



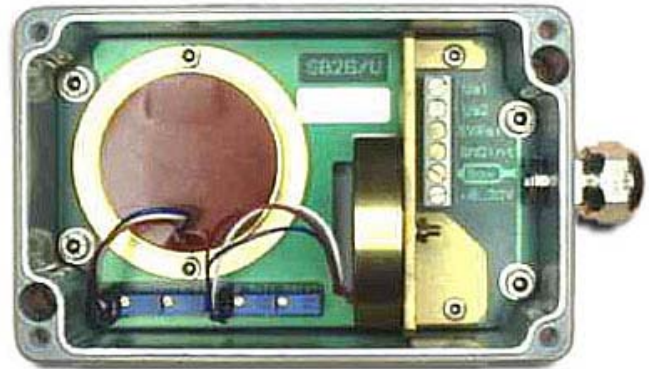
RIEKER
INCORPORATED

SBG2U (0-5V)

Dual Axis Inclinometer Sensor Package

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Rugged, Environmentally Sealed Inclinometer Package with Two Integrated NG Sensors and Signal Amplifiers, Providing Temperature Compensated Dual Axis Analog 0...5V Output



Features

- Rugged pressure die-cast Aluminium housing with saltwater resistant coating
- IP65 to IP67 Environmental Protection
- 2 integrated 0...5V amplifiers
- Temperature drift compensation
- 8...30V unregulated power supply
- Angle measuring range can be scaled to customer requirements
- Compatible with NG Sensor
- Sensor and amplifier are galvanically separated from the housing
- Extensive EMC protection
- Highly stable sensor supply voltage
- Programmable dynamic response
- 5V reference voltage is available
- High overload resistance
- Low-pass signal filter with optional setting of maximum frequency for suppression of interference frequencies

Description

The SBG2U sensor box is packaged in a solid and compact pressure-cast aluminum housing with two integrated sensors for dual axis inclination measurement.

Within the box are 2 amplifier sections, each with 0...5V output signal and a separate highly stable power supply for the sensor (this can be used as an external voltage reference). The amplifiers contain a low-pass filter for upper frequency limitation, with noise suppression filtering and a diode bridge guarantee the electromagnetic compatibility. Both sensor and amplifier are galvanically isolated from the housing - further reducing susceptibility to outside noise. Specific response time constants and maximum current output limitations are additional options.

The NG sensors add a very high degree of accuracy and a considerably reduced temperature drift over the whole temperature range. The strong metal PG cable fixing combined with the high voltage signal output makes the SBG2U a high-quality system for use under many types of harsh working conditions.

Applications

The SBG2U is used where a high degree of accuracy for inclination measurements need to be combined with a high level DC voltage output. It has been used in building construction, car manufacturing, mining, radar systems, bridges, ships, agricultural equipment, and all types of process machinery.

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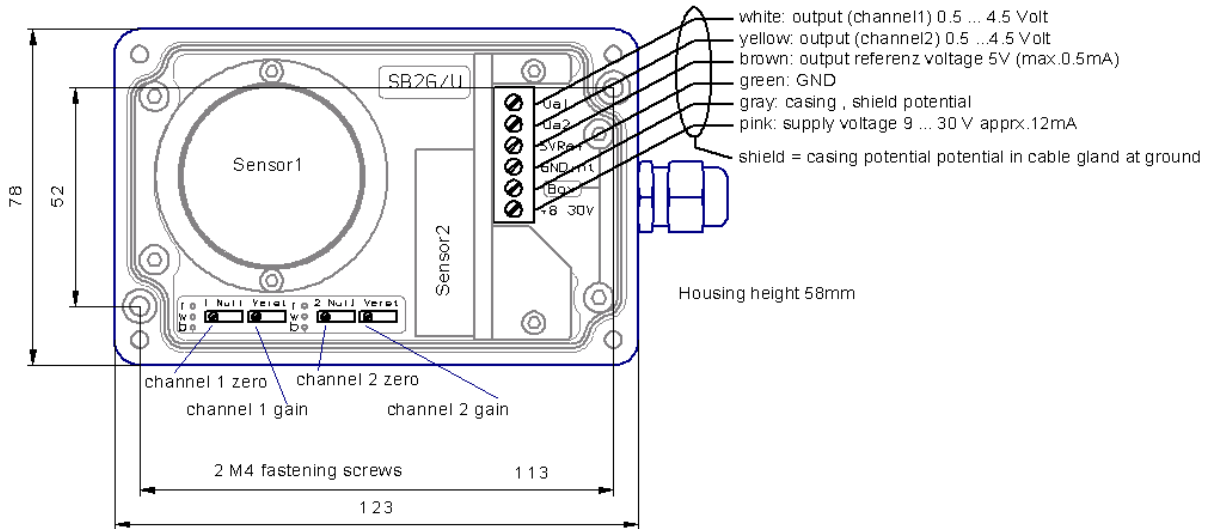
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TECHNICAL DATA	
Termination/Cable Diameter	max.: 6 x 1 mm ² / Ø 5 ... Ø7 mm
Cable Fixing	M12 x 1.5 cable gland, clamping range 6mm ... 7.5mm
Measuring Ranges	In accordance with selected NG sensor
Protection Degree	IP65 (with RTV fill IP67)
Mounting	Wall mounted, flat vertical surface
Sensor Measuring Planes	Parallel and 90° to the base of the housing
Supply voltage to the box	+8 ... +30 Volt
Output current	Approx. 12mA
Measuring range of output signal	+0.5 to +4.5 Volt
Maximum range of output signal	+0.05 to +4.95 Volt
Reference initial voltage	(5+/-0.005) Volt (max. 10mA)
Output impedance	100Ω
Output signal zero	+2.5 Volt
Adjustable parameters via potentiometers	Signal-zero (2.5V), Span
Low-pass filter	Active, 3 rd order, minimal ripple
Operating temperature	-40 ... +85°C
OPTIONS	
Scaled Angle Measuring Ranges, Calibration Certificate, Silicone RTV Filled Housing (IP67)	
The SBG2U Sensor Box is extremely versatile, allowing various configurations. If you have an application that requires alternative specifications, one of our engineers will be happy to discuss how to customize the box for your inclination or acceleration needs.	

FIGURE 1: Dimensions ([mm]) and Mounting Position



Attention! Do not short circuit the supply voltage with one of the outputs.

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