





# Capacitive proximity sensors, TRIPLESIELD™

Types	M18-DC TRIPLESIELD™		M18-AC TRIPLESIELD™	
Connections	2 m cable	M12 connector	2 m cable	M12 connector
<b>Flush mountable</b>				
Dimensions (mm)	M18 x 71.5	M18 x 83.5	M18 x 71.5	M18 x 83.5
Thread (mm)	z	M18 x 1 x 46.5	M18 x 1 x 46.5	M18 x 1 x 46.5
Operating frequency	30 Hz	30 Hz	10 Hz	10 Hz
Sensing distance (Sn)	3 - 8 mm (adjustable)	3 - 8 mm (adjustable)	3 - 8 mm (adjustable)	3 - 8 mm (adjustable)
<b>References</b>				
NPN - NO and NC	<b>CA18CLF08NA</b>	<b>CA18CLF08NAM1</b>		
PNP - NO and NC	<b>CA18CLF08PA</b>	<b>CA18CLF08PAM1</b>		
Thyristor (SCR) NO			<b>CA18CLF08TO</b>	<b>CA18CLF08TOM6</b>
Thyristor (SCR) NC			<b>CA18CLF08TC</b>	<b>CA18CLF08TCM6</b>
<b>Non-flush mountable</b>				
Dimensions (mm)	M18 x 79.5	M18 x 91.5	M18 x 79.5	M18 x 91.5
Thread (mm)	M18 x 1 x 46.5	M18 x 1 x 46.5	M18 x 1 x 46.5	M18 x 1 x 46.5
Operating frequency	30 Hz	30 Hz	10 Hz	10 Hz
Sensing distance (Sn)	3 - 12 mm (adjustable)	3 - 12 mm (adjustable)	3 - 12 mm (adjustable)	3 - 12 mm (adjustable)
<b>References</b>				
NPN - NO and NC	<b>CA18CLN12NA</b>	<b>CA18CLN12NAM1</b>		
PNP - NO and NC	<b>CA18CLN12PA</b>	<b>CA18CLN12PAM1</b>		
Thyristor (SCR) NO			<b>CA18CLN12TO</b>	<b>CA18CLN12TOM6</b>
Thyristor (SCR) NC			<b>CA18CLN12TC</b>	<b>CA18CLN12TCM6</b>
<b>Characteristics flush and non-flush mountable</b>				
Rated operating voltage	10 - 40 VDC	10 - 40 VDC	20 - 250 VAC	20 - 250 VAC
Voltage drop	≤ 2.5 VDC	≤ 2.5 VDC	≤ 10 VAC	≤ 10 VAC
Degree of protection	IP 67	IP 67	IP 67	IP 67
Protection Short-circuit (S)				
Reverse polarity (P)	SPT	SPT	T	T
Transients (T)				
Output current	< 200 mA	< 200 mA	< 500 mA	< 500 mA
Housing material	Thermoplastic polyester	Thermoplastic polyester	Thermoplastic polyester	Thermoplastic polyester
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

Also available in Teflon, polypropylene and PVC housing.

# Capacitive proximity sensors, TRIPLESIELD™

## Types M30-DC 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	50 Hz	50 Hz	50 Hz	50 Hz
Sensing distance (Sn)	2 - 16 mm (adjustable)	2 - 16 mm (adjustable)	2 - 16 mm (adjustable)	2 - 16 mm (adjustable)

#### References

NPN - NO and NC	<b>EC3016NPASL</b>	<b>EC3016NPASL-1</b>	<b>EC3016NPAPL</b>	<b>EC3016NPAPL-1</b>
PNP - NO and NC	<b>EC3016PPASL</b>	<b>EC3016PPASL-1</b>	<b>EC3016PPAPL</b>	<b>EC3016PPAPL-1</b>

#### 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	50 Hz	50 Hz	50 Hz	50 Hz
Sensing distance (Sn)	4 - 25 mm (adjustable)	4 - 25 mm (adjustable)	4 - 25 mm (adjustable)	4 - 25 mm (adjustable)

#### References





NPN - NO and NC	<b>EC3025NPASL</b>	<b>EC3025NPASL-1</b>	<b>EC3025NPAPL</b>	<b>EC3025NPAPL-1</b>
PNP - NO and NC	<b>EC3025PPASL</b>	<b>EC3025PPASL-1</b>	<b>EC3025PPAPL</b>	<b>EC3025PPAPL-1</b>

#### Characteristics flush and non-flush mountable

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	IP 67	IP 67	IP 67	IP 67
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	Stainless steel	Stainless steel	Thermoplastic polyester	Thermoplastic polyester
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™

## M30-DC TRIPLESIELD™

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 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)	2 - 16 mm (adjustable)	2 - 16 mm (adjustable)	4 - 25 mm (adjustable)	4 - 25 mm (adjustable)
<b>References</b>				
Standard				
NPN - NO and NC	CA30CAF16NA	CA30CAF16NAM1	CA30CAN25NA	CA30CAN25NAM1
PNP - NO and NC	CA30CAF16PA	CA30CAF16PAM1	CA30CAN25PA	CA30CAN25PAM1
Dust alarm				
PNP - NO	CA30CAF16PODU		CA30CAN25PODU	
PNP - NC	CA30CAF16PCDU		CA30CN25PCDU	
Temperature alarm				
PNP - NO	CA30CAF16POTA		CA30CAN25POTA	
PNP - NC	CA30CAF16PCTA		CA30CAN25PCTA	
<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	IP 67, IP 68, IP 69K	IP 67, IP 68, IP 69K	IP 67, IP 68, IP 69K	IP 67, IP 68, IP 69K
Protection Short-circuit (S)	SPT	SPT	SPT	SPT
Reverse polarity (P)				
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	CE - cULus	CE - cULus	CE - cULus

# 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)


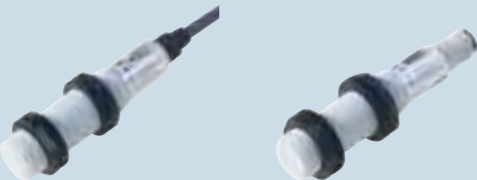
#### References

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	IP 67	IP 67	IP 67	IP 67
Protection Short-circuit (S) Reverse polarity (P) Transients (T)	T	T	T	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	CA12CLC08BP	CA12CLC08BPM1	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	IP 68	IP 68	IP 68	IP 68
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	<b>CA30CLC30BP</b>	<b>CA30CLC30BPM1</b>		
Power MOFSET			<b>CA30CLF16CP</b>	<b>CA30CLF16CPM6</b>
<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			<b>CA30CLN25CP</b>	<b>CA30CLN25CPM6</b>
<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	IP 68	IP 68	IP 67	IP 67
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, TRIPLESIELD™

## Types

M18 TRIPLESIELD™, chemical resistant

### Connections

2 m cable

2 m cable

2 m cable

### Flush mountable



Dimensions (mm)	M18 x 71.5	M18 x 71.5	M18 x 71.5
Thread (mm)	M18 x 1 x 46.5	M18 x 1 x 46.5	M18 x 1 x 46.5
Operating frequency	30 Hz	30 Hz	30 Hz
Sensing distance (Sn)	3 - 8 mm (adjustable)	3 - 8 mm (adjustable)	3 - 8 mm (adjustable)

### References

NPN-NO/NC	CA18HLF08NA	CA18GLF08NA	CA18FLF08NA
PNP-NO/NC	CA18HLF08PA	CA18GLF08PA	CA18FLF08PA

### Non-flush mountable



Dimensions (mm)	M18 x 71.5
Thread (mm)	M18 x 1 x 46.5
Operating frequency	30 Hz
Sensing distance (Sn)	3 - 12 mm (adjustable)





### References

NPN-NO/NC	CA18HLN12NA
PNP-NO/NC	CA18HLN12PA

### Characteristics flush and non-flush mountable




Rated operating voltage	10 - 40 VDC	10 - 40 VDC	10 - 40 VDC
Voltage drop	≤ 2.5 VDC	≤ 2.5 VDC	≤ 2.5 VDC
Degree of protection	IP 67	IP 67	IP 67
Protection Short-circuit (S) Reverse polarity (P) Transients (T)	SPT	SPT	SPT
Output current	< 200 mA	< 200 mA	< 200 mA
Housing material	Polypropylene	PVC	Teflon
Operating temperature	-25°C to +80°C	-25°C to +80°C	-25°C to +80°C
LED colour	Yellow	Yellow	Yellow
Approvals/Marks	CE	CE	CE

## Capacitive proximity sensors, TRIPLESIELD™



Types	VC5510	VC5510 Time delay	CD50	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	IP 65	IP 65	IP 67	IP 67
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
<b>Flush or non-Flush mountable</b>			
Dimensions short body (mm)	46 x 28 x 5.5	55 x 35 x 15	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	IP 68	IP 67	IP 67
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

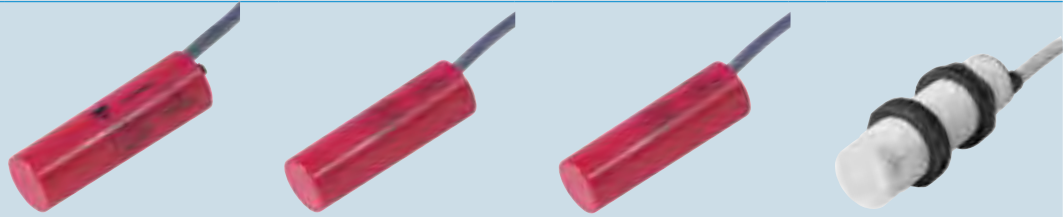
## Capacitive proximity sensors, TRIPLESIELD™

Types	M18 teach-in TRIPLESIELD™		M30 teach-in TRIPLESIELD™	
Connections	2 m cable	M12 connector	2 m cable	M12 connector
Flush or non-flush mountable				
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	IP 68	IP 68	IP 68	IP 68
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 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	IP 67	IP 67	IP 67	IP 67
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)
<b>References</b>			
Thyristor (SCR) NO	<b>CB18CLN12TOFT</b>		
Thyristor (SCR) NO ATEX	<b>CB18CLN12TOFTAX</b>		
Thyristor (SCR) NC	<b>CB18CLN12TCFT</b>		
Thyristor (SCR) NC ATEX	<b>CB18CLN12TCFTAX</b>		
NPN - NO/NC		<b>CB18CLN12NA</b>	
NPN - NO/NC ATEX		<b>CB18CLN12NAAX</b>	
PNP - NO/NC		<b>CB18CLN12PA</b>	
PNP - NO/NC ATEX		<b>CB18CLN12PAAX</b>	
ON-delay			No
Thyristor (SCR) NO			<b>CB32CLN20TO</b>
Thyristor (SCR) NO ATEX			<b>CB32CLN20TOAX</b>
Thyristor (SCR) NC			<b>CB32CLN20TC</b>
Thyristor (SCR) NC ATEX			<b>CB32CLN20TCAX</b>
ON-delay			Yes
Thyristor (SCR) NO			<b>CB32CLN20TOFT</b>
Thyristor (SCR) NO ATEX			<b>CB32CLN20TOFTAX</b>
Thyristor (SCR) NC			<b>CB32CLN20TCFT</b>
Thyristor (SCR) NC ATEX			<b>CB32CLN20TCFTAX</b>
<b>Specifications</b>			
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	IP 67	IP 67	IP 67
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



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)

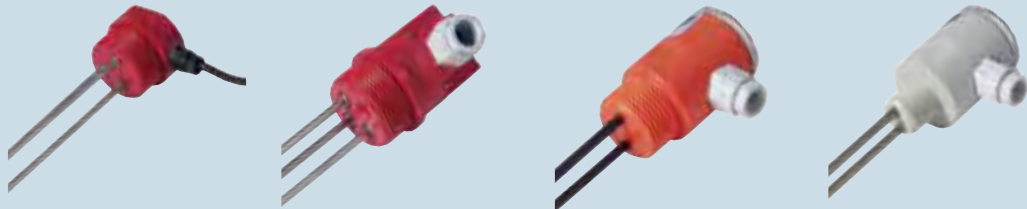
## References

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

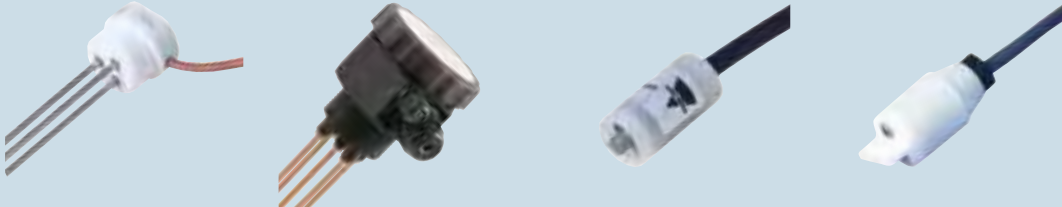
Consumption	< 1.5 W	< 1.5 W	< 1.5 W
Hysteresis	3 to 20% of sensing distance	3 to 20% of sensing distance	3 to 20% of sensing distance
Output	Relay SPDT, 2 A / 240 VAC	Relay SPDT, 2 A / 240 VAC	Relay SPDT, 2 A / 240 VAC
Time delay	1 s - 10 m	1 s - 10 m	
Degree of protection	IP 67	IP 67	IP 67
Housing material	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

## Conductive level sensors

Types	VN / VNI	VNY / VNYI	VPC	VPP				
Connections	Cable (PVC) 2 m	Screw connection	Screw connection	Screw connection				
								
<b>Electrodes</b>								
Number of electrodes	1, 2, 3 or 4	1, 2, 3 or 4	1, 2 or 3	1, 2 or 3				
Diameter/length (mm)	D5/1000	D5/1000	D4/500	D4/500				
Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel				
Isolation of electrodes	Yes (VNI)	Yes (VNYI)	Yes	Yes				
Isolation	Polyethylene	Polyethylene	Polyethylene	PVDF				
<b>Housing</b>								
Pipe thread	1½"	1½"	½" (VPC x05) or 1" (VPC x10)	½" (VPC x05) or 1" (VPC x10)				
Material	Nylon 6	Nylon 6	PVC	Polypropylene				
<b>References</b>								
1 electrodes	<b>VN1</b>	<b>VNI1</b>	<b>VNY1</b>	<b>VNYI1</b>	<b>VPC105</b>	<b>VPC110</b>	<b>VPP105</b>	<b>VPP110</b>
2 electrodes	<b>VN2</b>	<b>VNI2</b>	<b>VNY2</b>	<b>VNYI2</b>	<b>VPC205</b>	<b>VPC210</b>	<b>VPP205</b>	<b>VPP210</b>
3 electrodes	<b>VN3</b>	<b>VNI3</b>	<b>VNY3</b>	<b>VNYI3</b>	<b>VPC310</b>		<b>VPP310</b>	
4 electrodes	<b>VN4</b>	<b>VNI4</b>	<b>VNY4</b>	<b>VNYI4</b>				
<b>Specifications</b>								
Degree of protection	IP 67	IP 67	IP 67	IP 67				
Operating temperature	0°C to +90°C	0°C to +90°C	0°C to +60°C	0°C to +100°C				
Approvals/Marks	CE	CE	CE	CE				

## Conductive level sensors

Types	VT / VTI	CLH	VH1 / VH2	A 94-10
Connections	Cable (Silicone)	Screw connection	Cable (Neoprene)	Cable (PVC)



### Electrodes

Number of electrodes	1, 2, 3 or 4	2 or 4 + reference	1 (hanging)	2 (hanging)
Diameter/length (mm)	D5/1000	D4	D18/36.5 or D32/75.5	D22/75.0
Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Isolation of electrodes	Yes (VTI)	Yes	No (VH1) - Yes (VH2)	No
Isolation	Teflon	Kynar, Polyolefine	Nylon 6	

### Housing

Pipe thread	1½"	1½"		
Material	Teflon	Polypropylene	Nylon 6	Polyester

### References

1 electrodes	VT1	VTI1	VH1 or VH2	
2 electrodes	VT2	VTI2		A 94-10
3 electrodes	VT3	VTI3	CLH3*	
4 electrodes	VT4	VTI4		
5 electrodes			CLH5*	

### Specifications

Degree of protection	IP 67	IP 65	IP 67	IP 67
Operating temperature	0°C to +145°C	-20°C to +90°C	0°C to +90°C	0°C to +60°C
Approvals/Marks	CE	CE	CE	CE





### Electrodes (Stainless steel ANSI316)

No Insulation	
1 m	CLE1
2 m	CLE2
Extension 1 m	CLE1X
Kynar (DVDP) Insulation	
1 m	CLE1K
2 m	CLE2K
Extension 1 m	CLE1KX
Polyolefine Insulation	
1 m	CLE1P
2 m	CLE2P
Extension 1 m	CLE1PX

\* Electrodes shall be ordered separately

# Conductive level sensors





## Level controller

Types	CLD1	CLD2	CLP2 Basic	CLP2
Connections	DIN rail	DIN rail	Plug 11 pin circular	Plug 11 pin circular
				
Function	Filling or emptying. Selectable by rotary switches. Conductive liquids	Filling or emptying. Selectable by rotary switches. Conductive liquids	Filling or emptying. Selectable by rotary switches. Conductive liquids	Filling or emptying. Selectable by rotary switches. Conductive liquids
Adjustable	Yes, Potentiometer	Yes, Potentiometer	Yes, Potentiometer	Yes, Potentiometer
Sensitivity	5 K $\Omega$ to 150 K $\Omega$	250 $\Omega$ to 500 K $\Omega$	5 K $\Omega$ to 150 K $\Omega$	250 $\Omega$ to 500 K $\Omega$
Functions switch	- Timer 1 to 30 sec. delay on filling or/and emptying	- Filling / Emptying - 3-levels: Low, Standard and High	- Filling / Emptying	- Filling / Emptying - 3-levels: Low, Standard and High
Input	1 + reference	2 + reference	2 + reference	2 + reference
Output	8A / 250 VAC SPST	8A / 250 VAC SPDT	8A / 250 VAC SPDT	8A / 250 VAC DPDT
Power Supply	24 V AC/DC	24 - 240 VAC/DC	24 VDC, 24VAC, 115 VAC or 230 VAC	24 VAC/DC, 115 VAC or 230 VAC
<b>References</b>				
24 240 VAC/DC		<b>CLD2EB1BU24</b>		
24 VDC			<b>CLP2EB1B724</b>	
24 VAC			<b>CLP2EB1B024</b>	
24 VAC/DC	<b>CLD1EA1CM24</b>			<b>CLP2EA1CM24</b>
115 VAC			<b>CLP2EB1B115</b>	<b>CLP2EA1C115</b>
230 VAC			<b>CLP2EB1B230</b>	<b>CLP2EA1C230</b>
<b>Specifications</b>				
Time delay	< 300 mS	< 2S	< 2S	< 300 mS
Housing material	ABS VO	PA66	NORYL PPO	NORYL PPO
Operating temperature	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C
Output LED colour	Yellow	Yellow	Yellow	Yellow
Power LED colour	Green	Green	Green	Green
Approvals/Marks	CE - UL - CSA	CE - UL	CE - UL - CSA	CE - UL - CSA



# Conductive level sensors

## Level controller

Types	CLD2	CLP2 Master-Slave	CLD4	CLP4
Connections	DIN rail	Plug 11 pin circular	DIN rail	Plug 11 pin circular
				
Function	Filling or emptying. Selectable by rotary switches. Conductive liquids	Filling or emptying. Selectable by rotary switches. Conductive liquids Master - Slave system	Filling, emptying or combinations. Selectable by rotary switches. Conductive liquids	Filling, emptying or combinations. Selectable by rotary switches. Conductive liquids
Adjustable	Yes, Potentiometer	Yes, Potentiometer	Yes, Potentiometer	Yes, Potentiometer
Sensitivity	250 Ω to 500 KΩ	250 Ω to 500 KΩ	250 Ω to 500 KΩ	250 Ω to 500 KΩ
Functions switch	- Filling / Emptying - 3-levels: Low, Standard and High	- Filling / Emptying - 3-levels: Low, Standard and High	- Tank - well - Direct in to out 2 probe - Low and High alarm - 2 system in one, filling and/or emptying - 3-levels: Low, Standard and High	- Tank - well - Direct in to out 2 probe - Low and High alarm - 2 system in one, filling and/or emptying - 3-levels: Low, Standard and High
Input	2 + reference	2 + reference	2 to 4 + reference	2 to 4 + reference
Output	8A / 250 VAC DPDT	8A / 250 VAC SPDT	8A / 250 VAC SPDT, SPST	8A / 250 VAC 2 X SPST
Power Supply	24 VAC/DC, 115 VAC or 230 VAC	24 VAC/DC, 115 VAC or 230 VAC	24 VAC/DC, 115 VAC or 230 VAC	24 VAC/DC, 115 VAC or 230 VAC
<b>References</b>				
24 VAC/DC	<b>CLD2EA1CM24</b>	<b>CLP2FA1BM24</b>	<b>CLD4MA2DM24</b>	<b>CLP4MA2AM24</b>
115 VAC/DC	<b>CLD2EA1C115</b>	<b>CLP2FA1B115</b>	<b>CLD4MA2D115</b>	<b>CLP4MA2A115</b>
230 VAC/DC	<b>CLD2EA1C230</b>	<b>CLP2FA1B230</b>	<b>CLD4MA2D230</b>	<b>CLP4MA2A230</b>
<b>Specifications</b>				
Time delay	< 300 mS	< 300 mS	< 300 mS	< 300 mS
Housing material	ABS VO	NORYL PPO	ABS VO	NORYL PPO
Operating temperature	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C
Output LED colour	Yellow	Yellow	Yellow	Yellow
Power LED colour	Green	Green	Green	Green
Approvals/Marks	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA