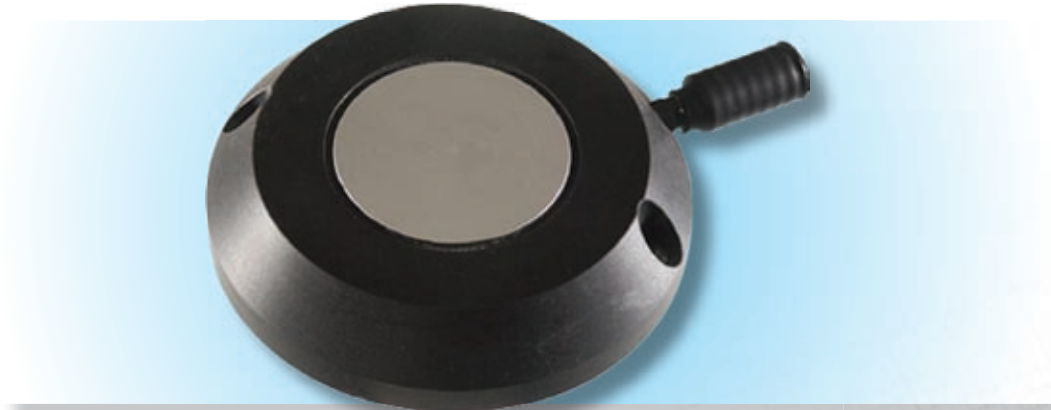


Resonant Bulk Level Sensor

The Gill Bulk Material Level Sensor provides a simple binary logic indication of the presence or absence of dry bulk powder, granules or grain in contact with the front sensing face.

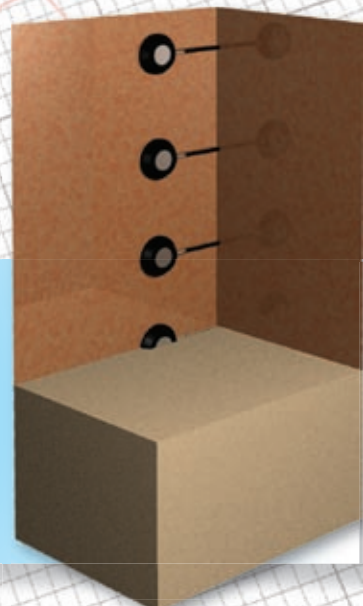


The sensor utilises a complex vibratory excitation to sense the presence of material in contact with the face. The sensor is only suitable for dry materials and not liquids. The sensing surface is flush with the sensor body and avoids entrapment of material. The design has incorporated a tough durable sensing face capable of withstanding impact and high static loads. It is intended for mounting upon an approximately vertical surface within a container and will typically be deployed in multiples to give level estimation.

The unit has a sensing face of 42mm diameter within a body diameter of 87mm. The unit is 19mm deep with a three core flying lead exiting from one side.

The technology employed within this sensor offers many advantages over traditional bulk level sensors, such as paddle sensors. This maintenance free device can be incorporated into silo, hopper and bin applications, where sensor access is remote and often dangerous, offering potentially large savings to the end user.

Typical sensor configuration



Principle of Operation



The sensor emits a frequency which changes when bulk material covers the metal face.

This change in frequency produces a switching output which can be used to trigger an alarm, LED etc.

Resonant Bulk Level Sensor

Typical applications for the Resonant Bulk Level Sensor

Agricultural

- Grain
- Wheat
- Soybeans
- Peas
- Millet
- Corn
- Rice
- Beads
- Wood Flour
- Most powders and granulated products

Industrial

- Dust Fibre
- Granule Dispensers and food products

Wiring

A 3-wire flying lead is provided:

- Blue: Supply negative and signal ground
- Red: Supply positive 6VDC to 24VDC
- Yellow: Signal output

General Specification

Size	19 x 87 x 87 (DxWxL)
Electrical Supply Voltage	6VDC to 24VDC nominal (32VDC max) 1.7J surge suppressor fitted
Electrical Supply Current	<10mA (independent of voltage)
Electrical Output	Open collector output
Operating Temperature	-20°C to +85°C (non-condensing)
Sealing	IP65
Mounting	2 x 4mm dia. holes on 78mm centres
Website Link	www.gillsensors.co.uk/content/bulk_sensor.htm



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