

PHOTOELECTRIC SENSORS FORK TYPE

Art No: OG50OP+NI-TH4-M

HM 1312



PHOTOELECTRIC MULTIFUNCTION FORK TYPE SENSOR WITH TEACH-IN & AUTOCALIBRATION

FORK GAP WIDTH: 50 mm
FORK SLOT DEPTH: 45 mm.
M12 PLUG-IN CONNECTOR.
METAL HOUSING

ALSO AVAILABLE WITH:
SLOT DEPTH 85 mm
GAP WIDTH : 2, 5, 10, 20, 30, 50, 80, 100, 120 or 150 mm.
M8 PLUG-IN CONNECTOR.

DESCRIPTION

OG50OP+NI-TH4-M fork, thanks to its construction and mechanical size, are particularly suitable to control labels, passing and presence control in the demanding applications of the working area. High speed detection and high immunity from optical noises keeps them reliable. The housing, totally metal made, assures an excellent mechanic strenght.

ELECTRICAL FEATURES

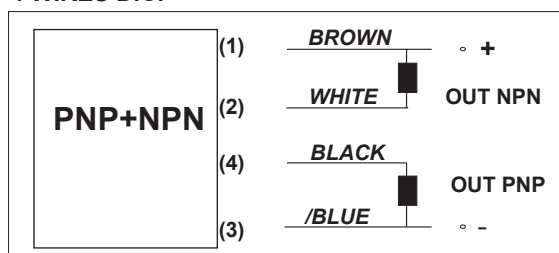
SLOT WIDTH	50 mm
SUPPLY VOLTAGE	10 ÷ 30 Vdc
RIPPLE	≤ 10%
POWER CONSUMPTION	< 35 mA
MAXIMUM LOAD	250 mA
VOLTAGE DROP	1.5V@200mA
SHORT CIRCUIT PROOF	YES
POLARITY REVERSAL PROTECTION	YES
CE COMPLIANCE	EN 60947-5-2

TECHNICAL FEATURES

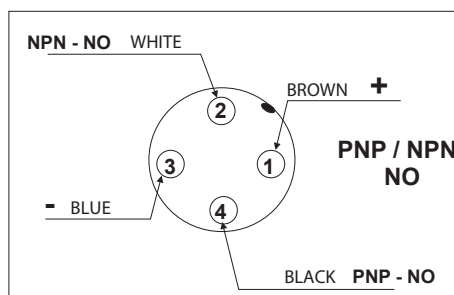
SLOT WIDTH	50mm
EMISSION	PULSED IR 880 nm
MAXIMUM WORKING FREQUENCY	500 Hz
WORKING TEMPERATURE	0°C ÷ 50°C
STORAGE TEMPERATURE	-25°C ÷ 70°C
METAL BODY MATERIAL	ALLUMINIUM
LENSES MATERIAL	PMMA
PROTECTION RATING	IP54

CONNECTIONS

4 WIRES D.C.



M12 CONNECTOR - 4 POLES





WORKING MODE

OG500P+NI-TH4-M change the output status detecting the object stored during the calibration. They can detecting also semi-transparent targets (ex. semitransparent sheets, glass, plexiglass, ...) from the free space. The sensors have two outputs, PNP type and NPN type, protected from shortcircuit. In working mode the multifunction led shows the output status. The shortcircuit condition is shown on the led with a fast blink.

CALIBRATION MODE

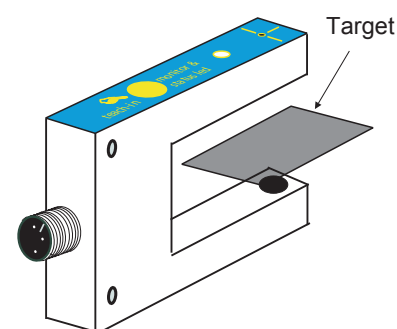
The calibration is made by the teach-in button, placed in the upper part of the fork. The calibration parameters are stored on the internal non volatile memory, so they are reloaded on successive power-on. The calibration procedure for the NO function is explained in the following table. To have the NC function, exchange the operations showed at the steps 1 and 3.

Step	Operation	Led	Sensor
1	Place the target in the fork.	It follows the output status.	In working mode.
2	Push briefly the button.	It is turned on.	It checks the button time.
3	Remove the target from the fork.	It blinks at 1 Hz.	It waits the 2:nd calibration.
4	Push briefly the button.	It is turned on.	It checks the button time.
5	Wait the end of the calibration.	It is turned off.	It does the calibration.
6	End.	It follows the output status.	It stores the calibration and returns in working mode.

The sensor goes in error condition if the difference of opacity beetwen the two calibrations is few. This condition is shown by a fast blinking led (10 Hz). To skip from the error mode press the button briefly, the sensor reloads the last valid calibration.

NO OUTPUT: outputs and led activation at the target detection.

NC OUTPUT: outputs and led activation at the space detection.



DRAWING

