SA-AC**xxx**ST3-000   Static Accelerometer (3 Axis)

Key Features

> ➢ 3 axis sensing

> ➢ Possible full-scale range of: ±50 G, ±100 G, ±200 G
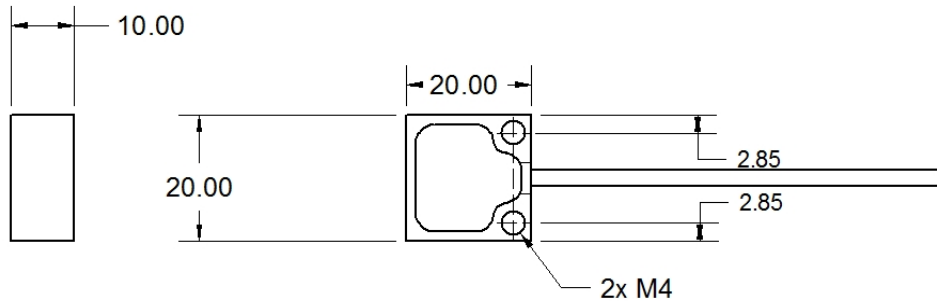
> ➢ High force event detection

Options:

> ➢ Connector and cable length can be modified on customer request

Technical specifications

Electrical characteristics		
Supply voltage	V	12
Output voltage	V	0 to 5
Measurement range	G	±50, ±100, ±200
Filter frequency	HZ	1000
Error of linearity	% FS	<1
Shock resistance element	G	10000
Sensitivity (100G) @ X_{out}/Y_{out}/Z_{out}	mV/G	25
Zero G voltage	V	2.5

Mechanical characteristics		
Housing material		Aluminum
Dimensions	mm	20x20x10.5
Weight sensor	g	10
Weight cable	g	32
Cable		Binder 712, 8PM
Length	mm	1200
Type		Raychem EPD
Wire cross section		5xAWG26

Environmental data		
Protection class	IP	67
Ambient operating range	°C	-25 to +85
Humidity	%	5 to 95

Ordering information	
SA-AC50ST3-000	±50G
SA-AC100ST3-000	±100G
SA-AC200ST3-000	±200G

Dimensions

10.00

20.00

20.00

2.85

2.85

2x M4

Calibration

	SA-ACxxxST3-000		Multiplicator				Offset
12 Bit A/D	Acceleration [G]	=	2 * xx / 4095	*	Digits	-	32767
16 Bit A/D	Acceleration [G]	=	2 * xx / 65535	*	Digits	-	32767

SA-AC50ST3

SA-AC100ST3

SA-AC200ST3

Acceleration [G]

Voltage output [V]

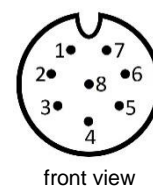- 50G
- 100G
- 200G
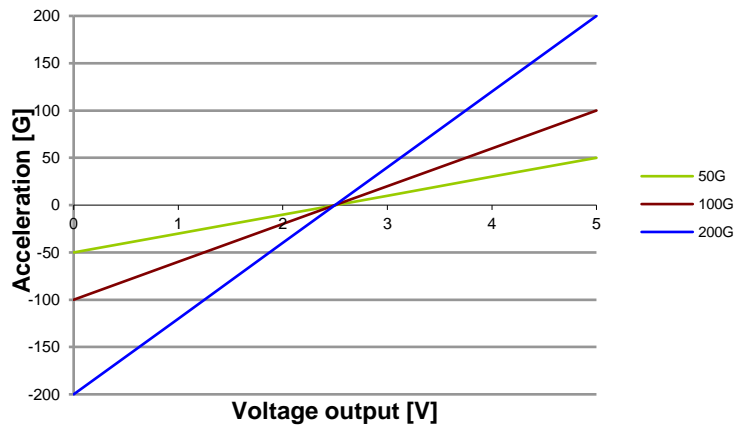
For a more accurate formula please refer to the instructions "How to calibrate the analog input channels of the 3-axis module".

Connector layout   ## Connector type

Binder 712, 8PM

Pin	Name	Description	Color
1	n.c.	not connected	-
2	AGND	Analog ground	black
3	n.c.	not connected	-
4	+12V	12V power supply	red
5	X_{out}	X axis signal	white
6	Y_{out}	Y axis signal	green
7	Z_{out}	Z axis signal	yellow
8	n.c.	not connected	-

front view