



Micro Detectors

Italian Sensors Technology



M30 cylindrical capacitive Sensor C30



Proximity Sensors Catalogue

Cod. CAT3EC31261650

Datasheet - C30 - English - Ed.01/2012





Products

capacitive
cylindrical

Series **C30**

capacitive
cylindrical



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market sectors and applications

- plastic industry
- chemical & petrochemical industry
- wood industry
- photovoltaic installations
- glass & ceramic industry
- packaging industry
- logistic & automatic storage systems
- automatic breeding systems
- automatic car washing systems
- pools & whirlpool baths
- vending machines



features

- DC or AC supply voltage
- High noise immunity
- Shielded and unshielded models
- Adjustable sensitivity
- Metallic or plastic housing

approvals



protection degree

IP67





Products

capacitive
cylindrical

M30 cylindrical capacitive Sensor C30

C30 capacitive Proximity Sensors are made in a M30 polyester and metallic threaded housing. Their high technology can grant a high noise immunity. Output indication is activated through yellow LED. SCR output is normally closed or normally open. 2 mt. long cable or M12 plug models are available. All sensors have an **IP67 protection degree**.

packaging content

Instruction manual (English + Italian): CAT8BCT1259401

further commercial and technical documents available

Datasheet (Italian: CAT3ECQ3261649 and Spanish: CAT3SCQ3261651)

High resolution pictures

Application notes:

- position detection of buckets, dumpers, loaders in diggers (English: CAT3E001261620, Italian: CAT3I001261619 & Spanish: CAT3S001261621)
- detection of food in automatic mangers (English: CAT3E001261623, Italian: CAT3I001261622, & Spanish: CAT3S001261624)
- water level detection in whirlpool baths (English: CAT3E001261626, Italian: CAT3I001261625 & Spanish: CAT3S001261627)
- soaps and waxes level in automatic washing systems (English: CAT3E001261629, Italian: CAT3I001261628, & Spanish: CAT3S001261630)
- water level detection in automatic washing systems (English: CAT3E001261632, Italian: CAT3I001261631 & Spanish: CAT3S001261633)
- goods detection inside boxes (English: CAT3E001261635, Italian: CAT3I001261634 & Spanish: CAT3S001261636)
- freeze-dried products detection in vending machines (English: CAT3E001261638, Italian: CAT3I001261637 & Spanish: CAT3S001261639)
- photovoltaic panels presence and position detection (English: CAT3E001261641, Italian: CAT3I001261640 & Spanish: CAT3S001261642)

custom models already tested

-

minimum quantity that can be ordered

1 piece

C 30 P / B P - 1 E

C	Capacitive sensors
30	M30 housing
P	Plastic housing
M	Metal housing
B	NO + NC complementary output
0	NO / NC selectable output
P	PNP logic
N	NPN logic
0	Uscita SCR
1	2...16 mm shielded models
2	4...25 mm unshielded models
E	M12 plug exit
A	2 m cable exit

available models

supply	housing	installation	distance	connections	NPN NO+NC	PNP NO+NC	SCR NO/NC
10...40 Vcc	stainless steel	shielded	2...16 mm	2 m cable	C30M/BN-1A	C30M/BP-1A	-
		unshielded	4...25 mm	M12 plug	C30M/BN-2E	C30M/BP-2E	-
		shielded	2...16 mm	2 m cable	C30M/BN-1A	C30M/BP-1A	-
		unshielded	4...25 mm	M12 plug	C30M/BN-2E	C30M/BP-2E	-
	plastic	shielded	2...16 mm	2 m cable	C30P/BN-1A	C30P/BP-1A	-
		unshielded	4...25 mm	M12 plug	C30P/BN-2E	C30P/BP-2E	-
		shielded	2...16 mm	2 m cable	C30P/BN-1A	C30P/BP-1A	-
		unshielded	4...25 mm	M12 plug	C30P/BN-2E	C30P/BP-2E	-
20...250 Vac	stainless steel	shielded	2...16 mm	2 m cable	-	-	C30M/00-1A
		unshielded	4...25 mm	M12 plug	-	-	C30M/00-2E
		shielded	2...16 mm	2 m cable	-	-	C30M/00-1A
		unshielded	4...25 mm	M12 plug	-	-	C30M/00-2E
	plastic	shielded	2...16 mm	2 m cable	-	-	C30P/00-1A
		unshielded	4...25 mm	M12 plug	-	-	C30P/00-2E
		shielded	2...16 mm	2 m cable	-	-	C30P/00-1A
		unshielded	4...25 mm	M12 plug	-	-	C30P/00-2E



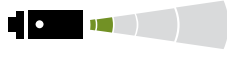



Products

capacitive
cylindrical

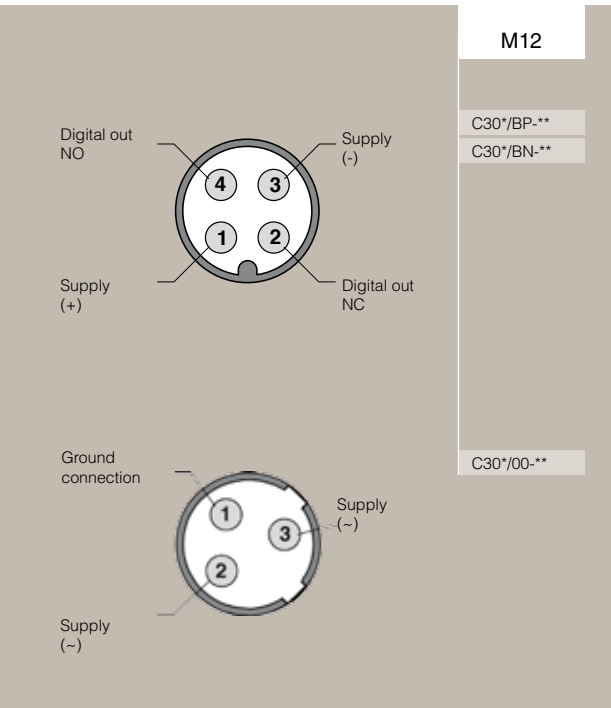
technical specifications

according to IEC EN 60947-5-2 and IEC EN 60947-5-7

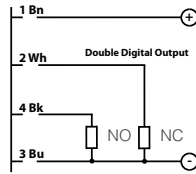
		
models	C30*/**-1*	C30*/**-2*
		
nominal sensing distance S_n	16 mm	25 mm
differential travel H	≤ 20%	
repeat accuracy	5%	
rated operational voltage U_e	10 ... 40 Vdc or 20 ... 250 Vca	
max ripple content	≤ 10 %	
no-Load supply current	≤ 10 mA	
load current	≤ 200 mA (dc models), ≤ 500 mA; max. 2,5 A max. 20 ms (ca models)	
leakage current	≤ 10 μA	
output voltage drop U_d	2,5 V_{MAX} @ $I_L = 200$ mA (dc models), ≤ 10 VAC @ $I_L \geq 20$ mA (ca models)	
output type	NPN o PNP - NO o NC; SCR - NO o NC	
switching frequency f	50 Hz (dc models); 10 Hz (ca models)	
time delay before availability		
supply electrical protections	polarity reversal, impulsive overvoltage	
output electrical protections	autorestart short circuit, overvoltage (dc models)	
sensitivity adjustment	yes	
storage temperature	-40 ... +85° C	
operating temperature	-25 ... +80° C (without freeze)	
thermal drift	≤ 20 %	
EMC compatibility	following the provisions of directives CE 2004/108/CE according to EN 60947-5-2	
protection degree	IP67 (EN 60529) NEMA 1,3,4,6,13	
LED indicators	yellow (output status Lon/Don)	
housing material	thermoplastic polyester, stainless steel	
active head material	polyester	
weight	30 g (M12) / 110 g (cable)	

BN	brown
BU	blue
BK	black
WH	white

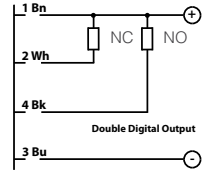
electrical diagrams of connections



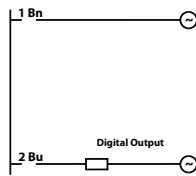
PNP models



NPN models



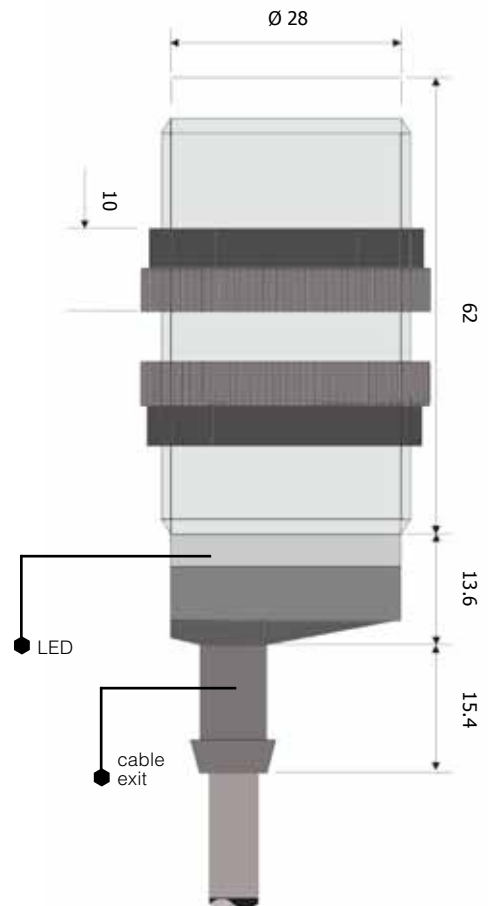
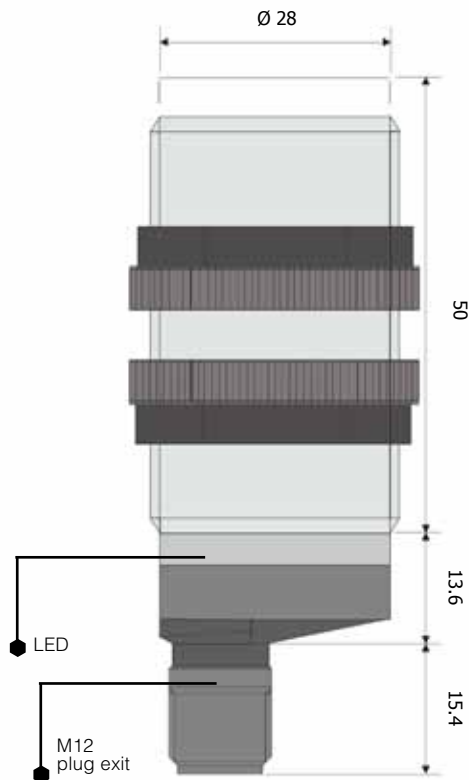
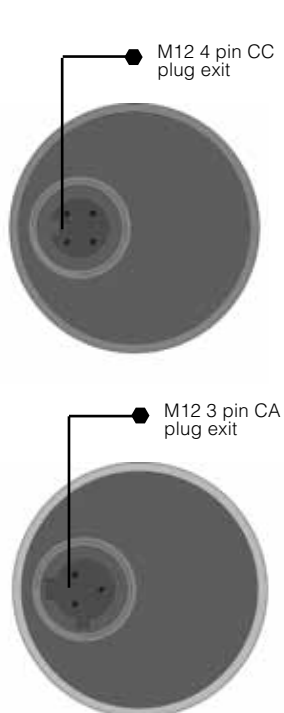
AC - NO/NC selectable models



dimensions

C30*/**-*E (plug exit)

C30*/**-*A (cable exit)





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CAT3EC31261650 DATASHEET C30 ENGLISH ED.01/2012

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