

## Next generation Balluff M08 capacitive sensors with IO-Link

# IMPROVED PROPERTIES, FAMILIAR RELIABILITY

Capacitive sensors from Balluff detect fill levels and recognize objects. The new generation of cylindrical sensors in M8 design combines familiar reliability with improved mechanical and electronic properties.

The compact stainless steel housing with integrated potentiometer provides easy access and user friendly adjustment. Adjustment of the sensing distance after installation of the sensor increases reliability by compensating for all installation-related disturbance parameters. As additional confirmation of optimum sensitivity, the switching status is indicated by an LED.

### Precise and flexible with IO-Link

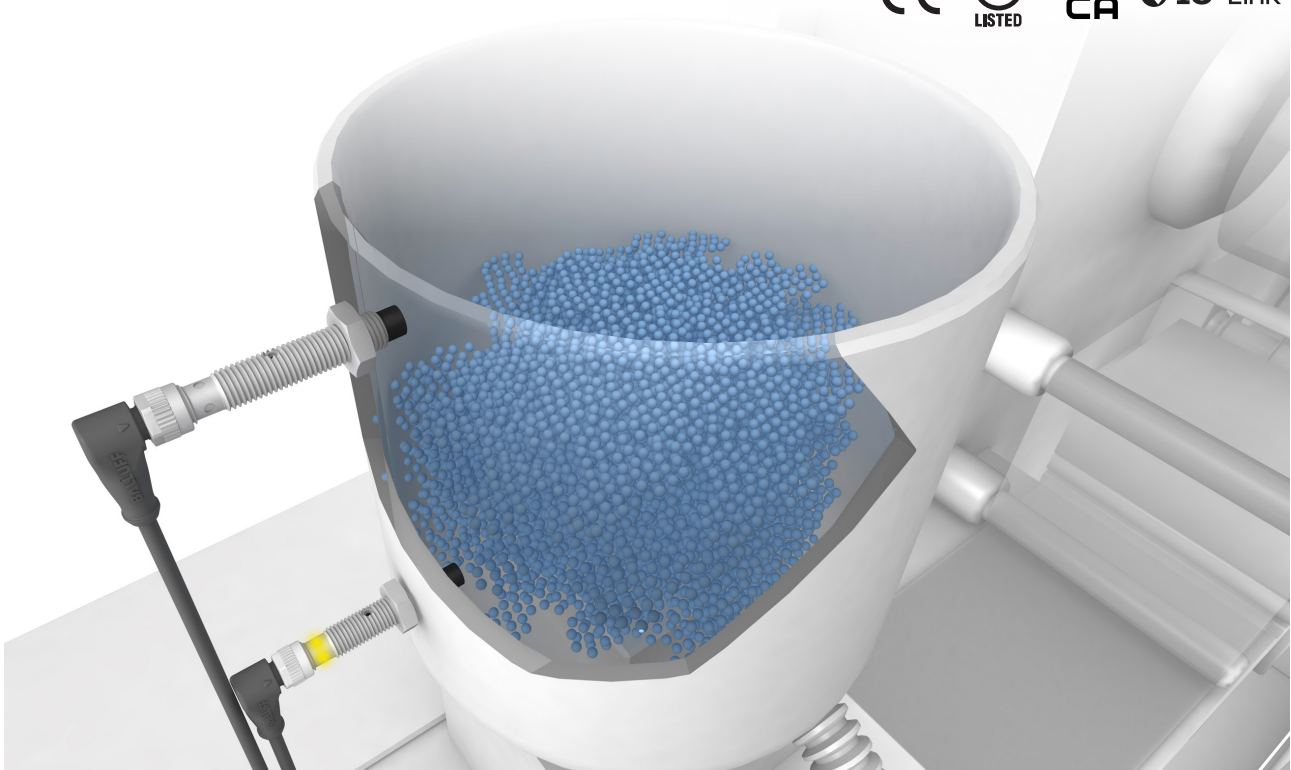
The versatility of the BCS M08 capacitive sensors makes them a comprehensive solution for a wide range of requirements: from the precise detection of different materials such as plastic and metal to position monitoring, end position detection and fill level detection of granulates or powders.

The sensors are flexible and user-friendly. When installed flush, they are suitable for precise position detection and for detecting non-conductive materials. Detection through the container wall is also possible. Non-flush mounted sensors can reliably monitor fill levels in small containers.

The update also includes new versions with IO-Link. This is becoming increasingly important for signal detection and transmission and therefore for the efficient operation of sensors.

### Features

- Compact designs with integrated electronics from Ø 6.5 mm
- Increased switching distance 3 mm (flush) and 4 mm (non-flush)
- Easy sensitivity adjustment via potentiometer or teach line
- IO-Link for advanced analysis and easy parameterisation
- Protection class IP67



Detection of the minimum and maximum fill level in a container

CAPACITIVE SENSORS  
FOR OBJECT DETECTION



PUSH-PULL NC (PNP)/NO (NPN)	BCS01AZ			BCS01C1		BCS01AP	BCS01AT
PUSH-PULL NO (PNP)/NC (NPN)	BCS01C0	BCS01C6		BCS01C2	BCS01C4	BCS01AN	BCS01AR
Dimension	Ø 6.5 × 49 mm	Ø 6.5 × 54 mm		Ø 6.5 × 49 mm	Ø 8 × 54 mm	Ø 8 × 49 mm	Ø 8 × 49 mm
Installation	Flush	Flush		Flush	Flush	Flush	Flush
Connection	Connector, M8 male, 3 pin	Connector, M8 male, 4 pin		2 m TPU cable	Connector, M8 male, 4 pin	Connector, M8 male, 3 pin	2 m TPU cable
Switching frequency	100 Hz	50 Hz		100 Hz	50 Hz	100 Hz	100 Hz
Interface		IO-Link device 1.1.3			IO-Link device 1.1.3		
Range	0.1...3 mm	0.1...3 mm		0.1...3 mm	0.1...3 mm	0.1...3 mm	0.1...3 mm
Sensitivity	Switching distance adjustable	Switching distance teachable		Switching distance adjustable	Switching distance teachable	Switching distance adjustable	Switching distance adjustable
Housing material	1.4404 stainless steel	1.4404 stainless steel		1.4404 stainless steel	1.4404 stainless steel	1.4404 stainless steel	1.4404 stainless steel
Sensing surface material	PBT	PBT		PBT	PBT	PBT	PBT
Ambient temperature	−20...+70 °C	−20...+70 °C		−20...+70 °C	−20...+70 °C	−20...+70 °C	−20...+70 °C
Operating voltage	10...30 V DC	10...30 V DC		10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
Approval/conformity	CE, cULus, UKCA	CE, cULus, UKCA, IO-Link		CE, cULus, UKCA	CE, cULus, UKCA, IO-Link	CE, cULus, UKCA	CE, cULus, UKCA
IP rating	IP67	IP67		IP67	IP67	IP67	IP67

CAPACITIVE  
LEVEL SENSORS



PUSH-PULL NC (PNP)/NO (NPN)				BCS01AW		
PUSH-PULL NO (PNP)/NC (NPN)	BCS01C7	BCS01C3		BCS01AU	BCS01C5	BCS01AY
Dimension	Ø 6.5 × 54 mm	Ø 6.5 × 49 mm		Ø 8 × 49 mm	Ø 8 × 54 mm	Ø 8 × 49 mm
Installation	Non-flush	Non-flush		Non-flush	Non-flush	Non-flush
Connection	Connector, M8 male, 4 pin	2 m TPU cable		Connector, M8 male, 3 pin	Connector, M8 male, 4 pin	2 m TPU cable
Switching frequency	50 Hz	100 Hz		100 Hz	50 Hz	100 Hz
Interface	IO-Link device 1.1.3				IO-Link device 1.1.3	
Range	0.1...4 mm	0.1...4 mm		0.1...4 mm	0.1...4 mm	0.1...4 mm
Sensitivity	Switching distance teachable	Switching distance adjustable		Switching distance adjustable	Switching distance teachable	Switching distance adjustable
Housing material	1.4404 stainless steel	1.4404 stainless steel		1.4404 stainless steel	1.4404 stainless steel	1.4404 stainless steel
Sensing surface material	PBT	PBT		PBT	PBT	PBT
Ambient temperature	−20...+85 °C	−20...+85 °C		−20...+85 °C	−20...+85 °C	−20...+85 °C
Operating voltage	10...30 V DC	10...30 V DC		10...30 V DC	10...30 V DC	10...30 V DC
Approval/conformity	CE, cULus, UKCA, IO-Link	CE, cULus, UKCA		CE, cULus, UKCA	CE, cULus, UKCA, IO-Link	CE, cULus, UKCA
IP rating	IP67	IP67		IP67	IP67	IP67

## CONNECTIVITY



2 M PUR CABLE	BCC02M8
5 M PUR CABLE	BCC02M9
10 M PUR CABLE	BCC02MA
Connection	M8 female, straight, 3 pin, A-coded
Cable	PUR black, drag chain compatible

Tool/rangefinder  
**BAM044W**  
Please order separately

