

Type BLS

Horizontally-Mounted:
Ultrasonic Sensor

-40°F to +238°F
Temperature Range

12-30VDC
Supply Voltage

Stainless Steel with PEEK
Materials



ABOUT TYPES BLS 10, BLS 11, BLS 20, BLS 30 Ultrasonic Sensor

- One sensor detects different media (liquids, bulk goods, foams: sticky, pasty or high or low viscosity)
- Maximum temperature stability and repeat accuracy
- Resistant to shocks and vibrations
- Response time < 100 ms
- Fully integrated electronics
- Maintenance-free
- Easy to install
- LED switching point indicator
- IP67 304 or 316 SS enclosure & PEEK tip
- Process temperature range -40°F to +238°F

Application Examples:

- Shipbuilding
- Chemical Engineering
- Food Industry
- Sewage Treatment

For more information about our complete line of horizontally-mounted liquid level switches, visit our web site at:
<http://www.granzow.com/liquidlevelcontrols/horizontal/>



The BLS Level Sensor, an innovative product for level detection and monitoring.

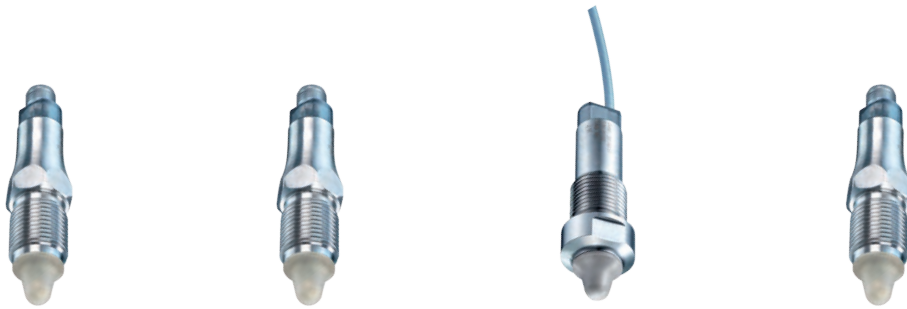
- One sensor detects different media (liquids, bulk goods, foams: sticky, pasty or high or low viscosity)
- Maximum temperature stability and repeat accuracy
- Resistant to shocks and vibrations
- Response time < 100 ms
- Fully integrated electronics
- Maintenance free
- Small and good looking design
- LED switching point indicator
- Factory setting for DK (ε) ≥ 2.5



One sensor for many applications in different industries:

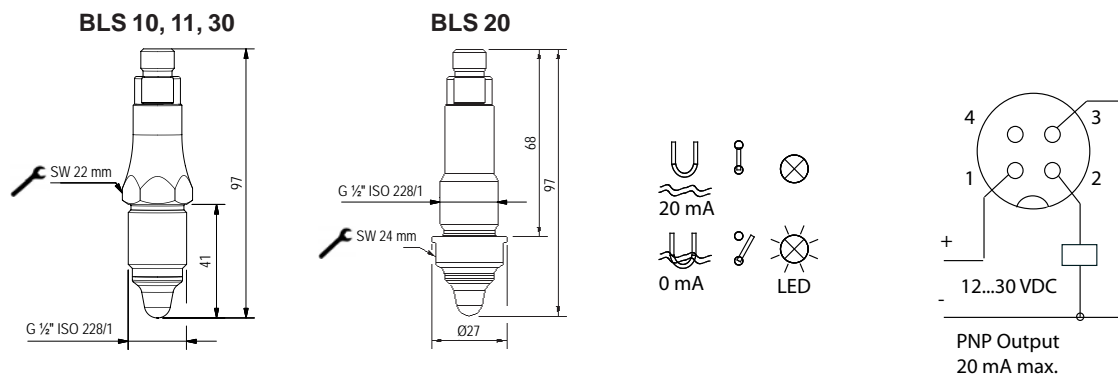
- Pharmaceutical
- Laboratory
- Food & beverage
- Watermanagement
- Railway and vehicle construction
- Machinery and apparatus engineering
- Plant construction
- Chemical and petrochemical industry
- Shipbuilding





Type	BLS 10	BLS 11	BLS 20	BLS 30 ¹⁾
Process connection	G 1/2"	G 1/2"	G 1/2"	G 1/2"
Process temperature	-40 to +115 °C	-40 to +115 °C	-40 to +115 °C	-40 to +115 °C
Ambient temperature	-40 to +85 °C	-40 to +85 °C	-40 to +70 °C	-40 to +85 °C
Max. process pressure	100 bar	100 bar	100 bar	100 bar
Electrical connection	Connector M12	Connector M12	Cable 5 m	Connector M12
Power supply	12...30 VDC, 35 mA max.	12...30 VDC, 35 mA max.	12...30 VDC, 35 mA max.	12...30 VDC, 35 mA max.
Enclosure	IP67	IP67	IP67	IP67
Output configuration	PNP	PNP	PNP	PNP
Housing material	1.4404 / ASI 316L	1.4301 / ASI 304	1.4404 / ASI 316L	1.4404 / ASI 316L
DNV Approval	x	x	x	x
ATEX Approval				Ex ia IIC T5, ATEX II 1G (Gas)

¹⁾ Isolation module on demand

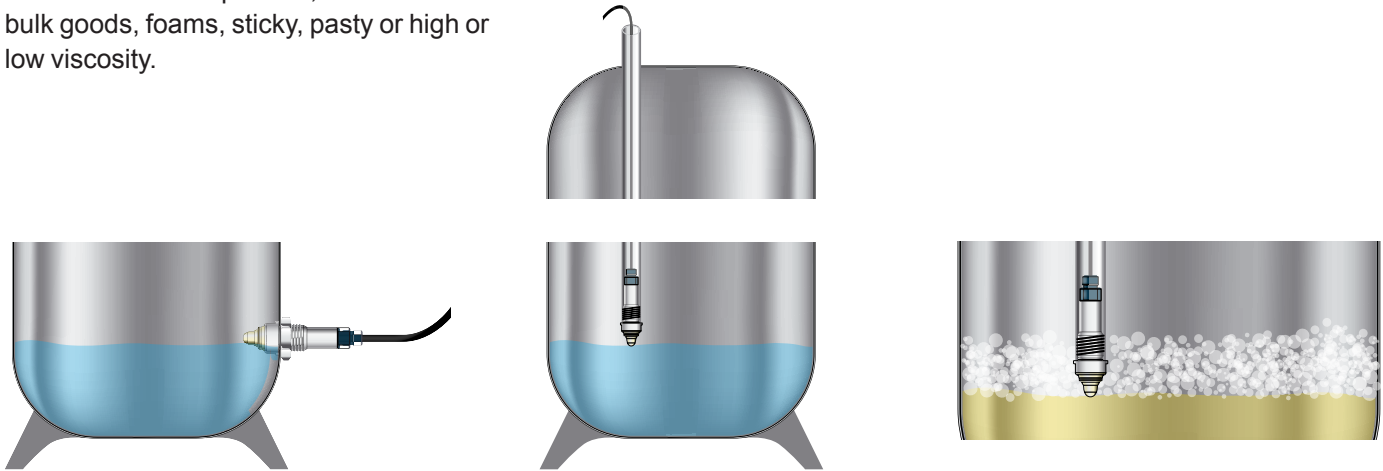


The tip of the sensor is made of PEEK plastic. The sensor works on the principle of frequency-sweep technology. The sensor output can be switched from digital to pulse width modulation (PWM). The sensor recognizes different media and can therefore be used for media separation. The analysis of the PWM signal must be done in the connected control unit (PLC).

Typical applications

- Level detection for storage tanks, containers and pipelines.
- Detection of different media.
- Protecting pumps from running dry.

BLS Level Sensor for DK-values (ϵ) > 2.5
i.e. for almost all liquids ok, but also for
bulk goods, foams, sticky, pasty or high or
low viscosity.



Pharmaceutical / Laboratory:

- Liquids
- Cream and paste
- Powder
- Granules
- Pills

Food and beverage industry:

- Water
- Milk products
- Beer
- Yogurt
- Coffee beans
- Liquid chocolate
- Edible oil
- Sauces

Industry / Petrochemical:

- Water
- Waste water
- Oil
- Ammonia
- Methanol

Approvals

- ATEX
- DNV Marine Approval
- FDA (on demand)

