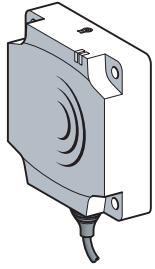


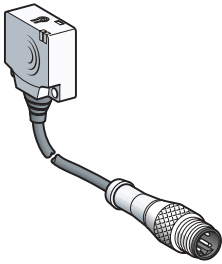
# OSICONCEPT™ Proximity Sensors

## XS8 Auto-Adaptable Inductive Sensor

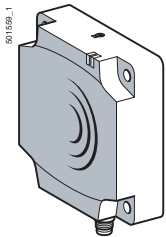
### Flat Rectangular, DC and AC/DC



XS8 1A1...L2



XS8 E1A1...M8



XS8 E1A1...M8  
XS8 C1A1...M8

Proximity Sensors

#### Features:

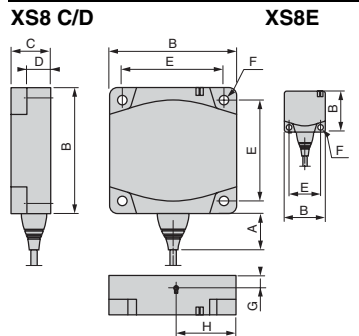
- Enhanced sensing distances
- Self-adapting to flush or non-flush mounted environments
- 3 wire DC and 2 wire AC/DC
- Self-teach

Nominal Sensing Distance	Circuit Type	Output Mode	Voltage Range	Load Current Maximum	Operating Frequency	Catalog Number
<b>DC</b>						
<b>Size E (13x26x26 mm) 2 m (6.6') cable ▲</b>						
15mm	PNP	N.O.*	12-24 Vdc	100 mA	1000 Hz	XS8E1A1PAL2
15mm	NPN	N.O.*	12-24 Vdc	100 mA	1000 Hz	XS8E1A1NAL2
<b>Size E (13x26x26 mm) M8 connector</b>						
15mm	PNP	N.O.*	12-24 Vdc	100 mA	1000 Hz	XS8E1A1PAM8
15mm	NPN	N.O.*	12-24 Vdc	100 mA	1000 Hz	XS8E1A1NAM8
<b>Size E (13x26x26 mm) M12 pigtail, 0.1 m</b>						
15mm	PNP	N.O.*	12-24 Vdc	100 mA	1000 Hz	XS8E1A1PAL01M12
15mm	NPN	N.O.*	12-24 Vdc	100 mA	1000 Hz	XS8E1A1NAL01M12
<b>Size C (15x40x40 mm) 2 m (6.6') cable ▲</b>						
25mm	PNP	N.O.*	12-24 Vdc	200 mA	1000 Hz	XS8C1A1PAL2
25mm	NPN	N.O.*	12-24 Vdc	200 mA	1000 Hz	XS8C1A1NAL2
<b>Size C (15x40x40 mm) M8 connector</b>						
25mm	PNP	N.O.*	12-24 Vdc	200 mA	1000 Hz	XS8C1A1PAM8
25mm	NPN	N.O.*	12-24 Vdc	200 mA	1000 Hz	XS8C1A1NAM8
<b>Size C (15x40x40 mm) M12 pigtail, 0.1 m</b>						
25mm	PNP	N.O.*	12-24 Vdc	200 mA	1000 Hz	XS8C1A1PAL01M12
25mm	NPN	N.O.*	12-24 Vdc	200 mA	1000 Hz	XS8C1A1NAL01M12
<b>Size D (26x80x80 mm) 2 m (6.6') cable ▲</b>						
60mm	PNP	N.O.*	12-24 Vdc	200 mA	100 Hz	XS8D1A1PAL2
60mm	NPN	N.O.*	12-24 Vdc	200 mA	100 Hz	XS8D1A1NAL2
<b>Size D (26x80x80 mm) M12 connector</b>						
60mm	PNP	N.O.*	12-24 Vdc	200 mA	100 Hz	XS8D1A1PAM12
60mm	NPN	N.O.*	12-24 Vdc	200 mA	100 Hz	XS8D1A1NAM12
<b>AC</b>						
<b>Size E (13x26x26 mm) 2 m (6.6') cable ▲</b>						
15mm	2 wire	N.O.*	24-240 Vac/24-210 Vdc	5 – 200 mA	1000/50 Hz	XS8E1A1MAL2
<b>Size E (13x26x26 mm) U20 pigtail, 0.1 m</b>						
15mm	2 wire	N.O.*	24-240 Vac/24-210 Vdc	5 – 200 mA	1000/50 Hz	XS8E1A1MAL01U20
<b>Size C (15x40x40 mm) 2 m (6.6') cable ▲</b>						
25mm	2 wire	N.O.*	24-240 Vac/24-210 Vdc	5 – 300 mA	1000/50 Hz	XS8C1A1MAL2
<b>Size C (15x40x40 mm) U20 pigtail, 0.1 m</b>						
25mm	2 wire	N.O.*	24-240 Vac/24-210 Vdc	5 – 300 mA	1000/50 Hz	XS8C1A1MAL01U20
<b>Size D (26x80x80 mm) 2 m (6.6') cable ▲</b>						
60mm	2 wire	N.O.*	24-240 Vac/24-210 Vdc	5 – 300 mA	100/50 Hz	XS8D1A1MAL2
<b>Size D (26x80x80 mm) U20 connector</b>						
60mm	2 wire	N.O.*	24-240 Vac/24-210 Vdc	5 – 300 mA	100/50 Hz	XS8D1A1MAU20

★ To order a normally closed (N.C.) version change the A to B, example: XS8C1A1PAL2 to XS8C1A1PBL2.

▲ 5m cable length available with L5 suffix / 10m cable length available with L10 suffix.

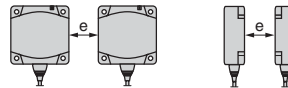
#### Dimensions



	A L2	A M12	B	C	D	E	F	G	H
E	0.55 (14)	0.4 (11)	1.0 (26)	0.5 (13)	0.3 (8.8)	0.8 (20)	0.1 (3.5)	0.26 (6.8)	0.25 (6.6)
C	0.55 (14)	0.4 (11)	1.6 (40)	0.6 (15)	0.4 (9.8)	1.3 (33)	0.1 (4.5)	0.32 (8.3)	0.53 (13.6)
D	0.9 (23)	0.5 (14)	3.1 (80)	1.0 (26)	0.6 (16)	2.5 (65)	0.2 (5.5)	0.33 (8.5)	1.5 (37.8)

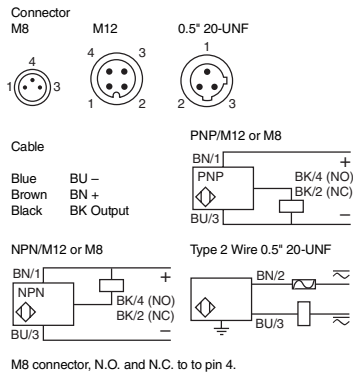
inches (mm)

#### Minimum Mounting Clearances (mm)



	Side by Side	Face to Face
XS8E	e ≥ 1.6 (40)	e ≥ 5.9 (150)
XS8C	e ≥ 2.4 (60)	e ≥ 4.9 (125)
XS8D	e ≥ 7.9 (200)	e ≥ 23.6 (600)

### Wiring



### Specifications

Mechanical		Shielded	Non-shielded
Fine Detection Zone	XS8E	5 – 10 mm	5 – 15 mm
	XS8C	8 – 15 mm	8 – 25 mm
	XS8D	20 – 40 mm	20 – 60 mm
Sn	XS8E	0 – 10 mm	0 – 15 mm
	XS8C	0 – 15 mm	0 – 25 mm
	XS8D	0 – 40 mm	0 – 60 mm
Temperature Range	Storage	-40 ° to +185 ° F (-40 ° to +85 ° C)	
	Operation	-13 ° to +158 ° F (-25 ° to +70 ° C)	
Enclosure Rating	NEMA Type	1, 4X, 12	
	IEC Type	IP68 cable version / IP67 connector version	
Vibration		25 g, amplitude +/- 2mm (f=10-55 Hz)	
Shock Resistance		50 g duration 11ms	
Differential (% of Sr)		1 – 15%	
Repeatability (% of Sr)		2%	
LED Indicator	Output	Yellow	
	Power & Teach	Green	
Enclosure material		PBT	
Cable		PVR 3x0.34mm <sup>2</sup>	
Connector		M8 Nano 3pin, M12 Micro 4pin, U20 Micro 3pin	
<b>Electrical</b>		<b>2 wire AC/DC</b>	<b>3 wire DC</b>
Voltage Range		24 – 240 Vac/24 – 210 V dc	12 – 24 Vdc
Voltage Limit (including ripple)		20 – 264 Vac/dc	10 – 36 Vdc
Voltage Drop		5.5 V	2 V
Load Current Maximum	XS8E	5 . . . 200 mA	100 mA
	XS8C	DC:5 . . . 300 mA/AC:5 . . . 260 mA	200 mA
	XS8D	DC:5 . . . 300 mA/AC:5 . . . 260 mA	200 mA
(max.) Leakage (Residual) Current-open state		1.5 mA	–
Current consumption		–	10 mA
Power up Delay (max.)	XS8E	10 ms	5 ms
	XS8C	10 ms	5 ms
	XS8D	15 ms	10 ms
On Delay (max.)	XS8E	0.3 ms	0.3 ms
	XS8C	0.3 ms	0.3 ms
	XS8D	0.3 ms	0.3 ms
Off Delay (max.)	XS8E	0.7 ms	0.7 ms
	XS8C	0.7 ms	0.7 ms
	XS8D	5 ms	5 ms
Protective Circuitry	Short Circuit Protection	No	Yes
	Overload Protection	No	Yes
Agency Listings			

Proximity Sensors

### Connector Cables (M8 or S suffix; M12 or D suffix; U20 or K suffix)

XSZCS101	Nano Conn., 3 pin, 2 m, straight
XSZCS111	Nano Conn., 3 pin, 2 m, 90°
XSZCD101Y	Micro Conn., 4 pin, 2 m, straight
XSZCD111Y	Micro Conn., 4 pin, 2 m, 90°
XSZCK101Y	Micro Conn., 3 pin, 2 m, straight
XSZCK111Y	Micro Conn., 3 pin, 2 m, 90°

For additional cable options and lengths see p. 518