

FCT Series

Grating Scale



Feature:

- Improved design, economic, durable mechanical performance is more stable.
- Repeatability up to 0.5um
- Resolution up to 0.2um, 0.5um, 1um, 5um, 10um optional
- Standard measuring stroke up to 50mm, (75mm and 100mm need to be customized) • Output signal: 5V TTL/ differential, 24V open collector

Usages:

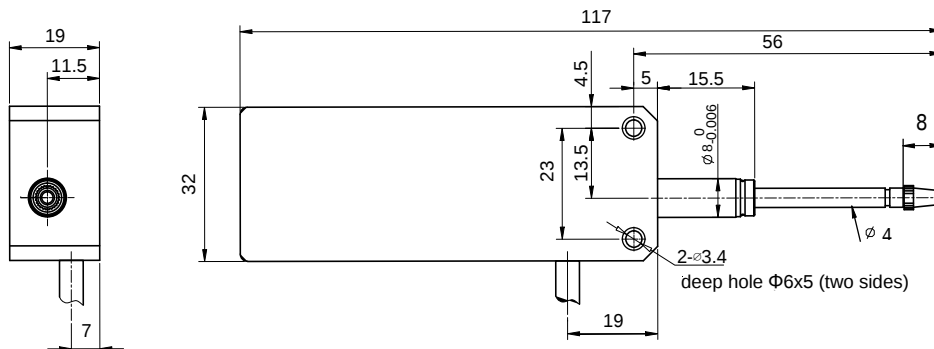
- Robotics, laboratory measurement
- Medical, film testing
- Precision modern processing equipment

Details:

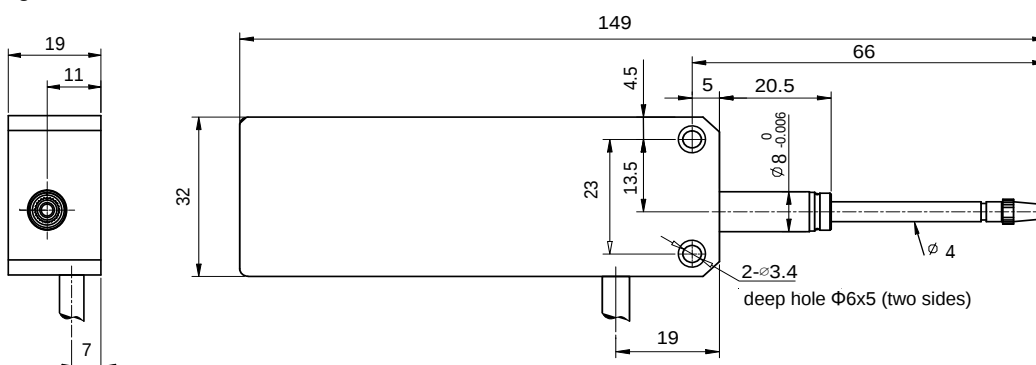
- Anodized aluminum for the outer shell
- Compact size, side head screw M 2.5
- Core material glass grating, ball bearings
- Counting method electronic subdivision technology and 4x frequency processing.
- Square wave signal increment A, B, 5V square wave pulse
- Standard electrical connection with 3 meters (MAX=20M) with DB9 male head

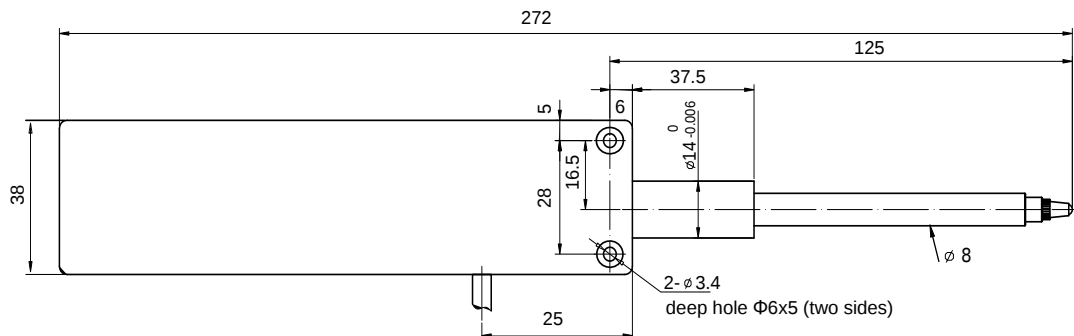
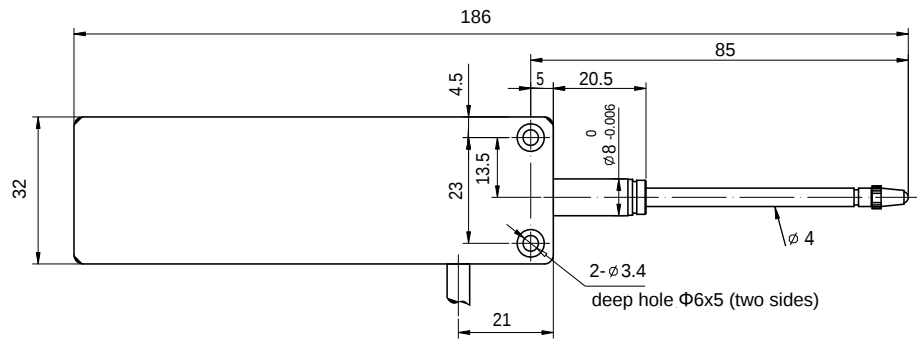
Dimensions:

Range 10mm :



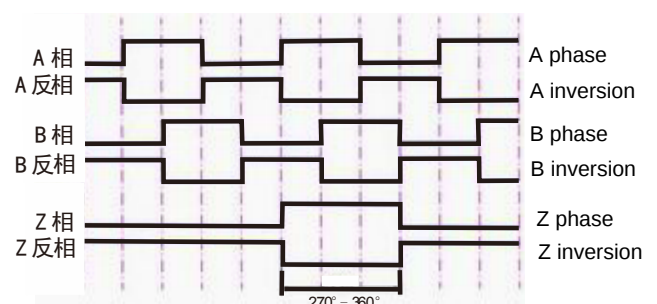
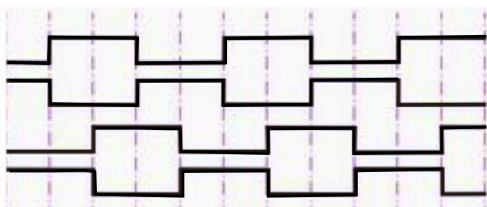
Range 20mm :





range	行程 (mm):	75	100
length L	长度 L (mm):	128	150
length L1	长度 L1(mm):	76	101
length L2	长度 L2(mm):	46	46

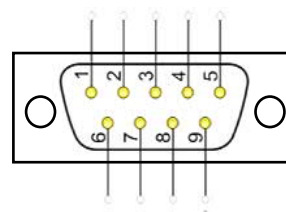
A phase	A 相
A inversion	A 反相
B phase	B 相
B inversion	B 反相



WIRINGS:

Range: $\leq 50\text{mm}$ $> 50\text{mm}$

PIN NO	Signal	Cable Color	Cable Color
1	5V/24V	red	brown
2	0V	black	gree
3	A	brown	white
4	B	yellow	yellow
5	RI	orange	
6	RI	green	
7	$\bar{A}$	purple	gray
8	$\bar{B}$	blue	pink



Note: 9 pin knit mesh, with the shell connection can improve anti-interference ability

Parameters:

Parameters	Unit	Datas
Range	mm	10, 20, 30, 50, 75,100
Output signal		5V TTL, 5V differential signal (RS422), 24V open collector output
Resolutions	um	0.2, 0.5, 1, 5, 10
Accuracy	um	± 2.0 , ± 2.5 , ± 5 , ± 10
Repeatability	um	± 1 unit of resolution
Measuring Speed	MAX	0.3 M/S
Working Temperature	$^{\circ}\text{C}$	-10 - 50
Output TTL Voltage	%	TTL: H =4.5V 4 mA, RS422:20 mA
Working Voltage	V	5 / 24 VDC ($\pm 5\%$) (<300mA)
Power Consumption	mA	60
Shock index	g	50(single shoch) / IEC standard 68-2-27
Vibration	g	5g / 10-2000HZ / IEC standard 68-2-26
Protection Level		IP 54
Working humidity		90% (relative humidity) no condensation.
Drive force		$<1\text{ N}$ $<1.5\text{ N}$
Reference point position		Distance end 3mm 7mm none

instructions:

FCT	-	X	-	XXX	-	N	-	24
Series name 系列名								
Resolutions: um 分辨率: um								
0.2								
0.5								
1, 5, 10								
量程范围 mm								
10, 20, 30, 50,								
75, 100								

备注:

24: 24V 集电极开路 (NPN/PNP) 兼容
无: 5V 差分 (5V TTL兼容)

remarks:

24: 24V open collector (NPN/PNP) compatible
none: 5V differential (5V TTL) compatible