

**Sensor box containing three SEIKA sensors and three signal conditioners with 0...5V or +/-4V output.**

## Features

- Robust pressure die cast aluminium housing (IP67) with saltwater proof coating
- twist free 4-point 3.2mm thick PCB
- three integrated sensors and three signal conditioners with either 0...5V or (optional) +/-4V output
- all SEIKA sensors of type B, BD, N and NB can be mounted inside the housing in three different axes
- temperature drift compensation
- 9...30 Volt operating voltage
- sensors and voltage signal conditioners are galvanically separated from the housing
- EMC certified
- internal highly stable sensor supply voltages
- high mechanical overload resistance
- voltage polarity protection
- low pass filter with optional choice of cut-off frequency

## Description

The sensor box SBG3U is a pressure die cast aluminium housing (IP67) with three integrated sensors for measuring accelerations and/or inclinations along three axes. In addition to the sensors, the sensor box contains three independent voltage signal conditioners, providing a 0...5V or a +/-4V voltage output. Furthermore, each conditioner includes an active low pass filter, whose upper cut-off frequency / setting time can be adjusted to suit the measurement task. Sensors and amplifiers are electrically isolated from each other and from the housing. The robust metal cable gland and compact housing size allow the use of this high quality measurement systems in harsh operating conditions.

## Application

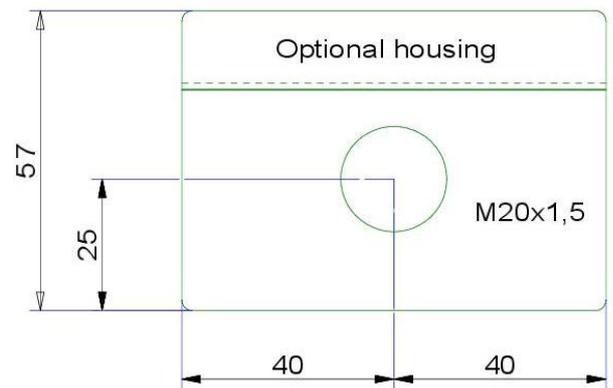
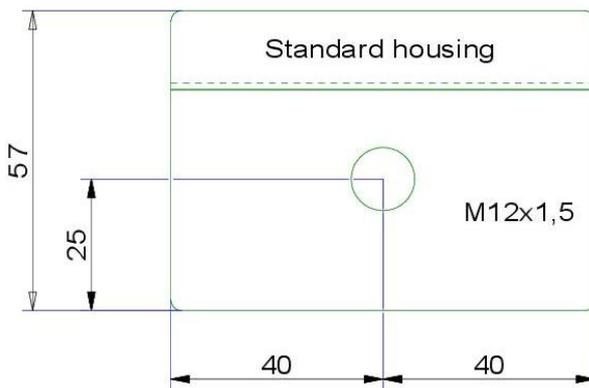
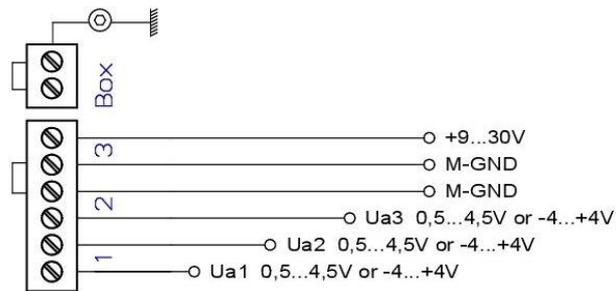
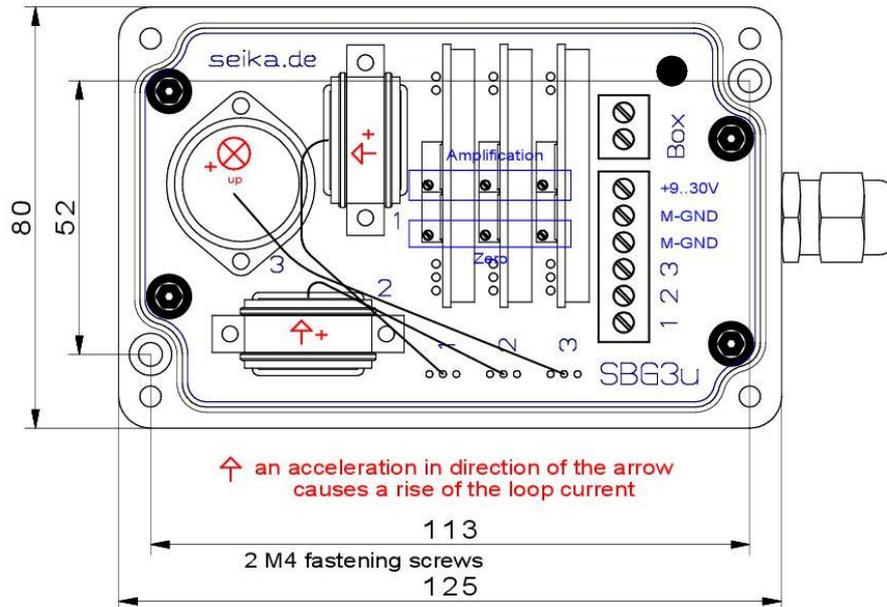
The SBG3U is suitable for applications requiring precise acceleration or inclination measurements along three axes under harsh environment conditions. Typical areas of application include construction, mining and agricultural machinery, transportation and conveyor systems, ships, automation technology as well as general mechanical engineering.

**Technical specifications**

Terminal	6 x 1,5mm <sup>2</sup> (plus 2 x 1,5mm <sup>2</sup> housing connection)
Cable gland	M12x1,5 (metal with integrated stress relief, clamping range 6...7,5mm)  <u>Optional:</u>  M20x1,5 (metal with integrated stress relief, clamping range 7...12mm)
Measuring range, Resolution, ...	depends on integrated SEIKA sensors
Ingress protection	IP67
Mounting orientation	any (standard: wall mounting with cable gland to right)
Supply voltage	9...30 Volt
Current consumption	ca. 15mA
Output voltage range	0...5V (option: +/-4V)
Output zero point	2,5V (option: 0V)
Output resistance	100 Ohm
Low-pass filter	Active, third-order, minimal ripple
Operating temperature	-40...+85°C

Options : silicon potting

Dimensions (in mm) and connection



Conductive seal between housing and cover  
 IP67 and RF-tight (EMC)  
 Seawater-resistant paint, Color: gray (RAL 7001)