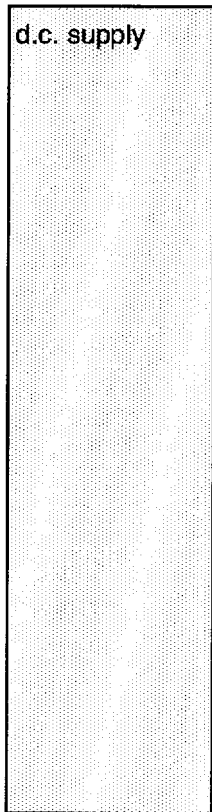
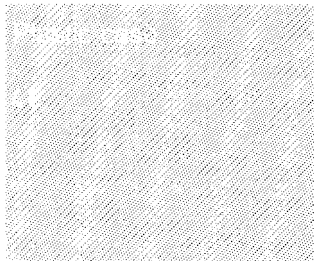


Photo-electric detectors

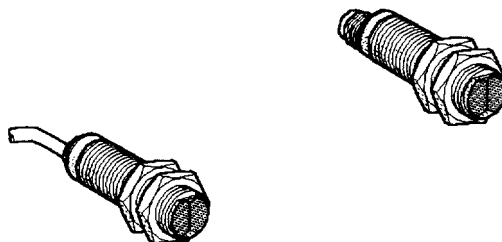
Osiris® optimum detectors, design 18
Plastic or metal case, cylindrical, M18 x 1 threaded
Solid state output

Presentation

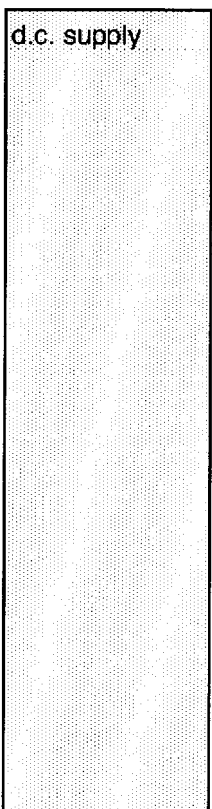
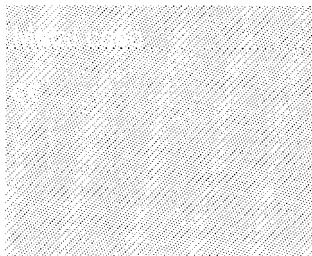
2
2.1



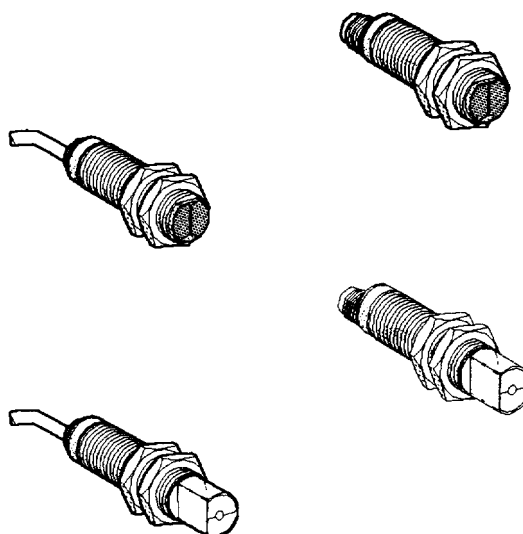
Pre-cabled or plug-in connector
Line of sight along case axis



Page 2/8



Pre-cabled or plug-in connector
Line of sight along case axis or 90° to case axis



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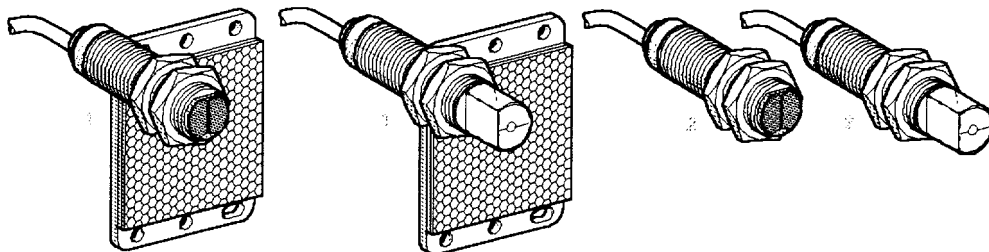
Photo-electric detectors

Osiris® optimum detectors
Metal case, cylindrical, M18 x 1 threaded
d.c. supply. Solid state output

Application
pages 2/118 to 2/124

References, characteristics

Design 18



2.1

System	Thru-beam	Reflex		Polarised reflex		Diffuse	
Type of transmission	Infra-red	Infra-red		Red		Infra-red	
Nominal sensing distance (Sn)	—	4 m (with 50 x 50 mm reflector)		1.5 m (with 50 x 50 mm reflector)		0.10 m	
Line of sight	—	Along case axis	90° to case axis	Along case axis	90° to case axis	Along case axis	90° to case axis

References of pre-cabled versions

3-wire, PNP	Light or dark programmable switching	See p. 2/36	XU1-N18PP340 (1)	XU1-N18PP340W (1)	XU9-N18PP340 (1)	XU9-N18PP340W (1)	XU5-N18PP340	XU5-N18PP340W
3-wire, NPN	Light or dark programmable switching	See p. 2/36	XU1-N18NP340 (1)	XU1-N18NP340W (1)	XU9-N18NP340 (1)	XU9-N18NP340W (1)	XU5-N18NP340	XU5-N18NP340W
Weight (kg)	—	—	0.150	0.155	0.150	0.155	0.130	0.135

References of plug-in connector versions

3-wire, PNP	Light or dark programmable switching	See p. 2/36	XU1-N18PP340D (1)	XU1-N18PP340WD (1)	XU9-N18PP340D (1)	XU9-N18PP340WD (1)	XU5-N18PP340D	XU5-N18PP340WD
3-wire, NPN	Light or dark programmable switching	See p. 2/36	XU1-N18NP340D (1)	XU1-N18NP340WD (1)	XU9-N18NP340D (1)	XU9-N18NP340WD (1)	XU5-N18NP340D	XU5-N18NP340WD
Weight (kg)	—	—	0.080	0.085	0.080	0.085	0.060	0.065

Complementary characteristics not shown under general characteristics (page 2/7)

Connection	Pre-cabled	Diameter 5 mm cable, length 2 m (2), wire c.s.a. : 4 x 0.34 mm ²
	Connector	M12 male connector, 4-pin (suitable extension cables and female connectors types 3, 4 and 5, see page 2/124)
Materials	Case : nickel plated brass, lens : PMMA, cable : PVC	
Rated supply voltage	— 12...24 V with protection against reverse polarity	
Voltage limits	— 10...30 V (including ripple)	
Switching capacity (sealed)	≤ 100 mA with overload and short-circuit protection	
Voltage drop, closed state	≤ 1.5 V	
Current consumption, no-load	≤ 30 mA	
Maximum switching frequency	500 Hz	
Delays	First-up : ≤ 15 ms ; response : ≤ 1 ms ; recovery : ≤ 1 ms	

(1) 50 x 50 mm reflector included with reflex system and polarised reflex system detectors.
(2) Detectors available with 5 m cable. To order, add the suffix L5 to the reference selected from above.
Example : detector XU1-N18PP340 with 5 m cable becomes XU1-N18PP340L5.

Photo-electric detectors

Osiris® optimum detectors, design 18
 Plastic or metal case, cylindrical, M18 x 1 threaded
 Solid state output

Common general characteristics, schemes

Detection characteristics

Nominal sensing distance	Reflex system : 4 m Polarised reflex system : 1.5 m Diffuse system : 10 cm
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Environment

Product certifications	CE, UL, CSA
Ambient air temperature	Operation : -25 ... +55 °C. Storage : -40 ... +70 °C
Vibration resistance	25 gn, amplitude ± 2 mm (f = 10 ... 56 Hz), conforming to IEC 68-2-6
Shock resistance	30 gn, duration 11 ms, conforming to IEC 68-2-27
Degree of protection	IP 67 conforming to IEC 529

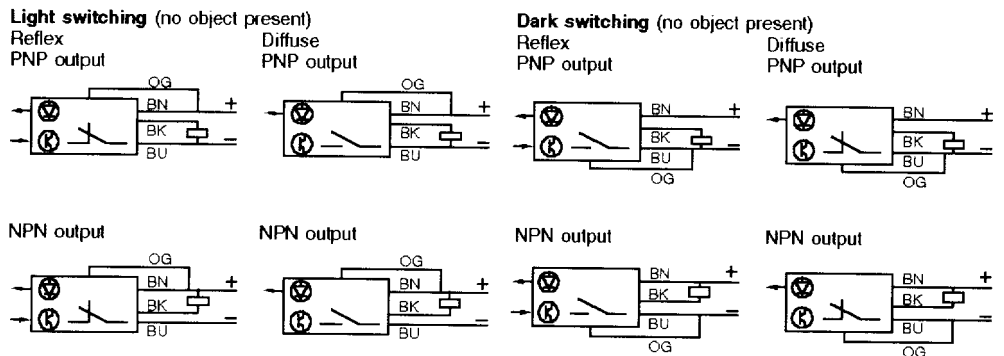
Function table

Function	Reflex system		Diffuse system	
	No object present in the beam	Object present in the beam	No object present in the beam	Object present in the beam
Light switching				
Dark switching				

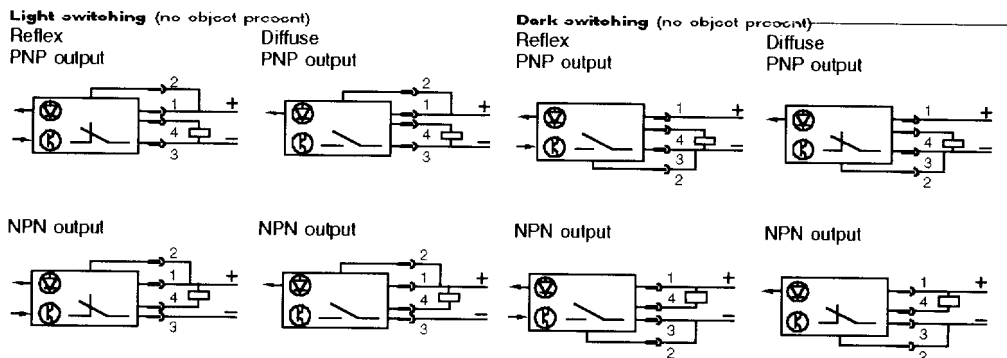
Output state (PNP or NPN) indicator (illuminated when detector output is ON)

Schemes

Wiring schemes (3-wire ...) Pre-cabled versions



Plug-in connector versions



723 7662

Photo-electric detectors

Osiris® optimum detectors

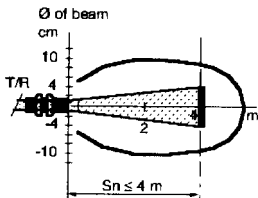
Metal case, cylindrical, M18 x 1 threaded
d.c. supply. Solid state output

Curves, dimensions, schemes

Accessories :
page 2-118 to 2-123

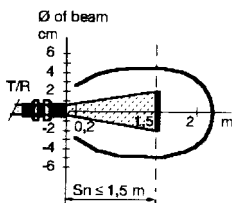
Detection curves

Reflex system



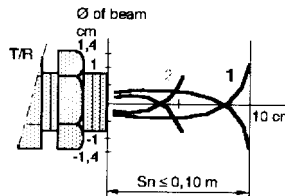
With reflector XUZ-C50

Polarised reflex system



With reflector XUZ-C50

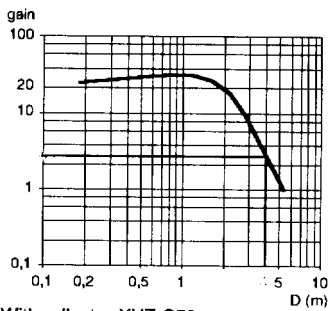
Diffuse system



Object 10 x 10 cm
1 White 90%
2 Grey 18%

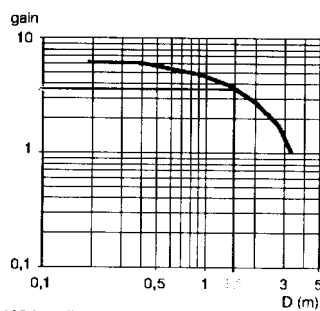
Excess gain curves (ambient temperature : + 25 °C)

Reflex system



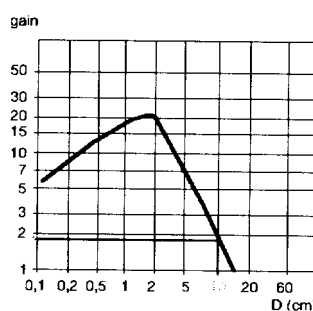
With reflector XUZ-C50

Polarised reflex system



With reflector XUZ-C50

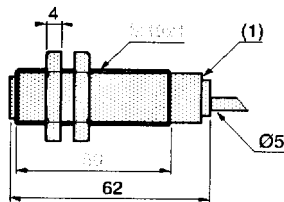
Diffuse system



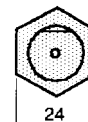
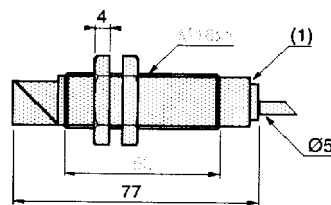
Object 10 x 10 cm
White 90%

Dimensions

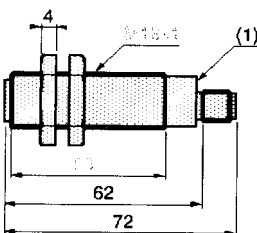
XUe-N18e340



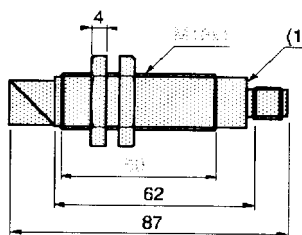
XUe-N18e340W



XUe-N18e340D



XUe-N18e340WD



(1) LED

Fixing nut tightening torque : < 15 N.m
Connector tightening torque : 2 N.m

Cable connections

- (-) BU (Blue)
- (+) BN (Brown)
- (OUT) BK (Black)
- (Prog.) OG (Orange)

Connector scheme

Detector connector pin view

