

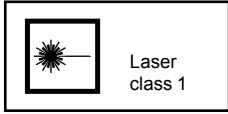
Photo-electric sensors

OsiSense XU Application

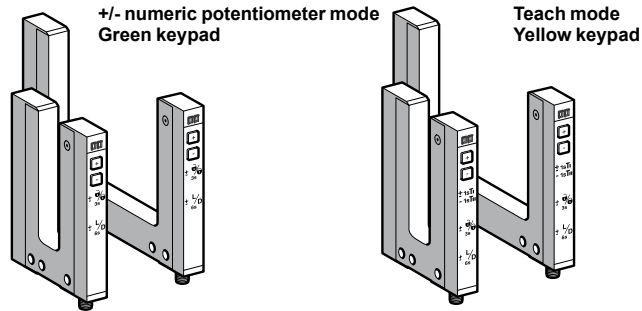
Optical fork with laser transmission, with teach mode

DC supply. Solid-state output

High sensitivity fork range



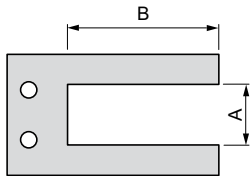
Laser class 1, conforming to IEC 60825-1



System	Thru-beam	
Type of transmission	Red laser, modulated, class 1, wavelength: 670 m	
Nominal sensing distance (Sn)	2...120 mm	
Minimum size of object detected	0.05 mm (repeat accuracy 0.01 mm)	
Fork type	XUYFLNEP●	XUYFALNEP●

References

4-wire, PNP/NPN independent outputs NO/NC function, selectable



A = Passageway
B = Depth

Passageway (A) mm	Depth (B)			Depth (B)		
	42	59	95	42	59	95
2	XUY FLNEP40002	XUY FLNEP60002	XUY FLNEP100002	XUY FALNEP40002	XUY FALNEP60002	XUY FALNEP100002
5	XUY FLNEP40005	XUY FLNEP60005	XUY FLNEP100005	XUY FALNEP40005	XUY FALNEP60005	XUY FALNEP100005
15	XUY FLNEP40015	XUY FLNEP60015	XUY FLNEP100015	XUY FALNEP40015	XUY FALNEP60015	XUY FALNEP100015
30	XUY FLNEP40030	XUY FLNEP60030	XUY FLNEP100030	XUY FALNEP40030	XUY FALNEP60030	XUY FALNEP100030
50	XUY FLNEP40050	XUY FLNEP60050	XUY FLNEP100050	XUY FALNEP40050	XUY FALNEP60050	XUY FALNEP100050
80	XUY FLNEP40080	XUY FLNEP60080	XUY FLNEP100080	XUY FALNEP40080	XUY FALNEP60080	XUY FALNEP100080
120	XUY FLNEP40120	XUY FLNEP60120	XUY FLNEP100120	XUY FALNEP40120	XUY FALNEP60120	XUY FALNEP100120

Weight (kg) 0.055 to 0.128 depending on model

Characteristics

Product certifications	CE, cULus. This product is UL Listed if supplied by a class II or isolated supply delivering ≤ 30 V max. (isolated transformer for example) and protected by a UL fuse rated at 3 A max.	
Ambient air temperature	For operation	- 20...+ 50 °C
	For storage	- 30...+ 80 °C
Degree of protection	Conforming to IEC 60529 IP 65	
Connection	M8, 4-pin male connector	
Vibration resistance	Conforming to IEC 60068-2-6	7 gn, amplitude ± 0.75 mm (f = 10 to 55 Hz)
Shock resistance	Conforming to IEC 60068-2-27	30 gn, duration 11 ms
Materials	Case	Painted aluminium and polyamide/glass
Rated supply voltage	$\leq 12...24$ V with protection against reverse polarity	
Voltage limits (including ripple)	$\leq 10...30$ V	
Immunity to ambient light	Natural light	10 000 lux
	Incandescent bulb	5000 lux
Outputs	PNP/NPN	By wiring
	NO/NC	Using teach mode
Switching capacity	100 mA with overload and short-circuit protection	
Voltage drop, closed state	< 2 V	
Current consumption, no-load	< 40 mA	
Permissible capacitive load	330 nF	
Maximum switching frequency	10 kHz	
Response time	+/- 20 μ s	
Indicator lights	Yellow LED: output signal; red LED: keypad locking and adjustments	

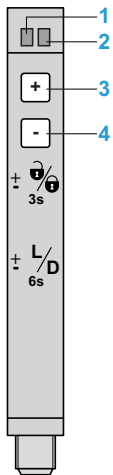
■ Applications: Detection of reference marks, detection on conveyor, detection on vibrating rail, detection of transparent object.

Accessories

Description	Details	Length of cable (m)	References	Weight kg
Pre-wired M8 connector	Straight	2	XZCP0941L2	0.080
	Elbowed (90°)	2	XZCP1041L2	0.080
	Straight	5	XZCP0941L5	0.180
	Elbowed (90°)	5	XZCP1041L5	0.180

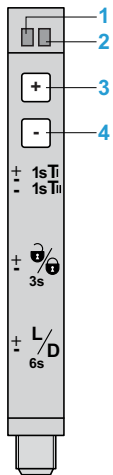
Presentation

XUYFLNEP●



- 1 Yellow LED "ON":
Output activated
- 2 Red LED "ON":
Adjustments and keypad
locking
- 3,4 Sensitivity adjustment
- 3+4 Keypad locking
(3 s ≤ press time < 6 s)
- 3+4 NO/NC (press time ≥ 6 s)

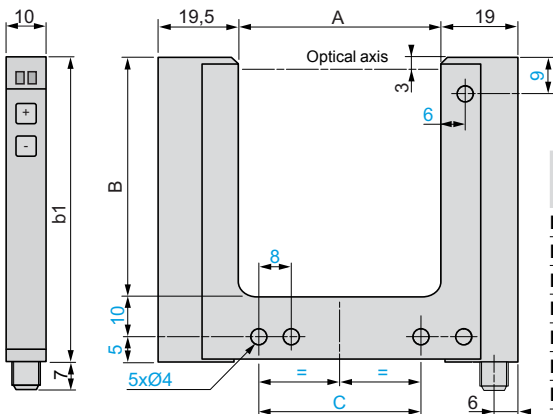
XUYFALNEP●



- 1 Yellow LED "ON":
Output activated
- 2 Red LED "ON":
Adjustments and keypad
locking
- 3,4 Sensitivity adjustment
- 3+4 Teach mode and automatic adjustment of sensitivity
(press time < 3 seconds)
- 3+4 Keypad locking (3 s ≤ press time < 6 s)
- 3+4 NO/NC (press time ≥ 6 s)

Dimensions

XUYFLNEP●/XUYFALNEP●



XUY	Passageway Depth		b1	C
	A	B		
FLNEP/FALNEP●2	2	42, 59, 95	57, 74, 110	14
FLNEP/FALNEP●5	5	42, 59, 95	57, 74, 110	14
FLNEP/FALNEP●15	15	42, 59, 95	57, 74, 110	27
FLNEP/FALNEP●30	30	42, 59, 95	57, 74, 110	42
FLNEP/FALNEP●50	50	42, 59, 95	57, 74, 110	40
FLNEP/FALNEP●80	80	42, 59, 95	57, 74, 110	70
FLNEP/FALNEP●120	120	42, 59, 95	57, 74, 110	110

Wiring schemes

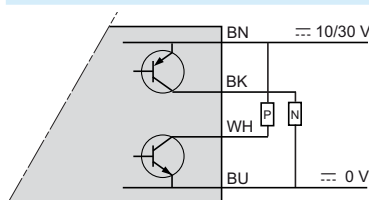
Cabling



Pin n° - colour

- 1 BN: Brown
- 2 WH: White
- 3 BU: Blue
- 4 BK: Black

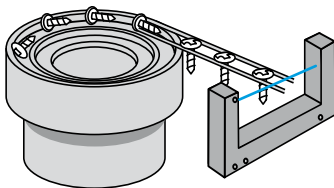
M8 connector



Application examples

Green keypad: Potentiometer mode

Detection of an object exiting a vibrating bowl



Yellow keypad: Teach mode

Detection of transparent bottles (glass, PET...)

