

SA-ACxxHQ3-000

Static accelerometer (3 axis) high quality

Function

- Sensor / amplifier combination to measure axial accelerations in three axis

Features

- No temperature drift influence
- No vibration influence to the signal
- High resistance to vibration shock

Options

- With the amplifier, the measuring range can be adjusted to your specifications
- Measuring ranges between $\pm 1G$ to $\pm 50G$ are possible
- Sensor / amplifier combination will be delivered with calibration sheet



Technical specifications

Electrical characteristics

Voltage supply.....	12 V DC
Output voltage.....	0-5 V
Measuring range..... (other ranges on request)	$\pm 1 / 3 / 10 / 50$ G
Frequency response.....	25 Hz
Error for linearity.....	<1% of FS
Shock resistance..... (in measuring direction)	10000 G

Calibration

Use the formulas on 2nd page to calculate the physical Values.

Mechanical characteristics

Dimensions.....	38 x 38 x 38 mm
Weight.....	155 g
Housing material.....	aluminium
Cable	
type.....	Raychem
wire cross section..	5 x AWG 26
Connector.....	open wires

Environmental data

Ambient operating range.....	-25 to +100 °C
Humidity.....	5 to 95 %
Sealing class.....	IP 67

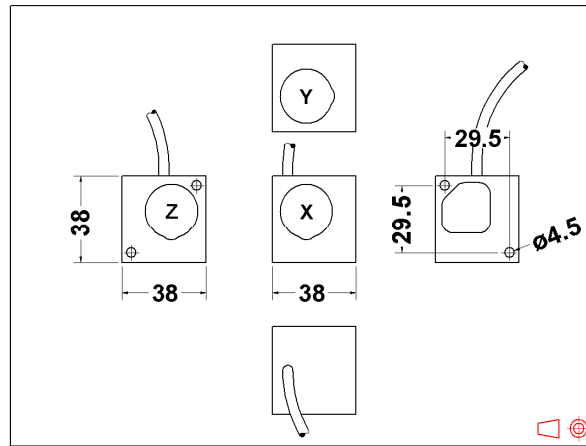
Ordering information

Art.No.:..... SA-ACxxHQ3-000
 see order code on second page for more details

SA-ACxxHQ3-000

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Dimensions

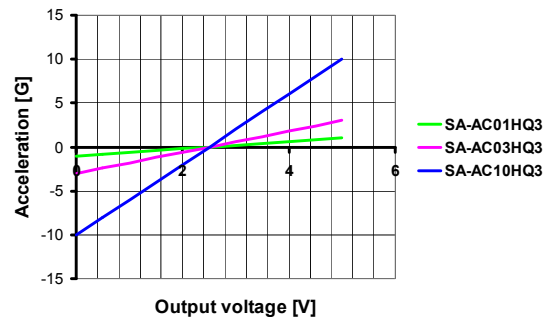


Formulas

	SA-ACxxHQ3-000	Multiplier				Offset		
12 Bit A/D	Acceleration [G]	=	2 * xx / 4095				*	Digits - xx
16 Bit A/D	Acceleration [G]	=	2 * xx / 65535				*	Digits - xx
Voltage*)	Acceleration [G]	=	0.4	1.2	4	20	*	Volt - xx

SA-AC01HQ3	SA-AC03HQ3	SA-AC10HQ3	SA-AC50HQ3
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Replace the **xx** with the acceleration of your sensor:
 → Possible values are 1, 3, 10 or 50G (other values on request)



Connector layout

	Pin	Name	Description	Color
Analog-line Open wires		AGND	Analog Ground	black
		+12V	Power supply	red
		Signal x	x-axis signal	white
		Signal y	y-axis signal	yellow
		Signal z	z-axis signal	brown

Connector type

Sensor with open wires (standard)



Possible options (reference cable and connector) on customer request !

Ordering information

Measuring ranges	order code
Three axis..... ±1G	/ SA-AC01HQ3-000
Three axis..... ±3G	/ SA-AC03HQ3-000
Three axis..... ±5G	/ SA-AC05HQ3-000
Three axis..... ±10G	/ SA-AC10HQ3-000
Three axis..... ±50G	/ SA-AC50HQ3-000

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