

Inductive proximity sensors

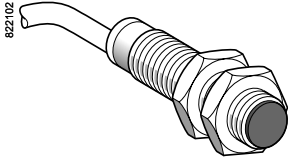
Osiprox® Technology

Cylindrical, metal and plastic, flush and non flush mountable

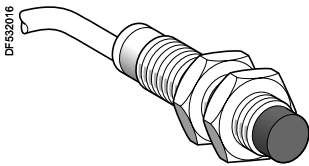
Four-wire, d.c. supply, solid-state PNP + NPN

NO/NC programmable output

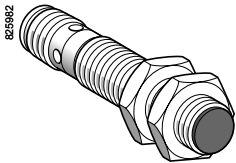
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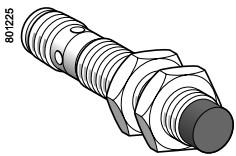
XS1 M●●KP340
XS4 P●●KP340



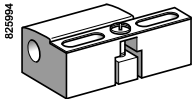
XS2 M●●KP340



XS1 M●●KP340D
XS4 P●●KP340D



XS2 M●●KP340D



XSZ B1●●

Sensing distance Sn (mm)	Function	Output	Connection	Reference	Weight kg
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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 and 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 2/106.

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Cylindrical, metal and plastic, flush and non flush mountable

Four-wire, d.c. supply, 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 real 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** **PNP + NPN**

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

4-wire programmable, NO or NC output

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	$e \geq 4$	$e \geq 24$	$e \geq 6$	$d \geq 12$ $h \geq 0$
Ø 12 non flush mountable XS2 M12 and XS4 P12	$e \geq 16$	$e \geq 48$	$e \geq 12$	$d \geq 36$ $h \geq 8$
Ø 18 flush mountable XS1 M18	$e \geq 10$	$e \geq 60$	$e \geq 15$	$d \geq 18$ $h \geq 0$
Ø 18 non flush mountable XS2 M18 and XS4 P18	$e \geq 16$	$e \geq 96$	$e \geq 24$	$d \geq 54$ $h \geq 16$
Ø 30 flush mountable XS1 M30	$e \geq 20$	$e \geq 120$	$e \geq 30$	$d \geq 30$ $h \geq 0$
Ø 30 non flush mountable XS2 M30 and XS4 P30	$e \geq 60$	$e \geq 180$	$e \geq 45$	$d \geq 90$ $h \geq 30$

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