

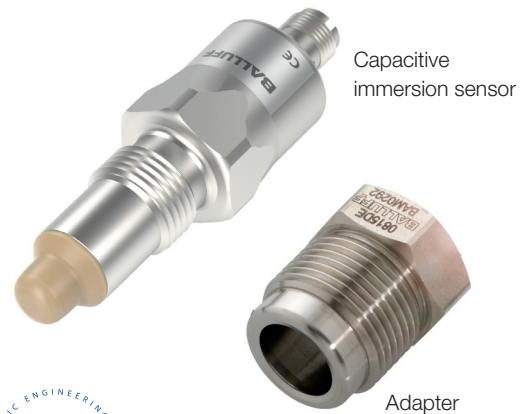
## Sensors with Advanced Smart Level Technology

# LEVEL DETECTION IN A YOGURT TANK

Capacitive sensors are an outstanding choice for all kinds of level detection. They allow level limits to be precisely determined either in media contact or through a non-metallic container wall.

### The benefits

- Reliable detection of levels of highly conductive and liquid, sticky food products
- Can be taught in-process and adjusted to changing process parameters
- EHEDG-conformal fittings for hygienic adaptation to containers
- Withstands autoclave applications for an hour up to 140 °C
- FDA approved housing material: 1.4404 stainless and PEEK
- M12 connection, up to IP69K with the appropriate connector
- Outstanding compensation properties with respect to deposits and foaming
- IO-Link version available



### Perfect for milk production in every respect

Modern steel tanks, common in yogurt and curd cheese production, first need to be prepared for hygienic sensor installation. Appropriate adapters from the Balluff accessories line ensure their function. Simply screw in with the prescribed tightening torque and the CIP-capable sensors are ready to use. The IP69K fitting allows use even with high pressure cleaning operations.

Thanks to their very good product buildup compensation, our solutions offer high processability and reliable operation. IO-Link versions of the sensors also permit perfect integration into the sensor controller.

An added benefit: By reading out the process data from the sensor, the degree of buildup can be determined in order to quickly take any needed countermeasures.



## CAPACITIVE IMMERSION SENSOR



PNP, NO		BCS011F		BCS011M
PNP, normally closed		BCS011H		BCS011N
IO-Link, PNP/NPN and NO/NC can be coded			BCS011E	
Size		G½"	G½"	G½"
Installation type		non-flush	non-flush	non-flush
Rated switching distance $s_n$		Level teachable	Level teachable	Level teachable
Supply voltage $U_S$		12...30 V DC	18...30 V DC	12...30 V DC
Voltage drop $U_d$ at $I_e$		≤ 2 V	≤ 2 V	≤ 2 V
Rated insulation voltage $U_i$		75 V DC	75 V DC	75 V DC
Output current max.		50 mA	50 mA	50 mA
No-load supply current $I_0$ max.		15 mA	15 mA	15 mA
Polarity reversal protected/transposition protected/ short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
Ambient temperature $T_a$ /media temperature		-40...+85 °C/105 °C	-40...+85 °C/105 °C	-10...+85 °C/105 °C
Switching frequency f		5 Hz	5 Hz	5 Hz
Output function indicator		Yellow LED	Yellow LED	Yellow LED
Degree of protection as per IEC 60529		IP68 10 bar/IP69K	IP68 10 bar/IP69K	IP68 10 bar/IP69K
Special properties		Autoclave compatible	Autoclave compatible	Autoclave compatible
Approvals		EHEDG certified, CE, cULus LISTED	EHEDG certified, CE, cULus LISTED	EHEDG certified, CE, cULus LISTED
Material	Housing	1.4404 stainless steel	1.4404 stainless steel	1.4404 stainless steel
	Sensing surface	PEEK	PEEK	PEEK
	O-ring	EPDM	EPDM	FKM, ölbeständig
Connection		M12 connector, 4-pin, A-coded	M12 connector, 4-pin, A-coded	M12 connector, 4-pin, A-coded

## ADAPTER



Can be welded		BAM0294		
Thread-in			BAM0292	
Dairy coupling per DIN 11851				BAM0295
Version		G½" → Ø 29 mm	G½" → G¾"	G½" → DN25
Use		for hygienic processes with BCS capacitive immersion sensor	for hygienic processes with BCS capacitive immersion sensor	for hygienic processes with BCS capacitive immersion sensor
Weight		105 g	70 g	170 g
Approvals		EHEDG conformal	EHEDG conformal	EHEDG conformal
Material	Housing	1.4404 stainless steel	1.4404 stainless steel	1.4404 stainless steel
	Process	Ø 18,5 mm	G¾"	DN25

### Function principle

Whatever milk products you produce, Advanced Smar Level technology enables reliable sensor operation with almost any medium.

The Teach line provides for quick and reliable adaptation. Even the already good buildup compensation has been further improved, so now even non-conducting media such as oils, powders or granulates can be identified.