2D Debus & Diebold Meßsysteme GmbH, Alte Karlsruher Str. 8, D-76227 Karlsruhe
Tel.: +49(0)721 94485-0 Fax.: +49(0)721 94485-29

SA-ACxxHQ1-000 Static accelerometer (1 axis) high quality

Key Features:

- *Sensor/amplifier combination to measure axial acceleration*
- *No temperature drift influence*
- *No vibration influence to the signal*
- *High resistance to vibration shock*
- *Different Measuring ranges between ±1G to ±50G are possible*
- *Sensor / amplifier combination will be delivered with calibration sheet*

Technical specifications

Electrical characteristics		
Supply voltage	V	12
Output voltage	V	0-5
Measuring range	G	± 1/ 3/ 5/ 10/ 50
Frequency response	Hz	50Hz std.
Error for linearity	% of FS	<1
Shock resistance	G	10000

Environmental data		
Ambient operating range	°C	-25 to +100
Humidity	%	5 to 95
Protection class:	IP	67

Options	
Different frequency responses available	25Hz, 100Hz, 200Hz, 400Hz
Cover plate available	

Mechanical characteristics		
Aluminum Housing		
Dimensions	mm³	30 x 30x 20
Weight	g	40
Cable		
Wire cross section		4 x AWG26
Type		Raychem EPD
Length	mm	1200
Connector type		Binder 719, 5PM

Ordering information	
Different measuring ranges are possible (±1G to ±50G)	
± 5G	SA-AC05HQ1-000
±10G	SA-AC10HQ1-000
±50G	SA-AC01HQ1-000

xx… different measuring range ±1G to ±50G

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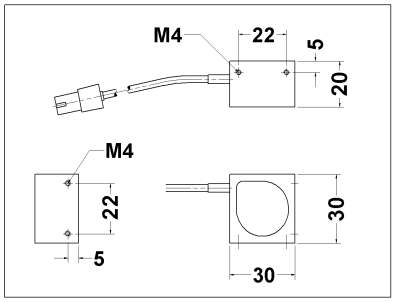
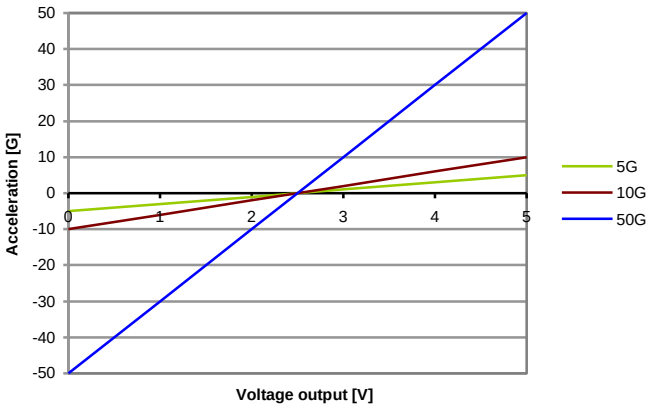
Dimensions



Formulas to calculate physical values

SA-ACxxHQ1-200			Multiplicator						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]	=	2	4	20	*	Volt	-	xx
			SA-AC05HQ1	SA-AC10HQ1	SA-AC50HQ1				

Replace the xx with the acceleration of your sensor. Possible values are 5, 10 or 50G (other values on request)

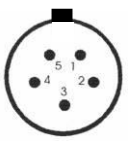


Connector layout

Pin	Name	Description	Colour
1	AGND	Analog ground	black
2	n.c.	Not connected	-
3	+12V	Power supply	red
4	n.c.	Not connected	-
5	Signal	Analog signal	white

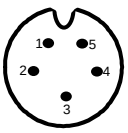
Connector type

Mating plug



Front view
Binder 719 5PF

Connector at sensor



Front view
Binder 719 5PM

xx… different measuring range ±1G to ±50G

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