Telemecanique Sensors for Food & Beverage industry

The essential guide

Simply easy!™

Telemecanique Sensors

Telemecanique Sensors

Simply easy!™

Telemecanique brand has a 9 decades history manufacturing factory automation and safety sensors. Telemecanique wide ranges are most reliable and robust hence second to none on the market.

Our aim is to simplify the life of our customers, allowing them to concentrate on their core added value and machine performance. This is why Telemecanique Sensors design and manufacture their products based on the following values:

- Simplicity and modularity
- Easy to choose and select
- Easy to install and maintain
- Expert services to share our know-how

Connect with the experts

> A dedicated Sales team: trained and experienced sales professionals are available to help you with any sensing application.

> Telemecanique Sensors team: are available for pre and post sales support. We become an extension of your team and we share our expertise with you.

www.tesensors.com

Contents

This document is a selection of the top selling sensors dedicated to Food & beverage application.
For more information:
http://www.tesensors.com

Inductive proximity sensors **OsiSense XS** ..... 2 to 5
Detection without contact of metal objects

Photo-electric sensors **OsiSense XU** ..... 6 to 9
Detection without contact of any object

Ultrasonic sensors **OsiSense XX** ..... 10 to 12
Detection without contact of any object

Rotary encoders **OsiSense XCC** 13
Opto-electronic detection

Radio frequency identification **OsiSense XG** ..... 14 to 15
13.56 MHz RFID detection

Sensors for Safety **Preventa XCS** ..... 16 to 17
Detection without contact

Cabling system **OsiSense XZC** 18
Pre-wired female connectors and jumper cables

Reflectors **OsiSense XUZC** 19
Compatibility with photo-electric sensors

Technical informations ..... 20 to 21
Ecolab certification, degrees of protection provided by enclosure IP code

OsiSense XS

Inductive proximity sensors
Food & Beverage processing
Cylindrical, full stainless steel 316L

certified
ECOLAB


Non flush mountable


Flush mountable

Type		M12	M18	M30
Nominal sensing distance Sn	Fush mountable	**6** mm	**10** mm	**20** mm
	Non flush mountable	**10** mm	**20** mm	**40** mm
Operating zone (mm)	Flush mountable	0...4.8	0...8	0...16
	Non flush mountable	0...8	0...16	0...32
Suitability for flush mounting (metal environment)		Flush mountable or non flush mountable depending on model		
Case material		Full stainless steel 316L front face and housing in one piece		
Product certification		CE - cULus		
Temperature range (°C)		-25…+85		
Degree of protection (conforming to IEC 60529)		IP 68 (5 meters underwater for 1 month) and IP 69K (conforming to DIN 40050)		

Sensors for DC applications (solid-state output: transistor)

Connection					
3-wire **PNP** **NO function**	Flush mountable	**XS912S1PAM12**	**XS918S1PAM12**	**XS930S1PAM12**
	Non flush mountable	**XS912S4PAM12**	**XS918S4PAM12**	**XS930S4PAM12**
Supply voltage limits, min./max. (V) including ripple		10…30		
Switching capacity, max. (mA)		≤ 200 with overload and short-circuit protection		
Switching frequency (Hz)	Fush mountable	600	300	100
	Non flush mountable	400	200	90
Short-circuit protection (★) / LED output state indicator (⊗)		★ / ⊗		
Voltage drop, closed state (V) at I nominal		≤ 2		
Connection		M12 connector		

Accessories

Pre-wired M12 connectors

Female, 5-pin, 4 wires, IP 69K stainless steel clamping ring

Straight connector 	2 m cable	XZCPA1141L2
	5 m cable	XZCPA1141L5
	10 m cable	XZCPA1141L10
Elbowed connector 	2 m cable	XZCPA1241L2
	5 m cable	XZCPA1241L5
	10 m cable	XZCPA1241L10

OsiSense XS

Inductive proximity sensors
Food & Beverage processing
Cylindrical, stainless steel 316L

Type	M12	M18	Ø 18 plain	M30
Nominal sensing distance Sn	7 mm	12 mm	12 mm	22 mm
Operating zone (mm)	0 …5.6	0 … 9.6	0 … 9.6	0 … 17.6
Suitability for flush mounting (metal environment)	Non flush mountable			
Case material	Stainless steel 316 L			
Product certification	CE - UL - CSA - CCC - C-TICK			
Temperature range (°C)	- 25…+ 85			
Degree of protection (conforming to IEC 60529)	Pre-cabled: IP 68 (with connector: IP 67) and IP 69K conforming to DIN 40050			

Sensors for DC applications (solid-state output: transistor)

Connection			**Pre-cabled, non poisonous PVC (2 m)**			
Dimensions (mm)			M12 x 50	M18 x 60	Ø 18 x 60	M30 x 62
3-wire	**PNP**	**NO** function	**XS212SAPAL2**	**XS218SAPAL2**	**XS2L2SAPAL2**	**XS230SAPAL2**
	NPN	**NO** function	**XS212SANAL2**	**XS218SANAL2**	**XS2L2SANAL2**	**XS230SANAL2**
Connection			**M12 connector**			
Dimensions (mm)			M12 x 61	M18 x 70	Ø 18 x 70	M30 x 70
3-wire	**PNP**	**NO** function	**XS212SAPAM12**	**XS218SAPAM12**	**XS2L2SAPAM12**	**XS230SAPAM12**
	NPN	**NO** function	**XS212SANAM12**	**XS218SANAM12**	**XS2L2SANAM12**	**XS230SANAM12**
Supply voltage limits, min./max. (V) including ripple			10…58			
Switching capacity, max. (mA)			≤ 200			
Switching frequency (Hz)			2500	1000		500
Short-circuit protection (★) / LED output state indicator (⊗)			★ / ⊗			
Voltage drop, closed state (V) at I nominal			≤ 2			

Multi-current/multi-voltage sensors for AC/DC applications

Connection			**Pre-cabled, non poisonous PVC (2 m)**			
Dimensions (mm)			–	M18 x 60	–	M30 x 62
2-wire (1)	**AC/DC**	**NO** function	**–**	**XS218SAMAL2**	**–**	**XS230SAMAL2**
Connection			**1/2"- 20 UNF connector**			
Dimensions (mm)			–	M18 x 72	–	M30 x 74
2-wire (1)	**AC/DC**	**NO** function	**–**	**XS218SAMAU20**	**–**	**XS230SAMAU20**
Supply voltage limits, min./max. (V) 50-60 HZ			–	20 … 264	–	20 … 264
Switching capacity, max. (mA)			–	300 AC / 200 DC	–	300 AC / 200 DC
Switching frequency (Hz)			–	25 AC / 1000 DC	–	25 AC / 300 DC
LED output state indicator (⊗)			–	⊗	–	⊗
Voltage drop, closed state (V) at I nominal			–	≤ 5.5	–	≤ 5.5
Residual current, open state (mA)			–	≤ 0.8	–	≤ 0.8

(1) For these sensors without short-circuit protection, it is essential to connect a 0.4 quick-blow fuse in series with the load.

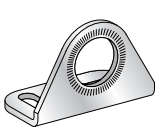
Accessories

Fixing brackets

Plastic fixing centres 24.1 mm, with locking screw

for sensor	
Ø 18 plain	**XUZB2005**

Stainless steel



Ø 12	**XSZBS12**
Ø 18	**XUZA118**
Ø 30	**XSZBS30**

M12 pre-wired connectors

Female, 5-pin, 4 wires, stainless steel clamping ring

Straight connector

5 m cable	**XZCPA1141L5**

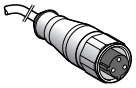
Elbowed connector

5 m cable	**XZCPA1241L5**

1/2" pre-wired connectors

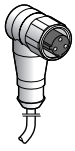
Female, 3-pin, 3 wires, stainless steel clamping ring

Straight connector



5 m cable	**XZCPA1865L5**

Elbowed connector



5 m cable	**XZCPA1965L5**

OsiSense XS

Inductive proximity sensors
Food & Beverage processing
Cylindrical, plastic

Type	M12	M18	M30
Nominal sensing distance Sn	7 mm	12 mm	22 mm
Operating zone (mm)	0 …5.6	0 … 9.6	0 … 17.6
Suitability for flush mounting (metal environment)	Non flush mountable		
Case material	Plastic		
Product certification	CE - UL - CSA - CCC - C-TICK		
Temperature range (°C)	- 25…+ 85		
Degree of protection (conforming to IEC 60529)	Pre-cabled: IP 68 (with connector: IP 67) and IP 69K conforming to DIN 40050		

Sensors for DC applications (solid-state output: transistor)

Connection			**Pre-cabled PvR (2 m)**		
Dimensions (mm)			M12 x 50	M18 x 60	M30 x 62
3-wire	**PNP**	**NO** function	**XS212AAPAL2**	**XS218AAPAL2**	**XS230AAPAL2**
	NPN	**NO** function	**XS212AANAL2**	**XS218AANAL2**	**XS230AANAL2**
Connection			**M12 connector**		
Dimensions (mm)			M12 x 61	M18 x 70	M30 x 70
3-wire	**PNP**	**NO** function	**XS212AAPAM12**	**XS218AAPAM12**	**XS230AAPAM12**
	NPN	**NO** function	**XS212AANAM12**	**XS218AANAM12**	**XS230AANAM12**
Supply voltage limits, min./max. (V) including ripple			10…58		
Switching capacity, max. (mA)			≤ 200		
Switching frequency (Hz)			2500	1000	500
Short-circuit protection (★) / LED output state indicator (⊗)			★ / ⊗		
Voltage drop, closed state (V) at I nominal			≤ 2		

Multi-current/multi-voltage sensors for AC/DC applications

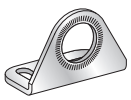
Connection			**Pre-cabled PvR (2 m)**		
Dimensions (mm)			–	M18 x 60	M30 x 60
2-wire (1)	**AC/DC**	**NO** function	–	**XS218AAMAL2**	**XS230AAMAL2**
Connection			**1/2"-20 UNF connector**		
Dimensions (mm)			–	M18 x 70	M30 x 74
2-wire (1)	**AC/DC**	**NO** function	**–**	**XS218AAMAU20**	**XS230AAMAU20**
Supply voltage limits, min./max. (V) 50-60 HZ			–	20 … 264	20 … 264
Switching capacity, max. (mA)			–	300 AC / 200 DC	300 AC / 200 DC
Switching frequency (Hz)			–	25 AC / 1000 DC	25 AC / 300 DC
LED output state indicator (⊗)			–	⊗	⊗
Voltage drop, closed state (V) at I nominal			–	≤ 5.5	≤ 5.5
Residual current, open state (mA)			–	≤ 0.8	≤ 0.8

(1) For these sensors without short-circuit protection, it is essential to connect a 0.4 quick-blow fuse in series with the load.

Accessories

Fixing brackets

Stainless steel



for sensor	
Ø 12	**XSZBS12**
Ø 18	**XUZA118**
Ø 30	**XSZBS30**

M12 pre-wired connector

Female, 5-pin, 4 wires, stainless steel clamping ring

Straight connector

5 m	**XZCPA1141L5**

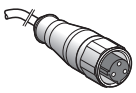
Elbowed connector

5 m	**XZCPA1241L5**

1/2" pre-wired connector

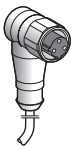
Female, 3-pin, 3 wires, stainless steel clamping ring

Straight connector



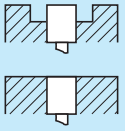
5 m	**XZCPA1865L5**

Elbowed connector



5 m	**XZCPA1965L5**

Inductive proximity sensors
Cylindrical, plastic



	M8	M12	M18	M30
Nominal sensing distance Sn	**2.5** mm	**4** mm	**8** mm	**15** mm
Operating zone (mm)	0…2	0…3.2	0…6.4	0…12
Suitability for flush mounting (metal environment)	Non flush mountable			
Case material	Plastic			
Temperature range (°C)	- 25…+ 70			
Product certification	CE - UL - CSA - CCC - C-TICK			
Degree of protection (conforming to IEC 60529)	IP 67	pre-cabled: IP 68 (with connector: IP 67)		

Sensors for DC applications

Connection			**Pre-cabled, PvR (2 m)**			
Dimensions (mm) Ø x L or W x H x D			M8 x 33	M12 x 33	M18 x 33.5	M30 x 40.5
3-wire	**PNP**	**NO** function	**XS4P08PA340**	**XS4P12PA340**	**XS4P18PA340**	**XS4P30PA340**
		NC function	**XS4P08PB340**	**XS4P12PB340**	**XS4P18PB340**	**XS4P30PB340**
	NPN	**NO** function	**XS4P08NA340**	**XS4P12NA340**	**XS4P18NA340**	**XS4P30NA340**
		NC function	**XS4P08NB340**	**XS4P12NB340**	**XS4P18NB340**	**XS4P30NB340**
Connection			**M8 connector**	**M12 connector**		
Dimensions (mm) Ø x L or W x H x D			M8 x 42	M12 x 48	M18 x 48	M30 x 50
3-wire	**PNP**	**NO** function	**XS4P08PA340S**	**XS4P12PA340D**	**XS4P18PA340D**	**XS4P30PA340D**
		NC function	**XS4P08PB340S**	**XS4P12PB340D**	**XS4P18PB340D**	**XS4P30PB340D**
	NPN	**NO** function	**XS4P08NA340S**	**XS4P12NA340D**	**XS4P18NA340D**	**XS4P30NA340D**
		NC function	**XS4P08NB340S**	**XS4P12NB340D**	**XS4P18NB340D**	**–**
Supply voltage limits, min./max. (V) including ripple			10…38			
Switching capacity, max. (mA)			200			
Short-circuit protect. (★) / LED output state indicator (⊗)			★ / ⊗			
Voltage drop, closed state (V) at I nominal			≤ 2			
Switching frequency (Hz)			5000		2000	1000

Multi-current/multi-voltage sensors for AC/DC applications

Connection			**Pre-cabled, PvR (2 m)**			
Dimensions (mm) Ø x L or W x D x H			M8 x 50	M12 x 50	M18 x 60	M30 x 60
2-wire	**AC/DC**	**NO** function	**XS4P08MA230**	**XS4P12MA230**	**XS4P18MA230**	**XS4P30MA230**
not short-circuit protected (1)		**NC** function	**XS4P08MB230**	**XS4P12MB230**	**XS4P18MB230**	**XS4P30MB230**
Connection			**1/2" connector**			
Dimensions (mm) Ø x L or W x H x D			M8 x 61	M12 x 61	M18 x 70	M30 x 70
2-wire	AC/DC	**NO** function	**XS4P08MA230K**	**XS4P12MA230K**	**XS4P18MA230K**	**XS4P30MA230K**
not short-circuit protected (1)		**NC** function	**XS4P08MB230K**	**XS4P12MB230K**	**XS4P18MB230K**	**XS4P30MB230K**
Supply voltage limits, min./max. (V) including ripple			20…264			
Switching capacity, max. (mA)			100	200	300 AC / 200 DC	300 AC / 200 DC
LED output state indicator (⊗)			⊗			
Residual current, open state (mA)			≤ 0.6			
Voltage drop, closed state (V) at I nominal			≤ 5.5			
Switching frequency (Hz)			25 AC / 3000 DC		25 AC / 2000 DC	25 AC / 1000 DC

(1) For these sensors without short-circuit protection, it is essential to connect a 0.4 A quick-blow fuse in series with the load.

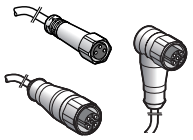
Fixing for cylindrical sensors

Fixing clamp with indexing pin for cylindrical sensors

M8	**XSZB108**
M12	**XSZB112**
M18	**XSZB118**

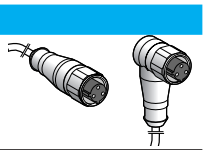
M8 and M12 pre-wired connectors

M8 female, 3-pin, 3 wires, stainless steel clamping ring		
Straight connector	M8	**XZCPA0566L5**
M12 female, 5-pin, 4 wires, stainless steel clamping ring		
Elbowed connector	M12	**XZCPA1141L5**
	M12	**XZCPA1241L5**



1/2" pre-wired connectors

Female, 3-pin, 3 wires, stainless steel clamping ring		
Straight connector	5 m	**XZCPA1865L5**
Elbowed connector	5 m	**XZCPA1965L5**



Other versions: **please consult our Customer Care Centre.**

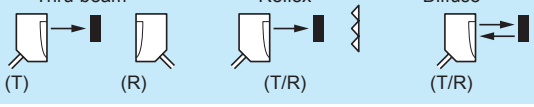
OsiSense XU

Photo-electric sensors

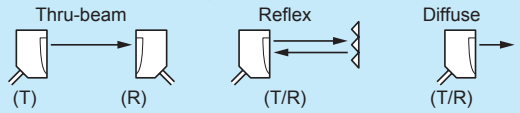
Food & Beverage processing

Cylindrical, plastic

NO function: Object present / Output ON



NC function: No object present / Output ON



System			Plastic	
			Cable	M12 connector
Diffuse	**Sensing distance**		**0.15 m**	
	DC 3 wire NO	PNP	**XUB4APANL2**	**XUB4APANM12**
		NPN	**XUB4ANANL2**	**XUB4ANANM12**
Diffuse adjustable	**Sensing distance**		**0.6 m**	
	DC 3 wire NO	PNP	**XUB5APANL2**	**XUB5APANM12**
		NPN	**XUB5ANANL2**	**XUB5ANANM12**
Reflex polarised	**Sensing distance**		**2 m** (1)	
	DC 3 wire NO	PNP	**XUB9APANL2**	**XUB9APANM12**
		NPN	**XUB9ANANL2**	**XUB9ANANM12**
Reflex	**Sensing distance**		**4 m** (1)	
	DC 3 wire NO	PNP	**XUB1APANL2**	**XUB1APANM12**
		NPN	**XUB1ANANL2**	**XUB1ANANM12**
Thru-beam	**Sensing distance**		**15 m**	
	DC 3 wire NO	PNP	**XUB2APANL2R**	**XUB2APANM12R**
		NPN	**XUB2ANANL2R**	**XUB2ANANML2R**
Output function	**NO**		A	A
	NC		B	B
Thru-beam transmitter		DC	**XUB2AKSNL2T**	**XUB2AKSNM12T**
Case material			Plastic	
Degree of protection (conforming to IEC 60529)			IP 65 / IP 67	IP 65 / IP 67 / IP 69K
Temperature range (°C)			- 25...+ 55 °C	
Product certification			CE, UL, CSA	
Supply voltage limits, min./max. (V) including ripple			10...36	
Switching capacity, max. (mA) / Switching frequency (Hz)			100/500	

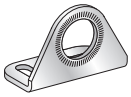
(1) With reflector XUZC50 to be ordered separately.

System			Plastic	
			Cable	M12 connector
Multimode	**Sensing distance**	**Background suppression**	**0.12** m	
		Diffuse	**0.3** m	
		Reflex polarised	**3** m	
		Thru-beam	**20** m	
Output type	DC 3 wire NO/NC	PNP	**XUB0APSNL2**	**XUB0APSNM12**
	programmable	NPN	**XUB0ANSNL2**	**XUB0ANSNM12**
Thru-beam transmitter			**XUB0AKSNL2T**	**XUB0AKSNM12T**
Case material			Plastic	
Degree of protection (conforming to IEC 60529)			IP 65 / IP 67	IP 65 / IP 67 / IP 69K
Temperature range (°C)			- 25...+ 55 °C	
Product certification			CE, UL, CSA	
Supply voltage limits, min./max. (V) including ripple			10...36	
Switching capacity, max. (mA) / Switching frequency (Hz)			100/250	

Accessories

Fixing bracket

Stainless steel



For sensor	
Ø 18	**XUZA118**

M12 pre-wired connectors

Female, 5-pin, 4 wires, stainless steel clamping ring

Straight connector

2 m	**XZCPA1141L2**

Elbowed connector

5 m	**XZCPA1241L5**

Telemecanique Sensors

Other versions: **please consult our Customer Care Centre.**

OsiSense XU

Photo-electric sensors
Food & Beverage processing
Cylindrical, stainless steel

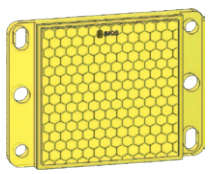


System			M18 Metal Cable	M18 Metal M12 connector	M18 Metal with 90° head Cable	M18 Metal with 90° head M12 connector
Diffuse	**Sensing distance**		**0.1 m**			
Output type	DC 3 wire NO/NC	PNP	**XU5N18PP341**	**XU5N18PP341D**	**XU5N18PP341W**	**XU5N18PP341WD**
	programmable	NPN	**XU5N18NP341**	**XU5N18NP341D**	**XU5N18NP341W**	**XU5N18NP341WD**
Reflex polarised	**Sensing distance**		**2 m** (1)			
Output type	DC 3 wire NO/NC	PNP	**XU9N18PP341**	**XU9N18PP341D**	**XU9N18PP341W**	**XU9N18PP341WD**
	programmable	NPN	**XU9N18NP341**	**XU9N18NP341D**	**XU9N18NP341W**	**XU9N18NP341WD**
Reflex	**Sensing distance**		**4 m** (1)			
Output type	DC 3 wire NO/NC	PNP	**XU1N18PP341**	**XU1N18PP341D**	**XU1N18PP341W**	**XU1N18PP341WD**
	programmable	NPN	**XU1N18NP341**	**XU1N18NP341D**	**XU1N18NP341W**	**XU1N18NP341WD**
Thru-beam	**Sensing distance**		**15 m** (2)			
Output type	DC 3 wire NO/NC	PNP	**XU2N18PP341**	**XU2N18PP341D**	**XU2N18PP341W**	**XU2N18PP341WD**
	programmable	NPN	**XU2N18NP341**	**XU2N18NP341D**	**XU2N18NP341W**	**XU2N18NP341WD**
Case material			Stainless steel 304			
Degree of protection (conforming to IEC 60529)			IP 67		IP 67	
Temperature range (°C)			- 25...+ 55 °C			
Product certification			CE, UL, CSA			
Supply voltage limits, min./max. (V) including ripple			10...30			
Switching capacity, max. (mA) / Switching frequency (Hz)			100/500			

(1) With reflector XUZC50 included. (2) Transmitter and receiver included.

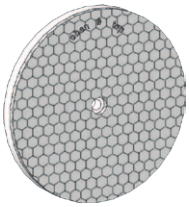
System			M18 Metal Cable	M18 Metal M12 connector	M18 Metal with 90° head Cable	M18 Metal with 90° head M12 connector
Multimode	**Sensing distance**	**Diffuse**	**0.12** m		**0.11** m	
		Diffuse adjustable	**0.3** m		**0.3** m	
		Reflex polarised	**3** m		**2** m	
		Thru-beam	**20** m		**10** m	
Output type	DC 3 wire NO/NC	PNP	**XUB0SPSNL2**	**XUB0SPSNM12**	**XUB0SPSNWL2**	**XUB0SPSNWM12**
	programmable	NPN	**XUB0SNSNL2**	**XUB0SNSNM12**	**XUB0SNSNWL2**	**XUB0SNSNWM12**
Thru-beam transmitter			**XUB0SKSNL2T**	**XUB0SKSNL12T**	**XUB0SKSNWL2T**	**XUB0SKSNWL12T**
Case material			Stainless steel 304			
Degree of protection (conforming to IEC 60529)			IP 65 / IP 67	IP 65 / IP 67 / IP 69K	IP 65 / IP 67	IP 65 / IP 67 / IP 69K
Temperature range (°C)			- 25...+ 55 °C			
Product certification			CE, UL, CSA			
Supply voltage limits, min./max. (V) including ripple			10...36			
Switching capacity, max. (mA) / Switching frequency (Hz)			100/250			

Reflectors

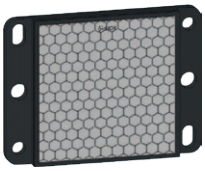



ECOLAB® certified reflector, IP69K, resistant to detergents up to 140 °C

50 x 50 mm	**XUZC50CR**
40 x 18 mm	**XUZCR0402CR**



Ø 80	**XUZC80**




For compatibility and effect on sensing range, see page 19

50 X 50 mm	**XUZC50**
40 X 60 mm	**XUZC60S11**

Other versions: **please consult our Customer Care Centre.**

OsiSense XUB Photo-electric sensors

For detection of transparency materials
Cylindrical, stainless steel and plastic

M18, along case axis

M18, 90° to case axis

Sensor type		M18 Metal		M18 Metal with 90° head	
		Cable	M12 connector	Cable	M12 connector
Sensing distance with XUZC50HP reflector 50x50 mm (1)		**1,40 m**		**0,80 m**	
Case material		Stainless steel 304			
Temperature range (°C)		0…+ 55			
Degree of protection (conforming to IEC 60529)		IP 65 / IP 67	IP 65 / IP 67 / IP 69K (IP 69K conforming to DIN 40050)	IP 65 / IP 67	IP 65 / IP 67 / IP 69K (IP 69K conforming to DIN 40050)
Product certification		CE, UL, CSA			
References	PNP (NO or NC function - programmable)	**XUBTSPSNL2**	**XUBTSPSNM12**	**XUBTSPSWL2**	**XUBTSPSWM12**
	NPN (NO or NC function - programmable)	**XUBTSNSNL2**	**XUBTSNSNM12**	**XUBTSNSWL2**	**XUBTSNSWM12**
Supply voltage limits, min./max. (V) including ripple		10…32			
Maximum switching frequency (Hz) / Switching capacity, max. (mA)		1000 / 100 with overload and short-circuit protection			

(1) reflector XUZC50HP supplied

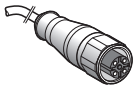
Sensor type		M18 Plastic	
		Cable	M12 connector
Sensing distance with XUZC50HP reflector 50x50 mm (1)		**1,40 m**	
Fixing		M18 x 1	
Material	Case	Plastic PBT	
	Lens	PMMA	
Temperature range (°C)		0…+ 55	
Degree of protection (conforming to IEC 60529)		**IP 65 / IP 67**	**IP 65 / IP 67 / IP 69K (IP 69K conforming to DIN 40050)**
Product certification		CE, UL, CSA, C-Tick	
References	PNP (NO function)	**XUBTAPSNL2**	**XUBTAPSNM12**
	NPN (NO function)	**XUBTANSNL2**	**XUBTANSNM12**
Supply voltage limits, min./max. (V) including ripple		10…32	
Maximum switching frequency (Hz) / Switching capacity, max. (mA)		500 / 100 with overload and short-circuit protection / LED output state	

(1) reflector XUZC50HP supplied

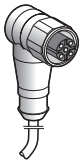
Accessories

M12 pre-wired connectors

IP69K, female, 5-pin, 4 wires, stainless steel clamping ring



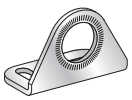
Straight	
2 m	**XZCPA1141L2**
5 m	**XZCPA1141L5**
10 m	**XZCPA1141L10**



Elbowed	
2 m	**XZCPA1241L2**
5 m	**XZCPA1241L5**
10 m	**XZCPA1241L10**

Fixing bracket

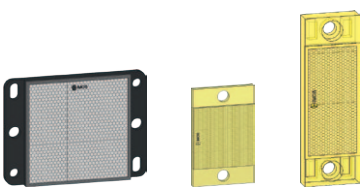
Stainless steel



For sensor	
Ø 18	**XUZA118**

Reflectors

High precision reflector
For compatibility and effect on sensing range, see page 19



Dimensions	
50 x 50 mm	**XUZC50HP**
20 x 32 mm	**XUZCR0201CRHP**
40 x 19 mm	**XUZCR0401CRHP**

OsiSense XUK — Photo-electric sensors

Food & Beverage processing
Compact stainless steel case 316L and plastic

ECOLAB

Application	Stainless steel version for resistance to harsh agents		
System	**Background suppression**	**Polarised reflex**	**Thru-beam**
Sensing distance	**0.03…0.55** m	**0.4...6 m** (1)	**0…15** m
Fixing (mm)	2 x Ø 4.3 holes …		
Case material	Stainless steel 316L		
Temperature range (°C)	-20 … +60 °C (100 °C for cleaning and sterilization phase whilst not in service)		
Degree of protection (conforming to IEC 60529)	**IP 67 (IP69K conforming to DIN 40050)**		
Product certification	CE, Ecolab		
Dimensions (mm) H x W x D	50 x 50 X 23		
Type of transmission	Read beam		
Sensitivity adjustment	Teach mode		

Sensors for DC applications (solid-state output: transistor)

Connection			**M12 connector** - 4 pin		
Output type	DC 4 wire NO/NC programmable	PNP	**XUK8SPSMM12**	**XUK9SPSMM12**	**XUK2SKSMM12T** (transmitter) **XUK2SPSMM12R** (receiver)
Supply voltage limits, min./max. (V) including ripple			10…30		
Switching capacity, max. (mA) / Switching frequency (Hz)			100 / 400	100 / 600	100 / 500

(1) With reflector XUZC50 to be ordered separately.

ECOLAB

Laser class II

Compact 50x50mm

Application				
System	**Back ground suppression**	**Diffuse**	**Polarised reflex**	**Thru-beam**
Sensing distance	**0.8** m	**1.2** m	**12 m** (2)	**25 m**
Fixing (mm)	2 x Ø 4.3 holes / fixing centres 30			
Case material	Plastic			
Setting-up assistance LEDs ⊗	⊗			
Temperature range (°C) /	-20…+60 °C			
Degree of protection (conforming to IEC 60529)	**IP67 (IP69K conforming to DIN 40050)**			
Product certification	CE, Ecolab			
Dimensions (mm) H x W x D	50 x 50 X 23			
Sensitivity adjustment	Potentiometer	Teach mode		

Sensors for DC applications (solid-state output: transistor)

Connection			**M12 connector** - 4 pin			
Output type	DC 4 wire NO/NC programmable	PNP	**XUK8LAPPNM12** (3)	**XUK5LAPSMM12** (3)	**XUK9LAPSMM12** (3)	**XUK2LAKSMM12T** (3) (4) **XUK2LAPSMM12R** (3) (5)
Supply voltage limits, min./max. (V) including ripple			12…30			
Switching capacity, max. (mA) / Switching frequency (Hz)			100 / ≤ 1000	100 / ≤ 600	100 / ≤ 2000	100 / ≤ 3500
Overload and short-circuit protection (★) / LED output state indicator (⊗)			★ / ⊗			

(2) With reflector XUZC50HP to be ordered separately.

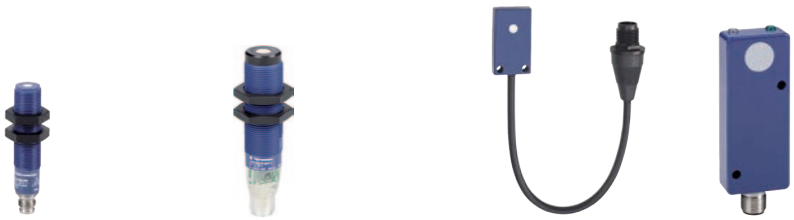
(3) Fixing bracket: XUZA51S to be ordered separately.

(4) Transmitter

(5) Receiver

OsiSense XX — Ultrasonic sensors

Detection of any material
Cylindrical and compact, plastic



		M12	M18	Mini-flat	Flat
Nominal sensing distance Sn	**Mode proximity or reflex**	**5** or **10** cm (1)	**15** or **50** cm (1)	**10** cm	**25** cm
	Mode thru-beam	**20** cm	**61** or **100** cm (1)	**20** cm	**61** or **100** cm (1)
Operating zone for proximity mode		0.64…5.1 cm (XX512A1…) 0.64…10.2 cm (XX512A2…)	1.9…15.2 cm (XX518A1…) 5.1…50.8 cm (XX518A3…)	0.62…10.2 cm	5.1…25.4 cm
Sensitivity adjustment		Fixed	Adjustable using remote control (2) or fixed (3)	Fixed	
Product certification		CE			
Temperature range (°C)		-20…+65	0…+50 (XX518A1…..) / -20…+65 (XX●18A3…..)	-20…+65	0…+50
Degree of protection (conforming to IEC 60529)		IP 67			
Dimensions (mm) Ø x L		M12 x 50	M18 x 65	33 x 19 x 7.6	74 x 30 x 16
Supply voltage limits, min./max. (V) including ripple		10...28			
Short-circuit protection (★)		★			

Proximity or Reflex mode with “Discrete” output for DC applications (24 V)

Connection			**M8 connector**	**M12 connector**	**M12** on 0.15 m flying lead	**M12 connector**
Proximity mode 3-wire	**PNP**	**NO** function	**XX512A2PAM8** (10 cm)	**XX518A3PAM12** (50 cm)	**XX7F1A2PAL01M12**	**XX7K1A2PAM12**
	NPN	**NO** function	**XX512A2NAM8** (10 cm)	**XX518A3NAM12** (50 cm)	**XX7F1A2NAL01M12**	**XX7K1A2NAM12**
Proximity mode 4-wire	**PNP/NPN**	**NO + NC** function	**XX512A1KAM8** (5 cm)	**XX518A1KAM12** (15 cm)	–	–
	PNP	**NO + NC** function	–	–	–	–
	NPN	**NO + NC** function	–	–	–	–
Reflex mode 3-wire	**PNP/NPN**	**NO** function	–	**XXB18A3PAM12** (50 cm)	–	–

Proximity - Application - monotoring levels

	2 emptying levels	**PNP NO** function	–	**XX218A3PHM12** (50 cm) (4)		
	2 filling levels	**PNP NO** function	–	**XX218A3PFM12** (50 cm) (4)		
Switching capacity, max. (mA)			<100			
LED output state indicator (⊗) / Power on LED (⊗)			⊗ / ⊗	⊗ / ⊗ (5)	⊗ / ⊗	
Voltage drop, closed state (V) at I nominal			<1			
Switching frequency (Hz)			125	40 / 80 (6)	100	80

(1) Depending on model. (2) For XX518A3. (3) For XX518A1, XXT18, XXR18. (4) 1 NO. (5) Except XX518A1 (6) For XX518A1.

Proximity mode with “Analogue” output for DC applications (24 V)

Connection			**M8 connector**	**M12**		
4-wire	**Analogue**	**0...10 mA** output	–	**XX918A3F1M12** (50 cm)	–	–
		4...20 mA output	–	**XX918A3C2M12** (50 cm)	–	–
LED output state indicator (⊗) / Power on LED (⊗)			–	⊗ / ⊗		

Thru-beam mode with “Discrete” output for DC applications (24 V)

Connection		**M8 connector**	**M12 connector**		
4-wire	Receiver (NO/PNP + NO/NPN)	**XXR12A8KAM8**	**XXR18A3KAM12** (0.61 m) **XXR18A4KAM12** (1 m)	**XXRF1A8KAM12L**	**XXRK1A3KAM12** (0,61m) **XXRK1A4KAM12** (1m)
	Receiver (NC/PNP + NC/NPN)	**XXR12A8KBM8**	**XXR18A3KBM12** (0.61 m) **XXR18A4KBM12** (1 m)	**XXRF1A8KBM12L**	**XXRK1A3KBM12** (0,61m) **XXRK1A4KBM12** (1m)
	Transmitter	**XXT12A8M8**	**XXT18A3M12** (0.61 m) **XXT18A4M12** (1 m)	**XXTF1A8M12L**	**XXTK1A3M12** (0,61m) **XXTK1A4M12** (1m)
Temperature range (°C)		0…+60		-20…+65	
Switching capacity, max. (mA)		<100			
LED output state indicator (⊗) / Power on LED (⊗)		⊗ / ⊗	– / –	⊗ / ⊗	⊗ / –
Switching frequency (Hz)		125	40	125	





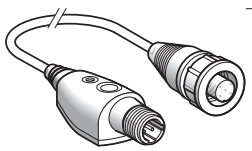

	Combined multi-fixing	Flat 80 x 80	M30			M30 Long range
	50 cm	1 m	1 m		2 m	8 m
	5.1…50.8 cm	0.1…1 m		0.05...0.99 m	0.12...2 m	0.3...8 m
	Adjustable using remote control		Adjustable using teach mode			
	-20…+65	0...+70				-20…+60
				IP 65		
	M 18 / 18 x 33 x 60	80 x 80 x 34	M30 x 78	M30 x 85		M30 x 106
	XX7V1A1PAM12	**XX8D1A1PAM12**	**XX6V3A1PAM12**	–	–	–
	XX7V1A1NAM12	**XX8D1A1NAM12**	**XX6V3A1NAM12**	–	–	–
			–	**XX630A1KAM12**	–	–
	–	–	–	**XX630A1PCM12**	**XX630A2PCM12**	**XX630A3PCM12**
	–	–	–	**XX630A1NCM12**	**XX630A2NCM12**	**XX630A3NCM12**
	XXV1A1PAM12	**XXBD1A1PAM12**	**XXBV3A1PAM12**	–	–	–
				XX230A10PA00M12 (7)	**XX230A20PA00M12** (7)	–
				XX230A11PA00M12 (7)	**XX230A21PA00M12** (7)	–
	40	70		10		2
				(7) 2 NO		
	XX9V1A1F1M12	**XX9D1A1F1M12**	**XX9V3A1F1M12**	**XX930A1A1M12**	**XX930A2A1M12**	**XX930A3A1M12**
	XX9V1A1C2M12	**XX9D1A1C2M12**	**XX9V3A1C2M12**	**XX930A1A2M12**	**XX930A2A2M12**	**XX930A3A2M12**

Accessories

Remote control

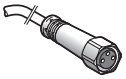
teach button for use with sensors XX●18A3●●●, XX●V1●●●, XX●V3●●● and XX●D1

XXZPB100



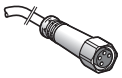
M8 and M12 pre-wired female connectors

M8 female 3-pin 3 wires, stainless steel clamping ring for XX512A2



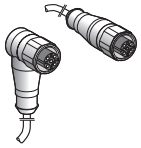
Straight connector
5 m cable **XZCPA0566L5**

M8 female 4-pin 4 wires, stainless steel clamping ring for XX512A1



Straight connector
5 m cable **XZCPA0941L5**

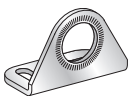
M12 female 5-pin 4 wires, stainless steel clamping ring



Straight connector
5 m cable **XZCPA1141L5**

Elbowed connector
5 m cable **XZCPA1241L5**

Fixing brackets

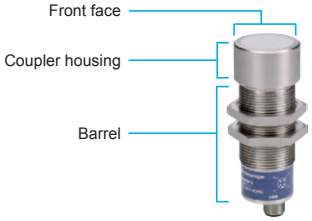


for sensor

Ø12	**XSZBS12**
Ø18	**XUZA118**
Ø30	**XSZBS30**

OsiSense XX

Ultrasonic sensors
Detection of any material
Cylindrical, stainless steel



100 % stainless steel

Sensor type			M30 silicone front face	M30 stainless steel front face
Nominal sensing distance Sn			**1 m**	
Operating zone			120..1000 mm adjustable using teach button	
Product certification with CE				
Supply voltage limits, min./max. (V) including ripple			10..28 V DC	
Degree of protection			IP 67	
Temperature range (°C)			0…+60	-20…+60
Connection type			M12 4-pin	
Dimensions (mm) Ø x L			M30 x 85	M30 x 96
Materials : Barrel / Coupler housing / Front face			303 / 303 / Silicone	303 / 304 / 304
Switching capacity, max. (mA)			100	
LED output state indicator (⊗)			⊗	
Short-circuit protection (★)			★	
Switching frequency (Hz)			10	

Proximity mode with “Discrete” output for DC applications (24 V)

4-wire	PNP/NPN	NO	–	**XX630T1KA000M12**
	PNP	NO/NC	**XX630S1PCM12**	–
	NPN	NO/NC	**XX630S1NCM12**	–

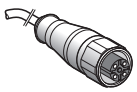
Proximity mode with “Analogue” output for DC applications (24 V)

4-wire	Analogue	0..10 V output	**XX930S1A1M12**	–
		4..20 mA output	**XX930S1A2M12**	**XX930T1A4303M12**

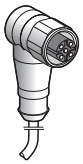
Accessories

M12 pre-wired connectors

IP69K, female, 5-pin, 4 wires, stainless steel clamping ring



Straight	
2 m	**XZCPA1141L2**
5 m	**XZCPA1141L5**
10 m	**XZCPA1141L10**



Elbowed	
2 m	**XZCPA1241L2**
5 m	**XZCPA1241L5**
10 m	**XZCPA1241L10**

OsiSense XCC

Opto-electronic rotary encoders
Hygienic design, stainless steel 316L



Type			Incremental Ø 58	Absolute single turn	Absolute multiturn
Shaft Ø (mm)			**Ø 10**		
Type of shaft			Solid shaft		
Maximum rotational speed (rpm)			3000		3000
Maximum frequency (kHz)			300	100 (100 to 1000 SSI)	100 (100 to 500 SSI)
Maximum load radial/axial (daN)			25 / 50		25 / 25
Torque (N.cm)			0.4		
Product certification			CE		
Temperature range (°C)			- 30…+ 100	- 20…+ 90	- 20…+ 85
Degree of protection (conforming to IEC 60529)			IP 69K		
Supply voltage	Push-pull		5…30 V	11…30 V	
Connection			Pre-cabled (2 m), axial		
Resolution (Points)	Output stage				
360	Push-pull		**XCC1510SPA03Y**	–	–
1024	Push-pull		**XCC1501SPA11Y**	–	–
5 000	Push-pull		**XCC1510SPA50Y**	–	–
8192	Push-pull	Gray	–	**XCC2510SPA81KG**	–
	SSI, 13 bits	Gray	–	**XCC2510SPA81SGN**	–
4096 points / 8192 turns	SSI, 25 bits	Gray	–	–	**XCC3510SPA48SGN**

Accessories

Shaft coupling

With spring

Bore diameter (encoder side)	Bore diameter (machine side)	Reference
10 mm	10 mm	**XCCRAR1010S**
10 mm	12 mm	**XCCRAR1012S**
10 mm	0.375"	**XCCRAR10037S**

Presentation

OsiSense XG is open to the majority of ISO 18000-3, ISO 15693 and ISO 14443 electronic tags.
OsiSense XG integrates Modbus RTU, Uni-Telway, Modbus TCP/IP (using Ethernet box XGSZ33ETH) and Profibus DP (with box XGSZ33PDP) protocols.
The OsiSense XG RFID offer comprises:
- 2 models of 13.56 MHz smart antenna (read/write)
- 11 models of 13.56 MHz electronic tags
- 1 portable RFID diagnostics terminal
- 3 models of network connection boxes plus connection and mounting accessories.

Setting-up

OsiSense XG smart antenna are simple to set-up:
- Integrated RFID and network functions
- No programming
- Automatic detection of the RFID electronic tags (read or write)
- Automatic setting of the communication parameters (speed, format, parity, protocol, etc.)
- Configuration of the network address (1 to 15) using badge included with the smart antenna
- Low sensitivity to metal environments.

Installation

OsiSense XG smart antenna easily integrate in flexible manufacturing production lines:
- quick connection using M12 connector
- screw fixing or clip-on mounting.

Smart antenna, 13.56 MHz		Flat form 40	Flat form 80
Dimensions (mm), W x H x D		40 x 40 x 15	80 x 80 x 26
Nominal sensing distance depending on tag (mm)		18 to 70	20 to 100
Type of associated tag		ISO 15693 and ISO 14443 standard tags. Automatic detection of the type of tag.	
Display		1 dual colour LED for the communication network, 1 dual colour LED for the RFID communication	
Conformity to standards		CE, EN 301489-1, EN 301489-3, ETS 300330-1 and ETS 300330-2, FCC part 15 - UL	
Degree of protection conforming to IEC 60529		IP 67	
Serial link	Type	RS 485	
	Protocol	Modbus and Uni-Telway	
	Speed (Bauds)	9600…115 200 (automatic detection)	
Ambient air temperature (°C)		For operation: - 25…+ 70 °C, for storage: - 40…+ 85 °C	
Nominal supply voltage		24 VDC PELV (Protective Extra Low Voltage)	
Connection		M12, 5-pin male, shielded connector on flying lead. Only for connection to the communication network and the supply	
References		**XGCS4901201**	**XGCS8901201**

Electronic tags		Flat form 40	High temperature Disc (3)	ISO badge (1)	Disc	Flat form 26	Cylindrical
Dimensions (mm), W x H x D		40 x 40 x 15	40 x 11	54 x 85.5 x 0.8	Ø 30 x 3	26 x 26 x 13	M18 x 1 x 12
Type of memory		EEPROM					
Memory capacity (bytes)		3 408	256	256	112	256	256
Nominal sensing distance (mm)	With station XGCS49●	33	40	70	48	40	18
(Read/Write)	With station XGCS89●	48	63	100	65	55	20
Time (ms)	Read	9.25 + 0.375 x n (2)	12 + 0.825 x n (2)	12 + 0.825 x n (2)			
	Write	13 + 0.8 x n (2)	20 + 11.8 x n (2)	20 + 11.8 x n (2)	12 + 5.6 x n (2)	20 + 11.8 x n (2)	19 + 4.1 x n (2)
Degree of protection conforming to IEC 60529		IP 68		IP 65		IP 68	
Standard supported		ISO 14443	ISO 15693	ISO 15693			
Mounting on metal support		Yes		No		Yes	No
References		**XGHB444345**	**XGHB411346**	**XGHB90E340**	**XGHB320345**	**XGHB221346**	**XGHB211345**

(1) Customised versions on request. (2) n = number of 16-bit words. (3) For operation - 25…+ 90 °C, for storage - 25…+ 120 °C (+ 160 °C for 50 hours, + 220 °C max. peak).

Other versions: **please consult our Customer Care Centre.**

Connection boxes	Ethernet Modbus TCP/IP box	Profibus box	EtherNet/IP box
Dimensions (mm), W x H x D	130 x 80 x 51		130 x 80 x 51
Protocols	Modbus TCP/IP	Profibus DP	EtherNet/IP
Supply voltage	24 VDC PELV. M12, 4-pin male, A coding, connector		
Conformity to standards	CE - UL	CE	CE
Station connection	M12, 5-pin female, A coding, connector		
Degree of protection conforming to IEC 60529	IP 65		
References	**XGSZ33ETH**	**XGSZ33PDP**	**XGSZ33EIP**

Terminal		Portable 13.56 MHz RFID diagnostics terminal
Dimensions (mm), W x H x P		78 x 153 x 27
Function		Read/Write operations on electronic tags
Operating system		Proprietary OS
Conformity to standards		CE, FCC class A, Part 15
Display		53 x 95 mm colour OLED touchscreen 272 x 480 pixels resolution
Degree of protection conforming to IEC 60529		IP 40
Memory	RAM	256 Mb
	Storage	internal 2 GB + USB socket for memory stick
Reference		**XGST2422** (battery, battery charger, 2 GB USB memory stick, and carrying case included with terminal). RFID reader to be ordered separately: **XGCS4901201** (integrated reader) or **XGW4F111** (remote reader)

Connection accessories	for Modbus network			for Ethernet	Pre-wired connector	"T" connector
Description	Modbus connecting cable M12 connectors Male / Female	Pre-wired connector M12 male / Bare wires	Modbus connecting cable M12 connectors Female / Mini-DIN 8	Ethernet connecting cable M12 male / RJ 45	Pre-wired supply connector M12 female	Network M12 "T" connector 1 male / 2 female
Application	RS485 connection between a smart antenna and a connection box or between 2 Modbus boxes	Connection between a Modbus box and a Modbus / Uni-Telway network	Connection between a Modbus box and a PLC	Connection between an Ethernet box and the Ethernet network	24 VDC supply to connection boxes	For chaining of smart antennas on RS485 network
L = 2 m	**TCSMCN1M1F2**	**TCSMCN1F2**	**TCSMCN1F9M2P**	**XGSZ12E4503** (3)	**XGSZ09L2**	**TCSCTN011M11F**
L = 5 m	**TCSMCN1M1F5**	**TCSMCN1F5**	**–**	**XGSZ12E4510** (4)	**XGSZ09L5**	

(3) L = 3 m (4) L=10 m

Field expander

To be associated with a smart antenna XGCS4901201 for conveying and handling applications

50 x 400 mm
XGFEC540

250 x 250 mm
XGFEC2525

RS232/RS485 converter

For connecting a PC to an OsiSense XG smart antenna.

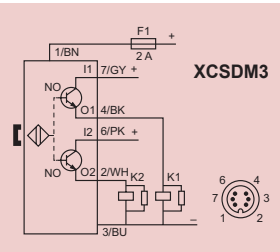
XGSZ24

Other versions: **please consult our Customer Care Centre.**

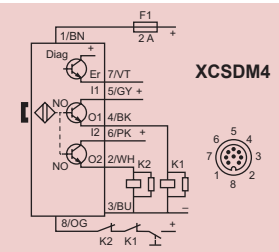
Coded magnetic technology

Plastic coded magnetic system

(1)



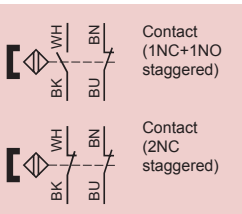
(1)



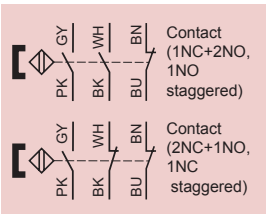
Type of system With integrated safety module			SIL2/Category 3 XCSDM3	SIL3/Category 4 XCSDM4
Maximum safety level			SIL 2 conforming to EN/IEC 61508,PL=d, category 3 conforming to EN/ISO 13849-1	SIL 3 conforming to EN/IEC 61508, PL=e, category 4 conforming to EN/ISO 13849-1
Switches for actuation			**Face to face, face to side, side to side**	
Degree of protection			Pre-cabled: IP66 / IP67, IP69K, connector: IP67	
Type of contact			2 solid-state output PNP/NO, 1,5 A / 24VDC (2 A up to 60°C)	
Rated operational characteristics (conforming to EN IEC 60947-5-1)			Ub: 24 VDC +10% - 20%	
Dimensions (mm) W x D x H			34 x 27 x 100	
Operating zone			Sao= 10 mm / Sar= 20 mm	
Reliability data			MTTFd = 182 years; PFH = 3.94E -9; PFD = 1.15E -5; SFF = 92.5%; HFT = 1	
References	Connection	for cable L= 2m	**XCSDM379102**	**XCSDM480102**
		for cable L= 5m	**XCSDM379105**	**XCSDM480105**
		for cable L= 10m	**XCSDM379110**	**XCSDM480110**
		for connector M12	**XCSDM3791M12**	**XCSDM4801M12**

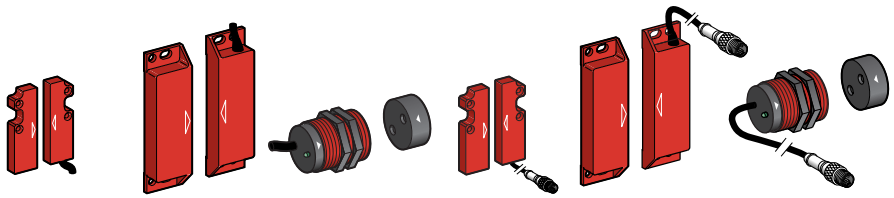
Plastic coded magnetic

(1)



(1)





Rectangular Without LED (2) | Rectangular Without LED (2) | Cylindrical Without LED (2) | Rectangular Without LED (2) | Rectangular Without LED (2) | Cylindrical Without LED (2)

Plastic switches		Type XCSDM coded magnetic Pre-cabled, L = 2 m			Connector on flying lead, L = 15 cm (3)		
Maximum safety level (5)		PL=e, category 4 conforming to EN/ISO 13849-1 and SIL 3 conforming to EN/IEC 61508					
Switches for actuation		**Face to face, face to side, side to side**		**Face to face**	**Face to face, face to side, side to side**		**Face to face**
Degree of protection		IP 66 + IP 67					
Type of contact		REED					
Rated operational characteristics (conforming to EN/IEC 60947-5-1)		Ue = 24 VDC, Ie = 100 mA					
Dimensions (mm) W x D x H		16 x 7 x 51	25 x 13 x 88	M30 x 38.5	16 x 7 x 51	25 x 13 x 88	M30 x 38.5 mm
Operating zone (4)	**Sao**	5	8		5	8	
	Sar	15	20		15	20	
Reliability data B10d		50 000 000 (value given for a service life of 20 years, limited by mechanical or contact wear)					
Switch with coded magnet	1NC+1NO staggered	**XCSDMC5902**	**XCSDMP5902**	**XCSDMR5902**	**XCSDMC590L01M8**	**XCSDMP590L01M12**	**XCSDMR590L01M12**
	2NC staggered	**XCSDMC7902**	**XCSDMP7902**	**XCSDMR7902**	**XCSDMC790L01M8**	**XCSDMP790L01M12**	**XCSDMR790L01M12**
	1NC+2NO, 1NO staggered	–	**XCSDMP5002**	–	–	**XCSDMP500L01M12**	–
	2NC+1NO, 1NC staggered	–	**XCSDMP7002**	–	–	**XCSDMP700L01M12**	–

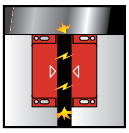
(1) Illustration of contacts with the magnet in front of the switch.
(2) For version with LED indicator, replace the last 0 in the reference by 1 (example: XCSDMC5902 becomes XCSDMC5912).
(3) For associated pre-wired female connectors, see page 17.
(4) Sao: assured operating distance. Sar: assured release distance.
(5) Using an appropriate and correctly connected control system

Telemecanique Sensors

Other versions: **please consult our Customer Care Centre.**

Coded magnetic technology

Safety modules

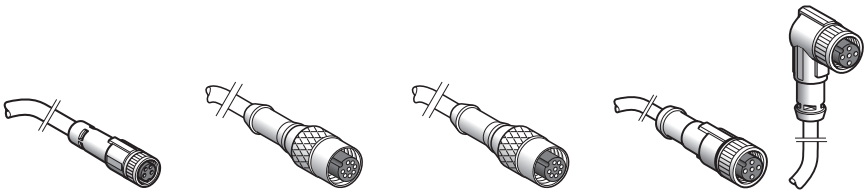


Safety modules for monitoring 1 safety function

Maximum safety level of the solution attained (EN ISO 13849-1, EN/IEC 62061)			PL e / Cat. 4, SILCL 3		
For monitoring			2 coded magnetic switches maximum (with 1 N/C + 1 N/O)	6 coded magnetic switches maximum (with 1 N/C + 1 N/O)	1 coded magnetic switch maximum (with 2 N/C)
Number of circuits		**Safety**	**2 N/O**	**2 N/O**	3 N/O
		Additional	2 solid-state	2 solid-state	–
Display (number of LEDs)			3	15	3
Width of housing			22.5 mm	45 mm	22.5 mm
Reference	Supply voltage	24 VDC	**XPSDMB1132P** (1)	**XPSDME1132P** (1)	**XPSAF5130P** (1)

(1) For version with non removable terminal block, delete the letter **P** from the end of the reference (example: XPSDMB1132P becomes XPSDMB1132)

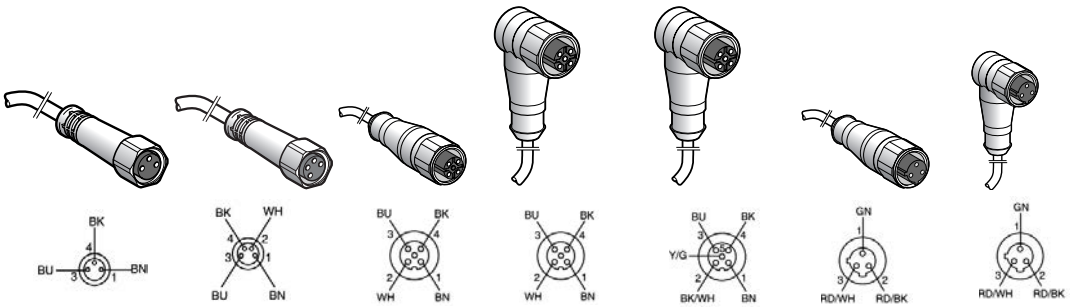
Cabling accessories



Type of accessory			Pre-wired connectors			
Connector type			Female M8	Female M12	Female M12 (A coding)	Female M12
Number of pins			4	8	8	4
For use with			XCSDMC●●●L	XCSDMP50●L01M12 XCSDMP70●L01M12	XCSDM3●●●M12 XCSDM4●●●M12	XCSDMP59●L01M12 XCSDMP79●L01M12 XCSDMR59●L01M12 XCSDMR79●L01M12
Type	**Straight**	2 m	**XZ CP0941L2**	**XZCP29P11L2**	**XZCP29P12L2**	**XZCP1141L2**
		5 m	**XZCP0941L5**	**XZCP29P11L5**	**XZCP29P12L5**	**XZCP1141L5**
		10 m	**XZCP0941L10**	**XZCP29P11L10**	**XZCP29P12L10**	**XZCP1141L10**
	Elbowed	2 m	**XZCP1041L2**	–	–	**XZCP1241L2**
		5 m	**XZCP1041L5**	–	–	**XZCP1241L5**
		10 m	**XZCP1041L10**	–	–	**XZCP1241L10**

PVC Cables, IP 69K

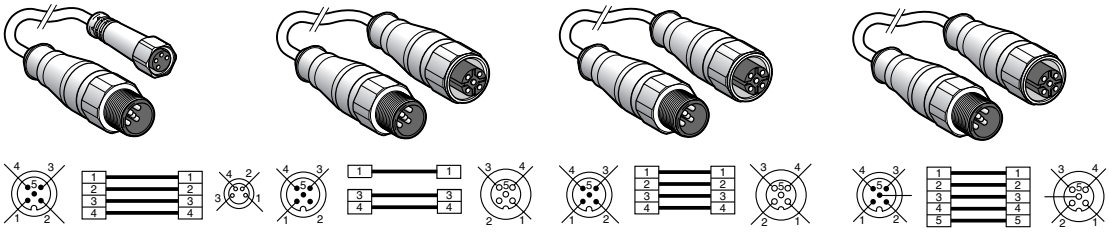
Pre-wired connectors M8, M12 and 1/2” - 20UNF



Pre-wired connectors								
Connector type		Female, M8, straight	Female, M8, straight	Female, M12, straight	Female, M12, elbowed	Female, M12, elbowed	Female, 1/2” 20UNF, straight	Female, 1/2” 20UNF, elbowed
Number of pins		3	4	5	5	5	3	3
Number of wires		3	4	4	4	5	3	3
Connection type		Screw threaded, smooth, hexagonal, stainless steel 316L clamping ring (1)						
Degree of protection (conforming to IEC 60529)		IP 68		IP 69K				
Ambient air temperature	Static cable usage	- 25…+ 85 °C						
PVC cable, stainless steel ring	L = 2 m	–	–	**XZCPA1141L2**	**XZCPA1241L2**	**XZCPA1164L2**	–	–
	L = 5 m	**XZCPA0566L5**	**XZCPA0941L5**	**XZCPA1141L5**	**XZCPA1241L5**	**XZCPA1164L5**	**XZCPA1865L5**	**XZCPA1965L5**
	L = 10 m	**XZCPA0566L10**	**XZCPA0941L10**	**XZCPA1141L10**	**XZCPA1241L10**	**XZCPA1164L10**	**XZCPA1865L10**	**XZCPA1965L10**

(1) Tightening by hand recommended.

Jumper cables



Jumper cables					
Connector type	Female	M8, 4 pin, straight	M12, 5 pin, straight	M12, 5 pin, straight	M12, 5 pin, straight
	Male	M12, 5 pin, straight	M12, 5 pin, straight	M12, 5 pin, straight	M12, 5 pin, straight
Number of wires		4	3	4	5
Connection type		Screw threaded, smooth, hexagonal, stainless steel 316L clamping ring (1)			
Degree of protection (conforming to IEC 60529)		IP 69K			
Ambient air temperature	Static cable usage	- 25…+ 85 °C			
PVC cable, stainless steel ring	L = 2 m	**XZCRA150941J2**	**XZCRA151140A2**	**XZCRA151141C2**	**XZCRA151164D2**
	L = 5 m	**XZCRA150941J5**	**XZCRA151140A5**	**XZCRA151141C5**	**XZCRA151164D5**

(1) Tightening by hand recommended.

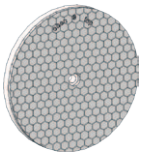
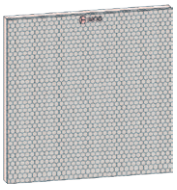
Telemecanique Sensors

Other versions: **please consult our Customer Care Centre.**

Reflectors

Compatibility with photo-electric sensors

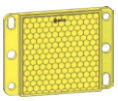


Rigid reflectors					
Dimensions (mm)	**50x70**	**50x70**	**40x60**	**Ø84**	**100X100**
Fixing mode	6 holes		2 holes	one hole	2 brackets
Chemical resistance	No				
High precision	No	Yes	No		
Degree of protection (conforming to IEC 60529)	IP 67 / IP 69K				
Operating temperature	-20 °C to +60 °C				
References	**XUZC50**	**XUZC50HP**	**XUZC60S11**	**XUZC80**	**XUZC100**
Compatibility and effect on sensing range					
Cylindrical M18 Food & Beverage processing	100%	–	80%	130%	135%
Cylindrical M18 Transparent material	–	100%	–	–	–
Compact XUK stainless steel	100%	–	80%	150%	180%
Compact XUK Laser beam	–	–	–	–	–

ECOLAB®



Rigid reflectors				
Dimensions (mm)	**20x32**	**18x60**	**19x60**	**50x70**
Fixing mode	2 holes			6 holes
Chemical resistance	yes			
High precision	yes	no	yes	no
Degree of protection (conforming to IEC 60529)	IP 67 / IP 69K			
Operating temperature	-20 °C to +140 °C			
References	**XUZCR0201CRHP**	**XUZCR0402CR**	**XUZCR0401CRHP**	**XUZC50CR**
Compatibility and effect on sensing range				
Cylindrical M18 Food & Beverage processing	–	30%	–	50%
Cylindrical M18 Transparent material	20%	–	25%	–
Compact XUK stainless steel	–	30%	–	50%
Compact XUK Laser beam	10%	–	15%	–

ECOLAB Certification

Example from XUKS

Ecolab is a well established industrial standard within industries where chemical and cleaning products are frequently used.

The ECOLAB certificate guarantees the resistance of the sensors for the food and beverage processing industry.

This certificate is based on:

- documented test procedures (test no.: F&E/P3-E Nr. 40-1) according to material resistance
- defined product descriptions
- standardized cleaning procedure

Test procedure
Ecolab-test F&E Nr. 40-1

Dipping test:
- Complete immersion in solutions/liquid

Test period:
- 28 days

Temperature:
- room temperature (constant)

Analysis:
- Visual judgement like swelling, brittleness, discoloring
- compared to zero-reference factor (demineralized water)
- Photo documentation
- Based on Analysis no.51-08

Product specifications:

P3-topactive DES
Acid disinfectant based on peracetic acid/hydrogen peroxide for the food and beverage industry
P3-topax 19
Alkaline, chlorine-free foam cleaner for the food and beverage industry
P3-topax 56:
Acid foam cleaning substance for the food and beverage industry
P3-topax 91:
Neural disinfectant based on Quaternary Ammonium Compounds (QAC) for the food industry

Cleaning plan for food and beverage industry*

Rinsing with water 40 – 50°C
Rinsing with low pressure. Rinsing from top to bottom in the direction of the drains. Cleaning of the drains.

Foaming from bottom to top

alkaline:	P3-topax 19	2 – 5 %	daily
acid:	P3-topax 56	2 %	on demand
temperature:	cold up to 40°C		
contact time:	15 min. recommended		

Rinsing with water 40 – 50°C
Rinsing from top to bottom with low pressure

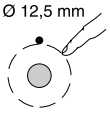
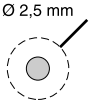
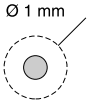
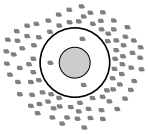
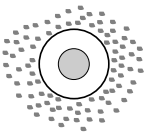
Spray disinfection: P3-topax 91 1-2 %; 30-60 min
Foam disinfection : P3-topactive DES 1-3 %, 10-30 min

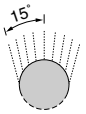
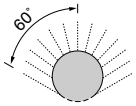
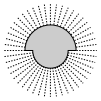
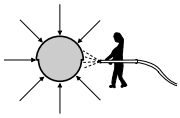
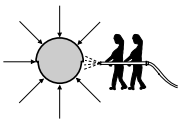
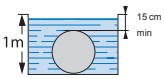
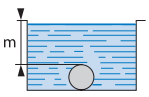
*short description

IP ●●● code

The IP code comprises **2 characteristic numerals** (e.g. **IP55**) and may include **an additional letter** when the actual protection of personnel against direct contact with live parts is better than that indicated by the first numeral (e.g. IP 20C).
Any characteristic numeral which is unspecified is replaced by an X (e.g. IP XXB).

1st characteristic numeral:	2nd characteristic numeral:	Additional letter:
corresponds to protection of the equipment against penetration of solid objects and protection of personnel against direct contact with live parts.	corresponds to protection of the equipment against penetration of water with harmful effects.	corresponds to protection of personnel against direct contact with live parts.

	Protection of the equipment		Protection of personnel
0	Non-protected		Non-protected
1	Ø 50 mm 	Protected against the penetration of solid objects having a diameter greater than or equal to 50 mm	Protected against direct contact with the back of the hand (accidental contacts).
2	Ø 12,5 mm 	Protected against the penetration of solid objects having a diameter greater than or equal to 12.5 mm.	Protected against direct finger contact.
3	Ø 2,5 mm 	Protected against the penetration of solid objects having a diameter greater than or equal to 2.5 mm.	Protected against direct contact with a Ø 2.5 mm tool.
4	Ø 1 mm 	Protected against the penetration of solid objects having a diameter > 1 mm.	Protected against direct contact with a Ø 1 mm wire.
5		Dust protected (no harmful deposits).	Protected against direct contact with a Ø 1 mm wire.
6		Dust tight.	Protected against direct contact with a Ø 1 mm wire.

0	Non-protected	
1		Protected against vertical dripping water, (condensation).
2		Protected against dripping water at an angle of up to 15°.
3		Protected against rain at an angle of up to 60°.
4		Protected against splashing water in all directions.
5		Protected against water jets in all directions.
6		Protected against powerful jets of water and waves.
7		Protected against the effects of temporary immersion.
8		Protected against the effects of prolonged immersion under specified conditions.

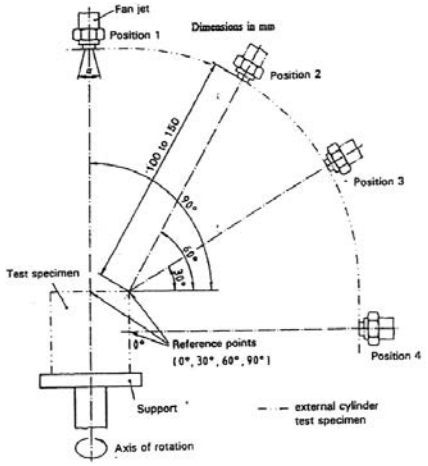
A	With the back of the hand.
B	With the finger.
C	With a Ø 2.5 mm tool.
D	With a Ø 1 mm wire.

Test IP 69K

IP 69 K

Conforming to DIN40050, part 9: protected against water during high pressure/steam cleaning.

+ High temperature (+ 80 ºC)
+ High pressure (100 bar).
+ Test duration (3 minutes)



The high pressure water test is made according to Standard(s):
DIN 40050-9 (1993);
IEC 60529 Ed. 2.1 (2001);
IEC 60947-1 Ed. 5 (2007);
IEC 60947-5-2 Ed. 3 (2007).

Flash this code and discover the IP69K test for XUKS

Schneider Electric Industries SAS

Head Office
35, rue Joseph Monier - CS 30323
F92500 Rueil-Malmaison Cedex
France

www.tesensors.com

Design : IGS-CP
Photos : Schneider Electric
Print :

DIA4ED2130706EN

V1.0