

## Warranty and Support

.....  
serial number

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manufacturing date

QC check mark .....(passed)  
(stamp)

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### Warranty

BASI Instrument AB warrants this product to be free from defects in materials and workmanship for 1 year. If your unit is found to be defective within that time, we will promptly repair or replace it. This warranty does not cover accidental damage, wear or tear, or consequential or incidental loss. This warranty does not cover any defects caused by wrong transportation, storage, installation, or operating (see 'Specifications').

### Technical support

In the unlikely event that you encounter a problem with your BASI device, please call your local dealer or contact directly our support team.

v5-06.09

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## OPTICAL LEVEL SWITCH

### BLC SO

#### OPERATION MANUAL



Please read this Operation Manual before mounting and operating!  
Save the Manual for future references!

QD-8.2.4-WC

## Overview

The BLCSO level sensor can be used as a single level switch for sensing presence or absence of liquid. It is suitable for the most of the low-viscose industrial liquids and – thanks to its stainless steel casing and polysulphone light sensor – for hygienic applications too. This switch is especially useful in cases, in which float and conductive sensors are not applicable, and capacitive and pressure sensors are too expensive.

## Specifications

Sensing Element	polysulphone solid-state optical sensor
Liquid Type	low-viscose
Repeatability	1 mm
Hysteresis	1 mm (depending on liquid)
Output	<input type="checkbox"/> relay 5A/250VAC with NO contact, <input type="checkbox"/> relay 5A/250VAC with NC contact, <input type="checkbox"/> transistor NPN 0.1A/60V with NO action, <input type="checkbox"/> transistor NPN 0.1A/60V with NC action, <input type="checkbox"/> transistor PNP 0.1A/60V with NO action, <input type="checkbox"/> transistor PNP 0.1A/60V with NC action, <input type="checkbox"/> MOS gate 0.1A/60V, optically isolated
Transistor Voltage Drop (output ON)	max. 2 V
Response Time (level ON)	< 100 ms
Response Time (level OFF)	< 1 s
Power Supply	12...24 VAC/DC $\pm$ 10% p-p at 50 Hz
Consumption (output ON)	<input type="checkbox"/> 100 mA, <input type="checkbox"/> 150 mA
Connection Thread	<input type="checkbox"/> G $\frac{3}{8}$ ", <input type="checkbox"/> G $\frac{1}{2}$ ", <input type="checkbox"/> $\frac{3}{8}$ " NPT, <input type="checkbox"/> $\frac{1}{2}$ " NPT, <input type="checkbox"/> .....
Medium Temperature	-40...120 °C; submersed: -20...75 °C
Medium Pressure	max. 25 bar; submersed: max. 6 bar
Ambient Temperature / Humidity	-20...75 °C / 0...95% RH
Storage Temperature	-40...85 °C
Wetted Parts	stainless steel; IP68
Enclosure	stainless steel; <input type="checkbox"/> IP65, <input type="checkbox"/> IP68
Wiring	<input type="checkbox"/> DIN43650 connector, <input type="checkbox"/> ..... cable ..... m

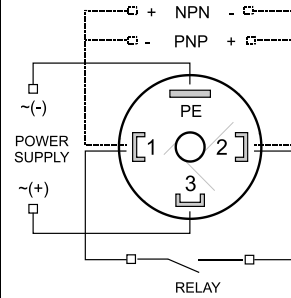
## Mounting and Wiring

### Mounting

- ◆ The BLCSO with connector (BLCSO-1) is designed for side mounting, while the variant with cable (BLCSO-2) can also be used submersed.
- ◆ To mount the switch on a vessel wall, use the connection thread (see 'Specifications') and an appropriate gasket.

### Wiring

- ◆ Wire BLCSO-1 via its connector, following the diagram on the left.
- ◆ When wiring an BLCSO-2, mind the wiring diagram and the pin-to-wire correspondence for the different output types.



	Pin #	Relay	PNP/NPN
Wire colors	1	red	red
	2	red	black
	3	white	white
	PE	white	white

## Waste Disposal



*Do not dispose of electronic devices together with household waste material!*

If disposed of within European Union, this product should be treated and recycled in accordance with the laws of your jurisdiction implementing the WEEE Directive 2002/96 on the Waste Electrical and Electronic Equipment.