Micro Detectors

Italian Sensors Technology

Cubic capacitive Sensor CQ50

Proximity Sensors
Catalogue

Cod. CAT3ECQ1261647
Datasheet - CQ50 - English - Ed.01/2012

Series
CQ50

capacitive
cubic

www.microdetectors.com

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 supply voltage

No adjustable sensitivity

Flat polycarbonate plastic housing

approvals

CE

protection degree

IP67





cubic capacitive Sensor CQ50

CQ50 capacitive level sensors are made in flat housing. They are 3-wire DC sensors with open collector NPN or PNP transistor output. Sensors are available in a 5 Vdc version and a 10-30 Vdc version.
The sensing distance is fixed and operates through a non metallic wall of 20 mm of thickness.

packaging content

Instruction manual (English + Italian): CAT8BCT1259401

further commercial and technical documents available

Datasheet (Italian: CAT3ICQ1261646 and Spanish: CAT3SCQ1261648)

High resolution pictures

Application notes:
- position detection of buckets, dumpers, loadersin 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 detectioninside boxes (English: CAT3E001261635, Italian: CAT3I001261634 & Spanish: CAT3S001261636)
- freeze-dried products detection in vending machines (English: CAT3E001261638, Italian: CAT3I001261637 & Spanish: CAT3S001261639)
- photovoltaic panles presence and position detection (English: CAT3E001261641, Italian: CAT3I001261640 & Spanish: CAT3S001261642)

custom models already tested

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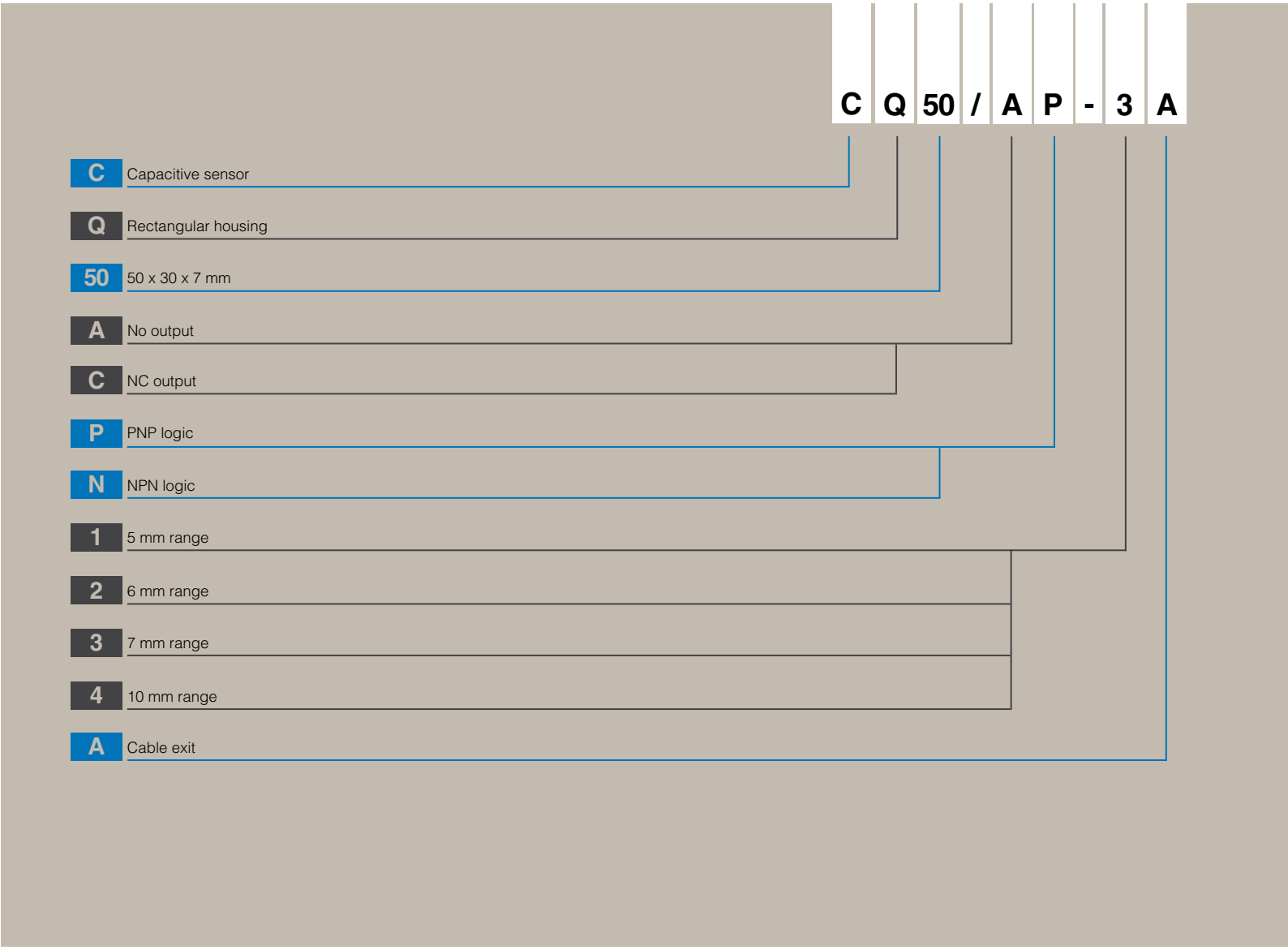
minimum quantity that can be ordered

1 piece

code description



available models

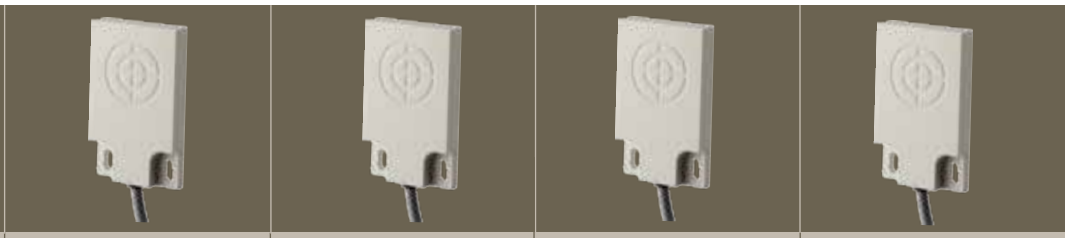
supply	connection	distance	NPN NC	NPN NO	PNP NO
5 Vdc	2 m cable	5 mm	_	CQ50/AN-1A	_
10...30 Vdc		6 mm	_	CQ50/AN-2A	_
		7 mm	CQ50/CN-3A	_	CQ50/AP-3A
		10 mm	CQ50/CN-4A	_	CQ50/AP-4A

Products

capacitive
cubic

technical specifications

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

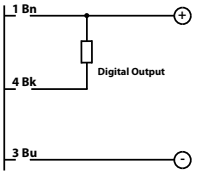


models	CQ50/**-1A	CQ50/**-2A	CQ50/**-3A	CQ50/**-4A
				
nominal sensing distance Sn	5 mm	6 mm	7 mm	10 mm
differential travel H	≤ 20 %			
repeat accuracy	5 %			
rated operational voltage Ue	5 Vdc	10 ... 30 Vdc		
max ripple content	≤ 10%			
no-Load supply current	≤ 10 mA			
load current	≤ 50 mA			
leakage current	≤ 100 µA			
output voltage drop Ud	1,5 V MAX @ IL= 50 mA			
output type	NPN o PNP - NO / NC			
switching frequency f	10 Hz			
time delay before availability	≤ 100 ms			
supply electrical protections	polarity reversal, impulsive overvoltage			
output electrical protections	autoreset short circuit, overvoltage			
sensitivity adjustment	No			
thermal drift	≤ 20%			
operating temperature	0 ...+ 60° C (without freeze)			
storage temperature	-30 ...+ 75° C			
EMC compatibility	following the provisions of directives CE 2004/108/CE according to EN 60947-5-2			
protection degree	IP67 (EN60529) NEMA 1,3,4,6,13			
housing material	noryl			
active head material	noryl			
weight	120 g (cable)			

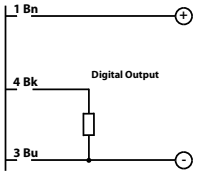
BN	brown
BU	blue
BK	black
WH	white

electrical diagrams of the connections

NPN models

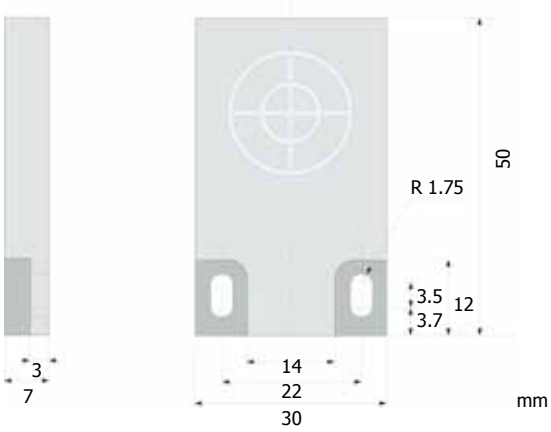


PNP models



dimensions

CQ50/**-*A (cable exit)



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FINMASI
GROUP

CAT3ECQ1261647 DATASHEET CQ50 ENGLISH ED.01/2012