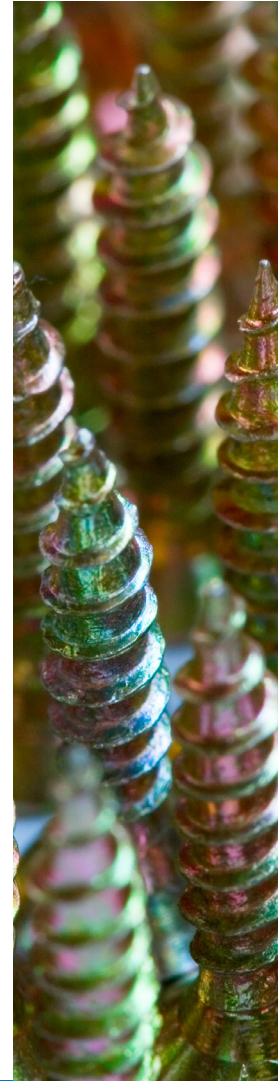




Micro Detectors

Italian Sensors Technology



FC6 Optical Fork



Photoelectric Sensors
Catalogue

CAT3EFC1371901

Catalogue FC6 - english - Ed.01/2013





Products

FC6
fork

Series **FC6**

Fork

www.microdetectors.com

Industries and applications

Detection of small pieces, objects, holes, and marks
Positioning Robotic Arms
Control of micro assembly
Edge Detection



Main features

Simple and accurate adjustment manually by +/- buttons

Infrared emission

LASER emission class 1

Metal housing

Light/Dark switching, selectable by button

Minimum size object detection 0,2 mm (FC6I) and 0,05 mm (FC6L)

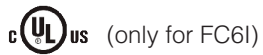
Switching frequency 10KHz

LASER emission class 1

M8 connectors (4pins): PNP/NPN, Lo/Do

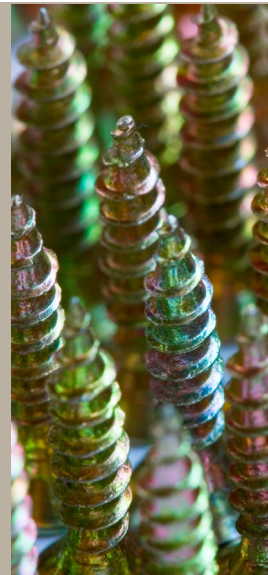
-20...+60 °C operating temperature range

Certifications



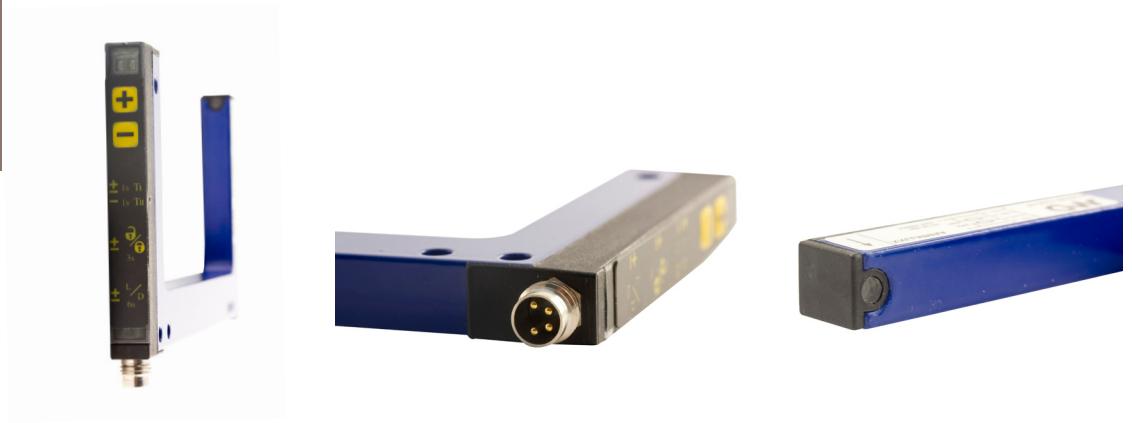
Protection degree

IP65





Products

FC6
fork

FC6 optical fork with regulation system

FC6 optical forks have a metal housing.

Thanks to their high switching frequency (10kHz) can be used in high speed applications.

They are available both with infrared light emission (FC6I) and with class 1 LASER emission (FC6L).

The high resolution (FC6I up to 0,2mm and FC6L up to 0,05 mm) allows to detect small objects or objects placed in closer installation areas.

Easy and fast mounting.

Simple and accurate adjustment by +/- buttons.

Bipolar output (NPN and PNP), LightON and DarkON modes configurable by button.

Wide models range: Forks from 30 mm up to 120 mm wide and from 42 mm up to 60 mm depth.

Available also with M8 4 pins connector.

Pack content

Installation manual (English + Italian): CAT8BFC1362401

Further commercial and technical documents available

High resolution pictures

Customization already tested

-

Minimum quantity that can be ordered

1 pcs

Code description

	FC6	L	/	0	B	-	03	04	-	1	F
FC6	Fork for objects										
L	LASER emission (470 nm)										
I	LED Infrared emission										
0	State (Lo/Do) selectable										
B	Digital output (NPN/PNP)										
03	Width slit detection 30 mm										
05	Width slit detection 50 mm										
08	Width slit detection 80 mm										
12	Width slit detection 120 mm										
04	Depth slit detection 42 mm										
06	Depth slit detection 59 mm										
1	Metal housing - Aluminum										
F	Plug M8 4 pin										

Available models

supply	installation	width	depth	FC6I, NPN - PNP, Lo/Do selectable	FC6L, NPN - PNP, Lo/Do selectable
12 ... 24 Vdc	M8 - 4 Pins	30 mm	42 mm	FC6I/0B-0304-1F	FC6L/0B-0304-1F
		50 mm	59 mm	FC6I/0B-0506-1F	FC6L/0B-0506-1F
		80 mm	59 mm	FC6I/0B-0806-1F	FC6L/0B-0806-1F
		120 mm	59 mm	FC6I/0B-1206-1F	FC6L/0B-1206-1F



Products

FC6
fork

Specifications

according to IEC EN 60947-5-2

		
models	FC6L/**_**_**	FC6I/**_**_**
nominal sensing distance sn	30... 120 mm	
minimum size of object detected	0.05 mm	0.2 mm
emission	red laser 670 nm, modulated, class 1	infrared LED, modulated
interference to external light	10.000 lux (5.000 lux incandescent lamp)	
rated operational voltage ue	12 ... 24 Vdc (with protection against reverse polarity)	
max ripple content	10%	
no-load supply current	40 mA	
load current	100 mA	
output voltage drop	< 2 V @ IL=100 mA	
switching frequency	10 KHz	
supply electrical protections	Inverse-polarity protected. Short-circuit output protected	
operation temperature range	- 20 ...+ 50 °C	- 20 ...+ 60 °C
storage temperature	- 30 ...+ 80° C	
protection degree	IP65 (EN60529)	
housing material	Painted aluminium and polyamide/glass	
plug	M8 4 pins	
weight approx.	55 g to 128 g	

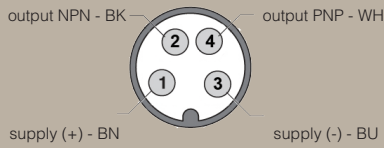
BN	brown
BU	blue
BK	black
WH	white

Electric diagrams of the connections

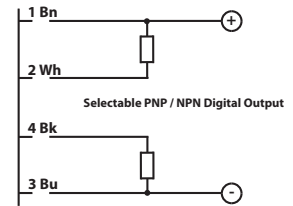
M8

FC6L/**-**-**

FC6I/**-**-**

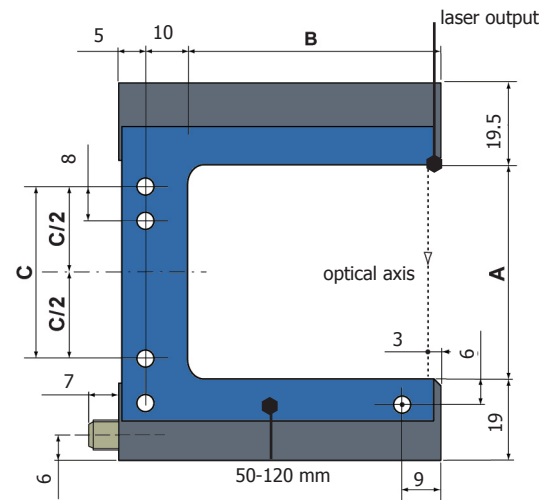
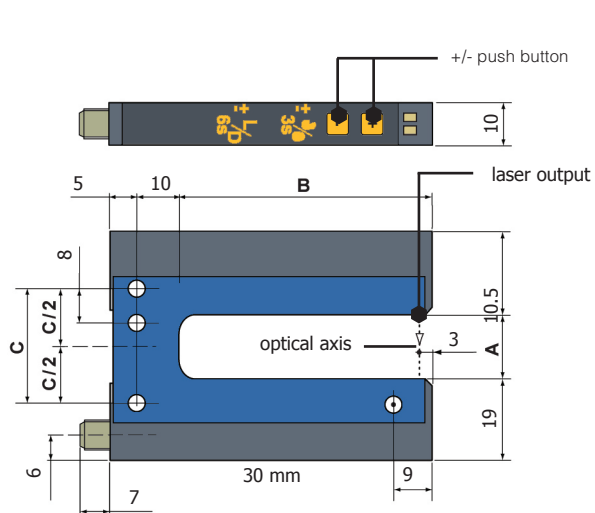


PNP/NPN selectable output

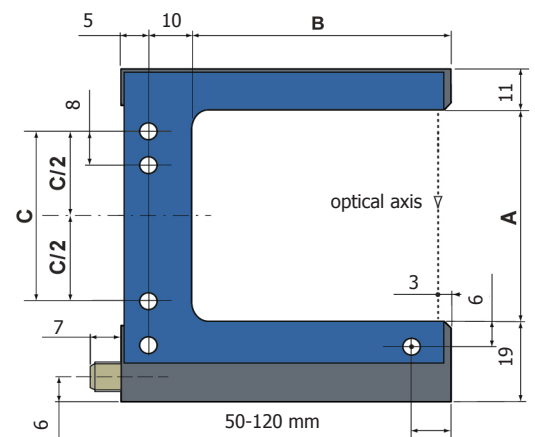
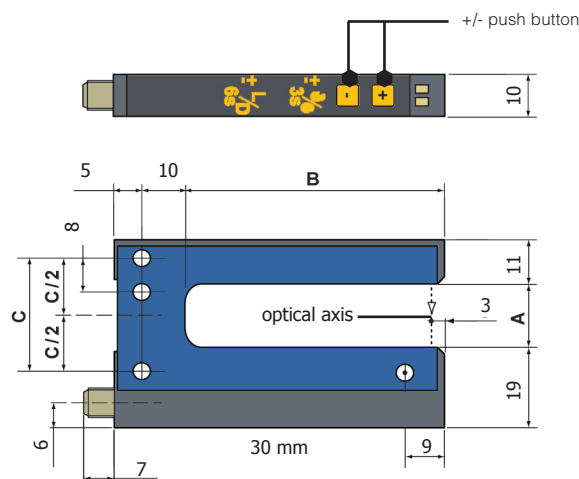


Dimensions

FC6L/**-**-**



FC6I/**-**-**



Width slit detection: 30 - 120 mm

code	A mm	B mm	C mm
FC6/**-03*-**	30	42	42
FC6/**-05*-**	50	59	40
FC6/**-08*-**	80	59	70
FC6/**-12*-**	120	59	110

mm



Catalogue
Photoelectric Sensors



CAT3EFC1371901 CATALOGUE PHOTOELECTRIC FORK SENSOR FC6 ENG ED.01/2013

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