

# GIB Inclination Sensors

## Single/Dual Axis Entry-Level Tilt Sensors (Z/XY)

### Overview

The entry-level tilt sensors offer a space-saving, high performance, and easy installation. Along with a high IP protection level, resistance to shock and vibration, and high electromagnetic compatibility, this product is suitable for mobile hydraulics applications, agricultural machines, construction machines and material handling equipment.

### Features

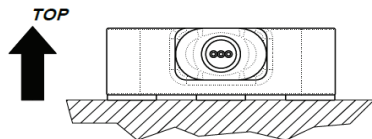
- Voltage or current analog output
- 8 models available
- 2m axial cable
- IP67/IP69K rated
- PKIT312-1QJ Magnetic Pen included with Dual Axis GIB models
- 3-year warranty



**GIB-XY-015-V-2A**



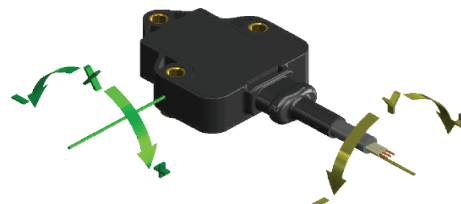
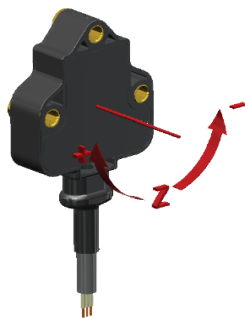
GIB Inclination Sensors							
Part Number	Price	Number of Axis	Measuring Range	Accuracy	Output	Connection	Drawing Link
<a href="#">GIB-Z-360-V-2A</a>	\$192.00	1	+/- 180 degrees	+/-0.5 degrees	0-10 VDC	pigtail: 6.5ft/2m	<a href="#">PDF</a>
<a href="#">GIB-Z-360-A-2A</a>	\$189.00	1	+/- 180 degrees	+/-0.5 degrees	4-20 mA	pigtail: 6.5ft/2m	<a href="#">PDF</a>
<a href="#">GIB-XY-015-V-2A</a>	\$192.00	2	+/- 15 degrees	+/-0.5 degrees	0-10 VDC	pigtail: 6.5ft/2m	<a href="#">PDF</a>
<a href="#">GIB-XY-015-A-2A</a>	\$189.00	2	+/- 15 degrees	+/-0.5 degrees	4-20 mA	pigtail: 6.5ft/2m	<a href="#">PDF</a>
<a href="#">GIB-XY-045-V-2A</a>	\$192.00	2	+/- 45 degrees	+/-0.5 degrees	0-10 VDC	pigtail: 6.5ft/2m	<a href="#">PDF</a>
<a href="#">GIB-XY-045-A-2A</a>	\$189.00	2	+/- 45 degrees	+/-0.5 degrees	4-20 mA	pigtail: 6.5ft/2m	<a href="#">PDF</a>
<a href="#">GIB-XY-085-V-2A</a>	\$192.00	2	+/- 85 degrees	+/-0.5 degrees	0-10 VDC	pigtail: 6.5ft/2m	<a href="#">PDF</a>
<a href="#">GIB-XY-085-A-2A</a>	\$189.00	2	+/- 85 degrees	+/-0.5 degrees	4-20 mA	pigtail: 6.5ft/2m	<a href="#">PDF</a>



SINGLE AXIS

<b>ANALOG CONNECTIONS DUAL AXIS X-Y</b>		<b>ANALOG CONNECTIONS SINGLE AXIS Z</b>	
BLACK	GROUND	BLACK	GROUND
RED	+ SUPPLY	RED	+ SUPPLY
YELLOW	OUTPUT X	YELLOW	OUTPUT Z
GREEN	OUTPUT Y	GREEN	n.c.
BLUE	n.c.	BLUE	n.c.
WHITE	n.c.	WHITE	n.c.

ITEMS MARKED "n.c." MUST NOT BE CONNECTED



DUAL AXIS

## GIB-XY Inclination Sensor Accessory

Accessory		
Part Number	Price	Description
<a href="#">PKIT312-1QJ</a>	\$16.00	Gefran magnetic pen, for use with Gefran GIB-XY inclination sensors.



# GEFRAN GIB Inclination Sensors

BEYOND TECHNOLOGY

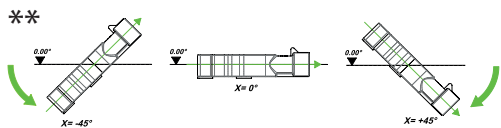
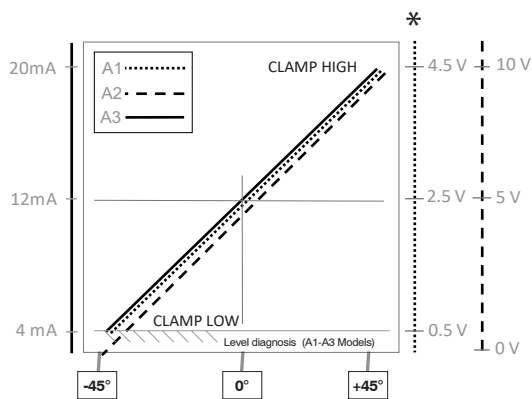
## Specifications

GIB Inclination Sensor Specifications	
Specification	
<b>Measurement Range</b>	$\pm 15^\circ \pm 45^\circ \pm 85^\circ$ (single axis Z for analog output-dual axis XY) $360^\circ (\pm 180^\circ)$ single axis Z only
<b>Supply Voltage</b>	+10 to +36 VDC
<b>Output Signal</b>	0-10 VDC; 4-20mA
<b>Electrical Connections</b>	PUR cable 22 AWG
<b>Resolution</b>	12 bit
<b>Accuracy (Factory Verification @ 25 °C)</b>	< $\pm 0.5\%$ FS
<b>Response Time</b>	~650 ms
<b>Working Temperature</b>	-40 to +85°C [-40 to 185°F]
<b>Temperature Coefficient at 0-deg inclination</b>	Typical < $\pm 0.006$ deg/°C
<b>Long Term Repeatability</b>	Single Axis: Typical < $\pm 0.5$ deg in the range of $\pm 180$ deg Dual Axis: Typical < $\pm 0.5$ deg in the range $\leq \pm 60$ deg, $\pm$ deg otherwise
<b>Vibrations</b>	20g 10Hz to 2000Hz IEC 60068-2-6
<b>Shock</b>	Impulsive on 3 axis: 50g 11ms IEC 60068-2-27
<b>Electromagnetic Compatibility</b>	2014/30/EU Electromagnetic Compatibility (EMC)
<b>IP Protection Level</b>	IP67-IP69X
<b>Housing Material</b>	PBT [Polybutylene Terephthalate]
<b>Autozero Function</b>	Dual Axis models only
<b>Agency Approval</b>	CE

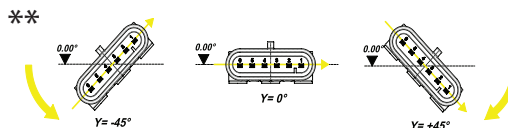
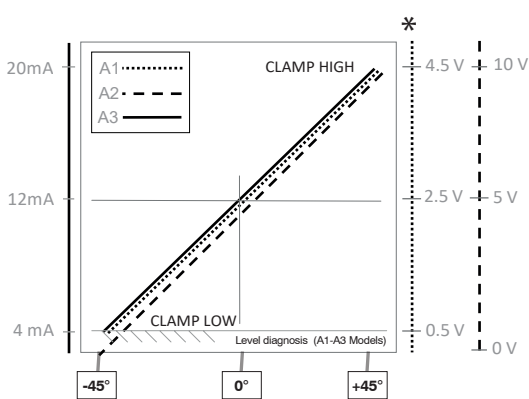
To obtain the latest agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

## FUNCTIONS: SENSOR OUTPUT GRAPH

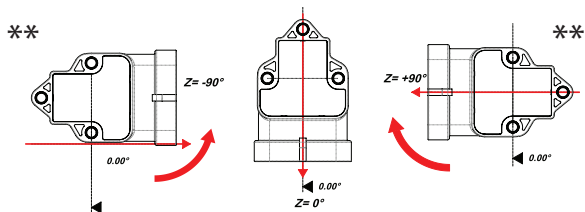
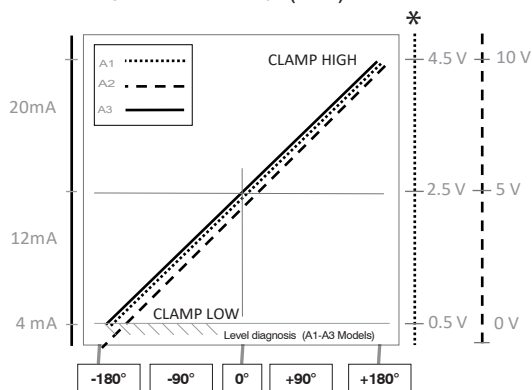
DUAL AXIS TILT SENSOR (XY) - X AXIS



DUAL AXIS TILT SENSOR (XY) - Y AXIS



SINGLE AXIS TILT SENSOR ( $\pm 180^\circ$ ) - Z AXIS



**LOAD CONDITIONS**

- \* +0.5 VDC to +4.5 VDC output with power, +10 to 36 VDC and +0 to 10 VDC output with power +11 to 36 VDC: load resistance > 100 kohm
- \* +0.5 VDC to +4.5 VDC output with power +5 VDC: load resistance > 100 kohm
- +4 to 20mA output with power < 15 VDC up to 10 VDC: the maximum load resistance is admissible 200 ohm
- +4 to 20mA output with power > 15 VDC up to 36 VDC: the maximum load resistance is admissible 500 ohm

\* 0-5V models are not offered by AutomationDirect at this time.

\*\* Rotation drawings shown with AMP Superseal 6P connections. AutomationDirect does not currently carry these models however, the cabled versions operate in the same fashion.