



# IB-6

## 6-axis inertial box with analog output

### AC-GAS-2 Axis XY

2 axis gas accelerometer

Range	$\pm 3$ or $\pm 5G$
Accuracy	$\pm 2\%$ FS
Sensitivity	666 to 400 $\pm 2\%$ mV/G
Bandwidth 3dB	DC to 20 $\pm 15\%$ Hz
Signal at 0G	2.5 $\pm 0.05$ V
Offset Drift	$\pm 20$ mV
Gain Drift	$\pm 1.5\%$
Cross axis sensitivity	4%

### AC-CAP-1 Axis Z

1 axis capacitive accelerometer

Range	$\pm 5G$ , $\pm 10G$ , $\pm 15G$ or $\pm 20G$
Accuracy	$\pm 1.5\%$ FS
Sensitivity	400 to 100 $\pm 8\%$ mV/G
Bandwidth 6dB	DC to 100 Hz
Signal at 0G	2.5 $\pm 0.05$ V
Offset Drift	$\pm 20$ mV
Gain Drift	$\pm 1\%$
Cross axis sensitivity	2.5%

### GYRN-1 Axis

1 axis gyroscope  
(3 times single axis)

Range	$\pm 100$ or $\pm 150^\circ/s$
Accuracy	$\pm 2\%$ FS
Sensitivity	20 or 13.3 mV/G
Cut off frequency	50 Hz
Signal at 0°/sec	2.5 $\pm 0.1$ V
Offset Drift	$\pm 25$ mV
Gain Drift	$\pm 1\%$

## IB-6 specifications

Supply voltage	5 to 16 V
Supply current	28 mA
Output voltage	0 – 5 V
Output impedance	47 $\Omega$
Dimension	36 x 26.5 x 25.5 mm
Material	Aluminium
Weight	TBD g
Vibration test	20 Gpp 5'
Shock	500 G
Operating temp	-20 to +85°C
Storage temp	-20 to +125°C

## Pinout

Connector : ASDD-0-08-11-P-N

Function	Pin
Supply Acc	1
0V Acc	2
Signal X Acc	3
Signal Y Acc	4
Signal Z Acc	5
Supply Gyro	6
0V Gyro	7
Signal X Gyro	8
Signal Y Gyro	9
Signal Z Gyro	10
Not connected	11

Ordering ref ex: IB6-XY5-Z15-GX150-GY50-GZ150  
IB6-XYRange-ZRange-GXRange-GYRange-GZRange

Range				
Acc XY	$\pm 3g$	$\pm 5g$		
Acc Z	$\pm 5g$	$\pm 10g$	$\pm 15g$	$\pm 20g$
Gyro XYZ	$\pm 50^\circ/s$	$\pm 100^\circ/s$	$\pm 150^\circ/s$	

<b>IB6</b>	
<b>3 AXIS Accelerometer and 3 AXIS Gyroscope</b>	
Ref:	
SN:	
Acc gas Soft. Version :	

Texsys sensors are designed for data recording. If the user wants to include this sensor in a close loop system or active control, he must assume all responsibility.

Accelerometer gas		
X-Y Range	±3, ±5	G
X-Y Accuracy	±2	%FS
X-Y Sensitivity	666 to 400 ±2%	mV/G
X-Y Bandwidth 3dB	DC to 20 ±15%	Hz
X-Y signal at 0G	2.5 ±0.05	V
Offset Drift (20 to 80°C)	±20	mV
Gain Drift (20 to 80°C)	±1,5	%
Cross axis sensitivity	4	%

Accelerometer capacitive		
Z Range	±5, ±10, ±15, ±20	G
Z Accuracy	±1.5	%FS
Z Sensitivity	400 to 100 +/-8%	mV/G
Z Bandwidth 6dB (std)	DC to 100	Hz
Z signal at 0G	2.5 ±0.05	V
Offset Drift (20 to 80°C)	±20	mV
Gain Drift (20 to 80°C)	±1	%
Cross axis sensitivity	2,5	%

Gyroscope		
Range	±50, ±100, ±150	°/s
Accuracy	±2	%FS
Sensitivity	40, 20, 13.3	mV/°/s
Cut off frequency 1st order	50	Hz
signal at 0°/sec	2.5 ±0.1	V
Offset drift (20 to 80°C)	±25	mV
Gain Drift (20 to 80°C)	±1	%

Supply Voltage	5 to 16	V
Supply Current	28	mA
Output Voltage	0-5	V
Output Impedance	47	Ω

Housing Dim	36x26.5x25.5	mm
Material	Aluminium	
Weight	60	g
Protection	IP66	

Vibration test	20Gpp 5'	
Shock	500	G

Operating Temp	-20 to +85	°C
Storage Temp	-40 to +125	°C

Accelerometer Sensor Readings			
	X	Y	Z
Signal (V) @ -1G			
Signal(V) @ 0G			
Signal (V) @ +1G			
Sensitivity (mV/G)			
Cut off frequency (Hz)			
Cross axis (%)			

Gyroscope Sensor Readings		
	0°/s	mV/°/s
X		
Y		
Z		

Connector : ASDD-0-08-11-P-N

Function	Pin
Supply Acc	1
0V Acc	2
Signal X Acc	3
Signal Y Acc	4
Signal Z Acc	5
Supply Gyro	6
0V Gyro	7
Signal X Gyro	8
Signal Y Gyro	9
Signal Z Gyro	10
Not connected	11

Acc. Calibration table						Gyro. Calibration table			
g	3G 66.6mV/g	5G 400 mV/g	10G 200 mV/g	15G 133mV/g	20G 100mV/g	°/s	±50°/s 40mV/°/s	±100°/s 20mV/°/s	±150°/s 13.3mV/°/s
-20					0.5				
-15				0.5	1.0	-150			0.5
-10			0.5	1,17	1.5	-100		0.5	1,17
-5		0.5	1.5	1,83	2.0	-50	0.5	1.5	1,83
-3	0.5	1.3	1.9	2.1	2.2	-25	1.5	2	2,17
0	2.5	2.5	2.5	2.5	2.5	0	2.5	2.5	2.5
3	4.5	3.7	3.1	2.9	2.8	25	3.5	3	2,83
5		4.5	3.5	3,17	3.0	50	4.5	3.5	3,17
10			4.5	3,83	3.5	100		4.5	3,83
15				4.5	4.0	150			4.5
20					4.5				

Out of Range

Ordering ref ex: IB6-XY5-Z15-GX150-GY50-GZ150

IB6-XYRange-ZRange-GXRange-GYRange-GZRange

Range				
Acc XY	±3g	±5g		
Acc Z	±5g	±10g	±15g	±20g
Gyro XYZ	±50°/s	±100°/s	±150°/s	

