

YC-A150T 1, 2 or 3 axes Accelerometer

Features:

- Capacitance MEMS principle DC accelerometer
- Low noise: 45 ug/Hz (range is +-2 g)
- 0.5 ~ 4.5 V single ended or ± 4 V differential output
- 40-85 °C temperature
- 9 ~ 15 V DC voltage
- Less than 100 Ω output impedance
- Epoxy resin sealing
- Can be customized within ± 15 g all range



Performance Specification:

(Unless otherwise specified, the specification is under the test condition 12 V DC power supply voltage, temperature 25 degree C)

parameter	Min.		Type	Max	Unit
Measuring range	± 2			± 13	g
Zero error	2.45		2.5	2.55	V
Zero temperature drift			± 1.0		mg/ \square
Sensitivity ⁽¹⁾	$\pm 2g$	970	1000	1030	mV/g
	$\pm 5g$	377	400	403	
	$\pm 13g$	145	150	155	
Sensitivity temperature drift			± 0.02		%/ \square
Zero offset error ratio			$\pm 0.2(XY)$ $\pm 0.1(Z)$		%
Sensitivity error ratio			$\pm 1.6(XY)$ $\pm 0.2(Z)$		%
nonlinearity			0.1		%FS
horizontal axis sensitivity			2.0		%
Band width(-3dB) ⁽²⁾	0 (DC)		800		Hz
error	$\pm 2g = \pm 45$			$\pm 13g = \pm 100$	ugVHz
size	length*width*height: 33*33*13				mm

Note: ⁽¹⁾ According to the measuring range choose corresponding sensitivity, at differential mode mV/g x 2 = +/- 4V working range

⁽²⁾ Internal 1 KHz low-pass filter, lower pass band need external increase capacitance

Electrical specification:

(Unless otherwise specified, the specification is under the test condition 12 V DC power supply voltage, temperature 25 C)

parameter	Min.	Type	Max	Unit
Power supply voltage	9	12	15	V (DC)
consumption	3	5	7	mA
Output impedance	0		100	Ω

Environment specification:

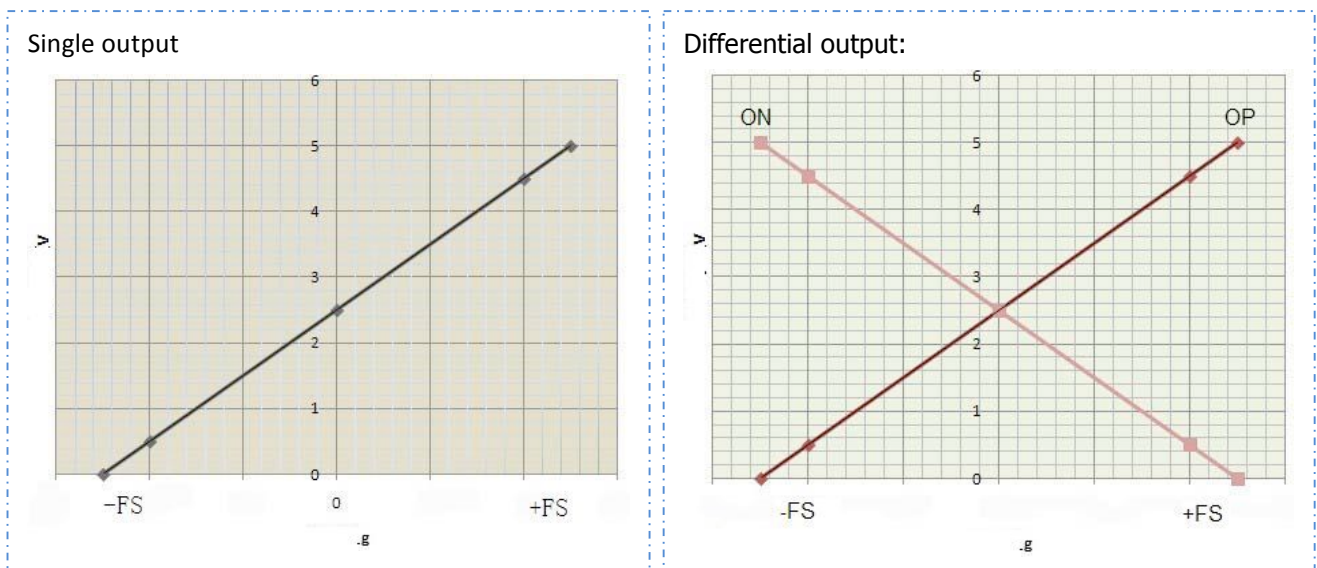
parameter	Min.	Type	Max	Unit
Working temperature	-40	-	85	$^{\circ}\text{C}$
Storage temperature	-55	-	125	$^{\circ}\text{C}$
Anti-shock	-	-	2500	g/0.5ms

Connection definition:

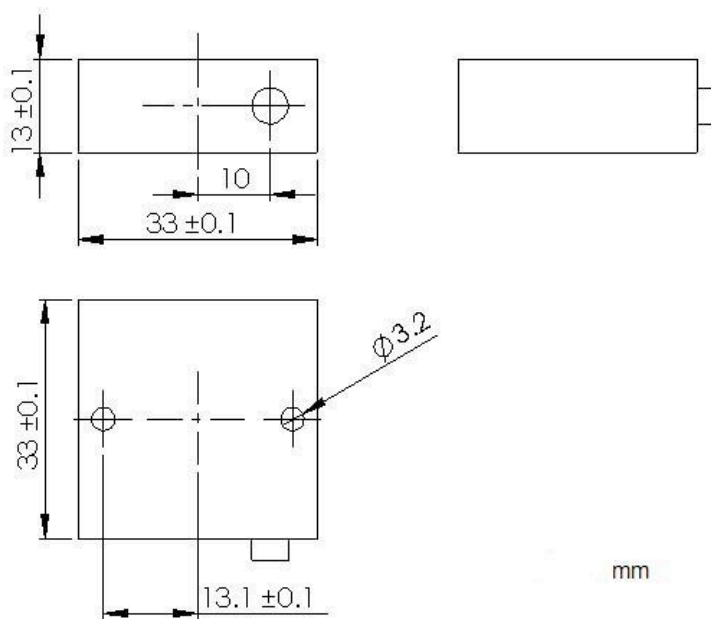
	RED	BLACK	YELLOW	BLUE	GREEN	WHITE	BROWN	GREY	PURPLE	transparent
single	+9~15V	GND	Xout	NC	Yout	NC	Zout	NC	NC	NC
Differential	+9~15V	GND	+ XOP	-XON	+ YOP	-YON	+ ZOP	-ZON	NC	NC

Note: wire impedance 0.23 ohms/m.

Outputs curves:



Size:



mm

Order information:

The accelerometer can be supplied in 1, 2 or 3 axis, as single ended or differential model

Measuring range	output		Remark
	Single	Differential	
±2g	YC-A150x-02S	YC-A150x-02D	'x'=A(single); 'x'=D(dual axis); 'x'=T(three angle)
±13g	YC-A150x-13S	YC-A150x-13D	

Warranty:

1 year warranty of the product from the date of original shipment , but the damage caused for the following reasons not in the guaranteed scope:

A) human remove modification;

B) fails to manual within the specified range use (such as power supply voltage overrun, short circuit, etc.).

2, in order to avoid influence your work, when the product have problem, please contact us as soon as possible, we will provide you high quality and efficient service.

3, the company reserves the right to improve product, product specifications and design are subject to change without notice.