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# Inductive proximity sensors

## XS range

### Basics line

## Catalogue



Simply easy!™





*Selection guide* ..... pages 2 and 3

## Inductive proximity sensors, increased range

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# Inductive proximity sensors

XS range

Basic

## Cylindrical, metal

### Increased range (1)

#### Flush mountable



<b>Sensing distance Sn (mm)</b>	<b>2.5</b>	<b>4</b>	<b>8</b>	<b>15</b>
<b>Diameter</b>	M8	M12	M18	M30
<b>Power supply</b>	--- 3-wire, 12...24 V			
<b>Function</b>	NO or NC			
<b>Output</b>	PNP or NPN			
<b>Length (mm) for pre-cabled versions</b>	42	49	53	57
<b>Connection</b>	Pre-cabled (L = 2 m) (2)			
	M8 connector, 3-pin			
	M12 connector, 4-pin			
<b>Operating temperature</b>	-25...+70 °C			
<b>Degree of protection</b>	IP 65 and IP 67			
<b>Type reference</b>	<b>XS108BH●●●</b>	<b>XS112BH●●●</b>	<b>XS118BH●●●</b>	<b>XS130BH●●●</b>
<b>Pages</b>	5			

(1) Sensors with an increased range are sold individually or are available in bulk packs on request. Please contact our Customer Care Centre.  
 (2) Available in lengths of 3, 5 and 7 m, depending on model. Please contact our Customer Care Centre.

## Standard range

### Flush mountable      Non flush mountable



<b>1.5</b>	<b>2</b>	<b>5</b>	<b>10</b>	<b>2.5</b>	<b>4</b>	<b>8</b>	<b>15</b>
M8	M12	M18	M30	M8	M12	M18	M30
--- 3-wire, 12...24 V				--- 3-wire, 12...24 V			
NO or NC				NO or NC			
PNP or NPN				PNP or NPN			
42	44	53	57	42	44	53	57
•	•	•	•	•	•	•	•
•	–	–	–	•	–	–	–
•	•	•	•	•	•	•	•
-25...+70 °C				-25...+70 °C			
IP 65 and IP 67				IP 65 and IP 67			
<b>XS108BL●●●</b>	<b>XS112BL●●●</b>	<b>XS118BL●●●</b>	<b>XS130BL●●●</b>	<b>XS208BL●●●</b>	<b>XS212BL●●●</b>	<b>XS218BL●●●</b>	<b>XS230BL●●●</b>
8 and 9				8 and 9			

# Inductive proximity sensors

## XS range

Basic, cylindrical, increased range, flush mountable

Three-wire DC, solid-state output

**XS range**  
**Basic**  
**increased range**

*Rugged, compact sensors suitable for a variety of applications*



XS range Basic inductive proximity sensors are used to detect metal objects without physical contact.

They are flush mountable as standard and suitable for all metal environments since they ensure a maximum sensing distance, even if there is a metal background.

These sensors are rugged and compact making them suitable for a variety of applications, including:

- Material handling
- Mobile equipment
- Packing
- Machine tools
- Escalators

They are available with the following connections:

- Pre-cabled, with 2 or 5 m cable, depending on the model
- M8 or M12 connector, for easy installation and maintenance



### Excellent resistance to electromagnetic interference

- > Sensors compliant with standard IEC 60947-5-2
- > Tested for use in very harsh environments, beyond standard requirements
- > Specifically, application tests conducted in an environment prone to interference, in the vicinity of variable speed drives or motors, demonstrated very good EMC immunity

### 3-wire technology with NO or NC, PNP or NPN output

#### Advantages of 3-wire technology

These sensors comprise 2 wires for the DC supply and a third wire for the output signal.

- > PNP output: switching on the positive voltage load
- > NPN output: switching on the negative voltage load
- > Protection against reverse polarity, overloads and short circuits
- > No residual current
- > Low voltage drop

### Sold in lots

Depending on the model, XS range Basic sensors are sold:

- > Individually
- > In various bulk quantities for ease of unpacking and less waste (1)

(1) Please contact our Customer Care Centre.



 Cost-effective sensors with no compromise on quality

# Inductive proximity sensors

## XS range

Basic, cylindrical, increased range, flush mountable

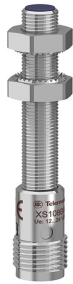
Three-wire DC, solid-state output



XS108BH●●L2



XS108BH●●M8



XS108BH●●M12



XS112BH●●L



XS112BH●●M12



XS118BH●●L



XS118BH●●M12



XS130BH●●L



XS130BH●●M12



XSZB1●●



XZCPV●●

### Sensors, 3-wire $\bar{\bar{}}$ 12...24 V

Sensing distance (Sn) mm	Function	Output	Connection	Reference	Weight kg
<b>Ø 8, threaded M8 x 1</b>					
2.5	NO	PNP	Pre-cabled (L = 2 m)	XS108BHPAL2	0.070
			M8 connector	XS108BHPAM8	0.030
			M12 connector	XS108BHPAM12	0.050
	NPN	Pre-cabled (L = 2 m)	XS108BHNAL2	0.070	
		M8 connector	XS108BHNAM8	0.030	
		M12 connector	XS108BHPBM12	0.050	
N/C	PNP	Pre-cabled (L = 2 m)	XS108BHPBL2	0.070	
		M8 connector	XS108BHPBM8	0.030	
		M12 connector	XS108BHPBM12	0.050	
<b>Ø 12, threaded M12 x 1</b>					
4	NO	PNP	Pre-cabled (L = 2 m)	XS112BHPAL2	0.080
			Pre-cabled (L = 5 m)	XS112BHPAL5	0.150
			M12 connector	XS112BHPAM12	0.025
	NPN	Pre-cabled (L = 2 m)	XS112BHNAL2	0.080	
		M12 connector	XS112BHNAM12	0.025	
		N/C	PNP	Pre-cabled (L = 2 m)	XS112BHPBL2
M12 connector	XS112BHPBM12			0.025	
NPN	Pre-cabled (L = 2 m)			XS112BHNBL2	0.080
	M12 connector	XS112BHNBM12	0.025		
	<b>Ø 18, threaded M18 x 1</b>				
8	NO	PNP	Pre-cabled (L = 2 m)	XS118BHPAL2	0.105
			Pre-cabled (L = 5 m)	XS118BHPAL5	0.175
			M12 connector	XS118BHPAM12	0.035
	NPN	Pre-cabled (L = 2 m)	XS118BHNAL2	0.105	
		Pre-cabled (L = 5 m)	XS118BHNAL5	0.175	
		M12 connector	XS118BHNAM12	0.035	
N/C	PNP	Pre-cabled (L = 2 m)	XS118BHPBL2	0.105	
		M12 connector	XS118BHPBM12	0.035	
		NPN	Pre-cabled (L = 2 m)	XS118BHNBL2	0.105
M12 connector	XS118BHNBM12		0.035		
<b>Ø 30, threaded M30 x 1.5</b>					
15	NO	PNP	Pre-cabled (L = 2 m)	XS130BHPAL2	0.165
			Pre-cabled (L = 5 m)	XS130BHPAL5	0.235
			M12 connector	XS130BHPAM12	0.075
	NPN	Pre-cabled (L = 2 m)	XS130BHNAL2	0.165	
		M12 connector	XS130BHNAM12	0.075	
		N/C	PNP	Pre-cabled (L = 2 m)	XS130BHPBL2
M12 connector	XS130BHPBM12			0.075	
NPN	Pre-cabled (L = 2 m)			XS130BHNBL2	0.165
	M12 connector	XS130BHNBM12	0.075		

### Fixing accessories

Description	For use with sensors	Reference	Weight kg
Fixing clamps	Ø 8	XSZB108	0.006
	Ø 12	XSZB112	0.006
	Ø 18	XSZB118	0.010
	Ø 30	XSZB130	0.020

### Connection accessories (1)

Description	Cable length m	Reference	Weight kg
Pre-wired, straight, female connectors M12 connectors	5	XZCPV1141L5	0.210
	10	XZCPV1141L10	0.390
Pre-wired, straight, female connectors M8 connectors	5	XZCPV0566L5	0.210
	10	XZCPV0566L10	0.390

(1) For other connection accessories, visit our website: [www.tesensors.com](http://www.tesensors.com)

# Inductive proximity sensors

## XS range

Basic, cylindrical, increased range, flush mountable

Three-wire DC, solid-state output

### Characteristics

Sensor type		XS1●●BHP●L● XS1●●BHN●L●	XS1●●BHP●M● XS1●●BHN●M●
Product certifications		UL, CSA, CE	
Connection	Pre-cabled	Cable length: 2 or 5 m, depending on model	–
	Connector	–	M8 or M12 connector, depending on model
Operating zone (1)	Ø 8	mm	0...2
	Ø 12	mm	0...3.2
	Ø 18	mm	0...6.4
	Ø 30	mm	0...12
Differential travel		%	1...15 of effective sensing distance (Sr)
Degree of protection		Conforming to IEC 60529	IP 65 and IP 67
Storage temperature		°C	-40...+85
Operating temperature		°C	-25...+70
Materials	Case	Nickel plated brass	
	Cable	PVC (number and c.s.a. of wires: 3 x 0.14 mm <sup>2</sup> )	
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, on rear	Yellow LED, 2 viewing ports at 180°
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
Current consumption, no-load		mA	≤ 10
Maximum switching frequency	Ø 8	Hz	2500
	Ø 12	Hz	950
	Ø 18	Hz	700
	Ø 30	Hz	200
Delays	First-up	ms	≤ 15
	Response	ms	≤ 0.3
	Recovery	ms	≤ 0.3

### Connections

Connector	Pre-cabled	PNP	NPN
M8	BU: Blue BN: Brown BK: Black		
M12			

For M8 connectors, NO and NC outputs on terminal 4

### Setting-up precautions

#### Minimum mounting distances (mm)



Sensors		Side by side	Face to face	Facing a metal object	Mounted in a metal support
Ø 8	XS108BH	e ≥ 5	e ≥ 30	e ≥ 8	–
Ø 12	XS112BH	e ≥ 8	e ≥ 50	e ≥ 12	–
Ø 18	XS118BH	e ≥ 16	e ≥ 100	e ≥ 25	–
Ø 30	XS130BH	e ≥ 30	e ≥ 180	e ≥ 30	h ≥ 2

(1) See detection curves on next page.

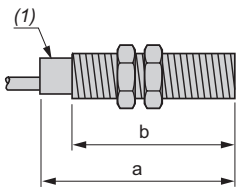
## Inductive proximity sensors

XS range

Basic, cylindrical, increased range, flush mountable

Three-wire DC, solid-state output

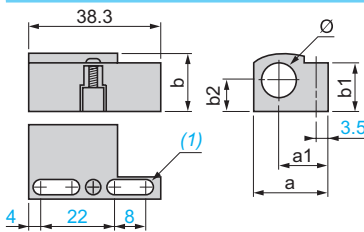
### Sensor dimensions XS1●●BH●●



		Pre-cabled (mm)		M8 connector (mm)		M12 connector (mm)	
		a	b	a	b	a	b
Ø 8	<b>XS108BH●●</b>	42	33	51	34	61	40
Ø 12	<b>XS112BH●●</b>	49	36	–	–	61	39
Ø 18	<b>XS118BH●●</b>	53	41	–	–	64	43
Ø 30	<b>XS130BH●●</b>	57	44	–	–	68	47

(1) LED

### Fixing clamp dimensions XSZB108, XSZBB112, XSZBB118 and XSZBB130

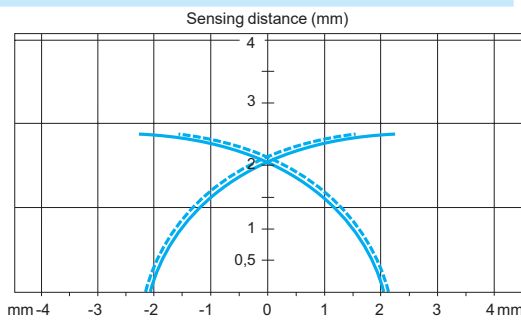


		a	a1	b	b1	b2	Ø
Ø 8	<b>XSZB108</b>	19.9	14.5	14	12.5	7.5	8
Ø 12	<b>XSZB112</b>	21.9	14.5	16	15.5	8.5	12
Ø 18	<b>XSZB118</b>	26	15.7	22.3	20.1	11.5	18
Ø 30	<b>XSZB130</b>	39	21.7	35.5	31	18.5	30

(1) 2 elongated holes Ø 4 x 8 mm

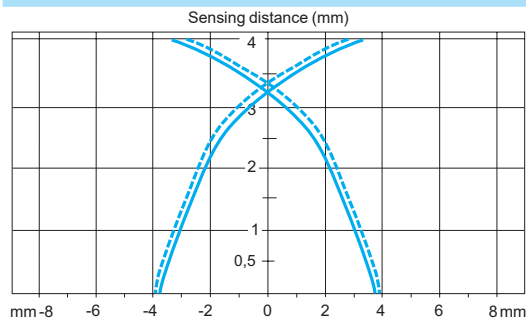
### Detection curves

#### Sensors Ø 8



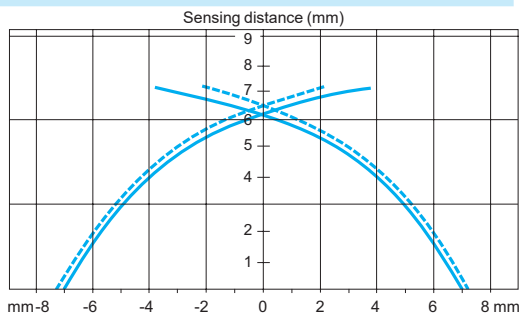
Standard metal target (mm): 8 x 8 x 1  
Operating zone (mm): 0...2

#### Sensors Ø 12



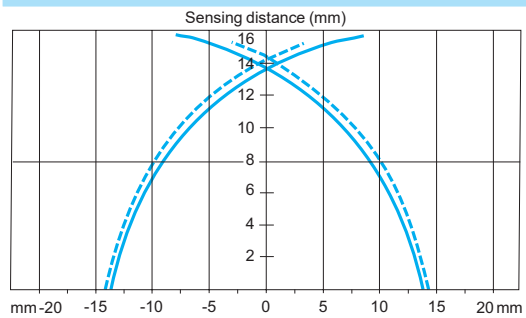
Standard metal target (mm): 12 x 12 x 1  
Operating zone (mm): 0...3.2

#### Sensors Ø 18



Standard metal target (mm): 24 x 24 x 1  
Operating zone (mm): 0...6.4

#### Sensors Ø 30



Standard metal target (mm): 45 x 45 x 1  
Operating zone (mm): 0...12

— pick-up points  
- - - drop-out points (object approaching from the side)



# Inductive proximity sensors

XS range, general purpose

Basic, cylindrical, metal, flush and non flush mountable

Three-wire DC, solid-state output



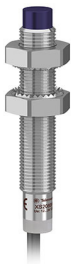
XS108BL●●L●



XS108BL●●M8



XS108BL●●M12



XS208BL●●L●



XS208BL●●M8



XS208BL●●M12



XS112BL●●L●



XS112BL●●M12



XS212BL●●L●



XS212BL●●M12

## References

Sensing distance (Sn)	Function	Output	Connection	Reference	Weight
mm					kg
<b>Ø 8, threaded M8 x 1</b>					
<b>Three-wire 12-24 V, flush mountable</b>					
1.5	NO	PNP	Pre-cabled (L = 2 m)	<b>XS108BLPAL2</b>	0.035
			Pre-cabled (L = 5 m)	<b>XS108BLPAL5</b>	0.105
			M8 connector	<b>XS108BLPAM8</b>	0.008
	NPN	PNP	Pre-cabled (L = 2 m)	<b>XS108BLNAL2</b>	0.035
			M12 connector	<b>XS108BLNAM12</b>	0.015
			M12 connector	<b>XS108BLNAM12</b>	0.015
<b>Three-wire 12-24 V, non flush mountable</b>					
2.5	NO	PNP	Pre-cabled (L = 2 m)	<b>XS208BLPAL2</b>	0.035
			Pre-cabled (L = 5 m)	<b>XS208BLPAL5</b>	0.105
			M8 connector	<b>XS208BLPAM8</b>	0.008
	NPN	PNP	M12 connector	<b>XS208BLPAM12</b>	0.015
			Pre-cabled (L = 2 m)	<b>XS208BLNAL2</b>	0.035
			M12 connector	<b>XS208BLNAM12</b>	0.015
<b>Ø 12, threaded M12 x 1</b>					
<b>Three-wire 12-24 V, flush mountable</b>					
2	NO	PNP	Pre-cabled (L = 2 m)	<b>XS112BLPAL2</b>	0.070
			Pre-cabled (L = 3 m)	<b>XS112BLPAL3</b>	0.095
			Pre-cabled (L = 5 m)	<b>XS112BLPAL5</b>	0.140
	NPN	PNP	M12 connector	<b>XS112BLPAM12</b>	0.015
			Pre-cabled (L = 2 m)	<b>XS112BLNAL2</b>	0.070
			M12 connector	<b>XS112BLNAM12</b>	0.015
NC	PNP	Pre-cabled (L = 2 m)	<b>XS112BLPBL2</b>	0.070	
		M12 connector	<b>XS112BLPBM12</b>	0.015	
		M12 connector	<b>XS112BLPBM12</b>	0.015	
<b>Three-wire 12-24 V, non flush mountable</b>					
4	NO	PNP	Pre-cabled (L = 2 m)	<b>XS212BLPAL2</b>	0.070
			Pre-cabled (L = 5 m)	<b>XS212BLPAL5</b>	0.140
			M12 connector	<b>XS212BLPAM12</b>	0.015
	NPN	PNP	Pre-cabled (L = 2 m)	<b>XS212BLNAL2</b>	0.070
			Pre-cabled (L = 7 m)	<b>XS212BLNAL7</b>	0.185
			M12 connector	<b>XS212BLNAM12</b>	0.015
	NC	PNP	Pre-cabled (L = 2 m)	<b>XS212BLPBL2</b>	0.070
			Pre-cabled (L = 5 m)	<b>XS212BLPBL5</b>	0.140
			M12 connector	<b>XS212BLPBM12</b>	0.015
NPN	PNP	Pre-cabled (L = 2 m)	<b>XS212BLNBL2</b>	0.070	
		Pre-cabled (L = 5 m)	<b>XS212BLNBL5</b>	0.140	
		M12 connector	<b>XS212BLNBL12</b>	0.015	

# Inductive proximity sensors

XS range, general purpose

Basic, cylindrical, metal, flush and non flush mountable

Three-wire DC, solid-state output



XS118BL...L



XS118BL...M12



XS218BL...L



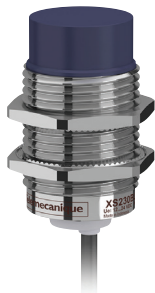
XS218BL...M12



XS130BL...L



XS130BL...M12



XS230BL...L



XS230BL...M12

## References (continued)

Sensing distance (Sn) mm	Function	Output	Connection	Reference	Masse kg
<b>Ø 18, threaded M18 x 1</b>					
<b>Three-wire 12-24 V, flush mountable</b>					
5	NO	PNP	Pre-cabled (L = 2 m)	XS118BLPAL2	0.105
			Pre-cabled (L = 5 m)	XS118BLPAL5	0.175
			M12 connector	XS118BLPAM12	0.035
	NPN	PNP	Pre-cabled (L = 2 m)	XS118BLNAL2	0.105
			Pre-cabled (L = 5 m)	XS118BLNAL5	0.175
			M12 connector	XS118BLNAM12	0.035
NC	PNP	Pre-cabled (L = 2 m)	XS118BLPBL2	0.105	
		M12 connector	XS118BLPBM12	0.035	

## Three-wire 12-24 V, non flush mountable

8	NO	PNP	Pre-cabled (L = 2 m)	XS218BLPAL2	0.105
			Pre-cabled (L = 5 m)	XS218BLPAL5	0.175
			M12 connector	XS218BLPAM12	0.035
	NPN	PNP	Pre-cabled (L = 2 m)	XS218BLNAL2	0.105
			Pre-cabled (L = 5 m)	XS218BLNAL5	0.175
			Pre-cabled (L = 7 m)	XS218BLNAL7	0.220
NC	PNP	Pre-cabled (L = 2 m)	XS218BLPBL2	0.105	
		NPN	Pre-cabled (L = 2 m)	XS218BLNBL2	0.105

## Ø 30, threaded M30 x 1.5

<b>Three-wire 12-24 V, flush mountable</b>					
10	NO	PNP	Pre-cabled (L = 2 m)	XS130BLPAL2	0.165
			M12 connector	XS130BLPAM12	0.075
			NPN	Pre-cabled (L = 2 m)	XS130BLNAL2
	NPN	PNP	Pre-cabled (L = 3 m)	XS130BLNAL3	0.190
			M12 connector	XS130BLNAM12	0.075
			NC	Pre-cabled (L = 2 m)	XS130BLPBL2
NC	PNP	M12 connector	XS130BLPBM12	0.075	

## Three-wire 12-24 V, non flush mountable

15	NO	PNP	Pre-cabled (L = 2 m)	XS230BLPAL2	0.155
			Pre-cabled (L = 5 m)	XS230BLPAL5	0.225
			M12 connector	XS230BLPAM12	0.085
	NPN	PNP	Pre-cabled (L = 2 m)	XS230BLNAL2	0.155
			Pre-cabled (L = 7 m)	XS230BLNAL7	0.225
			M12 connector	XS230BLNAM12	0.085
NC	PNP	Pre-cabled (L = 2 m)	XS230BLPBL2	0.155	

# Inductive proximity sensors

XS range, general purpose

Basic, cylindrical, metal, flush and non flush mountable

Three-wire DC, solid-state output

Accessories



XSZB1●●



XZCPV1141L●

## Fixing accessories (1)

Description	For use with sensors	Reference	Weight kg
Fixing clamps	Ø 8	XSZB108	0.006
	Ø 12	XSZB112	0.006
	Ø 18	XSZB118	0.010
	Ø 30	XSZB130	0.020

## Cabling accessories (2)

Description	Length of cable	Reference	Weight kg
Pre-wired, straight, female connectors M12 connectors, 4 pins PVC cable	5	XZCPV1141L5	0.210
	10	XZCPV1141L10	0.390
Pre-wired, straight, female connectors M8 connectors, 3 pins PVC cable	5	XZCPV0566L5	0.210
	10	XZCPV0566L10	0.390

(1) See dimensions on page 7.

(2) For other connection accessories, visit our website: [www.tesensors.com](http://www.tesensors.com)

# Inductive proximity sensors

XS range, general purpose

Basic, cylindrical, metal, flush and non flush mountable

Three-wire DC, solid-state output

Characteristics		XS1●●BLP●L● XS1●●BLN●L●	XS1●●BLP●M● XS1●●BLN●M●	XS2●●BLP●L XS2●●BLN●L	XS2●●BLP●M● XS2●●BLN●M●	
Sensor type		UL, CSA, CE				
Product certifications	Pre-cabled	Length 2, 3 or 5 m, depending on model		Length 2, 5 or 7 m, depending on model		
	Connector	M8 on Ø 8 M12 on Ø 8, Ø 12, Ø 18 and Ø 30		M8 on Ø 8 M12 on Ø 8, Ø 12, Ø 18 and Ø 30		
Operating zone (1)	Ø 8	mm	0...1.2		0...2	
	Ø 12	mm	0...1.6		0...3.2	
	Ø 18	mm	0...4		0...6.4	
	Ø 30	mm	0...8		0...12	
Differential travel		%	1...15 of effective sensing distance (Sr)			
Degree of protection	Conforming to IEC 60529		IP 65 and IP 67			
Storage temperature		°C	- 40...+ 85			
Operating temperature		°C	- 25...+ 70			
Materials	Case	Nickel plated brass				
	Cable	PVC 3 x 0.14 mm <sup>2</sup> except Ø 8: 3 x 0.11 mm <sup>2</sup>	–	PVC 3 x 0.14 mm <sup>2</sup> except Ø 8: 3 x 0.11 mm <sup>2</sup>	–	
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, on rear	Yellow LED: 2 viewing ports at 180°	Yellow LED, on rear	Yellow LED: 2 viewing ports at 180°	
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			
Current consumption, no-load		mA	≤ 10			
Residual current, open state		mA	–			
Maximum switching frequency	Ø 8	Hz	2500		2500	
	Ø 12	Hz	2500		1200	
	Ø 18	Hz	1200		500	
	Ø 30	Hz	500		300	
Delays	First-up	ms	≤ 15		≤ 15	
	Response	Ø 8	ms	≤ 0.3		≤ 0.3
		Ø 12	ms	≤ 0.1		≤ 0.1
		Ø 18	ms	≤ 0.1		≤ 0.1
		Ø 30	ms	≤ 0.1		≤ 0.2
	Recovery	Ø 8	ms	≤ 0.3		≤ 0.3
		Ø 12	ms	≤ 0.15		≤ 0.4
		Ø 18	ms	≤ 0.3		≤ 1
Ø 30		ms	≤ 1		≤ 1.4	

## Wiring schemes

Connector	Pre-cabled	PNP	NPN
M8	BU: Blue BN: Brown BK: Black		
M12			

For M8 connectors, NO and NC outputs on terminal 4

(1) Detection curves, see page 13.

# Inductive proximity sensors

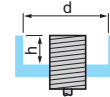
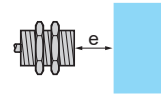
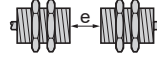
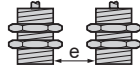
XS range, general purpose

Basic, cylindrical, metal, flush and non flush mountable

Three-wire DC, solid-state output

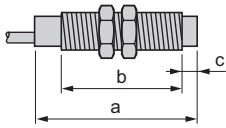
## Setting-up

### Minimum mounting distances (mm)



Sensors		Side by side	Face to face	Facing a metal object	Mounted in a metal support
Ø 8 flush mountable	XS108BL	$e \geq 3$	$e \geq 18$	$e \geq 4,5$	$d \geq 8$ $h \geq 0$
Ø 8 non flush mountable	XS208BL	$e \geq 10$	$e \geq 30$	$e \geq 7,5$	$d \geq 24$ $h \geq 5$
Ø 12 flush mountable	XS112BL	$e \geq 4$	$e \geq 24$	$e \geq 6$	$d \geq 12$ $h \geq 0$
Ø 12 non flush mountable	XS212BL	$e \geq 16$	$e \geq 48$	$e \geq 12$	$d \geq 36$ $h \geq 8$
Ø 18 flush mountable	XS118BL	$e \geq 10$	$e \geq 60$	$e \geq 15$	$d \geq 18$ $h \geq 0$
Ø 18 non flush mountable	XS218BL	$e \geq 16$	$e \geq 96$	$e \geq 24$	$d \geq 54$ $h \geq 16$
Ø 30 flush mountable	XS130BL	$e \geq 20$	$e \geq 120$	$e \geq 30$	$d \geq 30$ $h \geq 0$
Ø 30 non flush mountable	XS230BL	$e \geq 60$	$e \geq 180$	$e \geq 45$	$d \geq 90$ $h \geq 30$

## Dimensions



### Flush mountable in metal

Sensors	Pre-cabled (mm)		M8 connector (mm)		M12 connector (mm)	
	a	b	a	b	a	b
Ø 8 XS108BL	42	33	50	34	61	40
Ø 12 XS112BL	44	31	–	–	55	34
Ø 18 XS118BL	53	41	–	–	64	43
Ø 30 XS130BL	57	44	–	–	68	47

### Non flush mountable in metal

Sensors	Pre-cabled (mm)			M8 connector (mm)			M12 connector (mm)		
	a	b	c	a	b	c	a	b	c
Ø 8 XS208BL	44	31	4	50	31	4	61	36	4
Ø 12 XS212BL	44	26	5	–	–	–	55	29	5
Ø 18 XS218BL	53	33	8	–	–	–	64	35	8
Ø 30 XS230BL	57	32	13	–	–	–	68	34	13

# Inductive proximity sensors

XS range, general purpose

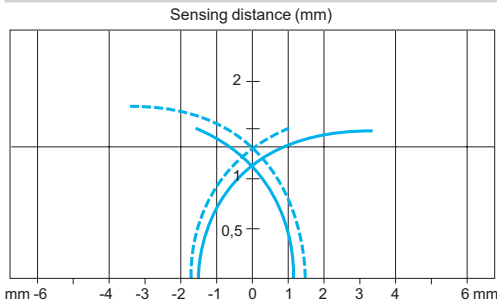
Basic, cylindrical, metal, flush and non flush mountable

Three-wire DC, solid-state output

## Detection curves

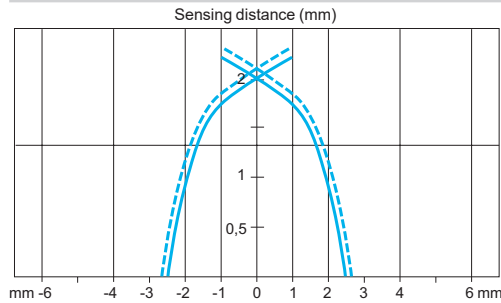
### Ø 8 sensors

#### Flush mountable in metal



Standard steel target (mm): 8 x 8 x 1  
Operating zone (mm): 0...1.2

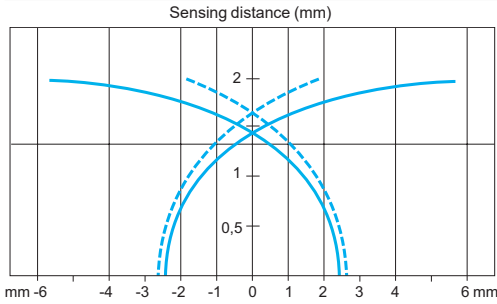
#### Non flush mountable in metal



Standard steel target (mm): 8 x 8 x 1  
Operating zone (mm): 0...2

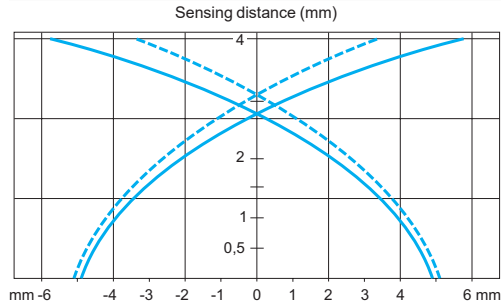
### Ø 12 sensors

#### Flush mountable in metal



Standard steel target (mm): 12 x 12 x 1  
Operating zone (mm): 0...1.6

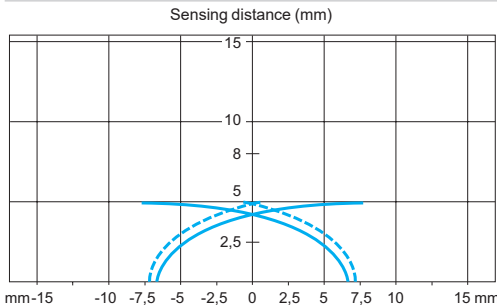
#### Non flush mountable in metal



Standard steel target (mm): 12 x 12 x 1  
Operating zone (mm): 0...3.2

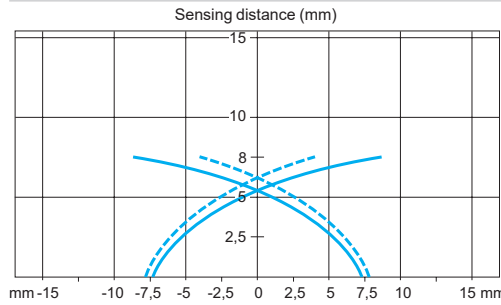
### Ø 18 sensors

#### Flush mountable in metal



Standard steel target (mm): 18 x 18 x 1  
Operating zone (mm): 0...4

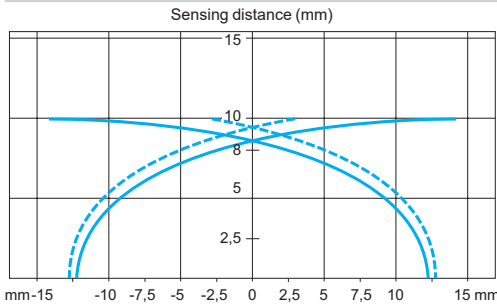
#### Non flush mountable in metal



Standard steel target (mm): 24 x 24 x 1  
Operating zone (mm): 0...6.4

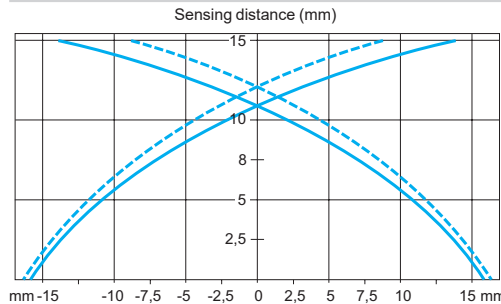
### Ø 30 sensors

#### Flush mountable in metal



Standard steel target (mm): 30 x 30 x 1  
Operating zone (mm): 0...8

#### Non flush mountable in metal



Standard steel target (mm): 45 x 45 x 1  
Operating zone (mm): 0...12

— pick-up points  
- - - drop-out points (object approaching from the side)

<b>X</b>		
XS108BHNAL2	5	XS130BLPBL2 9
XS108BHNAM8	5	XS130BLPBM12 9
XS108BHPAL2	5	XS208BLNAL2 8
XS108BHPAM8	5	XS208BLPAL2 8
XS108BHPAM12	5	XS208BLPAL5 8
XS108BHPBL2	5	XS208BLPAM8 8
XS108BHPBM8	5	XS208BLPAM12 8
XS108BHPBM12	5	XS212BLNAL2 8
XS108BLNAL2	8	XS212BLNAL7 8
XS108BLNAM12	8	XS212BLNAM12 8
XS108BLPAL2	8	XS212BLNBL2 8
XS108BLPAL5	8	XS212BLPAL2 8
XS108BLPAM8	8	XS212BLPAL5 8
XS108BLPAM12	8	XS212BLPAM12 8
XS112BHNAL2	5	XS212BLPBL2 8
XS112BHNAM12	5	XS212BLPBL5 8
XS112BHNBL2	5	XS218BLNAL2 9
XS112BHNBM12	5	XS218BLNAL5 9
XS112BHPAL2	5	XS218BLNAL7 9
XS112BHPAL5	5	XS218BLNAM12 9
XS112BHPAM12	5	XS218BLNBL2 9
XS112BHPBL2	5	XS218BLPAL2 9
XS112BHPBM12	5	XS218BLPAL5 9
XS112BLNAL2	8	XS218BLPAM12 9
XS112BLNAM12	8	XS218BLPBL2 9
XS112BLPAL2	8	XS230BLNAL2 9
XS112BLPAL3	8	XS230BLNAL7 9
XS112BLPAL5	8	XS230BLNAM12 9
XS112BLPAM12	8	XS230BLPAL2 9
XS112BLPBL2	8	XS230BLPAL5 9
XS112BLPBM12	8	XS230BLPAM12 9
XS118BHNAL2	5	XS230BLPBL2 9
XS118BHNAL5	5	XSZB108 5
XS118BHNAM12	5	
XS118BHNBL2	5	10
XS118BHNBM12	5	XSZB112 5
XS118BHPAL2	5	10
XS118BHPAL5	5	XSZB118 5
XS118BHPAM12	5	10
XS118BHPBL2	5	XSZB130 5
XS118BHPBM12	5	10
XS118BLNAL2	9	XZCPV0566L5 5
XS118BLNAL5	9	10
XS118BLNAM12	9	XZCPV0566L10 5
XS118BLPAL2	9	10
XS118BLPAL5	9	XZCPV1141L5 5
XS118BLPAM12	9	10
XS118BLPBL2	9	XZCPV1141L10 5
XS118BLPBM12	9	10
XS130BHNAL2	5	
XS130BHNAM12	5	
XS130BHNBL2	5	
XS130BHNBM12	5	
XS130BHPAL2	5	
XS130BHPAL5	5	
XS130BHPAM12	5	
XS130BHPBL2	5	
XS130BHPBM12	5	
XS130BLNAL2	9	
XS130BLNAL3	9	
XS130BLNAM12	9	
XS130BLPAL2	9	
XS130BLPAM12	9	