





# Технические характеристики

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Россия (495)268-04-70	Киргизия (996)312-96-26-47	Казахстан (7172)727-132	





# Capacitive proximity sensors, 4<sup>th</sup> Gen. TRIPLESIELD™ with IO-Link

## M18-DC 4th Generation TRIPLESIELD™ with IO-Link - PBT Housing

Types	Flush mountable		Non-flush mountable	
	2 m cable	M12 connector 4-pole	2 m cable	M12 connector 4-pole
Connections				
Dimensions (mm)	M18 x 70	M18 x 85	M18 x 70	M18 x 85
Thread (mm)	M18 x 1.0 x 55	M18 x 1.0 x 55	M18 x 1.0 x 55	M18 x 1.0 x 55
Operating frequency	50 Hz	50 Hz	50 Hz	50 Hz
Sensing distance (Sn)	8 mm (adjustable 2 - 10 mm)	8 mm (adjustable 2 - 10 mm)	12 mm (adjustable 3 - 15 mm)	12 mm (adjustable 3 - 15 mm)
<b>References</b>				
	<b>CA18CAF08BPA2IO</b>	<b>CA18CAF08BPM1IO</b>	<b>CA18CAN12BPA2IO</b>	<b>CA18CAN12BPM1IO</b>
<b>Characteristics flush and non-flush mountable</b>				
Selectable function output 1	NPN, PNP or Push-Pull	NPN, PNP or Push-Pull	NPN, PNP or Push-Pull	NPN, PNP or Push-Pull
Selectable function output 2	NPN, PNP, Push-Pull, External input or External teach	NPN, PNP, Push-Pull, External input or External teach	NPN, PNP, Push-Pull, External input or External teach	NPN, PNP, Push-Pull, External input or External teach
Diagnostics	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change
Logic functions	AND, OR, X-OR, Gated SR-FF	AND, OR, X-OR, Gated SR-FF	AND, OR, X-OR, Gated SR-FF	AND, OR, X-OR, Gated SR-FF
Timer functions	ON delay, OFF delay, ON+OFF delay and One shot	ON delay, OFF delay, ON+OFF delay and One shot	ON delay, OFF delay, ON+OFF delay and One shot	ON delay, OFF delay, ON+OFF delay and One shot
Rated operating voltage	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC
Voltage drop	≤ 1.0 VDC	≤ 1.0 VDC	≤ 1.0 VDC	≤ 1.0 VDC
No load supply current (I <sub>o</sub> )	≤ 20 mA	≤ 20 mA	≤ 20 mA	≤ 20 mA
"Protection short-circuit (S) Reverse polarity (P) Transients (T)"	SPT	SPT	SPT	SPT
Output current	< 200 mA	< 200 mA	< 200 mA	< 200 mA
Housing material	PBT	PBT	PBT	PBT
Operating temperature	-30°C to +85°C (120°C sensor face)	-30°C to +85°C (120°C sensor face)	-30°C to +85°C (120°C sensor face)	-30°C to +85°C (120°C sensor face)
Degree of protection	IP67, IP68, IP69K, NEMA: 1, 2, 4, 4X, 5, 6, 6P, 12	IP67, IP68, IP69K, NEMA: 1, 2, 4, 4X, 5, 6, 6P, 12	IP67, IP68, IP69K, NEMA: 1, 2, 4, 4X, 5, 6, 6P, 12	IP67, IP68, IP69K, NEMA: 1, 2, 4, 4X, 5, 6, 6P, 12
LED colour	Yellow and Green	Yellow and Green	Yellow and Green	Yellow and Green
Communication interface	IO-Link	IO-Link	IO-Link	IO-Link
Transmission type	COM2 (38,4 kBaud)	COM2 (38,4 kBaud)	COM2 (38,4 kBaud)	COM2 (38,4 kBaud)
IO-Link revision	01:01:00	01:01:00	01:01:00	01:01:00
SDCI standard	IEC 61131-9	IEC 61131-9	IEC 61131-9	IEC 61131-9
Profiles	Smart Sensor: Process Data Variable; Device Identification	Smart Sensor: Process Data Variable; Device Identification	Smart Sensor: Process Data Variable; Device Identification	Smart Sensor: Process Data Variable; Device Identification
SIO mode	Yes	Yes	Yes	Yes
Required master port type	A	A	A	A
Min. process cycle time [ms]	5	5	5	5
Approvals/Marks	CE - cULus - ECOLAB	CE - cULus - ECOLAB	CE - cULus - ECOLAB	CE - cULus - ECOLAB





# Capacitive proximity sensors, 4<sup>th</sup> Gen. TRIPLESIELD™ with IO-Link

## M18-DC 4<sup>th</sup> Generation TRIPLESIELD™ with IO-Link - PTFE Housing

Types	Flush mountable		Non-flush mountable	
Connections	2 m cable	M12 connector 4-pole	2 m cable	M12 connector 4-pole
				
Dimensions (mm)	M18 x 70	M18 x 70	M18 x 70	M18 x 70
Thread (mm)	M18 x 1.0 x 55	M18 x 1.0 x 55	M18 x 1.0 x 55	M18 x 1.0 x 55
Operating frequency	50 Hz	50 Hz	50 Hz	50 Hz
Sensing distance (Sn)	8 mm (adjustable 2 - 10 mm)	8 mm (adjustable 2 - 10 mm)	12 mm (adjustable 3 - 15 mm)	12 mm (adjustable 3 - 15 mm)
<b>References</b>				
	<b>CA18FAF08BPA2IO</b>	<b>CA18FAF08BPM1IO</b>	<b>CA18FAN12BPA2IO</b>	<b>CA18FAN12BPM1IO</b>
<b>Characteristics flush and non-flush mountable</b>				
Selectable function output 1	NPN, PNP or Push-Pull	NPN, PNP or Push-Pull	NPN, PNP or Push-Pull	NPN, PNP or Push-Pull
Selectable function output 2	NPN, PNP, Push-Pull, External input or External teach	NPN, PNP, Push-Pull, External input or External teach	NPN, PNP, Push-Pull, External input or External teach	NPN, PNP, Push-Pull, External input or External teach
Diagnostics	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change
Logic functions	AND, OR, X-OR, Gated SR-FF	AND, OR, X-OR, Gated SR-FF	AND, OR, X-OR, Gated SR-FF	AND, OR, X-OR, Gated SR-FF
Timer functions	ON delay, OFF delay, ON+OFF delay and One shot	ON delay, OFF delay, ON+OFF delay and One shot	ON delay, OFF delay, ON+OFF delay and One shot	ON delay, OFF delay, ON+OFF delay and One shot
Rated operating voltage	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC
Voltage drop	≤ 1.0 VDC	≤ 1.0 VDC	≤ 1.0 VDC	≤ 1.0 VDC
No load supply current (I <sub>o</sub> )	≤ 20 mA	≤ 20 mA	≤ 20 mA	≤ 20 mA
Protection short-circuit (S) Reverse polarity (P) Transients (T)	SPT	SPT	SPT	SPT
Output current	< 200 mA	< 200 mA	< 200 mA	< 200 mA
Housing material	PTFE	PTFE	PTFE	PTFE
Operating temperature	-30°C to +85°C (120°C sensor face)	-30°C to +85°C (120°C sensor face)	-30°C to +85°C (120°C sensor face)	-30°C to +85°C (120°C sensor face)
Degree of protection	IP67, IP68, IP69K, NEMA: 1, 2, 4, 4X, 5, 6, 6P, 12	IP67, IP68, IP69K, NEMA: 1, 2, 4, 4X, 5, 6, 6P, 12	IP67, IP68, IP69K, NEMA: 1, 2, 4, 4X, 5, 6, 6P, 12	IP67, IP68, IP69K, NEMA: 1, 2, 4, 4X, 5, 6, 6P, 12
LED colour	Yellow and Green	Yellow and Green	Yellow and Green	Yellow and Green
Communication interface	IO-Link	IO-Link	IO-Link	IO-Link
Transmission type	COM2 (38,4 kBaud)	COM2 (38,4 kBaud)	COM2 (38,4 kBaud)	COM2 (38,4 kBaud)
IO-Link revision	1.1	1.1	1.1	1.1
SDCI standard	IEC 61131-9	IEC 61131-9	IEC 61131-9	IEC 61131-9
Profiles	Smart Sensor: Process Data Variable; Device Identification	Smart Sensor: Process Data Variable; Device Identification	Smart Sensor: Process Data Variable; Device Identification	Smart Sensor: Process Data Variable; Device Identification
SIO mode	Yes	Yes	Yes	Yes
Required master port type	A	A	A	A
Min. process cycle time [ms]	5	5	5	5
Approvals/Marks	CE - cULus - ECOLAB	CE - cULus - ECOLAB	CE - cULus - ECOLAB	CE - cULus - ECOLAB





# Capacitive proximity sensors, 4<sup>th</sup> Gen. TRIPLESIELD™ with IO-Link

## M18-DC 4<sup>th</sup> Generation TRIPLESIELD™ with IO-Link - PBT and AISI316 Housing

Types	Flush mountable		Non-flush mountable	
Connections	2 m cable	M12 connector 4-pole	2 m cable	M12 connector 4-pole
				
Dimensions (mm)	M18 x 70	M18 x 70	M18 x 70	M18 x 70
Thread (mm)	M18 x 1.0 x 55	M18 x 1.0 x 47	M18 x 1.0 x 55	M18 x 1.0 x 47
Operating frequency	50 Hz	50 Hz	50 Hz	50 Hz
Sensing distance (Sn)	8 mm (adjustable 2 - 10 mm)	8 mm (adjustable 2 - 10 mm)	12 mm (adjustable 3 - 15 mm)	12 mm (adjustable 3 - 15 mm)
<b>References</b>				
	<b>CA18EAF08BPA2IO</b>	<b>CA18EAF08BPM1IO</b>	<b>CA18EAN12BPA2IO</b>	<b>CA18EAN12BPM1IO</b>
<b>Characteristics flush and non-flush mountable</b>				
Selectable function output 1	NPN, PNP or Push-Pull	NPN, PNP or Push-Pull	NPN, PNP or Push-Pull	NPN, PNP or Push-Pull
Selectable function output 2	NPN, PNP, Push-Pull, External input or External teach	NPN, PNP, Push-Pull, External input or External teach	NPN, PNP, Push-Pull, External input or External teach	NPN, PNP, Push-Pull, External input or External teach
Diagnostics	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change
Logic functions	AND, OR, X-OR, Gated SR-FF	AND, OR, X-OR, Gated SR-FF	AND, OR, X-OR, Gated SR-FF	AND, OR, X-OR, Gated SR-FF
Timer functions	ON delay, OFF delay, ON+OFF delay and One shot	ON delay, OFF delay, ON+OFF delay and One shot	ON delay, OFF delay, ON+OFF delay and One shot	ON delay, OFF delay, ON+OFF delay and One shot
Rated operating voltage	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC
Voltage drop	≤ 1.0 VDC	≤ 1.0 VDC	≤ 1.0 VDC	≤ 1.0 VDC
No load supply current (I <sub>o</sub> )	≤ 20 mA	≤ 20 mA	≤ 20 mA	≤ 20 mA
Protection short-circuit (S) Reverse polarity (P) Transients (T)	SPT	SPT	SPT	SPT
Output current	< 200 mA	< 200 mA	< 200 mA	< 200 mA
Housing material	Body in AISI316L, Front in PBT	Body in AISI316L, Front in PBT	Body in AISI316L, Front in PBT	Body in AISI316L, Front in PBT
Operating temperature	-30°C to +85°C (120°C sensor face)	-30°C to +85°C (120°C sensor face)	-30°C to +85°C (120°C sensor face)	-30°C to +85°C (120°C sensor face)
Degree of protection	IP67, IP68, IP69K, NEMA: 1, 2, 4, 4X, 5, 6, 6P, 12	IP67, IP68, IP69K, NEMA: 1, 2, 4, 4X, 5, 6, 6P, 12	IP67, IP68, IP69K, NEMA: 1, 2, 4, 4X, 5, 6, 6P, 12	IP67, IP68, IP69K, NEMA: 1, 2, 4, 4X, 5, 6, 6P, 12
LED colour	Yellow and Green	Yellow and Green	Yellow and Green	Yellow and Green
Communication interface	IO-Link	IO-Link	IO-Link	IO-Link
Transmission type	COM2 (38,4 kBaud)	COM2 (38,4 kBaud)	COM2 (38,4 kBaud)	COM2 (38,4 kBaud)
IO-Link revision	1.1	1.1	1.1	1.1
SDCI standard	IEC 61131-9	IEC 61131-9	IEC 61131-9	IEC 61131-9
Profiles	Smart Sensor: Process Data Variable; Device Identification	Smart Sensor: Process Data Variable; Device Identification	Smart Sensor: Process Data Variable; Device Identification	Smart Sensor: Process Data Variable; Device Identification
SIO mode	Yes	Yes	Yes	Yes
Required master port type	A	A	A	A
Min. process cycle time [ms]	5	5	5	5
Approvals/Marks	CE - cULus - ECOLAB	CE - cULus - ECOLAB	CE - cULus - ECOLAB	CE - cULus - ECOLAB





# Capacitive proximity sensors, 4<sup>th</sup> Gen. TRIPLESIELD™ with IO-Link

## M30-DC 4<sup>th</sup> Generation TRIPLESIELD™ with IO-Link - PBT Housing

Types	Flush mountable		Non-flush mountable	
	2 m cable	M12 connector	2 m cable	M12 connector
Connections				
Dimensions (mm)	M30 x 81	M30 x 74	M30 x 81	M30 x 74
Thread (mm)	M30 x 1.5 x 59.5	M30 x 1.5 x 59.5	M30 x 1.5 x 45.5	M30 x 1.5 x 45.5
Operating frequency	50 Hz	50 Hz	50 Hz	50 Hz
Sensing distance (Sn)	16 mm (adjustable 2 - 20 mm)	16 mm (adjustable 2 - 20 mm)	25 mm (adjustable 4 - 30 mm)	25 mm (adjustable 4 - 30 mm)
<b>References</b>				
	<b>CA30CAF16BPA2IO</b>	<b>CA30CAF16BPM1IO</b>	<b>CA30CAN25BPA2IO</b>	<b>CA30CAN25BPM1IO</b>
<b>Characteristics flush and non-flush mountable</b>				
Selectable function output 1	NPN, PNP or Push-Pull	NPN, PNP or Push-Pull	NPN, PNP or Push-Pull	NPN, PNP or Push-Pull
Selectable function output 2	NPN, PNP, Push-Pull, External input or External teach	NPN, PNP, Push-Pull, External input or External teach	NPN, PNP, Push-Pull, External input or External teach	NPN, PNP, Push-Pull, External input or External teach
Diagnostics	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change
Logic functions	AND, OR, X-OR, Gated SR-FF	AND, OR, X-OR, Gated SR-FF	AND, OR, X-OR, Gated SR-FF	AND, OR, X-OR, Gated SR-FF
Timer functions	ON delay. OFF delay, ON+OFF delay and One shot	ON delay. OFF delay, ON+OFF delay and One shot	ON delay. OFF delay, ON+OFF delay and One shot	ON delay. OFF delay, ON+OFF delay and One shot
Rated operating voltage	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC
Voltage drop	≤ 1.0 VDC	≤ 1.0 VDC	≤ 1.0 VDC	≤ 1.0 VDC
No load supply current (I <sub>o</sub> )	≤ 20 mA	≤ 20 mA	≤ 20 mA	≤ 20 mA
Protection short-circuit (S) Reverse polarity (P) Transients (T)	SPT	SPT	SPT	SPT
Output current	< 200 mA	< 200 mA	< 200 mA	< 200 mA
Housing material	PBT	PBT	PBT	PBT
Operating temperature	-30°C to +85°C (120°C sensor face)	-30°C to +85°C (120°C sensor face)	-30°C to +85°C (120°C sensor face)	-30°C to +85°C (120°C sensor face)
Degree of protection	IP67, IP68, IP69K, NEMA:1,2,4,4X,5,6,6P,12	IP67, IP68, IP69K, NEMA:1,2,4,4X,5,6,6P,12	IP67, IP68, IP69K, NEMA:1,2,4,4X,5,6,6P,12	IP67, IP68, IP69K, NEMA:1,2,4,4X,5,6,6P,12
LED colour	Yellow and Green	Yellow and Green	Yellow and Green	Yellow and Green
Communication interface	IO-Link	IO-Link	IO-Link	IO-Link
Transmission type	COM2 (38,4 kBaud)	COM2 (38,4 kBaud)	COM2 (38,4 kBaud)	COM2 (38,4 kBaud)
IO-Link revision	1.1	1.1	1.1	1.1
SDCI standard	IEC 61131-9	IEC 61131-9	IEC 61131-9	IEC 61131-9
Profiles	Smart Sensor: Process Data Variable; Device Identification	Smart Sensor: Process Data Variable; Device Identification	Smart Sensor: Process Data Variable; Device Identification	Smart Sensor: Process Data Variable; Device Identification
SIO mode	Yes	Yes	Yes	Yes
Required master port type	A	A	A	A
Min. process cycle time [ms]	5	5	5	5
Approvals/Marks	CE - cULus - ECOLAB	CE - cULus - ECOLAB	CE - cULus - ECOLAB	CE - cULus - ECOLAB

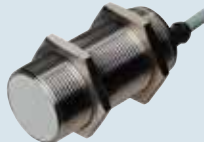
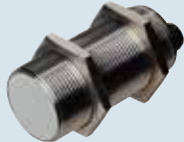

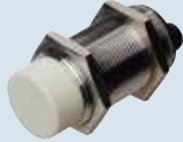
# Capacitive proximity sensors, 4<sup>th</sup> Gen. TRIPLESIELD™ with IO-Link

## M30-DC 4<sup>th</sup> Generation TRIPLESIELD™ with IO-Link - PTFE Housing

Types	Flush mountable		Non-flush mountable	
	2 m cable	M12 connector	2 m cable	M12 connector
Connections	2 m cable	M12 connector	2 m cable	M12 connector
				
Dimensions (mm)	M30 x 61	M30 x 61	M30 x 61	M30 x 61
Thread (mm)	M30 x 1.5 x 59.5	M30 x 1.5 x 59.5	M30 x 1.5 x 45.5	M30 x 1.5 x 45.5
Operating frequency	50 Hz	50 Hz	50 Hz	50 Hz
Sensing distance (Sn)	16 mm (adjustable 2 - 20 mm)	16 mm (adjustable 2 - 20 mm)	25 mm (adjustable 4 - 30 mm)	25 mm (adjustable 4 - 30 mm)
<b>References</b>				
	<b>CA30FAF16BPA2IO</b>	<b>CA30FAF16BPM1IO</b>	<b>CA30FAN25BPA2IO</b>	<b>CA30FAN25BPM1IO</b>
<b>Characteristics flush and non-flush mountable</b>				
Selectable function output 1	NPN, PNP or Push-Pull	NPN, PNP or Push-Pull	NPN, PNP or Push-Pull	NPN, PNP or Push-Pull
Selectable function output 2	NPN, PNP, Push-Pull, External input or External teach	NPN, PNP, Push-Pull, External input or External teach	NPN, PNP, Push-Pull, External input or External teach	NPN, PNP, Push-Pull, External input or External teach
Diagnostics	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change
Logic functions	AND, OR, X-OR, Gated SR-FF	AND, OR, X-OR, Gated SR-FF	AND, OR, X-OR, Gated SR-FF	AND, OR, X-OR, Gated SR-FF
Timer functions	ON delay, OFF delay, ON+OFF delay and One shot	ON delay, OFF delay, ON+OFF delay and One shot	ON delay, OFF delay, ON+OFF delay and One shot	ON delay, OFF delay, ON+OFF delay and One shot
Rated operating voltage	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC
Voltage drop	≤ 1.0 VDC	≤ 1.0 VDC	≤ 1.0 VDC	≤ 1.0 VDC
No load supply current (I <sub>o</sub> )	≤ 20 mA	≤ 20 mA	≤ 20 mA	≤ 20 mA
Protection short-circuit (S) Reverse polarity (P) Transients (T)	SPT	SPT	SPT	SPT
Output current	< 200 mA	< 200 mA	< 200 mA	< 200 mA
Housing material	PTFE	PTFE	PTFE	PTFE
Operating temperature	-30°C to +85°C (120°C sensor face)	-30°C to +85°C (120°C sensor face)	-30°C to +85°C (120°C sensor face)	-30°C to +85°C (120°C sensor face)
Degree of protection	IP67, IP68, IP69K, NEMA:1,2,4,4X,5,6,6P,12	IP67, IP68, IP69K, NEMA:1,2,4,4X,5,6,6P,12	IP67, IP68, IP69K, NEMA:1,2,4,4X,5,6,6P,12	IP67, IP68, IP69K, NEMA:1,2,4,4X,5,6,6P,12
LED colour	Yellow and Green	Yellow and Green	Yellow and Green	Yellow and Green
Communication interface	IO-Link	IO-Link	IO-Link	IO-Link
Transmission type	COM2 (38,4 kBaud)	COM2 (38,4 kBaud)	COM2 (38,4 kBaud)	COM2 (38,4 kBaud)
IO-Link revision	1.1	1.1	1.1	1.1
SDCI standard	IEC 61131-9	IEC 61131-9	IEC 61131-9	IEC 61131-9
Profiles	Smart Sensor: Process Data Variable; Device Identification	Smart Sensor: Process Data Variable; Device Identification	Smart Sensor: Process Data Variable; Device Identification	Smart Sensor: Process Data Variable; Device Identification
SIO mode	Yes	Yes	Yes	Yes
Required master port type	A	A	A	A
Min. process cycle time [ms]	5	5	5	5
Approvals/Marks	CE - cULus - ECOLAB	CE - cULus - ECOLAB	CE - cULus - ECOLAB	CE - cULus - ECOLAB

# Capacitive proximity sensors, 4<sup>th</sup> Gen. TRIPLESIELD™ with IO-Link

## M30-DC 4<sup>th</sup> Generation TRIPLESIELD™ with IO-Link - PBT and AISI316 Housing

Types	Flush mountable		Non-flush mountable	
	2 m cable	M12 connector	2 m cable	M12 connector
Connections				
Dimensions (mm)	M30 x 61	M30 x 61	M30 x 61	M30 x 61
Thread (mm)	M30 x 1.5 x 59.5	M30 x 1.5 x 59.5	M30 x 1.5 x 45.5	M30 x 1.5 x 45.5
Operating frequency	50 Hz	50 Hz	50 Hz	50 Hz
Sensing distance (Sn)	16 mm (adjustable 2 - 20 mm)	16 mm (adjustable 2 - 20 mm)	25 mm (adjustable 4 - 30 mm)	25 mm (adjustable 4 - 30 mm)
<b>References</b>				
	<b>CA30EAF16BPA2IO</b>	<b>CA30EAF16BPM1IO</b>	<b>CA30EAN25BPA2IO</b>	<b>CA30EAN25BPM1IO</b>
<b>Characteristics flush and non-flush mountable</b>				
Selectable function output 1	NPN, PNP or Push-Pull	NPN, PNP or Push-Pull	NPN, PNP or Push-Pull	NPN, PNP or Push-Pull
Selectable function output 2	NPN, PNP, Push-Pull, External input or External teach	NPN, PNP, Push-Pull, External input or External teach	NPN, PNP, Push-Pull, External input or External teach	NPN, PNP, Push-Pull, External input or External teach
Diagnostics	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change	Operation hours, Power cycles, Detection cycles max. and min. Temperatures, Short-circuit, Maintenance, No of Parameter change
Logic functions	AND, OR, X-OR, Gated SR-FF	AND, OR, X-OR, Gated SR-FF	AND, OR, X-OR, Gated SR-FF	AND, OR, X-OR, Gated SR-FF
Timer functions	ON delay. OFF delay, ON+OFF delay and One shot	ON delay. OFF delay, ON+OFF delay and One shot	ON delay. OFF delay, ON+OFF delay and One shot	ON delay. OFF delay, ON+OFF delay and One shot
Rated operating voltage	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC
Voltage drop	≤ 1.0 VDC	≤ 1.0 VDC	≤ 1.0 VDC	≤ 1.0 VDC
No load supply current (I <sub>o</sub> )	≤ 20 mA	≤ 20 mA	≤ 20 mA	≤ 20 mA
Protection short-circuit (S) Reverse polarity (P) Transients (T)	SPT	SPT	SPT	SPT
Output current	< 200 mA	< 200 mA	< 200 mA	< 200 mA
Housing material	Body in AISI316L, Front in PBT	Body in AISI316L, Front in PBT	Body in AISI316L, Front in PBT	Body in AISI316L, Front in PBT
Operating temperature	-30°C to +85°C (120°C sensor face)	-30°C to +85°C (120°C sensor face)	-30°C to +85°C (120°C sensor face)	-30°C to +85°C (120°C sensor face)
Degree of protection	IP67, IP68, IP69K, NEMA:1,2,4,4X,5,6,6P,12	IP67, IP68, IP69K, NEMA:1,2,4,4X,5,6,6P,12	IP67, IP68, IP69K, NEMA:1,2,4,4X,5,6,6P,12	IP67, IP68, IP69K, NEMA:1,2,4,4X,5,6,6P,12
LED colour	Yellow and Green	Yellow and Green	Yellow and Green	Yellow and Green
Communication interface	IO-Link	IO-Link	IO-Link	IO-Link
Transmission type	COM2 (38,4 kBaud)	COM2 (38,4 kBaud)	COM2 (38,4 kBaud)	COM2 (38,4 kBaud)
IO-Link revision	1.1	1.1	1.1	1.1
SDCI standard	IEC 61131-9	IEC 61131-9	IEC 61131-9	IEC 61131-9
Profiles	Smart Sensor: Process Data Variable; Device Identification	Smart Sensor: Process Data Variable; Device Identification	Smart Sensor: Process Data Variable; Device Identification	Smart Sensor: Process Data Variable; Device Identification
SIO mode	Yes	Yes	Yes	Yes
Required master port type	A	A	A	A
Min. process cycle time [ms]	5	5	5	5
Approvals/Marks	CE - cULus - ECOLAB	CE - cULus - ECOLAB	CE - cULus - ECOLAB	CE - cULus - ECOLAB

## Capacitive proximity sensors, TRIPLESIELD™

### Types

### M18-AC TRIPLESIELD™

#### Connections

#### 2 m cable

#### M12 connector

#### Flush mountable



Dimensions (mm)

M18 x 71.5

M18 x 83.5

Thread (mm)

M18 x 1 x 46.5

M18 x 1 x 46.5

Operating frequency

10 Hz

10 Hz

Sensing distance (Sn)

3 - 8 mm (adjustable)

3 - 8 mm (adjustable)

#### References

Thyristor (SCR) NO

CA18CLF08TO

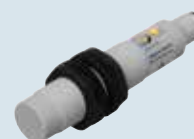
CA18CLF08TOM6

Thyristor (SCR) NC

CA18CLF08TC

CA18CLF08TCM6

#### Non-flush mountable



Dimensions (mm)

M18 x 79.5

M18 x 91.5

Thread (mm)

M18 x 1 x 46.5

M18 x 1 x 46.5

Operating frequency

10 Hz

10 Hz

Sensing distance (Sn)

3 - 12 mm (adjustable)

3 - 12 mm (adjustable)

#### References

Thyristor (SCR) NO

CA18CLN12TO

CA18CLN12TOM6

Thyristor (SCR) NC

CA18CLN12TC

CA18CLN12TCM6

#### Characteristics flush and non-flush mountable

Rated operating voltage

20 - 250 VAC

20 - 250 VAC

Voltage drop

≤ 10 VAC

≤ 10 VAC

Degree of protection

IP67

IP67

Protection short-circuit (S)

T

T

Reverse polarity (P)

Transients (T)

Output current

< 500 mA

< 500 mA

Housing material

Thermoplastic polyester

Thermoplastic polyester

Operating temperature

-25°C to +80°C

-25°C to +80°C

LED colour

Yellow

Yellow

Approvals/Marks

CE - UL - CSA

CE - UL - CSA



# Capacitive proximity sensors, 4<sup>th</sup> Generation TRIPLESIELD™

Types	M18-DC 4 <sup>th</sup> Generation TRIPLESIELD™ Flush mountable		M18-DC 4 <sup>th</sup> Generation TRIPLESIELD™ Non-flush mountable	
Connections	2 m cable	M12 connector	2 m cable	M12 connector



Dimensions (mm)	M18 x 70	M18 x 85	M18 x 70	M18 x 85
Thread (mm)	M18 x 1.0 x 55	M18 x 1.0 x 55	M18 x 1.0 x 55	M18 x 1.0 x 55
Operating frequency	50 Hz	50 Hz	50 Hz	50 Hz
Sensing distance (Sn)	8 mm (adjustable 2 - 10 mm)	8 mm (adjustable 2 - 10 mm)	12 mm (adjustable 3 - 15 mm)	12 mm (adjustable 3 - 15 mm)

## References





Standard				
NPN - NO and NC	CA18CAF08NA	CA18CAF08NAM1	CA18CAN12NA	CA18CAN12NAM1
PNP - NO and NC	CA18CAF08PA	CA18CAF08PAM1	CA18CAN12PA	CA18CAN12PAM1

## Characteristics flush and non-flush mountable

Rated operating voltage	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC
Voltage drop	≤ 2.0 VDC	≤ 2.0 VDC	≤ 2.0 VDC	≤ 2.0 VDC
Degree of protection	IP67, IP68, IP69K	IP67, IP68, IP69K	IP67, IP68, IP69K	IP67, IP68, IP69K
Protection short-circuit (S) Reverse polarity (P) Transients (T)	SPT	SPT	SPT	SPT
Output current	< 200 mA	< 200 mA	< 200 mA	< 200 mA
Housing material	PBT	PBT	PBT	PBT
Operating temperature	-30°C to +85°C	-30°C to +85°C	-30°C to +85°C	-30°C to +85°C
LED colour	Yellow and Green	Yellow and Green	Yellow and Green	Yellow and Green
Approvals/Marks	CE - cULus - ECOLAB	CE - cULus - ECOLAB	CE - cULus - ECOLAB	CE - cULus - ECOLAB

# Capacitive proximity sensors, 4<sup>th</sup> Generation TRIPLESIELD™

## M30-DC 4<sup>th</sup> Generation TRIPLESIELD™

Types	Flush mountable		Non-flush mountable	
	2 m cable	M12 connector	2 m cable	M12 connector
Connections				
Dimensions (mm)	M30 x 81	M30 x 74	M30 x 81	M30 x 74
Thread (mm)	M30 x 1.5 x 59.5	M30 x 1.5 x 59.5	M30 x 1.5 x 45.5	M30 x 1.5 x 45.5
Operating frequency	50 Hz	50 Hz	50 Hz	50 Hz
Sensing distance (Sn)	16 mm (adjustable 2 - 20 mm)	16 mm (adjustable 2 - 20 mm)	25 mm (adjustable 4 - 30 mm)	25 mm (adjustable 4 - 30 mm)
<b>References</b>				
Standard				
NPN - NO and NC	<b>CA30CAF16NA</b>	<b>CA30CAF16NAM1</b>	<b>CA30CAN25NA</b>	<b>CA30CAN25NAM1</b>
PNP - NO and NC	<b>CA30CAF16PA</b>	<b>CA30CAF16PAM1</b>	<b>CA30CAN25PA</b>	<b>CA30CAN25PAM1</b>
<b>Characteristics flush and non-flush mountable</b>				
Rated operating voltage	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC
Voltage drop	≤ 2.0 VDC	≤ 2.0 VDC	≤ 2.0 VDC	≤ 2.0 VDC
Degree of protection	IP67, IP68, IP69K	IP67, IP68, IP69K	IP67, IP68, IP69K	IP67, IP68, IP69K
Protection short-circuit (S)				
Reverse polarity (P)	SPT	SPT	SPT	SPT
Transients (T)				
Output current	< 200 mA	< 200 mA	< 200 mA	< 200 mA
Housing material	PBT	PBT	PBT	PBT
Operating temperature	-30°C to +85°C	-30°C to +85°C	-30°C to +85°C	-30°C to +85°C
LED colour	Yellow and Green	Yellow and Green	Yellow and Green	Yellow and Green
Approvals/Marks	CE - cULus - ECOLAB	CE - cULus - ECOLAB	CE - cULus - ECOLAB	CE - cULus - ECOLAB

# Capacitive proximity sensors, TRIPLESIELD™

## Types M30-AC TRIPLESIELD™

### Connections 2 m cable M12 connector 2 m cable M12 connector

#### Flush mountable



Dimensions (mm)	M30 x 63.6	M30 x 63.6	M30 x 63.6	M30 x 63.6
Thread (mm)	M30 x 1.5 x 50	M30 x 1.5 x 50	M30 x 1.5 x 50	M30 x 1.5 x 50
Operating frequency	10 Hz	10 Hz	10 Hz	10 Hz
Sensing distance (Sn)	2 - 16 mm (adjustable)	2 - 16 mm (adjustable)	2 - 16 mm (adjustable)	2 - 16 mm (adjustable)

#### References

Thyristor (SCR) NO or NC	EC3016TBAPL	EC3016TBAPL-6	EC3016TBASL	EC3016TBASL-6
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#### Non-flush mountable



Dimensions (mm)	M30 x 75.6	M30 x 75.6	M30 x 75.6	M30 x 75.6
Thread (mm)	M30 x 1.5 x 50	M30 x 1.5 x 50	M30 x 1.5 x 50	M30 x 1.5 x 50
Operating frequency	10 Hz	10 Hz	10 Hz	10 Hz
Sensing distance (Sn)	4 - 25 mm (adjustable)	4 - 25 mm (adjustable)	4 - 25 mm (adjustable)	4 - 25 mm (adjustable)

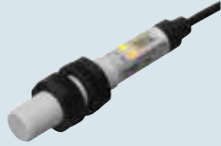



#### References

Thyristor (SCR) NO or NC	EC3025TBAPL	EC3025TBAPL-6	EC3025TBASL	EC3025TBASL-6
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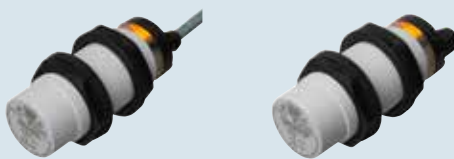
#### Characteristics flush and non-flush mountable

Rated operating voltage	20 - 250 VAC	20 - 250 VAC	20 - 250 VAC	20 - 250 VAC
Voltage drop	< 10 VAC	< 10 VAC	< 10 VAC	< 10 VAC
Degree of protection	IP67	IP67	IP67	IP67
Protection short-circuit (S)				
Reverse polarity (P)	T	T	T	T
Transients (T)				
Output current	< 500 mA	< 500 mA	< 500 mA	< 500 mA
Housing material	Thermoplastic polyester	Thermoplastic polyester	Stainless steel	Stainless steel
Operating temperature	-25°C to +80°C	-25°C to +80°C	-25°C to +80°C	-25°C to +80°C
LED colour	Yellow	Yellow	Yellow	Yellow
Approvals/Marks	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA





## Capacitive proximity sensors, TRIPLESIELD™

Types	M12 Teach-in TRIPLESIELD™		M18 Teach-in TRIPLESIELD™	
Connections	2 m cable	M12 connector	2 m cable	M12 connector
<b>Flush mountable</b>				
Dimensions (mm)	M12 x 82.4	M12 x 84.7	M18 x 89.55	M18 x 89.2
Thread (mm)	M12 x 1 x 50	M12 x 1 x 50	M18 x 1 x 50	M18 x 1 x 50
Operating frequency	15 Hz	15 Hz	15 Hz	15 Hz
Sensing distance (Sn)	0.5 - 8 mm (Teach-in)	0.5 - 8 mm (Teach-in)	0.2 - 12 mm (Teach-in)	0.2 - 12 mm (Teach-in)
<b>References</b>				
NPN/PNP, NO/NC	CA12CLC08BPRT	CA12CLC08BPM1RT	CA18CLC12BP	CA18CLC12BPM1
<b>Characteristics flush and non-flush mountable</b>				
Rated operating voltage	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC
Voltage drop	< 2.5 VDC	< 2.5 VDC	< 2.5 VDC	< 2.5 VDC
Degree of protection	IP68	IP68	IP68	IP68
Protection short-circuit (S) Reverse polarity (P) Transients (T)	SPT	SPT	SPT	SPT
Output current	< 250 mA	< 250 mA	< 250 mA	< 250 mA
Housing material	Thermoplastic polyester	Thermoplastic polyester	Thermoplastic polyester	Thermoplastic polyester
Operating temperature	-25°C to +85°C	-25°C to +85°C	-25°C to +85°C	-25°C to +85°C
Special features	Teach-in, humidity compensation NPN/PNP auto detection, remote setup, alarm output. On request: dirt and moisture compensation	Teach-in, humidity compensation NPN/PNP auto detection, remote setup, alarm output. On request: dirt and moisture compensation	Teach-in, humidity compensation NPN/PNP auto detection, remote setup, alarm output. On request: dirt and moisture compensation	Teach-in, humidity compensation NPN/PNP auto detection, remote setup, alarm output. On request: dirt and moisture compensation
Approvals/Marks	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA





# Capacitive proximity sensors, TRIPLESIELD™

Types	M30 Teach-in TRIPLESIELD™		M30 AC/DC TRIPLESIELD™	
Connections	2 m cable	M12 connector	2 m cable	M12 connector
<b>Flush mountable</b>				
Dimensions (mm)	M30 x 99.2	M30 x 90.45	M30 x 63.6	M30 x 75.6
Thread (mm)	M30 x 1.5 x 50	M30 x 1.5 x 50	M30 x 1.5 x 50	M30 x 1.5 x 50
Operating frequency	15 Hz	15 Hz	10 Hz	10 Hz
Sensing distance (Sn)	0.5 - 30 mm (adjustable)	0.5 - 30 mm (adjustable)	2 - 16 mm (adjustable)	2 - 16 mm (adjustable)
<b>References</b>				
NPN/PNP, NO/NC	CA30CLC30BP	CA30CLC30BPM1		
Power MOFSET			CA30CLF16CP	CA30CLF16CPM6
<b>Non-flush mountable</b>				
Dimensions (mm)			M30 x 71.6	M30 x 83.6
Thread (mm)			M30 x 1.5 x 50	M30 x 1.5 x 50
Operating frequency			10 Hz	10 Hz
Sensing distance (Sn)			2 - 25 mm (adjustable)	2 - 25 mm (adjustable)
<b>References</b>				
Power MOFSET			CA30CLN25CP	CA30CLN25CPM6
<b>Characteristics flush and non-flush mountable</b>				
Rated operating voltage	10 - 40 VDC	10 - 40 VDC	20 - 250 VAC/DC	20 - 250 VAC/DC
Voltage drop	< 2.5 VDC	< 2.5 VDC	< 5.5 VAC/DC	< 5.5 VAC/DC
Degree of protection	IP68	IP68	IP67	IP67
Protection short-circuit (S)				
Reverse polarity (P)	SPT	SPT	PT	PT
Transients (T)				
Output current	< 250 mA	< 250 mA	< 250 mA DC < 350 mA AC	< 250 mA DC < 350 mA AC
Housing material	Thermoplastic polyester	Thermoplastic polyester	Thermoplastic polyester	Thermoplastic polyester
Operating temperature	-20°C to +85°C	-20°C to +85°C	-25°C to +80°C	-25°C to +80°C
LED colour	Yellow	Yellow	Yellow	Yellow
Special features	Teach-in, humidity compensation NPN/PNP auto detection, remote setup, alarm output. On request: dirt and moisture compensation	Teach-in, humidity compensation NPN/PNP auto detection, remote setup, alarm output. On request: dirt and moisture compensation		
Approvals/Marks	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA




## Capacitive proximity sensors

Types	M18 TRIPLESIELD™, chemical resistant		High Temperature
Connections	2 m cable	2 m cable	2 m cable
<b>Flush mountable</b>			
Dimensions (mm)	M18 x 71.5	M18 x 71.5	
Thread (mm)	M18 x 1 x 46.5	M18 x 1 x 46.5	
Operating frequency	30 Hz	30 Hz	
Sensing distance (Sn)	3 - 8 mm (adjustable)	3 - 8 mm (adjustable)	
<b>References</b>			
NPN-NO/NC	CA18HLF08NA	CA18GLF08NA	
PNP-NO/NC	CA18HLF08PA	CA18GLF08PA	
<b>Non-flush mountable</b>			
Dimensions (mm)	M18 x 71.5	M30 x 57 + 55 x 15 x 35	
Thread (mm)	M18 x 1 x 46.5	M30 x 1.5 x 30	
Operating frequency	30 Hz	5 Hz	
Sensing distance (Sn)	3 - 12 mm (adjustable)	4 - 15 mm adjustable (Def. 10 mm)	
<b>References</b>			
NPN-NO/NC	CA18HLN12NA	ECH301ONPAT-1	
PNP-NO/NC	CA18HLN12PA	ECH301OPPAT-1	
<b>Characteristics flush and non-flush mountable</b>			
Rated operating voltage	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC
Voltage drop	≤ 2.5 VDC	≤ 2.5 VDC	≤ 2.0 VDC
Degree of protection	IP67	IP67	IP67, Nema 1, 3, 4, 6, 13
Protection short-circuit (S) Reverse polarity (P) Transients (T)	SPT	SPT	SPT
Output current	< 200 mA	< 200 mA	< 200 mA
Housing material	Polypropylene	PVC	Sensor PTFE. Amplifier PBT
Operating temperature	-25°C to +80°C	-25°C to +80°C	-25°C to +70°C
LED colour	Yellow	Yellow	Yellow
Approvals/Marks	CE	CE	CE

## Capacitive proximity sensors, TRIPLESIELD™



Types	VC5510	VC5510 Time delay	CD50	
Connections	1.5 m cable	1.5 m cable	2 m cable	2 m cable
Flush mountable				
Dimensions (mm)	55 x 35 x 15	55 x 35 x 15	50 x 30 x 7	50 x 30 x 7
Operating frequency	> 15 Hz	> 0.1 Hz	10 Hz	10 Hz
Sensing distance (Sn)	10 mm	10 mm	6 mm	5 mm
<b>References</b>				
NPN - NO	VC5510NNOP	VC5510NNOPT	CD50CNF06NO	CD50CNF05NO
NPN - NC	VC5510NNCP	VC5510NNCPT		
PNP - NO	VC5510PNOP	VC5510PNOPT		
PNP - NC	VC5510PNCP	VC5510PNCPT		
Sensing distance (Sn)			7 mm	
PNP - NO			CD50CNF07PO	
NPN - NC			CD50CNF07NC	
Sensing distance (Sn)			10 mm	
PNP - NO			CD50CNF10PO	
NPN - NC			CD50CNF10NC	
<b>Characteristics flush and non-flush mountable</b>				
Rated operating voltage	5 - 30 VDC	5 - 30 VDC	10 - 30 VDC	5 VDC
Voltage drop	≤ 1.5 VDC	≤ 1.5 VDC	≤ 1.5 V	≤ 1.5 V
Degree of protection	IP65	IP65	IP67	IP67
Output current	≤ 100 mA	≤ 100 mA	≤ 50 mA	≤ 50 mA
Housing material	PC/ABS	PC/ABS	Noryl, grey	Noryl, grey
Operating temperature	0°C to +50°C	0°C to +50°C	0°C to +60°C	0°C to +60°C
LED colour	Red	Red		
Approvals/Marks	CE - UL	CE - UL	CE	CE

## Capacitive proximity sensors, TRIPLESIELD™

Types	CD46 Teach-in TRIPLESIELD™	EC 5525 TRIPLESIELD™	
Connections	2 m cable	2 m cable	M12 connector
Flush or Non-flush mountable			
	Dimensions short body (mm)	46 x 28 x 5.5	55 x 35 x 15
Operating frequency	10 Hz	50 Hz	50 Hz
Sensing distance (Sn)	1.0 - 10 mm (Teach-in)	4 - 25 mm	4 - 25 mm
<b>References</b>			
NPN-NO/NC	CD46CNC10NP	EC5525NPAP	EC5525NPAP-1
PNP-NO/NC	CD46CNC10PP	EC5525PPAP	EC5525PPAP-1
<b>Characteristics flush and non-flush mountable</b>			
Rated operating voltage	10 - 30 VDC	10 - 40 VDC	10 - 40 VDC
Voltage drop	≤ 2.5 VDC	≤ 2.5 VDC	≤ 2.5 VDC
Degree of protection	IP68	IP67	IP67
Protection short-circuit (S) Reverse polarity (P) Transients (T)	SPT	SPT	SPT
Output current	≤ 200 mA	≤ 200 mA	≤ 200 mA
Housing material	PBT	Polycarbonate	Polycarbonate
Operating temperature	-25°C to +80°C	-25°C to +80°C	-25°C to +80°C
LED colour	Yellow, Green	Yellow	Yellow
Special features	Teach-in, remote setup, alarm output		
Approvals/Marks	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA



# Capacitive proximity sensors, TRIPLESIELD™

Types	M18 Teach-in TRIPLESIELD™		M30 Teach-in TRIPLESIELD™	
Connections	2 m cable	M12 connector	2 m cable	M12 connector
<b>Flush or Non-flush mountable</b>				
Dimensions (mm)	M18 x 89.55	M18 x 89.2	M30 x 99.2	M30 x 99.45
Thread (mm)	M18 x 1 x 50	M18 x 1 x 50	M30 x 1.5 x 50	M30 x 1.5 x 50
Operating frequency	5 Hz	5 Hz	5 Hz	5 Hz
Sensing distance (Sn)	0.5 - 12 mm (Teach-in)	0.5 - 12 mm (Teach-in)	0.5 - 30 mm (Teach-in)	0.5 - 30 mm (Teach-in)
<b>References</b>				
NPN/PNP, NO/NC	CA18CLL12BP	CA18CLL12BPM1	CA30CLL30BP	CA30CLL30BPM1
<b>Characteristics flush and non-flush mountable</b>				
Rated operating voltage	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC
Voltage drop	≤ 2.5 VDC	≤ 2.5 VDC	≤ 2.5 VDC	≤ 2.5 VDC
Degree of protection	IP68	IP68	IP68	IP68
Output current	≤ 250 mA	≤ 250 mA	≤ 250 mA	≤ 250 mA
Housing material	Thermoplastic polyester	Thermoplastic polyester	Thermoplastic polyester	Thermoplastic polyester
Operating temperature	-20°C to +85°C	-20°C to +85°C	-20°C to +85°C	-20°C to +85°C
Max. temperature on sensing face	120°C (248°F)	120°C (248°F)	120°C (248°F)	120°C (248°F)
LED colour	Yellow	Yellow	Yellow	Yellow
Special features	Single-step Teach-in, humidity compensation NPN/ PNP auto detection, remote setup, alarm output. On request: dirt and moisture compensation	Single-step Teach-in, humidity compensation NPN/ PNP auto detection, remote setup, alarm output. On request: dirt and moisture compensation	Single-step Teach-in, humidity compensation NPN/ PNP auto detection, remote setup, alarm output. On request: dirt and moisture compensation	Single-step Teach-in, humidity compensation NPN/ PNP auto detection, remote setup, alarm output. On request: dirt and moisture compensation
Approvals/Marks	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA

# Capacitive level sensors

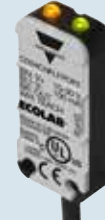
## Types

## Capacitive liquid level sensors

### Connections





### 2 m cable

### M8, 4-pin pig-tail



Dimensions (mm)	34 x 16 x 8	34 x 16 x 8
Operating frequency	10 Hz	10 Hz
Tank wall thickness (out-of-the-box)	0.5 to 6 mm plastic, 0.5 to 4 mm glass	0.5 to 6 mm plastic, 0.5 to 4 mm glass
Teach-in	Empty or full tank	Empty or full tank
<b>References</b>		
NPN - NC	CD34CNFLNCP2	CD34CNFLNCT5
NPN - NO	CD34CNFLNOP2	CD34CNFLNOT4
PNP - NC	CD34CNFLPCP2	CD34CNFLPCT5
PNP - NO	CD34CNFLPOP2	CD34CNFLPOT5
<b>Specifications</b>		
Rated operating voltage	10 - 30 VDC	10 - 30 VDC
Voltage drop	≤ 1.5 VDC	≤ 1.5 VDC
Degree of protection	IP65, IP66, IP67, IP68 (1.3 m @ 24h), IP69K NEMA 1, 2, 4, 4X, 5, 12	IP65, IP66, IP67, IP68 (1.3 m @ 24h), IP69K NEMA 1, 2, 4, 4X, 5, 12
Protection short-circuit (S) Reverse polarity (P) Transients (T)	SPT	SPT
Output current	< 100 mA	< 100 mA
Housing material	PBT	PBT
Operating temperature	-25°C to +80°C	-25°C to +80°C
LED colour	Yellow and Green	Yellow and Green
Special features	Designed to eliminate tank walls and build-up of foam or film on tank walls. Detection liquids: water-based liquids such as water, milk, syrup, milkshakes, lubricants, acids, alkaline, body fluids and highly conductive liquids up to 50 ms	Designed to eliminate tank walls and build-up of foam or film on tank walls. Detection liquids: water-based liquids such as water, milk, syrup, milkshakes, lubricants, acids, alkaline, body fluids and highly conductive liquids up to 50 ms
Approvals/Marks	CE - cULus - ECOLAB	CE - cULus - ECOLAB
Accessories	Mounting Bracket ACD34-MB01	Mounting Bracket ACD34-MB01

# Capacitive level sensors

Types	Capacitive level sensors for solid, fluid and granulated substances			
Connections	2 m cable	2 m cable	2 m cable	2 m cable
				

Dimensions (mm)	Ø32 x 101	Ø32 x 101	Ø32 x 101	M30 x 101
Thread	Smooth	Smooth	Smooth	M30 (with 2 nuts)
Operating frequency	1 Hz	1 Hz	1 Hz	1 Hz
Sensing distance (Sn)	4 - 12 mm (adjustable)	4 - 12 mm (adjustable)	4 - 12 mm (adjustable)	4 - 12 mm (adjustable)

## References with ON delay

Time delay	1 s - 10 m			1 s - 10 m
120 VAC	<b>VC11RT12010M</b>			
230 VAC	<b>VC11RT23010M</b>			
24 VAC/DC	<b>VC11RT92410M</b>			
24-230 VAC/DC	<b>VC11RTM2410M</b>			<b>CA30CLN12MU10M</b>

## References with OFF delay

Time delay		1 s - 10 m		1 s - 10 m
120 VAC		<b>VC12RT12010M</b>		
230 VAC		<b>VC12RT23010M</b>		
24 VAC/DC		<b>VC12RT92410M</b>		
24-230 VAC/DC		<b>VC12RTM2410M</b>		<b>CA30CLN12MV10M</b>




## References without delay

120 VAC			<b>VC12RN120</b>	
230 VAC			<b>VC12RN230</b>	
24 VAC/DC			<b>VC12RN924</b>	
24-230 VAC/DC			<b>VC12RNM24</b>	<b>CA30CLN12MT</b>

## Specifications

Consumption	≤ 1.5 W	≤ 1.5 W	≤ 1.5 W	≤ 2.5 W
Consumption M24 versions	≤ 2.5 W	≤ 2.5 W	≤ 2.5 W	
Hysteresis	1.5 mm at 7 mm sensing distance	1.5 mm at 7 mm sensing distance	1.5 mm at 7 mm sensing distance	3 - 20%
Output	Relay SPDT 2 A / 240 VAC	Relay SPDT 2 A / 240 VAC	Relay SPDT 2 A / 240 VAC	Relay SPDT 2 A / 240 VAC
Degree of protection	IP67	IP67	IP67	IP67
Housing material	Thermoplastic polyester	Thermoplastic polyester	Thermoplastic polyester	PBTP, grey
Operating temperature	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
LED colour	Red	Red	Red	Yellow
Approvals/Marks	CE	CE - CSA	CE	CE, CSA
UL508	cULus (M24 versions)	cULus (M24 versions)	cULus (M24 versions)	cULus
NEMA				1, 2, 4, 4X, 5, 6, 6P, 12

# Capacitive level sensors

	Ø18 Sensors for solid, fluid and granulated substances		Ø32 Sensors
Types	2-wire, AC	3-wire, DC	2-wire, AC
Connections	2 m cable	2 m cable	2 m cable
			
Dimensions (mm)	Ø18 x 86	Ø18 x 86	Ø32 x 101
Thread	Smooth	Smooth	Smooth
Operating frequency	10 Hz	30 Hz	10 Hz
Sensing distance (Sn)	3 - 12 mm (adjustable)	3 - 12 mm (adjustable)	2 - 20 mm (adjustable)
References			
Thyristor (SCR) NO	CB18CLN12TOFT		
Thyristor (SCR) NO ATEX	CB18CLN12TOFTAX		
Thyristor (SCR) NC	CB18CLN12TCFT		
Thyristor (SCR) NC ATEX	CB18CLN12TCFTAX		
NPN - NO/NC		CB18CLN12NA	
NPN - NO/NC ATEX		CB18CLN12NAAX	
PNP - NO/NC		CB18CLN12PA	
PNP - NO/NC ATEX		CB18CLN12PAAX	
ON-delay			No
Thyristor (SCR) NO			CB32CLN20TO
Thyristor (SCR) NO ATEX			CB32CLN20TOAX
Thyristor (SCR) NC			CB32CLN20TC
Thyristor (SCR) NC ATEX			CB32CLN20TCAX
ON-delay			Yes
Thyristor (SCR) NO			CB32CLN20TOFT
Thyristor (SCR) NO ATEX			CB32CLN20TOFTAX
Thyristor (SCR) NC			CB32CLN20TCFT
Thyristor (SCR) NC ATEX			CB32CLN20TCFTAX
Specifications			
Rated operating voltage	20 - 250 VAC	10 - 40 VDC	20 - 250 VAC
Voltage drop	≤ 10 VAC	≤ 10 VAC	≤ 10 VAC
Time delay	30 s ON-delay		30 s ON-delay
Degree of protection	IP67	IP67	IP67
Protection short-circuit (S)			
Reverse polarity (P)	T	SPT	T
Transients (T)			
Output current	≤ 500 mA	≤ 200 mA	≤ 500 mA
Housing material	Thermoplastic polyester	Thermoplastic polyester	Thermoplastic polyester
Operating temperature	-25°C to +80°C	-25°C to +80°C	-20°C to +70°C
LED colour	Yellow	Yellow	Yellow
Approvals/Marks	CE - UL - CSA - ATEX	CE - UL - CSA - ATEX	CE - UL - CSA - ATEX

# Capacitive level sensors

## Types Ø32 Level sensors TRIPLESIELD™ - ATEX

Connections	With ON delay	With OFF delay	Without time delay
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Dimensions (mm)	Ø32 x 101	Ø32 x 101	Ø32 x 101
Thread	Smooth	Smooth	Smooth
Operating frequency	5 Hz	5 Hz	5 Hz
Sensing distance (Sn)	4 - 20 mm (adjustable)	4 - 20 mm (adjustable)	4 - 20 mm (adjustable)

### References

Cable length	2 m	2 m	2 m
120 VAC	<b>CB32CLN20SUAX</b>	<b>CB32CLN20SVAX</b>	<b>CB32CLN20STAX</b>
230 VAC	<b>CB32CLN20RUAX</b>	<b>CB32CLN20RVAX</b>	<b>CB32CLN20RTAX</b>
24 VAC/DC	<b>CB32CLN20QUAX</b>	<b>CB32CLN20QVAX</b>	<b>CB32CLN20QTAX</b>
Cable length	5 m	5 m	5 m
120 VAC	<b>CB32CLN20SUAX5M</b>	<b>CB32CLN20SVAX5M</b>	<b>CB32CLN20STAX5M</b>
230 VAC	<b>CB32CLN20RUAX5M</b>	<b>CB32CLN20RVAX5M</b>	<b>CB32CLN20RTAX5M</b>
24 VAC/DC	<b>CB32CLN20QUAX5M</b>	<b>CB32CLN20QVAX5M</b>	<b>CB32CLN20QTAX5M</b>
Cable length	10 m	10 m	10 m
120 VAC	<b>CB32CLN20SUAX10M</b>	<b>CB32CLN20SVAX10M</b>	<b>CB32CLN20STAX10M</b>
230 VAC	<b>CB32CLN20RUAX10M</b>	<b>CB32CLN20RVAX10M</b>	<b>CB32CLN20RTAX10M</b>
24 VAC/DC	<b>CB32CLN20QUAX10M</b>	<b>CB32CLN20QVAX10M</b>	<b>CB32CLN20QTAX10M</b>

### Specifications

Consumption	< 1.5 W	< 1.5 W	< 1.5 W
Hysteresis	3 to 20% of sensing distance	3 to 20% of sensing distance	3 to 20% of sensing distance
Output	Relay SPDT, 2 A / 240 VAC	Relay SPDT, 2 A / 240 VAC	Relay SPDT, 2 A / 240 VAC
Time delay	1 s - 10 m	1 s - 10 m	
Degree of protection	IP67	IP67	IP67
Housing material	PBT	PBT	PBT
Operating temperature	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
LED colour	Yellow	Yellow	Yellow
Approvals/Marks	CE - ATEX	CE - ATEX	CE - ATEX

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