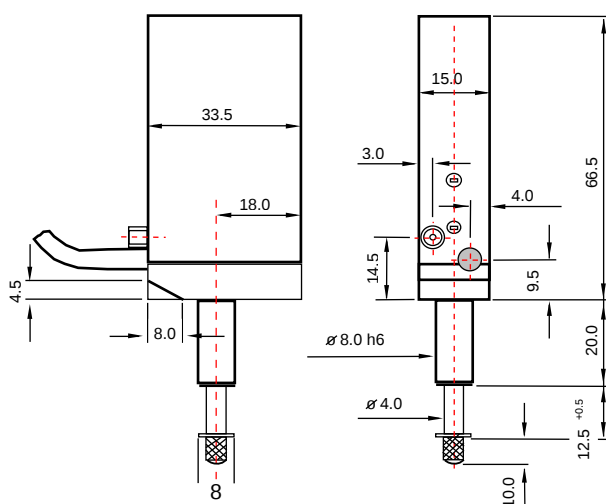
- Outer shell anodized aluminum oxide
- The external dimensions are compact, with side head threads of M 2.5
- The core materials are glass grating sheets and ball bearings
- Counting method: Electronic subdivision technology and 4x frequency multiplication processing.
- Square wave signal increments A, B, and 5V square wave pulses
- The standard electrical connection is 1 meter with a DB9 male connector

Usage:

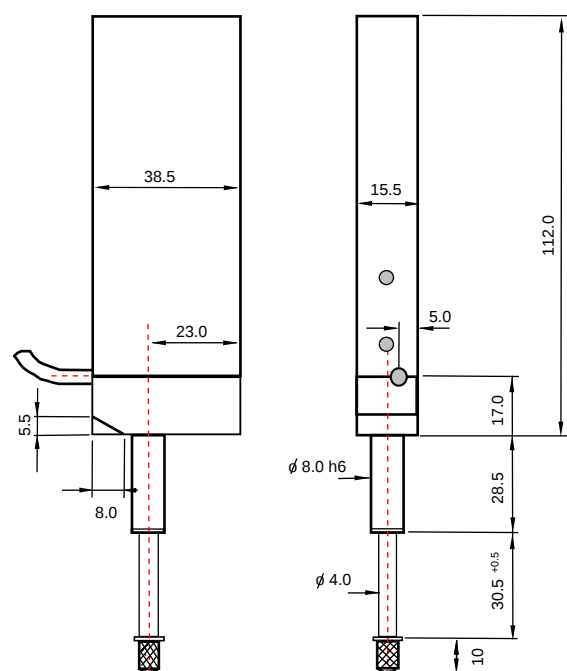
- Robotics technology, laboratory measurement
- Medical care, film detection
- Precision modern processing equipment

Dimensions:

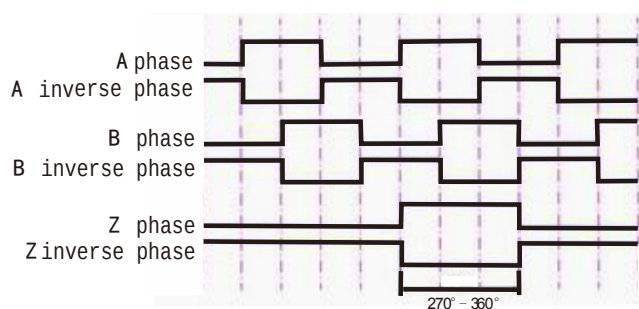
Range 12 mm :



Range 30 mm :

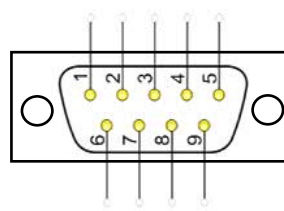


Output Waves:



Wirings:

Pin no.	Signal	Wire Color
1	+5V	red
2	0V	blue
3	A	white
4	B	yellow
5	RI	gret
6	RI	pink
7	$\overline{A}$	brown
8	$\overline{B}$	green



Note: 9-needle woven mesh, when connected to the casing, can enhance the anti-interference ability

Tech Parameter

Parameters	unit	Details
Range	mm	12, 30, 50,
Signal		5 V TTL, 5V differential signal(RS422),
Resolution	um	0.1, 0.2, 0.5, 1, 5, 10
Accuracy	um	± 0.5 , ± 1.0
Repeatability	um	± 1 unit of resolution
Test Speed	MAX	0.5 M/S
Working Temperature	°C	-10 - 50
output TTL voltage	%	TTL: H =3.5V 2.5 mA, RS422:20 mA , L =0.4V 10.0 mA
Working Volage	V	5 ($\pm 5\%$) (<200mA)
Consumption Current	mA	80 RS422: 120
Shock index	g	50 (single shock) / IEC standard 68-2-27
Vibration inde	g	5g / 10-2000HZ / IEC standard 68-2-26
Protection Class		IP 40
Working humidity		90% (Relative humidity) no condensation
Driving force		< 0.5 N - 0.8 N
Refrence position		The middle position of the range

Instructions:

