

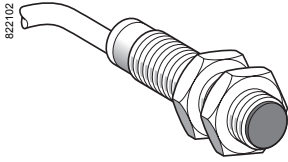
Inductive proximity sensors

OsiSense XS, general purpose

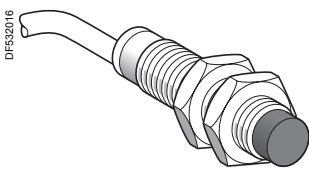
Cylindrical, metal and plastic, flush and non flush mountable

Four-wire DC, solid-state PNP + NPN NO/NC

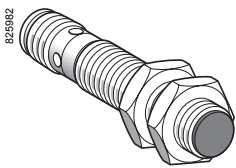
programmable output



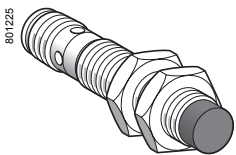
XS1 M●●KP340
XS4 P●●KP340



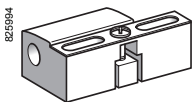
XS2 M●●KP340



XS1 M●●KP340D
XS4 P●●KP340D



XS2 M●●KP340D



XSZ B1●●

Sensing distance (Sn) mm	Function	Output	Connection	Reference	Weight kg
Ø 12, threaded M12 x 1					

Metal case, flush mountable					
2	NO/NC programmable	PNP + NPN	Pre-cabled (L = 2 m) (1)	XS1 M12KP340	0.075
			M12 connector	XS1 M12KP340D	0.025

Metal case, non flush mountable					
4	NO/NC programmable	PNP + NPN	Pre-cabled (L = 2 m) (1)	XS2 M12KP340	0.075
			M12 connector	XS2 M12KP340D	0.025

Plastic case, non flush mountable					
4	NO/NC programmable	PNP + NPN	Pre-cabled (L = 2 m) (1)	XS4 P12KP340	0.075
			M12 connector	XS4 P12KP340D	0.025

Ø 18, threaded M18 x 1					
Metal case, flush mountable					

5	NO/NC programmable	PNP + NPN	Pre-cabled (L = 2 m) (1)	XS1 M18KP340	0.120
			M12 connector	XS1 M18KP340D	0.060

Metal case, non flush mountable					
8	NO/NC programmable	PNP + NPN	Pre-cabled (L = 2 m) (1)	XS2 M18KP340	0.120
			M12 connector	XS2 M18KP340D	0.060

Plastic case, non flush mountable					
8	NO/NC programmable	PNP + NPN	Pre-cabled (L = 2 m) (1)	XS4 P18KP340	0.120
			M12 connector	XS4 P18KP340D	0.060

Ø 30, threaded M30 x 1.5					
Metal case, flush mountable					

10	NO/NC programmable	PNP + NPN	Pre-cabled (L = 2 m) (1)	XS1 M30KP340	0.205
			M12 connector	XS1 M30KP340D	0.145

Metal case, non flush mountable					
15	NO/NC programmable	PNP + NPN	Pre-cabled (L = 2 m) (1)	XS2 M30KP340	0.205
			M12 connector	XS2 M30KP340D	0.145

Plastic case, non flush mountable					
15	NO/NC programmable	PNP + NPN	Pre-cabled (L = 2 m) (1)	XS4 P30KP340	0.205
			M12 connector	XS4 P30KP340D	0.145

Accessories (2)					
Description mm		Reference	Weight kg		
Fixing clamps	Ø 12	XSZ B112	0.006		
	Ø 18	XSZ B118	0.010		
	Ø 30	XSZ B130	0.020		

(1) For a 5 m long cable add L1 to the reference; for a 10 m long cable add L2 to the reference.
Example: XS1 M12KP340 becomes XS1 M12KP340L1 with a 5 m long cable.

(2) For further information, see page 3/112.

Inductive proximity sensors

OsiSense XS, general purpose

Cylindrical, metal and plastic, flush and non flush mountable


Four-wire DC, solid-state PNP + NPN NO/NC

programmable output

Characteristics		XS●M●●KP340D	XS●M●●KP340
Sensor type			
Product certifications		UL, CSA, CE	
Connection		M12 connector	Pre-cabled, length: 2 m
Operating zone	Ø 12 flush mountable	mm	0...1.6
	Ø 12 non flush mountable	mm	0...3.2
	Ø 18 flush mountable	mm	0...4
	Ø 18 non flush mountable	mm	0...6.4
	Ø 30 flush mountable	mm	0...8
	Ø 30 non flush mountable	mm	0...12
Differential travel		%	1...15 of effective sensing distance (Sr)
Degree of protection		Conforming to IEC 60529	IP 67 IP 68, double insulation
Storage temperature		°C	- 40...+ 85
Operating temperature		°C	- 25...+ 70
Materials		Case	Nickel plated brass for XS1 M and XS2 M, PPS for XS4 P
		Cable	- PvR 4 x 0.34 mm ²
Vibration resistance		Conforming to IEC 60068-2-6	25 gn, amplitude ± 2 mm (f = 10 to 55 Hz)
Shock resistance		Conforming to IEC 60068-2-27	50 gn, duration 11 ms
Output state indication			Yellow LED, 4 viewing ports at 90° Yellow LED, annular
Rated supply voltage		V	--- 12...24 with protection against reverse polarity
Voltage limits (including ripple)		V	--- 10...36
Switching capacity		mA	≤ 200 with overload and short-circuit protection
Voltage drop, closed state		V	≤ 2.6
Current consumption, no-load		mA	≤ 10
Maximum switching frequency	Ø 12	Hz	5000
	Ø 18	Hz	2000
	Ø 30 flush mountable	Hz	1000
	Ø 30 non flush mountable	Hz	1000
Delays	First-up	ms	≤ 5
	Response	ms	≤ 0.1 for Ø 12, ≤ 0.15 for Ø 18, ≤ 0.3 for Ø 30
	Recovery	ms	≤ 0.1 for Ø 12, ≤ 0.35 for Ø 18, ≤ 0.7 for Ø 30

Wiring schemes

M12 connector



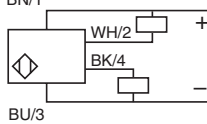
Pre-cabled

BU: Blue
BN: Brown
BK: Black
WH: White

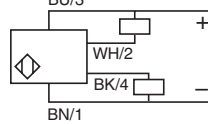
PNP + NPN

4-wire programmable, NO or NC output

NO

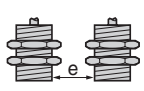
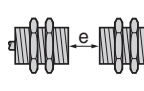
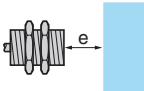
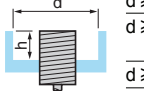


NC

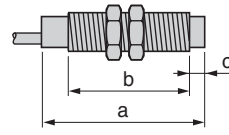


See connection on page 9/45.

Setting-up

Sensor	Minimum mounting distances (mm)			
	Side by side	Face to face	Facing a metal object	Mounted in a metal support
Ø 12 flush mountable XS1 M12	 e ≥ 4	 e ≥ 24	 e ≥ 6	 d ≥ 12 h ≥ 0
Ø 12 non flush mountable XS2 M12 and XS4 P12	e ≥ 16	e ≥ 48	e ≥ 12	d ≥ 36 h ≥ 8
Ø 18 flush mountable XS1 M18	e ≥ 10	e ≥ 60	e ≥ 15	d ≥ 18 h ≥ 0
Ø 18 non flush mountable XS2 M18 and XS4 P18	e ≥ 16	e ≥ 96	e ≥ 24	d ≥ 54 h ≥ 16
Ø 30 flush mountable XS1 M30	e ≥ 20	e ≥ 120	e ≥ 30	d ≥ 30 h ≥ 0
Ø 30 non flush mountable XS2 M30 and XS4 P30	e ≥ 60	e ≥ 180	e ≥ 45	d ≥ 90 h ≥ 30

Dimensions



Sensor	Flush mountable in metal				Non flush mountable in metal				
	Pre-cabled		Connector		Pre-cabled		Connector		c
	a	b	a	b	a	b	a	b	
Ø 12 metal	50	42	61	42	54.6	42	65.6	42	5
Ø 12 plastic	-	-	-	-	50	42	61	42	0
Ø 18 metal	60	51	72	51	60	44	72	44	8
Ø 18 plastic	-	-	-	-	60	51	70	51	0
Ø 30 metal	60	51	72	51	62.6	41	74.7	41	13
Ø 30 plastic	-	-	-	-	60	51	70	51	0