## CAPACITIVE

# BASIC, CAPACITIVE A.C., MULTIVOLTAGE



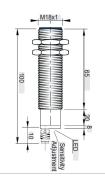


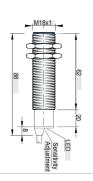


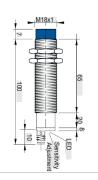


## **CAPACITIVE BASIC M18**









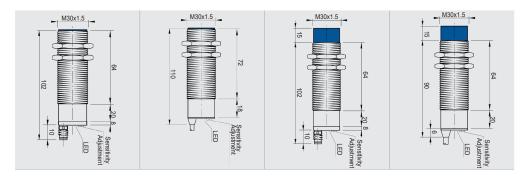


					STAN	DARD	
				FLUSH		NON FLUSH	
				M8 conn	cable	M8 conn	cable
NOMINAL SWITC	HING DISTAN	ICE		15 mm	15 mm	110 mm	110 mm
10-30 Vdc	PNP/NPN NO-NC	4 wires	order No.				
10-30 Vdc	PNP N0	3 wires	order No.				
10-30 Vdc	PNP	3 wires					
10-30 Vdc	NC NPN	3 wires	order No.				
10-30 Vac	N0	3 WIFES	order No.				
10-30 Vdc	NPN NC	3 wires	order No.				
10-30 Vdc	PNP NO-NC	4 wires	order No.	CS08K2 958901040	CS08 958901020	CS14K2 958901270	CS14 958901120
10-30 Vdc	NPN	4 wires		CS07K2	CS07	CS13K2	CS13
	NO-NC		order No.	958901000	958901160	958901250	958901100
10-30 Vdc	NO-NC	2 wires	order No.				
20-250 Vac/Vdc	NO	2 wires	order No.				
20-250 Vac/Vdc	NC	2 wires	order No.				
20-230 vac/vuc	INC	2 WIIes	order No.				
20-250 Vac	N0	2/3 wires	order No.				
10-30 Vdc	Analog 0-20	3 wires					
	mA		order No.				
NAMUR amplifier	NAMUR	2 wires	order No.				

Nominal Voltage	12-30Vdc(-15/10%)	12-30Vdc(-15/10%)	12-30Vdc(-15/10%)	12-30Vdc(-15/10%)
Residual Ripple	<10%	<10%	<10%	<10%
Hysteresis	depends on the sensing distance			
Max. Output Current	200 mA	200 mA	200 mA	200 mA
Residual Current	< 10 mA	< 10 mA	< 10 mA	< 10 mA
Voltage Drop	< 1,8 V (I=100 m A)			
Setting	sensitivity adjustment trimmer	sensitivity adjustment trimmer	sensitivity adjustment trimmer	sensitivity adjustment trimmer
Operation Led	Yellow	Yellow	Yellow	Yellow
Switching Frequency	10 Hz	10 Hz	10 Hz	10 Hz
Start Up Delay	< 100 ms	< 100 ms	< 100 ms	< 100 ms
Repeatability	≤ 5%	≤ 5%	≤ 5%	≤ 5%
Short Circuit Protection	Present(self-resetting)	Present(self-resetting)	Present(self-resetting)	Present(self-resetting)
Electric Protections	Against polarity	Against polarity	Against polarity	Against polarity
Electric Protections	reversal inductive loads	reversal inductive loads	reversal inductive loads	reversal inductive loads
Temperature Limits	- 25 +70 C			
Protection Degree	IP67	IP67	IP67	IP67
Cable Length		2 m		2 m
Cable Section		4x 0,25 mm^2		4x 0,25 mm^2
Housing Material	Nickel-plated brass	Nickel-plated brass	Nickel-plated brass	Nickel-plated brass
Weight - Cable Output		160 g		160 g
Weight - Connector Output	120 g		120 g	

## **CAPACITIVE BASIC M30**

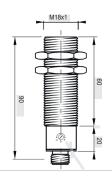


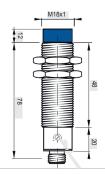


					STAN	DARD	
				FLUSH NON FLUSH			
				M8 conn	cable	M8 conn	cable
IOMINAL SWITC	HING DISTAN	ICE		115 mm	115 mm	125 mm	125 mm
10.001/1	PNP/NPN	, .					
10-30 Vdc	NO-NC	4 wires	order No.				
40.001/1	PNP						
10-30 Vdc	N0	3 wires	order No.				
10.001/1	PNP						
10-30 Vdc	NC	3 wires	order No.				
10.20374	NPN	2					
10-30 Vdc	N0	3 wires	order No.				
10 20 1/4-	NPN	2					
10-30 Vdc	NC	3 wires	order No.				
10.001/1	PNP	, .		CS10K2	CS10	CS16K2	CS16
10-30 Vdc	NO-NC	4 wires	order No.	958901080	958901060	958901330	958901140
10.001/1	NPN	, .		CS09K2	CS09	CS15K2	CS15
10-30 Vdc	NO-NC	4 wires	order No.	958901230	958901180	958901300	958901200
10.201/-	NO NO	0					
10-30 Vdc	NO-NC	2 wires	order No.				
00.050.1/ 0//	No						
20-250 Vac/Vdc	NO	2 wires	order No.				
00.05037.077	NC 2 wires						
20-250 Vac/Vdc	NC	2 wires	order No.				
		0/0					
20-250 Vac	NO	2/3 wires	order No.				
40.001/1	Analog 0-20						
10-30 Vdc	mA	Analog 0-20 nA 3 wires	order No.				
NAMUR amplifier	NAMUR	2 wires	order No.				
Nominal Voltage				12-30Vdc(-15/10%)	12-30Vdc(-15/10%)	12-30Vdc(-15/10%)	12-30Vdc(-15/10%)
Residual Ripple				<10%	<10%	<10%	<10%
Hysteresis				depends on the sensing distance			
Max. Output Current				200 mA	200 mA	200 mA	200 mA
Residual Current				< 10 mA	< 10 mA	< 10 mA	< 10 mA
Voltage Drop				< 1,8 V (I=100 m A)			
Setting				sensitivity adjustment trimmer	sensitivity adjustment trimmer	sensitivity adjustment trimmer	sensitivity adjustment trimme
Operation Led				Yellow	Yellow	Yellow	Yellow
Switching Frequence	y			10 Hz	10 Hz	10 Hz	10 Hz
Start Up Delay				< 100 ms	< 100 ms	< 100 ms	< 100 ms
Repeatability				≤ 5%	≤ 5%	≤ 5%	≤ 5%
Short Circuit Protect	tion			Present(self-resetting)	Present(self-resetting)	Present(self-resetting)	Present(self-resetting)
Electric Protections				Against polarity	Against polarity	Against polarity	Against polarity
				reversal inductive loads	reversal inductive loads	reversal inductive loads	reversal inductive loads
Temperature Limits				- 25 +70 C			
Protection Degree				IP67	IP67	IP67	IP67
Cable Length					2 m		2 m
Cable Section					4x 0,25 mm^2		4x 0,25 mm^2
Housing Material				Nickel-plated brass	Nickel-plated brass	Nickel-plated brass	Nickel-plated brass
Weight - Cable Outp					250 g		250 g
Weight - Connector	Output			210 g		210 g	

## **CAPACITIVE A.C. M18**



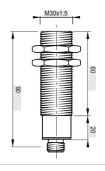


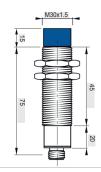


				STANDARD			
				FLUSH	NON FLUSH		
				M12 conn	M12 conn		
NOMINAL SWITC	HING DISTAN	ICE		28 mm	215 mm		
10-30 Vdc	PNP/NPN	4 wires					
10 00 140	NO-NC	4 111103	order No.				
10-30 Vdc	NU PNP 3 wires						
			order No.				
10-30 Vdc							
	NC		order No.				
10-30 Vdc	NPN	3 wires					
	N0		order No.				
10-30 Vdc	NPN	3 wires					
	NC		order No.				
10-30 Vdc	PNP	4 wires					
	NO-NC		order No.				
10-30 Vdc	NPN	4 wires					
	NO-NC 4 Wiles		order No.				
10-30 Vdc	NO-NC 2 v		order No.				
20-250 Vac/Vdc	NO NO	2 wires		CSP40K4	CSP41K4		
	111		order No.	958901380	958901390		
0-250 Vac/Vdc	NC	2 wires					
	1		order No.				
20-250 Vac	NO	2/3 wires					
		order No.					
0-30 Vdc	Analog 0-20	3 wires					
	mA		order No.				
NAMUR amplifier	NAMUR	2 wires					
			order No.				
Nominal Voltage				20-250 Vac (-15/10%)-5A source current	20-250 Vac (-15/10%)-5A source current		
Residual Ripple				<10%	<10%		
lysteresis				< 15%	< 15%		
Max. Output Current				300 mA	300 mA		
in. Output Current				2,5 mA	2,5 mA		
Residual Current				< 2,5 mA	< 2,5 mA		
Setting				sensitivity adjustment trimmer	sensitivity adjustment trimmer		
peration Led				Yellow	Yellow		
Switching Frequenc	:y			25 Hz	25 Hz		
Start Up Delay	•						
Repeatability				< 5%	< 5%		
Short Circuit Protec	ction			Present(self-resetting)	Present(self-resetting)		
Electric Protection				Against polarity reversal inductive loads	Against polarity reversal inductive loads		
Temperature Limit				- 25 +70 C	- 25 +70 C		
Protection Degree				IP67	IP67		
Cable Length				1F07 			
Cable Section							
				Plastic (PBT)			
Housing Material				Plastic (PBT)	Plastic (PBT)		
Weight - Cable Outp							
Weight - Connector	vutput			80 g	80 g		

## **CAPACITIVE A.C. M30**







				STAN	NDARD
				FLUSH	NON FLUSH
				M12 conn	M12 conn
NOMINAL SWITC	HING DISTAN	NCE		220 mm	230 mm
10.001/1	PNP/NPN	4 wires			
10-30 Vdc	dc NO-NC		order No.		
10-30 Vdc	PNP	2			
TU-3U Vac	N0	3 wires	order No.		
10-30 Vdc	PNP	3 wires			
10-30 Vac	NC	3 wires	order No.		
10-30 Vdc	NPN	3 wires			
10-30 vac	N0	3 WII es	order No.		
10-30 Vdc	NPN	2 wires			
10-30 vuc	NC	3 WII es	order No.		
10-30 Vdc	PNP	4 wires			
10-30 vuc	NO-NC	4 wires	order No.		
10-30 Vdc	NPN	/ wires			
10-30 vuc	NO-NC	4 wires	order No.		
10-30 Vdc	NO-NC	2 wires			
10 00 140	110 110	2 Wiles	order No.		
20-250 Vac/Vdc	NO	2 wires		CSP50K4	CSP51K4
20 200 140, 140	110	2 Wiles	order No.	958901400	958901410
20-250 Vac/Vdc	NC	2 wires			
20 200 100, 100			order No.		
20-250 Vac	nc NO	2/3 wires			
			order No.		
10-30 Vdc	Analog 0-20	3 wires			
	mA		order No.		
NAMUR amplifier	NAMUR	2 wires			
			order No.		
Nominal Voltage				20-250 Vac (-15/10%)-5A source current	20-250 Vac (-15/10%)-5A source current
Residual Ripple				<10%	<10%
Hysteresis				< 15%	< 15%
Max. Output Curre	nt			300 mA	300 mA
Min. Output Curre				2,5 mA	2,5 mA
Danidual Coment				2,5 mA	2,5 mA

Nominal Voltage	20-250 Vac (-15/10%)-5A source current	20-250 Vac (-15/10%)-5A source current
Residual Ripple	<10%	<10%
Hysteresis	< 15%	< 15%
Max. Output Current	300 mA	300 mA
Min. Output Current	2,5 mA	2,5 mA
Residual Current	< 2,5 mA	< 2,5 mA
Setting	sensitivity adjustment trimmer	sensitivity adjustment trimmer
Operation Led	Yellow	Yellow
Switching Frequency	25 Hz	25 Hz
Start Up Delay		
Repeatability	< 5%	< 5%
Short Circuit Protection	Present(self-resetting)	Present(self-resetting)
Electric Protection	Against polarity reversal inductive loads	Against polarity reversal inductive loads
Temperature Limit	- 25 +70 C	- 25 +70 C
Protection Degree	IP67	IP67
Cable Length		
Cable Section		
Housing Material	Plastic (PBT)	Plastic (PBT)
Weight - Cable Output		
Weight - Connector Output	200 g	200 g

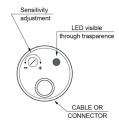
## **CAPACITIVE MULTIVOLTAGE M30**





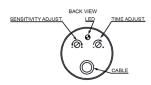
				STANDARD (TIMER TRIMMER)		
				FLUSH	NON FLUSH	
				M12 conn	M12 conn	
NOMINAL SWITCH	IING DISTANO	CE		20 mm	30 mm	
10-30 Vdc	PNP/NPN NO-NC	4 wires	order No.			
10-30 Vdc	PNP NO	3 wires	order No.			
10-30 Vdc	PNP NC	3 wires	order No.			
10-30 Vdc	NPN NO	3 wires	order No.			
10-30 Vdc	NPN NC	3 wires	order No.			
10-30 Vdc	PNP NO-NC	4 wires	order No.			
10-30 Vdc	NPN NO-NC	4 wires	order No.			
10-30 Vdc	NO-NC	2 wires	order No.			
20-250 Vac/Vdc	NO	2 wires	order No.			
18230 VAC/DC	relay SPDT	6 wires		CS31	CS32	
18230 Vac/dc	relay SPDT	6 wires	order No.	958901150 CS32TD5	958901220 CS31TD5	
18230 VAC/DC	(delay ON)	6 wires	order No.	958901360 CS32TE5	958901350 CS31TE5	
NAMUR amplifier	(delay OFF) NAMUR	2 wires	order No.	958901370 	958901210 	
·			order No.			
Nominal Voltage				18-230Vac/dc (-15/10%)	18-230Vac/dc (-15/10%)	
Residual Ripple				<10%	<10%	
Hysteresis				<10%	<10%	
Max. Output Curre	nt			3A 30 Vac- 1A 220 Vac (90 W, 360 VA)	3A 30 Vac- 1A 220 Vac (90 W, 360 VA)	
Absorption				2,5 VA	2,5 VA	
Residual Current						
Setting				sensitivity and time adj. trimmer	sensitivity and time adj. trimmer	
Operation Led				Yellow	Yellow	
Switching Frequer	ncy			10 Hz	10 Hz	
Start Up Delay				<300 ms	<300 ms	
Repeatability				<5%	<5%	
Short Circuit Prote	ection			Present (self-resetting)	Present (self-resetting)	
Electric Protection	ı			Against polarity reversal inductive loads	Against polarity reversal inductive loads	
Temperature Limit				- 25 +70 C	- 25 +70 C	
Protection Degree				IP65	IP65	
Cable Length				2 m	2 m	
Cable Section				6x0,30 mm <sup>2</sup>	6x0,30 mm <sup>2</sup>	
Housing Material				Nickel-plated brass	Nickel-plated brass	
Weight - Cable Out				250 g	250 g	
Weight - Connecto	r Output					

### **CAPACITIVE SETTINGS & CONNECTIONS**



#### Sensitivity adjustment

The sensitivity adjustment must be done when the sensor is installed in a definite and steady position. The regulation must be done in a position half way between minimum and maximum, because, being air dielectric, a strong humidity variation could cause, if the regulation is very light, nuisance tripping. The sensing distance of the sensor depends on the materials to detect, on its dimension and conductivity. The distance could change according to temperature variations.



#### Timer adjustment

The timer trimmer allows to set a delay, on the activation (delay ON) or in the de-activation of the output, depends on the model, after the detection of the object. The output will remain active (or inactive) proportionally to the setting point of the screw, starting from 1 second up to 5 minutes.

#### M8 4-pole NO-NC models

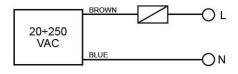


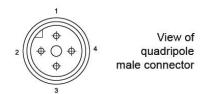
View of quadripole male connector

#### CONTACTS CONFIGURATION

0.44	Contacts numbers					
Output	1	2	3	4		
NPN/PNP NO+NC	+	NC	_	NO		

#### 2 wires Vac models

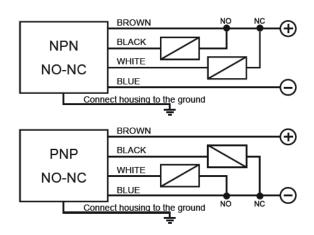




#### CONTACTS CONFIGURATION

Available	Contacts numbers				
Available	1	2	3	4	
NO	L		N		

#### 4 wires NO-NC Vdc model



#### 6 wires Mulivoltage models



2, 3, 4 wires
M12, M8 connector
Axial or radial 90°
Shielded or unshielded
Double key
A.C. cable
3, 5, 7, 10, 15, 25m cable

