The essential guide of Detection

helping you easily select the right product

2010

Schneider Electric

A complete offer for resolving your most commonly encountered detection problems:
- product selection simplified
- product availability simplified
- installation and setting-up simplified
- maintenance simplified
- detection simplified using a single supplier.

Improved simplicity for improved productivity.

OsiSense

It's the schneider Electric range name of all the detection products.
Select the sensor according to your specific requirements, in a selection of selling products.

Detection

WARNING
This document is a selection of the top selling products.

Limit switches ..... 2 to 11

Detection by contact of rigid objects

Object speed ≤ 1.5 m/s, **OsiSense XC**

Sensors for pressure control ..... 12 to 17

Detection by contact with fluid

Electronic or electromechanical pressure and vacuum switches, pressure sensors -1…600 bars, **OsiSense XM**

Inductive proximity sensors ..... 18 to 28

Detection without contact of metal objects

Sensor / object distance ≤ 60 mm, **OsiSense XS**

Capacitive proximity sensors 29

Detection without contact of insulating materials or conductive materials

Sensor / object distance ≤ 20 mm, **OsiSense XT**

Photo-electric sensors ..... 30 to 41

Detection without contact of any object

Detection from a few millimetres to several tens of metres, **OsiSense XU**

Ultrasonic sensors ..... 42 and 43

Detection without contact of any object of any material

Detection from a few millimetres up to 8 metres, **OsiSense XX**

Rotary encoders ..... 44 and 45

Opto-electronic detection

Incremental or absolute - single turn and multiturn, **OsiSense XCC**

Radio frequency identification ..... 46 and 47

13.56 MHz RFID detection

Complete range of RFID tags and compact stations, **OsiSense XG**

Safety switches 48

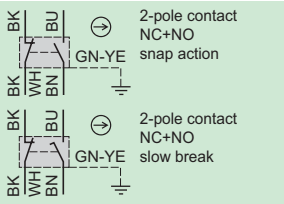
Preventa XCS

Limit switches

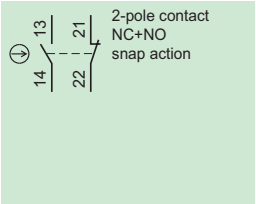
Compact and miniature, complete switches

(variable composition, see pages 34-35)

XCMD



XCKT



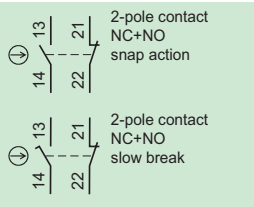
Miniature XCMD metal, pre-cabled; fixing by the body or by the head

Type of operator		Metal end plunger	Steel roller plunger	Thermoplastic roller lever	Steel roller lever	Variable length thermoplastic roller lever	M12 head metal end plunger
Mechanical durability (millions of operating cycles)		10	10	10	10	10	10
Actuation speed (in m/s)		0.5	0.5	1.5	1.5	1.5	0.5
Switches conforming to standard IEC 947-5-1 section 3		⊖	⊖	⊖	⊖	⊖	⊖
Product certification		CE - UL - CSA - CCC					
Degree of protection conforming to IEC 60529		IP 66 and IP 67					
Rated operational characteristics		AC-15; B300 (Ue = 240 V, Ie = 1.5 A) / DC-13; R300 (Ue = 250 V, Ie = 0.1 A)					
Fixing centres (mm)		20					M12 x 1
Body dimensions (mm) W x D x H		30 x 16 x 50					
Connection	Cable	Pre-cabled, adjustable direction, length = 1 m (other lengths available on request)					
Complete switch	2-pole NC+NO snap action	**XCMD2110L1**	**XCMD2102L1**	**XCMD2115L1**	**XCMD2116L1**	**XCMD2145L1**	**XCMD21F0L1**
	2-pole NC+NO break before make, slow break	**XCMD2510L1**	**XCMD2502L1**	**XCMD2515L1**	**XCMD2516L1**	**XCMD2545L1**	**XCMD25F0L1**
	Connector	M12					
Complete switch	NC+NO snap action (M12-5 pins)	**XCMD2110C12**	**XCMD2102C12**	**XCMD2115C12**	**XCMD2116C12**	**XCMD2145C12**	**XCMD21F0C12**
	1C/O snap action (M12-4 pins) (1)	**XCMD2110M12**	**XCMD2102M12**	**XCMD2115M12**	**XCMD2116M12**	**XCMD2145M12**	**XCMD21F0M12**

(1) Although their design is identical to the pre-cabled switches, the switches incorporating an M12 4-pin connector cannot be marked with the symbol because they are single-pole C/O.
⊖ Positive opening operation.

ISO entry (to EN 50262)

XCKP/XCKD



⊖ Positive opening operation.

Compact XCKD metal and XCKP plastic conforming to standard EN 50047

Type of operator		Metal end plunger	Steel roller plunger	Thermoplastic roller lever plunger, horizontal actuation in 1 direction	M18 head metal end plunger	M18 head steel roller plunger
Mechanical durability (millions of operating cycles)		15	10	15	10	10
Actuation speed (in m/s)		0.5	0.5	1	0.5	0.5
Switches conforming to standard IEC 947-5-1 section 3		⊖	⊖	⊖	⊖	⊖
Product certification		CE - CSA - CCC - GOST				
Degree of protection conforming to IEC 60529		IP 66 and IP 67				
Rated operational characteristics		AC-15; A300 (Ue = 240 V, Ie = 3 A) / DC-13; Q300 (Ue = 250 V, Ie = 0.27 A)				
Cable entry		1 tapped entry for ISO M16 x 1.5 cable gland (3) or M12 connector				
Fixing centres (mm)		20	20	20	M18 x 1	M18 x 1
Body dimensions (mm) W x D x H		31 x 30 x 65				
Metal switches						
Complete switch	2-pole NC+NO snap action	**XCKD2110P16**	**XCKD2102P16**	**XCKD2121P16**	**XCKD21H0P16**	**XCKD21H2P16**
	2-pole NC+NO break before make, slow break	**XCKD2510P16**	**XCKD2502P16**	**XCKD2521P16**	**XCKD25H0P16**	**XCKD25H2P16**
	2-pole NC+NO snap action (M12-5 pins)	**XCKD2110M12**	**XCKD2102M12**	**XCKD2121M12**	**XCKD21H0M12**	**XCKD21H2M12**
Plastic, double insulated switches						
Complete switch	2-pole NC+NO snap action	**XCKP2110P16**	**XCKP2102P16**	**XCKP2121P16**	**XCKP21H0P16**	**XCKP21H2P16**
	2-pole NC+NO break before make, slow break	**XCKP2510P16**	**XCKP2502P16**	**XCKP2521P16**	**XCKP25H0P16**	**XCKP25H2P16**
	2-pole NC+NO snap action (M12-4 pins)	**XCKP2110M12**	**XCKP2102M12**	**XCKP2121M12**	**XCKP21H0M12**	**XCKP21H2M12**

(3) For Pg 11 cable entries, replace P16 by G11. Example: XCKD2110**P16** becomes XCKD2110**G11**.
For other cable entries, see customised assembly on page 1/34.

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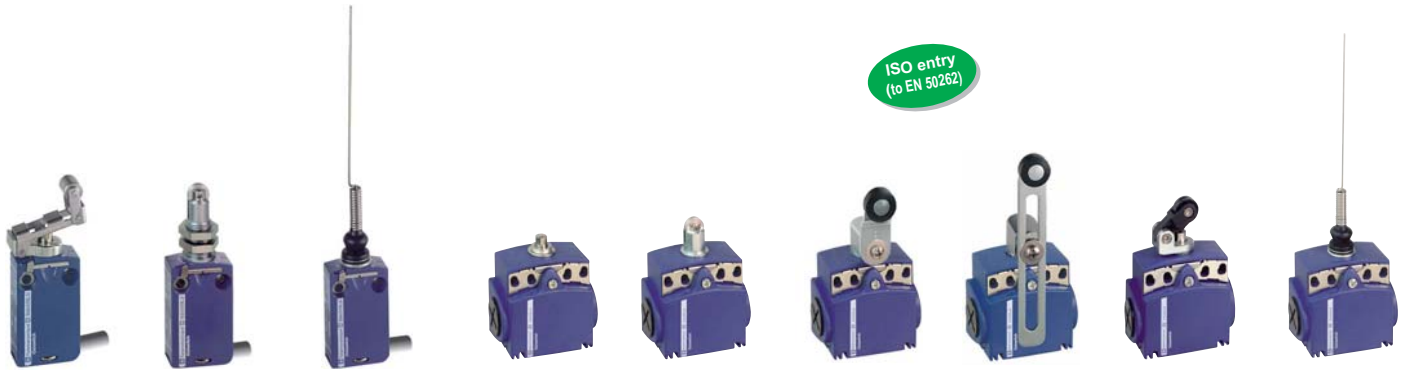


Compact XCKT plastic, 2 cable entries

Retractable steel roller lever plunger	M12 head steel roller plunger	"Cat's whisker"	Metal end plunger	Steel roller plunger	Thermoplastic roller lever	Thermoplastic roller lever plunger, horizontal actuation	"Cat's whisker"	"Cat's whisker"
10	10	5	15	10	10	15	5	5
0,5	0.1	1	0.5	0.5	1.5	1	1	1
⊖	⊖	–	⊖	⊖	⊖	⊖	–	–
			CE - CSA - CCC - GOST					
			IP 66 and IP 67					
			AC-15; A300 (Ue = 240 V, Ie = 3 A) / DC-13; Q300 (Ue = 250 V, Ie = 0.27 A)					
20	M12 x 1	20	20 or 40					
			58 x 30 x 51					
			2 tapped entries for ISO M16 x 1.5 cable gland (2)					
XCMD2124L1	**XCMD21F2L1**	**XCMD2106L1**	**XCKT2110P16**	**XCKT2102P16**	**XCKT2118P16**	**XCKT2145P16**	**XCKT2121P16**	**XCKT2106P16**
XCMD2524L1	**XCMD25F2L1**	**XCMD2506L1**	–	–	–	–	–	–
XCMD2124C12	**XCMD21F2C12**	**XCMD2106C12**	–	–	–	–	–	–
XCMD2124M12	**XCMD21F2M12**	**XCMD2106M12**	–	–	–	–	–	–

(2) For Pg 11 cable entries, replace P16 by G11. Example: XCKT2110**P16** becomes XCKT2110**G11**.

Application - XCPR and XCDR with manual reset

Thermoplastic roller lever	Variable length Thermoplastic roller lever	Thermoplastic roller lever Ø 50 mm	"Cat's whisker"	Metal end plunger	Steel roller plunger	Thermoplastic roller lever plunger, horizontal actuation in 1 direction	Thermoplastic roller lever plunger, vertical actuation in 1 direction	Thermoplastic roller lever
10	10	10	5	1	1	1	1	1
1.5	1.5	1.5	1	0.5	0.5	1	1	1.5
⊖	⊖	⊖	–	⊖	⊖	⊖	⊖	⊖
				CE - CSA - CCC - GOST				
				IP 66 and IP 67				
				AC-15; A300 (Ue = 240 V, Ie = 3 A) / DC-13; Q300 (Ue = 250 V, Ie = 0.27 A)				
				1 tapped entry for ISO M20 x 1.5 cable gland (4)				
20	20	20	20	20	20	20	20	20
				31 x 30 x 95				
XCKD2118P16	**XCKD2145P16**	**XCKD2139P16**	**XCKD2106P16**	**XCDR2110P20**	**XCDR2102P20**	**XCDR2121P20**	**XCDR2127P20**	**XCDR2118P20**
XCKD2518P16	**XCKD2545P16**	**XCKD2539P16**	**XCKD2506P16**	**XCDR2510P20**	**XCDR2502P20**	**XCDR2521P20**	**XCDR2527P20**	**XCDR2518P20**
XCKD2118M12	**XCKD2145M12**	**XCKD2139M12**	**XCKD2106M12**	–	–	–	–	–
XCKP2118P16	**XCKP2145P16**	**XCKP2139P16**	**XCKP2106P16**	**XCPR2110P20**	**XCPR2102P20**	**XCPR2121P20**	**XCPR2127P20**	**XCPR2118P20**
XCKP2518P16	**XCKP2545P16**	**XCKP2539P16**	**XCKP2506P16**	**XCPR2510P20**	**XCPR2502P20**	**XCPR2521P20**	**XCPR2527P20**	**XCPR2518P20**
XCKP2118M12	**XCKP2145M12**	**XCKP2139M12**	**XCKP2106M12**	–	–	–	–	–

(4) For Pg 13.5 cable entries, replace P20 by G13. Example: XCDR2110**P20** becomes XCDR2110**G13**.
For other cable entries, see customised assembly on page 1/34.

Heads - common to miniature and compact bodies

Metal plunger and multi-directional heads

Description	Metal end plunger	Metal end plunger with protective elastomer boot	Steel roller plunger	Retractable steel roller lever plunger	Thermoplastic roller lever plunger, horizontal actuation
Reference	⊖ **ZCE10**	⊖ **ZCE11**	⊖ **ZCE02**	⊖ **ZCE24** (2)	⊖ **ZCE21**

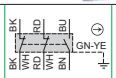
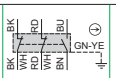
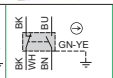
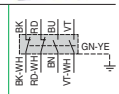
Metal rotary heads and levers

Description	Rotary head without lever, spring return, for actuation from LH or RH side	Thermoplastic roller lever, track: 24/31 mm (ZCMD) 29/36 mm (ZCD/P/T)	Steel roller lever, track: 24/31 mm (ZCMD) 29/36 mm (ZCD/P/T)	Thermoplastic roller lever, track: 16/39 mm (ZCMD) 21/44 mm (ZCD/P/T)	Steel roller lever, track: 16/39 mm (ZCMD) 21/44 mm (ZCD/P/T)
Reference	⊖ **ZCE01**	⊖ **ZCY15** (2)	⊖ **ZCY16** (2)	⊖ **ZCY25** (2)	⊖ **ZCY25** (2)

(1) Recommended for use with bodies: **ZCD... / ZCP... / ZCT...** (2) Recommended for use with bodies: **ZCMD...**

Bodies

Miniature

Type of contact								
	2-pole NO+NC Snap action	 3-pole NC+NC+NO Snap action	2-pole NC+NO Slow break	 3-pole NC+NC+NO Slow break	 2-pole NO+NC Snap action	2-pole NC+NO Snap action Connector 5 pin	1-pole 1C/O Snap action Connector 4 pin	 4-pole NC+NC+NO+NO Snap action
Reference of metal body	**ZCMD21**	**ZCMD39**	**ZCMD25**	**ZCMD37**	–	**ZCMD21C12**	**ZCMD21M12**	–
Cable L = 1 m	–	–	–	–	**ZCMD21L1** (3)	–	–	**ZCMD41L1**
L = 2 m	–	–	–	–	**ZCMD21L2** (3)	–	–	**ZCMD41L2**
L = 5 m	–	–	–	–	**ZCMD21L5** (3)	–	–	**ZCMD41L5**

(3) For contact 2-pole NC+NO slow break, replace 21 by 25. Example: ZCMD**21**L1 becomes ZCMD**25**L1

Connection of miniature bodies

Specific pre-cabled connection components	for ZCMD21	for ZCMD39	for ZCMD25	for ZCMD37	**Option:** pre-wired M12 connector, L = 2 m 5-pin	4-pin
L = 1 m	**ZCMC21L1**	**ZCMC39L1**	**ZCMC25L1**	**ZCMC37L1**		
L = 2 m	**ZCMC21L2**	**ZCMC39L2**	**ZCMC25L2**	**ZCMC37L2**		
L = 5 m	**ZCMC21L5**	**ZCMC39L5**	**ZCMC25L5**	**ZCMC37L5**	**XZCP1164L2**	**XZCP1141L2**

⊖ Positive opening operation.

Thermoplastic roller lever plunger, vertical actuation	M12 head metal end plunger	M18 head metal end plunger	M12 head steel roller plunger	M18 head steel roller plunger	Spring rod	Spring rod with plastic end	"Cat's whisker"
ZCE27	ZCEF0(2)	ZCEH0(1)	ZCEF2(2)	ZCEH2(1)	ZCE08	ZCE07	ZCE06

Thermoplastic roller lever, track: 20/36 mm (ZCMD) 24/40 mm (ZCD/P/T)	Steel roller lever, track: 20/36 mm (ZCMD) 24/40 mm (ZCD/P/T)	Ceramic roller lever	Variable length thermoplastic roller lever	Round, glass fibre rod lever Ø 3 mm L = 125 mm	Metal spring-rod lever	Thermoplastic roller lever Ø 50 mm	Adjustable thermo-plastic roller lever Ø 50 mm
ZCY18(1)	ZCY19(1)	ZCY22	ZCY45	ZCY55	ZCY91	ZCY39	ZCY49

Compact

Type of contact	2-pole NC+NO Snap action	3-pole NC+NC+NO Snap action	2-pole NC+NO Slow break	2-pole NC+NC Slow break	2-pole NO+NO Slow break	2-pole NC+NC Snap action	3-pole NC+NC+NO Slow break	2-pole NC+NO - Snap action Connector 5-pin	2-pole NC+NO - Snap action Connector 4-pin	2-pole NC+NO Snap action	2-pole NC+NO Slow break
Ref. metal body	**ZCD21**	**ZCD39**	**ZCD25**	**ZCD27**	**ZCD28**	**ZCD29**	**ZCD37**	**ZCD21M12**	–	–	–
Ref. plastic body	**ZCP21**	**ZCP39**	**ZCP25**	**ZCP27**	**ZCP28**	**ZCP29**	**ZCP37**	–	**ZCP21M12**	**ZCT21P16** (1)	**ZCT25P16** (1)

(1)

ZCT Pg 11 cable gland versions: replace the suffix P16 by G11.
Example:
ZCT21**P16** becomes ZCT21**G11**

ZCT 1/2" NPT versions: replace the suffix P16 by N12 (adaptor).
Example:
ZCT21**P16** becomes ZCT21**N12**

1 Cable entry 1/2" NPT
1 Cable entry Pg11

Connection of compact bodies

Interchangeable outlet for cable gland						
Description	For ISO M16 cable gland	For ISO M20 cable gland	For Pg 11 cable gland	For Pg 13.5 cable gland	For 1/2" NPT cable gland	For PF 1/2 (G12) cable gland
Metal	**ZCDEP16**	**ZCDEP20**	**ZCDEG11**	**ZCDEG13**	**ZCDEN12**	**ZCDEF12**
Plastic	**ZCPEP16**	**ZCPEP20**	**ZCPEG11**	**ZCPEG13**	**ZCPEN12**	**ZCPEF12**

Option: pre-wired M12 connector, L = 2 m

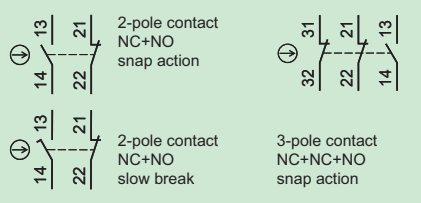
5-pin	4-pin
XZCP1164L2	**XZCP1141L2**

Limit switches

Classic - XCKM, XCKL, complete switches

ISO entry (to EN 50262)

XCKM



Type XCKM metal, 3 cable entries, XCKL metal, 1 cable entry

Type of operator		Metal end plunger	Steel roller plunger	Roller lever plunger, horizontal actuation in 1 direction	Thermoplastic roller lever	"Cat's whisker"
Mechanical durability (millions of operating cycles)		20	20	20	15	10
Actuation speed (in m/s)		0.5	0.5	1.5	1.5	0.5
Product certification		CE - UL - CSA - CCC - GOST - C-TICK - BV				
Degree of protection conforming to IEC 60529		IP 665				
Rated operational characteristics		AC-15; A300 (Ue = 240 V, Ie = 3 A) / DC-13; Q300 (Ue = 250 V, Ie = 0.27 A)				
Cable entry (1)	XCKM	3 tapped entries for ISO M20 x 1.5 cable gland (2 entries fitted with blanking plugs)				
	XCKL	1 cable entry with cable gland				
Fixing centres (mm)		41				
Body dimensions (mm) W x D x H	XCKM / XCKL	64 x 30 x 64 / 52 x 30 x 72				

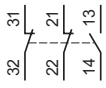
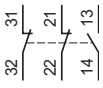
Complete switch	**XCKM**					
	2-pole NC+NO snap action	⊖ **XCKM110H29**	⊖ **XCKM102H29**	⊖ **XCKM121H29**	⊖ **XCKM115H29**	**XCKM106H29**
	2-pole NC+NO, break before make, slow break	⊖ **XCKM510H29**	⊖ **XCKM502H29**	⊖ **XCKM521H29**	⊖ **XCKM515H29**	–
Complete switch	**XCKL**					
	2-pole NC+NO snap action	⊖ **XCKL110**	⊖ **XCKL102**	⊖ **XCKL121**	⊖ **XCKL115**	**XCKL106**

(1) For Pg 13.5 cable entries delete the reference suffix H29. Example: XCKM110**H29** becomes XCKM110.
⊖ Positive opening operation.

Classic - XCKM, XCKL, Customised assembly - Body/contact sub-assemblies

Type XCKM metal, 3 cable entries

Type of contact

	2-pole NC+NO snap action	2-pole NC+NO slow break	 3-pole NC+NC+NO snap action	 3-pole NC+NC+NO slow break
Reference of body with contact block	⊖ **ZCKM1H29**	⊖ **ZCKM5H29**	⊖ **ZCKMD39H29**	⊖ **ZCKMD37H29**
XCKL reference of body with contact block (2)	⊖ **ZCKL1**	⊖ **ZCKL5**	–	–
Reference of contact block only	⊖ **XE2SP2151**	⊖ **XE2NP2151**	⊖ **XE3SP2141**	⊖ **XE3NP2141**

(2) For cable entry 1/2" NPT, add H7. Example: XCKL1 becomes XCKL1**H7**

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Other versions: **please consult your Schneider Electric agency.**

Operating heads, complete or for customer assembly

Complete switch

=

Body/contact assembly

+

Head

+

Lever

Rotary or multi-directional heads

	with thermoplastic roller lever (2)	with steel roller lever (2)	with variable length thermoplastic roller lever (2)	with Ø 6 mm thermoplastic rod L = 200 mm (3)	with thermoplastic roller lever (3) for actuation from left **AND** right or left **OR** right	with “Cat’s whisker”	with spring rod
Reference	ZCKD15	ZCKD16	ZCKD41	ZCKD59	ZCKD31	ZCKD06	ZCKD08

Plunger heads

	with metal end plunger	with metal end plunger and protective boot	with steel roller plunger	with steel roller plunger and protective boot	with thermoplastic roller lever plunger, horizontal actuation in 1 direction	with steel roller lever plunger, horizontal actuation in 1 direction
Reference	ZCKD10	ZCKD109	ZCKD02	ZCKD029	ZCKD21	ZCKD23

Rotary heads and separate levers

	spring return, for actuation from left **AND** right or left **OR** right	lever with thermoplastic roller (2)	lever with steel roller (2)	variable length lever with thermoplastic roller (2)	variable length lever with steel roller (2)	rod, Ø 6 mm thermoplastic L = 200 mm (3)
Reference	ZCKD05	ZCKY31	ZCKY33	ZCKY41	ZCKY43	ZCKY59

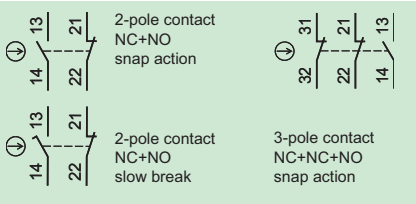
(2) Adjustable throughout 360° in 5° steps, or in 90° steps by reversing the notched washer.

(3) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever mounting.

Limit switches

Industrial - XCKJ, complete switches

XCKJ



Type XCKJ metal, fixed body, conforming to standard EN 50041

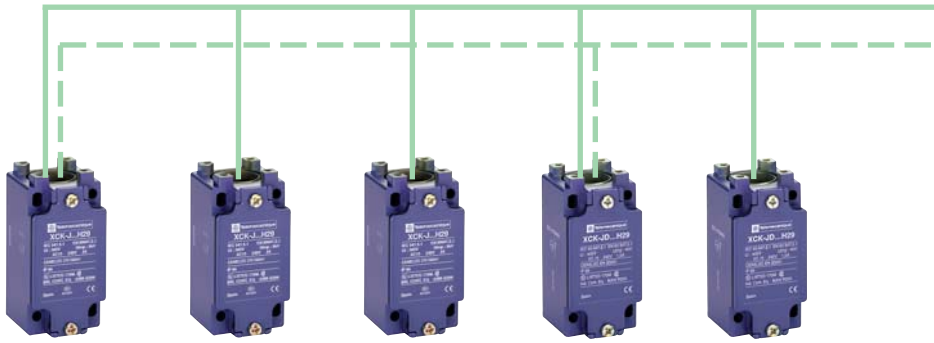
Type of operator	Metal end plunger	Steel roller plunger	Thermoplastic roller lever	Steel roller lever	Variable length thermoplastic roller lever	Polyamide Ø 6 mm rod lever L = 200 mm
Mechanical durability (millions of operating cycles)	30	25	30	30	30	30
Actuation speed (in m/s)	0.5	1	1.5	1,5	1.5	1.5
Product certification	CE - UL - CSA - CCC - GOST - C-TICK - BV					
Degree of protection conforming to IEC 60529	IP 667					
Rated operational characteristics	AC-15; A300 (Ue = 240 V, Ie = 3 A) / DC-13; Q300 (Ue = 250 V, Ie = 0.27 A)					
Cable entry (1)	1 tapped entry for ISO M20 x 1.5 cable gland					
Fixing centres (mm)	30 x 60					
Body dimensions (mm) W x D x H	40 x 44 x 77					

Complete switch	**M20**	N2-pole NC+NO snap action	⊖ **XCKJ161H29**	⊖ **XCKJ167H29**	⊖ **XCKJ10511H29**	⊖ **XCKJ10513H29**	**XCKJ10541H29**	**XCKJ10559H29**
		2-pole NC+NO break before make, slow break	⊖ **XCKJ561H29**	⊖ **XCKJ567H29**	⊖ **XCKJ50511H29**	⊖ **XCKJ50513H29**	**XCKJ50541H29**	**XCKJ50559H29**
	1/2" NPT	2-pole NC+NO snap action	⊖ **XCKJ161H7**	⊖ **XCKJ167H7**	⊖ **XCKJ10511H7**	⊖ **XCKJ10513H7**	**XCKJ10541H7**	**XCKJ10559H7**
	M12 5P	2-pole NC+NO snap action	⊖ **XCKJ161D**	⊖ **XCKJ167D**	⊖ **XCKJ10511D**	⊖ **XCKJ10513D**	**XCKJ10541D**	**XCKJ10559D**

(1) For Pg 13.5 cable entry delete the reference suffix H29. Example: XCKJ161**H29** becomes XCKJ161.

⊖ Positive opening operation.

Industrial - XCKJ, Customised assembly - Body/contact sub-assemblies



Type XCKJ metal, 1 cable entry

Type of contact		2-pole NC+NO snap action	2-pole NC+NO slow break	2 C/O snap action Simultaneous	3-pole NC+NC+NO snap action	3-pole NC+NC+NO slow break
Cable entry (1)		1 tapped entry for ISO M20 x 1.5 cable gland				
Reference of body with contact block	M20	⊖ **ZCKJ1H29**	⊖ **ZCKJ5H29**	**ZCKJ2H29**	⊖ **ZCKJD39H29**	⊖ **ZCKJD37H29**
	Pg13	⊖ **ZCKJ1**	⊖ **ZCKJ5**	**ZCKJ2**	–	–
	1/2" NPT	⊖ **ZCKJ1H7**	⊖ **ZCKJ5H7**	**ZCKJ2H7**	–	–
	M12 (5 pin)	⊖ **ZCKJ1D**	⊖ **ZCKJ5D**	–	–	–
Reference of contact block only		⊖ **XE2SP2151**	⊖ **XE2NP2151**	–	⊖ **XE3SP2141**	⊖ **XE3NP2141**

Schneider Electric

Other versions: **please consult your Schneider Electric agency.**

Operating heads, complete or for customer assembly

Complete switch

=

Body/contact assembly

+

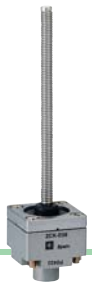
Head

+

Lever

Plunger or multi-directional heads

	with reinforced steel roller end plunger	with metal end plunger	with thermoplastic roller lever plunger, 1 direct. of actuation	with steel roller lever plunger, 1 direct. of actuation	with steel roller end plunger	with steel ball bearing end plunger	End steel roller plunger with protective boot
Référence	ZCKE67	ZCKE61	ZCKE21	ZCKE23	ZCKE62	ZCKE66	ZCKE629

	with metal side plunger	Side steel roller plunger, horizontal	Side steel roller plunger, vertical	with spring rod	with “Cat’s whisker”
					
Reference	ZCKE63	ZCKE64	ZCKE65	ZCKE08	ZCKE06

Separate rotary heads and levers

	spring return for actuation from left **AND** right or left **OR** right	lever with thermoplastic roller (2)	lever with steel roller (2)	variable length lever with thermoplastic roller (2)	variable length lever with steel roller (2)	rod, Ø 6 mm thermoplastic L = 200 mm (2)	square rod lever, steel, Ø 3 mm L = 125 mm (2)	round rod lever, steel, Ø 3 mm L = 125 mm (2)	spring lever with thermoplastic end (3)	spring-metal rod lever (3)
Reference	ZCKE05	ZCKY11	ZCKY13	ZCKY41	ZCKY43	ZCKY59	ZCKY51	ZCKY53	ZCKY81	ZCKY91

	stay put for actuation from left **AND** right	forked arm lever with thermoplastic rollers, 1 track (2)	forked arm lever with thermoplastic rollers, 2 track (2)
Reference	ZCKE09	ZCKY71	ZCKY61

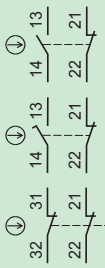
(2) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever mounting.
(3) Adjustable throughout 360° in 5° steps, or in 90° steps by reversing the notched washer.

OsiSense XC

Limit switches

Classic - XCKS, complete switches

XCKS

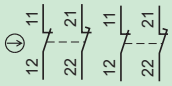


2-pole contact NC+NO snap action

2-pole contact NC+NO slow break

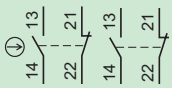
3-pole NC+NC+NO snap action

XCKMR



2 x 2-pole contacts NC+NC staggered, slow break

XCR



2 x 2-pole contacts, snap action

Type XCKS plastic, double insulated, conforming to standard EN 50041

Type of operator	Metal end plunger	Steel roller plunger	Thermoplastic roller lever	Variable length thermoplastic roller lever	Rubber roller lever Ø 50 mm	Polyamide Ø 6 mm rod lever L = 200 mm
Mechanical durability (millions of operating cycles)	25	15	20	20	20	20
Actuation speed (in m/s)	0.5	0.5	1.5	1.5	1	1
Product certification	CE - UL - CSA - CCC - GOST - C-TICK					
Degree of protection conforming to IEC 60529	IP 653					
Rated operational characteristics	AC-15; A300 (Ue = 240 V, Ie = 3 A) / DC-13; Q300 (Ue = 250 V, Ie = 0.27 A)					
Cable entry (1)	1 tapped entry for ISO M20 x 1.5 cable gland					
Fixing centres (mm)	30 x 60					
Body dimensions (mm) W x D x H	40 x 36 x 72.5					

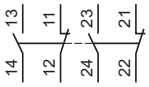
Complete switch	2-pole NC+NO snap action	⊖ **XCKS101H29**	⊖ **XCKS102H29**	⊖ **XCKS131H29**	**XCKS141H29**	**XCKS139H29**	**XCKS159H29**
	2-pole NC+NO break before make, slow break	⊖ **XCKS501H29**	⊖ **XCKS502H29**	⊖ **XCKS531H29**	**XCKS541H29**	**XCKS539H29**	**XCKS559H29**
Body	2-pole NC+NO snap action	⊖ **ZCKS1H29**	⊖ **ZCKS1H29**	⊖ **ZCKS1H29**	⊖ **ZCKS1H29**	⊖ **ZCKS1H29**	⊖ **ZCKS1H29**
	2-pole NC+NO break before make, slow break	⊖ **ZCKS5H29**	⊖ **ZCKS5H29**	⊖ **ZCKS5H29**	⊖ **ZCKS5H29**	⊖ **ZCKS5H29**	⊖ **ZCKS5H29**
	3-pole NC+NC+NO snap action	⊖ **ZCKSD39H29**	⊖ **ZCKSD39H29**	⊖ **ZCKSD39H29**	⊖ **ZCKSD39H29**	⊖ **ZCKSD39H29**	⊖ **ZCKSD39H29**
Associated head (including operator)		⊖ **ZCKD01**	⊖ **ZCKD02**	⊖ **ZCKD31**	**ZCKD41**	**ZCKD39**	**ZCKD59**
Operating lever for rotary head		–	–	⊖ **ZCKY31**	**ZCKY41**	**ZCKY39**	**ZCKY59**
Complete switch	with 2-pole snap action contacts						
	2 x NC+NO contacts actuated in each direction	–	–	–	–	–	–
	1 x NC+NO contact actuated in each direction	–	–	–	–	–	–
Complete switch	2 x single-pole C/O snap action contacts	–	–	–	–	–	–
	2 x 2-pole NC+NC staggered, slow break contacts	–	–	–	–	–	–

⊖ Positive opening operation.

(1) For Pg 13.5 cable entry delete the reference suffix H29. Example: XCKJ161**H29** becomes XCKJ161.

For severe applications - XC2J, Customised assembly - Body/contact sub-assemblies

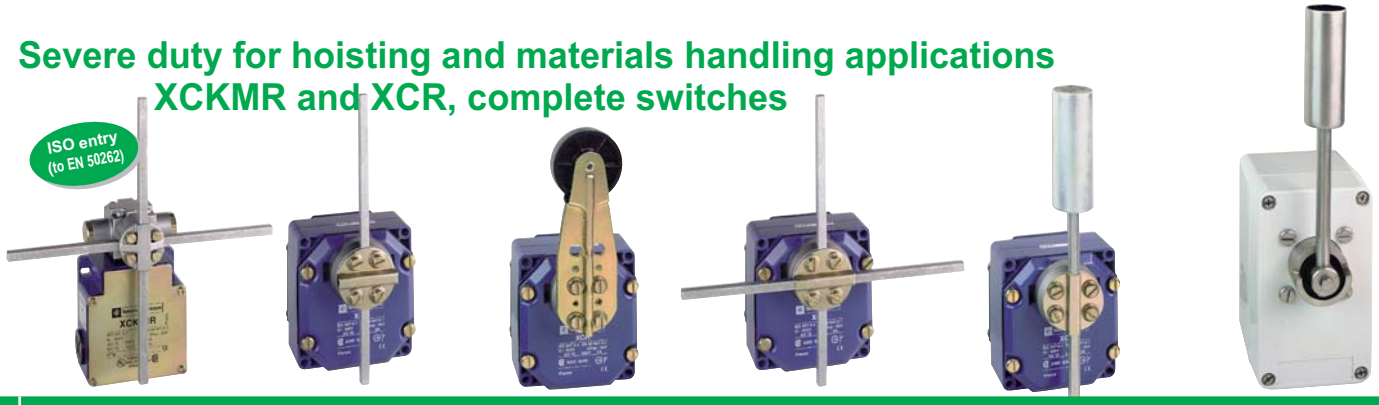
Type XC2J metal, fixed body, 1 cable entry incorporating cable gland

Type of contact	Single-pole 1 C/O contact snap action	 Double-pole 2 C/O simultaneous contacts snap action
Reference of body with contact block	**ZC2JC1**	**ZC2JC2**
Reference of contact block only	**XCKZ01**	**XESP1021**

Other versions: **please consult your Schneider Electric agency.**

Severe duty for hoisting and materials handling applications
XCKMR and XCR, complete switches

ISO entry (to EN 50262)



Types XCKMR and XCR "Application - hoisting, materials handling, conveying"

Square rod levers 6 mm, "crossed"	Square rod lever 6 mm	Large roller rod lever Ø 50 mm	Square rod levers 6 mm, "crossed" or "T"	Conveyor belt shift monitoring switches Galvanised steel operating lever	Stainless steel operating lever
2	10	10	10	0.3	0.3
1.5	1.5	1.5	1.5	1.5	1.5
CE - UL - CSA - GOST	CE - CSA - CCC - GOST				
IP 545				IP 665	
AC-15; A300 (Ue = 240 V, Ie = 3 A) / DC-13; Q300 (Ue = 250 V, Ie = 0.27 A)					
3 x ISO M20 x 1.5 entries	1 tapped entry for n° 13 cable gland (for ISO M20 x 1.5, adaptor DE9RA1620 must be ordered separately)				
61.5	85 x 75				105 x 70
118 x 59 x 77	85 x 75 x 95				85 x 87 x 146
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	➔ **XCRA11**(2)	➔ **XCRA15**	➔ **XCRE18**(2)	–	–
–	➔ **XCRB11**(2)	–	➔ **XCRF17**(3)	–	–
–				**XCRT115**	**XCRT315** (4)
XCKMR54D1H29 (2)	–	–	–	–	–

(2) Steel rods, L = 200 mm (3) Steel "T" rods, L = 200 mm, W = 300 mm. (4) Polyester enclosure

Operating heads, complete or for customer assembly

Plunger heads

	with metal end plunger	with steel roller end plunger
Reference	**ZC2JE61**	**ZC2JE62**

Rotary heads and separate levers

	spring return for actuation from left **AND** right	spring return for actuation from left **OR** right	variable length lever with thermoplastic roller (1)	rigid rod 3 mm, steel L = 125 mm (1)	lever with thermoplastic roller (1)	lever with steel roller (1)	spring lever (1)	spring-rod lever
Reference	**ZC2JE01**	**ZC2JE05**	**ZC2JY31**	**ZC2JY51**	**ZC2JY11**	**ZC2JY13**	**ZC2JY81**	**ZC2JY91**

(1) Adjustable throughout 360°.

Sensors for pressure control

Electronic sensors XMLG

Electrical connection by M12 connector

Pressure range (bar) (1)		-1…0	0…1	0…6	0…10	0…16	0…25	0…100	0…250	0…400
Fluids controlled		Hydraulic oils, air, fresh water, sea water, corrosive fluids from -15…+125°C								
Ambient air temperature		- 15…+ 85°C								
Degree of protection (conforming to IEC 60529)		IP 66 and IP 67								
Product certification		CE - UL - CSA - GOST								
Voltage limits		12…24 V DC, 8…33 V DC for 4…20 mA, 11.4…33V DC for 0…10 V								
Dimensions (mm) Ø x L		Ø 22.8 x 70 (not including connector)								
Fluid connection (2)		G 1/4" A (male)								
Electrical connection (3)		M12 connector								
Type of output (4)		4…20 mA, 2-wire technique, 0…10V, 3-wire technique								
Analogue output	4…20 mA	XMLGM01D21	XMLG001D21	XMLG006D21	XMLG010D21	XMLG016D21	XMLG025D21	XMLG100D21	XMLG250D21	XMLG400D21
	0…10 V	XMLGM01D71	XMLG001D71	XMLG006D71	XMLG010D71	XMLG016D71	XMLG025D71	XMLG100D71	XMLG250D71	XMLG400D71

Available in bulk packs for selling in lots, please consult us.

The XMLG range also includes pressure switches, please consult us.

Electronic sensors XMLE

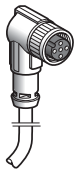
Electrical connection by DIN 43650 connector

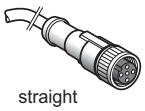
Setting range (bar) (1)		-1…0	0…1	0…10	0…25	0…100	0…250	0…600
Fluids controlled		Hydraulic oils, air, fresh water, sea water, corrosive fluids from -15…+80°C						
Ambient air temperature		- 15…+ 80°C						
Degree of protection (conforming to IEC 60529)		IP 65						
Product certification		CE - UL - CSA - GOST						
Voltage limits		24 V DC, 11…33 V DC						
Dimensions (mm) Ø x L		Ø 40 x 90 (not including connector)						
Fluid connection (2)		G 1/4" A (male)						
Electrical connection (3)		DIN 43650 connector						
Type of output (4)	Transmitter	4…20 mA, 2-wire technique						
	Pressure switch	PNP or NPN, normally closed (NC)						
Analogue output	4…20 mA	XMLEM01U1C21	XMLE001U1C21	XMLE010U1C21	XMLE025U1C21	XMLE100U1C21	XMLE250U1C21	XMLE600U1C21
NPN output		XMLEM01U1C31	XMLE001U1C31	XMLE010U1C31	XMLE025U1C31	XMLE100U1C31	XMLE250U1C31	XMLE600U1C31
PNP output		XMLEM01U1C41	XMLE001U1C41	XMLE010U1C14	XMLE025U1C41	XMLE100U1C41	XMLE250U1C41	XMLE600U1C41

(1) Other sizes, please consult us.
(2) Other fluid connections, please consult us.
(3) Other types of connection, please consult us.
(4) Other types of output; 0…5 V, 0…10 V, etc., please consult us.

Suitable female plug-in connectors

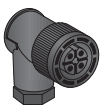
Pre-wired connectors, L = 5 m (without LED)

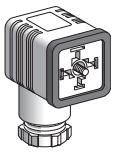




	elbowed	straight
M12	XZCP1241L5	XZCP1141L5

Other connectors





Screw terminal	DIN 43650A
XZCC12FCM40B	XZCC43FCP40B

Other versions: **please consult your Schneider Electric agency.**

Electronic sensors XMLF

Setting range (bar) of lower limit (PB): vacuum switches / of upper limit (PH): pressure switches		-0.08…-1	0.08...1	0.2…2.5	0.8…10	3.2...40
Fluids controlled		**Hydraulic oils, air, fresh water, sea water, corrosive fluids from -15…+80°C**				
Ambient air temperature		- 25…+ 80°C				
Degree of protection (conforming to IEC 60529)		IP 67				
Product certification		CE - UL - CSA - VIT-SEPRO - GOST				
Voltage limits (V)		24 V DC (17…33 V DC)				
Dimensions (mm) H x W x D		113 x 46 x 58				
Fluid connection		G 1/4" (female) (1)				
Electrical connection		M12 connector (2)				
Configurable with digital display, connection by M12 connector (3)						
Universal sensors,	4...20 mA	**XMLFM01D2025**	**XMLF001D2025**	**XMLF002D2025**	**XMLF010D2025**	**XMLF040D2025**
solid-state output, 200 mA (4)	0...10 V	**XMLFM01D2125**	**XMLF001D2125**	**XMLF002D2125**	**XMLF010D2125**	**XMLF040D2125**
Dual stage pressure switches, solid-state output, 200 mA		**XMLFM01D2035**	**XMLF001D2035**	**XMLF002D2035**	**XMLF010D2035**	**XMLF040D2035**
Analogue sensors	4...20 mA	**XMLFM01D2015**	**XMLF001D2015**	**XMLF002D2015**	**XMLF010D2015**	**XMLF040D2015**
	0...10 V	**XMLFM01D2115**	**XMLF001D2115**	**XMLF002D2115**	**XMLF010D2115**	**XMLF040D2115**
Possible differential (bar)	Min. at low setting	0.03	0.03	0.08	0.3	1.2
(pressure switches)	Min. at high setting	0.03	0.03	0.08	0.3	1.2
	Max. at high setting	0.95	0.95	2.38	9.5	38

Setting range (bar) of upper limit (PH): pressure switches		8…100	12.8...160	20...250	32...400	48...600
Fluids controlled		**Hydraulic oils, air, fresh water, sea water, corrosive fluids from -15…+80°C**				
Ambient air temperature		- 25…+ 80°C				
Degree of protection (conforming to IEC 60529)		IP 67				
Product certification		CE - UL - CSA - VIT-SEPRO - GOST				
Voltage limits (V)		24 V DC (17…33 V DC)				
Dimensions (mm) H x W x D		113 x 46 x 58				
Fluid connection		G 1/4" (female) (1)				
Electrical connection		M12 connector (2)				
Configurable with digital display, connection by M12 connector (3)						
Universal sensors,	4...20 mA	**XMLF100D2025**	**XMLF160D2025**	**XMLF250D2025**	**XMLF400D2025**	**XMLF600D2025**
solid-state output, 200 mA (4)	0...10 V	**XMLF100D2125**	**XMLF160D2125**	**XMLF250D2125**	**XMLF400D2125**	**XMLF600D2125**
Dual stage pressure switches, solid-state output, 200 mA		**XMLF100D2035**	**XMLF160D2035**	**XMLF250D2035**	**XMLF400D2035**	**XMLF600D2035**
Analogue sensors	4...20 mA	**XMLF100D2015**	**XMLF160D2015**	**XMLF250D2015**	**XMLF400D2015**	**XMLF600D2015**
	0...10 V	**XMLF100D2115**	**XMLF160D2115**	**XMLF250D2115**	**XMLF400D2115**	**XMLF600D2115**
Possible differential (bar)	Min. at low setting	3	4.8	7.5	12	18
(pressure switches)	Min. at high setting	3	4.8	7.5	12	18
	Max. at high setting	95	152	237.5	380	570

(1) Available with other fluid connections: 1/4" NPT female and SAE 7/16-20 UNF.

(2) For M12 connection accessories, see previous page.

(3) AC 120 V version with 2.5 A relay output and SAE 7/8-16 UN connector also available.

(4) Programmable NPN or PNP and NO or NC.

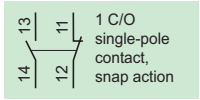
OsiSense XM

Sensors for pressure control

Electromechanical pressure and vacuum switches

XMLA and B

ISO entry (to EN 50262)



1 C/O single-pole contact, snap action

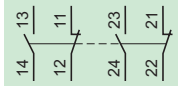
Size (bar)	-1	5	1	2.5
Environmental characteristics	Ambient air temperature (°C): - 25…+ 70 Degree of protection (conforming to IEC 60529): IP 66			
Rated operational characteristics	AC-15; B300 (Ue = 240 V, Ie = 1.5 A - Ue = 120 V, Ie = 3 A) / DC-13; R300 (Ue = 250 V, Ie = 0.1 A)			
Product certification	CE - UL - CSA - CCC - BV - LROS - RINA - GL - DNV - VIT-SEPRO - GOST			
Fluid connection	G 1/4" (female) (other connections possible, please consult us)			
Electrical connection	Screw terminals (1), tapped entry for ISO M20 x 1.5 cable gland - **For n° 13 (DIN Pg 13.5) cable gland**			

Fluids controlled		Hydraulic oils, fresh water, sea water, air up to 70°C		Hydraulic oils, air up to 160°C	Hydraulic oils, fresh water, sea water, air up to 70°C
Type XMLA - fixed differential, single threshold detection					
Setting range (bar) of upper limit (PH): pressure switches		-0.28…-1 (4)	–	0.03…1	0.15…2.5
Dimensions (mm) H x W x D		113 x 35 x 75	113 x 35 x 75	162 x 110 x 110	158 x 55 x 77.5
With setting scale	1 C/O single-pole, snap action contact	**XMLAM01V2S12**	**–**	**XMLA001R2S12**	**XMLA002A2S12**
Natural differential (bar)	at low setting	0.24 (2)	–	0.02	0.13
subtract from PH to give PB	at high setting	0.24 (2)	–	0.04	0.13
Type XMLB - adjustable differential, regulation between 2 thresholds					
Setting range (bar) of upper limit (PH): pressure switches		-0.14...-1 (4)	-0.5...5	0.05...1	0.3...2.5
With setting scale	1 C/O single-pole, snap action contact	**XMLBM02V2S12**	**XMLBM05A2S12**	**XMLB001R2S12**	**XMLB002A2S12**
Possible differential (bar)	Min. at low setting	0.13 (3)	0.5	0.04	0.16
subtract from PH to give PB	Min. at high setting	0.13 (3)	0.5	0.06	0.21
	Max. at high setting	0.8 (3)	6	0.75	1.75

XMLC and D

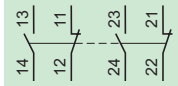
ISO entry (to EN 50262)

XMLC



2 C/O single-pole contacts, simultaneous snap action

XMLD



2 C/O single-pole contacts, snap action (1 per stage)

Fluids controlled		Hydraulic oils, fresh water, sea water, air up to 70°C		Hydraulic oils, air up to 160°C	Hydraulic oils, fresh water, sea water, air up to 160°C
Type XMLC - adjustable differential, regulation between 2 thresholds					
Setting range (bar) of upper limit (PH): pressure switches		-0.14...-1 (4)	-0.55...5	0.05...1	0.3...2.5
Dimensions (mm) H x W x D		113 x 46 x 85	113 x 46 x 85	175 x 110 x 110	158 x 55 x 90
With setting scale	2 C/O single-pole, snap action contacts	**XMLCM02V2S12**	**XMLCM05A2S12**	**XMLC001R2S12**	**XMLC002B2S12**
Possible differential (bar)	Min. at low setting	0.13 (4)	0.45	0.03	0.13
subtract from PH to give PB	Min. at high setting	0.14 (4)	0.45	0.04	0.17
	Max. at high setting	0.8 (4)	6	0.8	2
Type XMLD - fixed differential, dual stage, for detection at each threshold					
Setting range	2nd stage switching point (PB2)	-0.12...-1 (4)	–	0.12...1	0.34...2.5
(bar)	1st stage switching point (PB1)	-0.10...-0.98	–	0.04...0.92	0.2...2.36
	Spread between 2 stages (PB2 – PB1)	-0.02...-0.88	–	0.08...0.73	0.14...1.5
Without setting scale	2 C/O single-pole, snap action contacts (1 per stage)	**XMLDM02V1S12**	**–**	**XMLD001R1S12**	**XMLD002B1S12**
Natural differential (bar)	at low setting	0.1 (2)	–	0.03	0.14
subtract from PH 1/2 to give PB 1/2	at high setting	0.1 (2)	–	0.07	0.19

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Other versions: **please consult your Schneider Electric agency.**

conforming to IEC 947-5-1 Appendix A, EN 60 947-5-1

tapped entry, replace the last number of the reference (2) **by 1** (example: XMLA010A2S1**2** becomes XMLA010A2S1**1**)

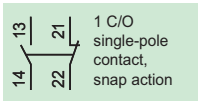
	4	10	20	35	70	160	300	500
	Hydraulic oils, fresh water, sea water, air up to 70°C				Hydraulic oils up to 160°C			
	0.4…4	0.6…10	1…20	1.5…35	5…70	10…160	20…300	30…500
	113 x 35 x 75	113 x 35 x 75	113 x 35 x 75	113 x 35 x 75	113 x 35 x 75	113 x 35 x 75	113 x 35 x 75	113 x 35 x 75
	XMLA004A2S12	**XMLA010A2S12**	**XMLA020A2S12**	**XMLA035A2S12**	**XMLA070D2S12**	**XMLA160D2S12**	**XMLA300D2S12**	**XMLA500D2S12**
	0.35	0.5	0.4	1.25	3	5.5	16.5	20
	0.35	0.5	1	1.25	7.5	18	35	45
	0.25...4	0.7...10	1.3...20	3.5...35	7...70	10...160	22...300	30...500
	XMLB004A2S12	**XMLB010A2S12**	**XMLB020A2S12**	**XMLB035A2S12**	**XMLB070D2S12**	**XMLB160D2S12**	**XMLB300D2S12**	**XMLB500D2S12**
	0.02	0.57	1	1.7	4.7	9.3	19.4	23
	0.25	0.85	1.6	2.55	8.8	20.8	37	52.6
	2.4	7.5	11	20	50	100	200	300

(1) For electrical connection by DIN 43650A connector (IP 65), replace the suffix "**S12**" in the reference by "**C11**". Example: XMLB010A2**S12** becomes XMLB010A2**C11**.
(2) For vacuum switch: natural differential to be added to PB to give PH.
(3) For vacuum switch: possible differential to be added to PB to give PH.
(4) Setting range (bar) of lower limit (PB): vacuum switch.

	Hydraulic oils, fresh water, sea water, air up to 160°C				Hydraulic oils up to 160°C			
	0.3...4	0.7...10	1.3...20	3.5...35	7...70	12...160	22...300	30...500
	113 x 46 x 85	113 x 46 x 85	113 x 46 x 85	113 x 46 x 85	113 x 46 x 85	113 x 46 x 85	113 x 46 x 85	113 x 46 x 85
	XMLC004B2S12	**XMLC010B2S12**	**XMLC020B2S12**	**XMLC035B2S12**	**XMLC070D2S12**	**XMLC160D2S12**	**XMLC300D2S12**	**XMLC500D2S12**
	0.15	0.45	0.7	1	4.5	9	16	19
	0.17	0.7	1	1.5	8.9	21	35	52
	2.5	8	11	22	60	110	240	340
	0.40...4	1.2...10	2.14...20	4.4...35	9.4...70	16.5...160	36...300	41...500
	0.19...3.79	0.52...9.32	0.9...18.76	1.9...32.5	6.6...67.2	10.5...154	25...289	25...484
	0.21...2.18	0.68...5.8	1.24...9.55	2.5...20.4	2.8...46	6...83	11...189	16...244
	XMLD004B1S12	**XMLD010B1S12**	**XMLD020B1S12**	**XMLD035B1S12**	**XMLD070D1S12**	**XMLD160D1S12**	**XMLD300D1S12**	**XMLD500D1S12**
	0.15	0.45	0.7	1.5	5	8.8	17	21
	0.19	0.6	1.3	2.6	9.5	20	42	65

Sensors for pressure control

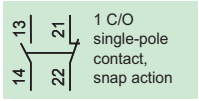
Electromechanical pressure switches XMX, XMA



Setting range of upper limit (PH) (bar)	1…6	1.3…12	3.5…25
Fluids controlled	**Air, water** (fresh water, sea water) from 0…+70°C		
Ambient air temperature	- 25…+ 70°C		
Degree of protection (conforming to IEC 60529)	IP 54		
Rated operational characteristics	AC-15; B300 (Ue = 240 V, Ie = 1.5 A - Ue = 120 V, Ie = 3 A) / DC-13; R300 (Ue = 250 V, Ie = 0.1 A)		
Product certification	CE - UL - CSA - CCC		
Dimensions (mm) H x W x D	106 x 57 x 98		126 x 57 x 98
Fluid connection	1/4" BSP female		
Electrical connection	Screw terminals, 2 tapped entries for n° 13 (DIN Pg 13.5) cable gland		

Type XMX with internal setting screw

Without setting scale, screw terminal connections				
1 C/O single-pole, snap action contact		**XMXA06L2135**	**XMXA12L2135**	**XMXA25L2135**
Possible differential (bar)	Min. at low setting	0.8	1	3.4
subtract from PH to give PB	Min. at high setting	1.2	1.7	4.5
	Max. at high setting	4.2	8.4	20



Setting range of upper limit (PH) (bar)	1…6	1.3…12	3.5…25
Fluids controlled	**Air, water** (fresh water, sea water) from 0…+70°C		
Ambient air temperature	- 25…+ 70°C		
Degree of protection (conforming to IEC 60529)	IP 54		
Rated operational characteristics	AC-15; B300 (Ue = 240 V, Ie = 1.5 A - Ue = 120 V, Ie = 3 A) / DC-13; R300 (Ue = 250 V, Ie = 0.1 A)		
Product certification	CE - UL - CSA - CCC		
Dimensions (mm) H x W x D	113 x 57 x 98		133 x 57 x 98
Fluid connection	1/4" BSP female		
Electrical connection	Screw terminals, tapped entry for n° 13 (DIN Pg 13.5) cable gland		

Type XMA with external setting screw (transparent cover)

Without setting scale, screw terminal connections				
1 C/O single-pole, snap action contact		**XMAV06L2135**	**XMAV12L2135**	**XMAV25L2135**
Possible differential (bar)	Min. at low setting	0.8	1	3.4
subtract from PH to give PB	Min. at high setting	1.2	1.7	4.5
	Max. at high setting	4.2	8.4	20

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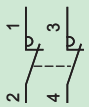
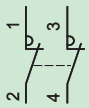
Other versions: **please consult your Schneider Electric agency.**

Electromechanical pressure switches for power circuits, adjustable differential for regulation between 2 thresholds

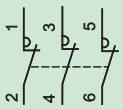


2 NC 2-pole contact, snap action

Degree of protection Size (bar)			IP 20 4.6	7	10.5	IP 65 4.6	7	10.5
Setting range of upper limit (PH) (bar)			**1.4…4.6**	**2.8…7**	**5.6…10.5**	**1.4…4.6**	**2.8…7**	**5.6…10.5**
Fluids controlled			**Water** (fresh water, sea water) from 0…+55°C					
Electrical connection			Screw terminals, 2 cable entries with grommet			Screw terminals, 2 tapped entries for n° 13 (DIN Pg 13.5) cable gland		
Product certification			CE					
Ambient air temperature			For operation: 0…+ 50°C. For storage: - 30…+ 80°C					
Rated operational characteristics			Ie = 10 A, Ue = 250 V AC					
Power rating of controlled motors	110 V	AC 2-pole, single-phase	0.75 kW (1 HP)			0.75 kW (1 HP)		
		AC 2-pole, 3-phase	1.1 kW (1.5 HP)			1.1 kW (1.5 HP)		
	230 / 400 V	AC 2-pole, single-phase	1.5 kW (2 HP)			1.5 kW (2 HP)		
		AC 2-pole, 3-phase	2.2 kW (3 HP)			2.2 kW (3 HP)		
Dimensions (mm) H x W x D			96/105 x 72 x 102	94 x 72 x 102		115 x 72 x 106	115 x 72 x 106	
Fluid connection	G 1/4 (BSP female)		**FSG2**	**FYG22**	**FYG32**	**FSG2NE**	**FYG22NE**	**FYG32NE**
	R 1/4 (BSP male)		**FSG9**	**FYG29**	**FYG39**	**–**	**–**	**–**
	G 3/8 (BSP female) rotating nut		**–**	**–**	**–**	**FSG2NEG**	**–**	**–**
Possible differential (bar) subtract from PH to give PB		At low setting	1 min. - 2.1 max.	1.2 min. - 2.3 max.	1.9 min. - 3 max.	1 min. - 2.1 max.	1.2 min. - 2.3 max.	1.9 min. - 3 max.
		At middle setting	1.1 min. - 2.2 max.	1.4 min. - 2.5 max.	2.1 min. - 3.2 max.	1.1 min. - 2.2 max.	1.4 min. - 2.5 max.	2.1 min. - 3.2 max.
		At high setting	1.2 min. - 2.3 max.	1.6 min. - 2.7 max.	2.3 min. - 3.4 max.	1.2 min. - 2.3 max.	1.6 min. - 2.7 max.	2.3 min. - 3.4 max.



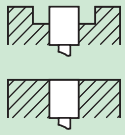
2 NC 2-pole contact, snap action



3 NC 3-pole contact, snap action

Size (bar)			6		12		25
Setting range of upper limit (PH) (bar)			**1…6**		**1.3.…12**		**3.5…25**
Fluids controlled			**Air, water** (fresh water, sea water) from 0…+70°C				
Ambient air temperature			For operation: - 25…+ 70°C. For storage: - 40…+ 70°C				
Decompression valve / ONOff knob			without	with	without	with	without
Fluid connection			G 1/4 (BSP female)	4 x G 1/4 (BSP female)	G 1/4 (BSP female)	4 x G 1/4 (BSP female)	G 1/4 (BSP female)
Electrical connection			Screw terminals, 2 tapped entries for n° 13 (DIN Pg 13.5) cable gland				
Degree of protection			IP 54		IP 54		IP 54
Product certification			CE - CCC				
Rated insulation voltage			Ui = 500 V				
Electrical durability	Power	1.5 kW	400 V AC 3-phase: 1 000 000 operating cycles				
			230 V AC 3-phase: 600 000 operating cycles				
		2.2 kW	400 V AC 3-phase: 700 000 operating cycles				
		3 kW	400 V AC 3-phase: 500 000 operating cycles				
Dimensions (mm) H x W x D			106 x 57 x 97.5	138 x 57 x 97.5	106 x 57 x 97.5	138 x 57 x 97.5	126 x 57 x 97.5
Type of contacts	2 NC 2-pole, snap action contact		**XMPA06B2131**	**XMPE06B2431**	**XMPA12B2131**	**XMPE12B2431**	**XMPA25B2131**
	3 NC 3-pole, snap action contact		**XMPA06C2131**	**XMPE06C2431**	**XMPA12C2131**	**XMPE12C2431**	**XMPA25C2131**
Possible differential (bar) subtract from PH to give PB		Min. at low setting	0.8	0.8	1	1	3.4
		Min. at high setting	1.2	1.2	1.7	1.7	4.5
		Max. at high setting	4.2	4.2	8.4	8.4	20

Inductive proximity sensors
Cylindrical metal



	Flush standard and increased range			
	M8		M12	
Nominal sensing distance Sn	1.5 mm	2.5 mm	2 mm	4 mm
Usable sensing distance S (mm) flush mountable / non flush mountable	0…1.2	0…2	0…1.6	0…3.2
Temperature range (°C)	- 25…+ 70			
Product certification	CE - UL - CSA - CCC (in progress) - C-TICK			
Degree of protection (conforming to IEC 60529)	IP 67		pre-cabled: IP 69K conforming to DIN 40050, IP 68	

Sensors for DC applications

Output function	**NO**		**A**	**A**	**A**	**A**
	NC		**B**	**B**	**B**	**B**
Dimensions (mm) Ø x L Cable / Connector			M8 x 33 / M8 x 42		M12 x 35 / M12 x 50	
3-wire	**PNP**	Cable (2 m)	**XS508B1PAL2**	**XS108B3PAL2**	**XS512B1PAL2**	**XS112B3PAL2**
		Connector M8 / M12	**XS508B1PAM8**	**XS108B3PAM8**	**XS512B1PAM12**	**XS112B3PAM12**
	NPN	Cable (2m)	**XS508B1NAL2**	**XS108B3NAL2**	**XS512B1NAL2**	**XS112B3NAL2**
		Connector M8 / M12	**XS508B1NAM8**	**XS108B3NAM8**	**XS512B1NAM12**	**XS112B3NAM12**
2-wire	**non polarised** (1)	Cable (2 m)	**XS508BSCAL2**	**XS608B3CAL2**	**XS512BSDAL2**	**XS612B3DAL2**
		Connecteur M12	**XS508BSCAL01M12**	**XS608B3CAL01M12**	**XS512BSDAM12**	**XS612B3DAM12**
Supply voltage limits, min./max. (V) including ripple			10…36	10…36	10…36	10…36
Switching capacity, max. (mA) 3-wire / 2-wire			200 / 100	200 / 100	200 / 100	200 / 100
Overload and short-circuit protection (★) / LED output state indicator (⊗)			★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗
Residual current, open state (mA)			≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5
Voltage drop, closed state (V) at I nominal 3-wire / 2-wire			≤ 2 / ≤ 4	≤ 2 / ≤ 4	≤ 2 / ≤ 4	≤ 2 / ≤ 4
Switching frequency (Hz) 3-wire / 2-wire			5000 / 4000	2500 / 3000	5000 / 4000	2500 / 2000

Dimensions (mm) Ø x L Cable / connector			M8 x 51 / M8 x 62		M12 x 53 / M12 x 62	
3-wire	**PNP**	Cable (2 m)	**XS508BLPAL2**	**XS608B1PAL2**	**XS512BLPAL2**	**XS612B1PAL2**
		Connector M12	**XS508BLPAM12**	**XS608B1PAM12**	**XS512BLPAM12**	**XS612B1PAM12**
	NPN	Cable (2 m)	**XS508BLNAL2**	**XS608B1NAL2**	**XS512BLNAL2**	**XS612B1NAL2**
		Connector M12	**XS508BLNAM12**	**XS608B1NAM12**	**XS512BLNAM12**	**XS612B1NAM12**
2-wire	**non polarised**	Cable (2 m)	**XS508B1DAL2**	**XS608B1DAL2**	**XS512B1DAL2**	**XS612B1DAL2**
		Connector M12	**XS508B1DAM12**	**XS608B1DAM12**	**XS512B1DAM12**	**XS612B1DAM12**
Supply voltage limits, min./max. (V) including ripple			10…58	10…58	10…58	10…58
Switching capacity, max. (mA) 3-wire / 2-wire			200 / 100	200 / 100	200 / 100	200 / 100
Overload and short-circuit protection (★) / LED output state indicator (⊗)			★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗
Residual current, open state (mA) 2-wire			≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5
Voltage drop, closed state (V) at I nominal 3-wire / 2-wire			≤ 2 / ≤ 4	≤ 2 / ≤ 4	≤ 2 / ≤ 4	≤ 2 / ≤ 4
Switching frequency (Hz) 3-wire / 2-wire			5000 / 4000	2500 / 3000	5000 / 4000	2500 / 2000

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

Dimensions (mm) Ø x L Cable / connector		–	–	M12 x 53 / M12 x 62	
2-wire	Cable (2 m)	–	–	**XS512B1MAL2**	**XS612B1MAL2**
	Connector 1/2"-20 UNF	–	–	**XS512B1MAU20**	**XS612B1MAU20**
Supply voltage limits, min./max. (V) including ripple		–	–	20…264	20…264
Switching capacity, max. (mA)		–	–	200	200
LED output state indicator (⊗)		–	–	⊗	⊗
Residual current, open state (mA)		–	–	≤ 0,8	≤ 0,8
Voltage drop, closed state (V) at I nominal		–	–	≤ 5.5	≤ 5.5
Switching frequency (Hz)		–	–	25 AC / 1000 DC	25 AC / 1000 DC

(1) polarised for M8 short

Accessories

Fixing for cylindrical sensors

Fixing clamp with indexing pin for cylindrical sensors

M8	**XSZB108**
M12	**XSZB112**
M18	**XSZB118**
M30	**XSZB130**

Suitable female plug-in connectors

M8	Straight	Elbowed
Metal ring	**XZCC8FDM30S**	**XZCC8FCM30S**
M12 (4 pin)		
Metal ring	**XZCC12FDM40B**	**XZCC12FCM40B**
Plastic ring	**XZCC12FDP40B**	**XZCC12FCP40B**

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Other versions: **please consult your Schneider Electric agency.**

	M18		M30		Non flush increased range M12	M18	M30
	5 mm	8 mm	10 mm	15 mm	7 mm	12 mm	22 mm
	0…4	0…6.4	0…8	0…12	0…5.6	0…9.6	0…17.6
	- 25…+ 70				- 25…+ 70		
	CE - UL - CSA - CCC (in progress) - C-TICK				CE - UL - CSA - CCC (in progress) - C-TICK		
(with connector: IP 67)					pre-cabled: IP 69K conforming to DIN 40050, IP 68 (with connector: IP 67)		

	A	A	A	A	A	A	A
	B	B	B	B	B	B	B
	M18 x 39 / M18 x 50		M30 x 43 / M30 x 55		–		
	XS518B1PAL2	**XS118B3PAL2**	**XS530B1PAL2**	**XS130B3PAL2**	–		
	XS518B1PAM12	**XS118B3PAM12**	**XS530B1PAM12**	**XS130B3PAM12**	–		
	XS518B1NAL2	**XS118B3NAL2**	**XS530B1NAL2**	**XS130B3NAL2**	–		
	XS518B1NAM12	**XS118B3NAM12**	**XS530B1NAM12**	**XS130B3NAM12**	–		
	XS518BSDAL2	**XS618B3DAL2**	**XS530BSDAL2**	**XS630B3DAL2**	–		
	XS518BSDAM12	**XS618B3DAM12**	**XS530BSDAM12**	**XS630B3DAM12**	–		
	10…36	10…36	10…36	10…36	–		
	200 / 100	200 / 100	200 / 100	200 / 100	–		
	★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗	–		
	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	–		
	≤ 2 / ≤ 4	≤ 2 / ≤ 4	≤ 2 / ≤ 4	≤ 2 / ≤ 4	–		
	2000 / 3000	1000 / 1000	1000 / 2000	500 / 500	–		
	M18 x 62 / M18 x 74		M30 x 62		M12 x 55 / M12 x 65	M18 x 62 / M18 x 74	M30 x 62 / M30 x 74
	XS518BLPAL2	**XS618B1PAL2**	**XS530BLPAL2**	**XS630B1PAL2**	**XS612B4PAL2**	**XS618B4PAL2**	**XS630B4PAL2**
	XS518BLPAM12	**XS618B1PAM12**	**XS530BLPAM12**	**XS630B1PAM12**	**XS612B4PAM12**	**XS618B4PAM12**	**XS630B4PAM12**
	XS518BLNAL2	XS618B1NAL2	XS530BLNAL2	XS630B1NAL2	**XS612B4NAL2**	**XS618B4NAL2**	**XS630B4NAL2**
	XS518BLNAM12	XS618B1NAM12	XS530BLNAM12	XS630B1NAM12	**XS612B4NAM12**	**XS618B4NAM12**	**XS630B4NAM12**
	XS518B1DAL2	XS618B1DAL2	XS530B1DAL2	XS630B1DAL2	–	–	–
	XS518B1DAM12	XS618B1DAM12	XS530B1DAM12	XS630B1DAM12	–	–	–
	10…58	10…58	10…58	10…58	10…58	10…58	10…58
	200 / 100	200 / 100	200 / 100	200 / 100	200 / –	200 / –	200 / –
	★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗
	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	–	–	–
	≤ 2 / ≤ 4	≤ 2 / ≤ 4	≤ 2 / ≤ 4	≤ 2 / ≤ 4	≤ 2 / –	≤ 2 / –	≤ 2 / –
	2000 / 3000	1000 / 1000	1000 / 2000	500 / 500	2500 / –	1000 / –	500 / –
	M18 x 62 / M18 x 73		M30 x 62 / M30 x 73		–	M18 x 60 / M18 x 72	M30 x 63 / M30 x 74
	XS518B1MAL2	**XS618B1MAL2**	**XS530B1MAL2**	**XS630B1MAL2**	–	**XS618B4MAL2**	**XS630B4MAL2**
	XS518B1MAU20	**XS618B1MAU20**	**XS530B1MAU20**	**XS630B1MAU20**	–	**XS618B4MAU20**	**XS630B4MAU20**
	20…264	20…264	20…264	20…264	–	20…264	20…264
	300 AC / 200 DC	300 AC / 200 DC	300 AC / 200 DC	300 AC / 200 DC	–	300 AC / 200 DC	300 AC / 200 DC
	⊗	⊗	⊗	⊗	–	⊗	⊗
	≤ 0.8	≤ 0.8	≤ 0.8	≤ 0.8	–	≤ 0.8	≤ 0.8
	≤ 5.5	≤ 5.5	≤ 5.5	≤ 5.5	–	≤ 5.5	≤ 5.5
	25 AC / 1000 DC	25 AC / 1000 DC	25 AC / 500 DC	25 AC / 500 DC	–	25 AC / 1000 DC	25 AC / 300 DC

Pre-wired connectors

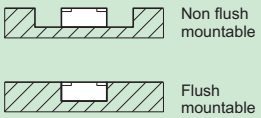
Straight

Elbowed

	M8 (3 pin)		1/2"			M12 (4 pin)		
	Straight	Elbowed		Straight	Elbowed		Straight	Elbowed	Elbowed PNP LED
2 m	**XZCP0566L2**	**XZCP0666L2**	2 m	**XZCP1865L2**	**XZCP1965L2**	2 m	**XZCP1141L2**	**XZCP1241L2**	**XZCP1340L2**
5 m	**XZCP0566L5**	**XZCP0666L5**	5 m	**XZCP1865L5**	**XZCP1965L5**	5 m	**XZCP1141L5**	**XZCP1241L5**	**XZCP1340L5**
10 m	**XZCP0566L10**	**XZCP0666L10**	10 m	**XZCP1865L10**	**XZCP1965L10**	10 m	**XZCP1141L10**	**XZCP1241L10**	**XZCP1340L10**

OsiSense XS — Inductive proximity sensors

Rectangular plastic



	Ø 8 x 22 x 8	Ø 15 x 32 x 8	Ø 26 x 26 x 13	Ø 40 x 40 x 15	Ø 80 x 80 x 26
Nominal sensing distance Sn	**2.5** mm	**5** mm	**10** mm	**15** mm	**40** mm
Usable sensing distance S (mm) flush mountable / non flush mountable	0...2	0...4	0…8	0…12	0…32
Fine adjustment zone (mm) flush mountable / non flush mountable	–	–	–	–	–
Suitability for flush mounting (metal environment)	flush mountable	flush mountable	flush mountable	flush mountable	flush mountable
Temperature range (°C)	- 25…+ 70	- 25…+ 70	- 25…+ 70	- 25…+ 70	- 25…+ 70
Product certification	CE	CE - UL - CSA - C-TICK			
Degree of protection (conforming to IEC 60529)	pre-cabled: IP 68 (with connector: IP 67)				

Sensors for DC applications

Connection				**Pre-cabled, PvR (2 m)**				
2-wire (non polarised)		**NO or NC**	programmable	–	–	–	–	–
2-wire	**non polarised**	NO function		**XS7J1A1DAL2**	**XS7F1A1DAL2**	**XS7E1A1DAL2**	**XS7C1A1DAL2**	**XS7D1A1DAL2**
		NC function		**XS7J1A1DBL2**	**XS7F1A1DBL2**	**XS7E1A1DBL2**	**XS7C1A1DBL2**	**XS7D1A1DBL2**
4-wire	**PNP**	**NO + NC**	complementary outputs	–	–	–	–	–
	NPN	**NO + NC**	complementary outputs	–	–	–	–	–
3-wire	**PNP**	**NO** function		**XS7J1A1PAL2**	**XS7F1A1PAL2**	**XS7E1A1PAL2**	**XS7C1A1PAL2**	**XS7D1A1PAL2**
		NC function		**XS7J1A1PBL2**	**XS7F1A1PBL2**	**XS7E1A1PBL2**	**XS7C1A1PBL2**	**XS7D1A1PBL2**
	NPN	**NO** function		**XS7J1A1NAL2**	**XS7F1A1NAL2**	**XS7E1A1NAL2**	**XS7C1A1NAL2**	**XS7D1A1NAL2**
		NC function		**XS7J1A1NBL2**	**XS7F1A1NBL2**	**XS7E1A1NBL2**	**XS7C1A1NBL2**	**XS7D1A1NBL2**
Connection				**M8 connector**				**M12 connector**
2-wire	**non polarised**	NO function		**XS7J1A1DAL01M8** (1)	**XS7F1A1DAL01M8** (1)	**XS7E1A1DAM8**	**XS7C1A1DAM8**	**XS7D1A1DAM12**
		NC function		**XS7J1A1DBL01M8** (1)	**XS7F1A1DBL01M8** (1)	**XS7E1A1DBM8**	**XS7C1A1DBM8**	**XS7D1A1DBM12**
3-wire	**PNP**	**NO** function		**XS7J1A1PAL01M8** (1)	**XS7F1A1PAL01M8** (1)	**XS7E1A1PAM8**	**XS7C1A1PAM8**	**XS7D1A1PAM12**
		NC function		**XS7J1A1PBL01M8** (1)	**XS7F1A1PBL01M8** (1)	**XS7E1A1PBM8**	**XS7C1A1PBM8**	**XS7D1A1PBM12**
	NPN	**NO** function		**XS7J1A1NAL01M8** (1)	**XS7F1A1NAL01M8** (1)	**XS7E1A1NAM8**	**XS7C1A1NAM8**	**XS7D1A1NAM12**
		NC function		**XS7J1A1NBL01M8** (1)	**XS7F1A1NBL01M8** (1)	**XS7E1A1NBM8**	**XS7C1A1NBM8**	**XS7D1A1NBM12**
Supply voltage limits, min./max. (V) including ripple				10…36	10…36	10…36	10…36	10…36
Switching capacity, max. (mA)				100	100	100	100	100
Short-circuit protect. (★) / LED output state indicator (⊗) / Power on LED (⊗)				★ / ⊗ / –	★ / ⊗ / –	★ / ⊗ / –	★ / ⊗ / –	★ / ⊗ / –
Voltage drop, closed state (V) at I nominal cable / Connector				≤ 4 / ≤ 2	≤ 4 / ≤ 2	≤ 2	≤ 2	≤ 2
Switching frequency (Hz) cable / Connector				4000 / 2000	5000 / 2000	1000	1000	100

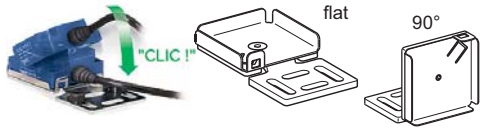
Multi-current/multi-voltage sensors for AC/DC applications

Connection								
2-wire		**AC/DC**	**NO** function	–	–	–	–	–
			NC function	–	–	–	–	–
		AC	**NO** or **NC** programmable	–	–	–	–	–
		AC/DC	**NO** or **NC** programmable	–	–	–	–	–
Connection								
2-wire		AC/DC	**NO** function	–	–	–	–	–
			NC function	–	–	–	–	–
Supply voltage limits, min./max. (V) including ripple				–	–	–	–	–
Switching capacity, max. (mA)				–	–	–	–	–
Short-circuit protect. (★) / LED output state indicator (⊗) / Power on LED (⊗)				–	–	–	–	–
Residual current, open state (mA)				–	–	–	–	–
Voltage drop, closed state (V) at I nominal				–	–	–	–	–
Switching frequency (Hz)				–	–	–	–	–

(1) M8 connector on flying lead (L = 0.15 m).

Accessories

Fixing for flat sensors



	flat	90°
8x22x8	**XSZBJ00**	**XSZBJ90**
15x32x8	**XSZBF00**	**XSZBF90**
26x26x13	**XSZBE00**	**XSZBE90**
40x40x15	**XSZBC00**	**XSZBC90**

Suitable female plug-in connectors

M8	Straight	Elbowed
Metal ring	**XZCC8FDM30S**	**XZCC8FCM30S**
M12 (4 pin)		
Metal ring	**XZCC12FDM40B**	**XZCC12FCM40B**
Plastic ring	**XZCC12FDP40B**	**XZCC12FCP40B**

Other versions: **please consult your Schneider Electric agency.**

	Ø 40 x 40 x 117				Ø 26 x 26 x 13	Ø 40 x 40 x 15	Ø 80 x 80 x 26
	15 mm	20 mm increased range	20 mm	40 mm increased range	15 mm	25 mm	60 mm
	0…12	0…16	0…16	0…32	0…8 / 0...12	0…12 / 0...20	0…32 / 0...48
					5...10 / 5...15	8...15 / 8...25	20...40 / 20...60
	flush mountable		non flush mountable		flush mountable or non flush mountable via teach mode		
	- 25…+ 70				- 25…+ 70		
	CE - UL - CSA - CCC - C-TICK				CE - UL - CSA - CCC - C-TICK		
	IP 67				pre-cabled: IP 68 (with connector: IP 67)		
	Screw terminals (2)				**Pre-cabled (2 m)**		
	XS7C40DP210	–	**XS8C40DP210**	–	–	–	–
	XS7C40DA210	–	**XS8C40DA210**	–	–	–	–
	–	–	–	–	–	–	–
	XS7C40PC440	**XS7C40PC449**	**XS8C40PC440**	**XS8C40PC449**	–	–	–
	XS7C40NC440	**XS7C40NC449**	**XS8C40NC440**	**XS8C40NC449**	–	–	–
	–	–	–	–	**XS8E1A1PAL2**	**XS8C1A1PAL2**	**XS8D1A1PAL2**
	–	–	–	–	**XS8E1A1PBL2**	**XS8C1A1PBL2**	**XS8D1A1PBL2**
	–	–	–	–	**XS8E1A1NAL2**	**XS8C1A1NAL2**	**XS8D1A1NAL2**
	–	–	–	–	**XS8E1A1NBL2**	**XS8C1A1NBL2**	**XS8D1A1NBL2**
	M8 connector				**M8 connector**		**M12 connector**
	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
	–	–	–	–	**XS8E1A1PAM8**	**XS8C1A1PAM8**	**XS8D1A1PAM12**
	–	–	–	–	**XS8E1A1PBM8**	**XS8C1A1PBM8**	**XS8D1A1PBM12**
	–	–	–	–	**XS8E1A1NAM8**	**XS8C1A1NAM8**	**XS8D1A1NAM12**
	–	–	–	–	**XS8E1A1NBM8**	**XS8C1A1NBM8**	**XS8D1A1NBM12**
	12…48				10…36	10…36	10…36
	4-wire version = 200 – 2-wire version = 1.5…100				100	200	200
	4-wire version = ★ / ⊗ / ⊗ – 2-wire version = ★ / ⊗ / –				★ / ⊗ / ⊗	★ / ⊗ / ⊗	★ / ⊗ / ⊗
	4-wire version = ≤ 2 – 2-wire version = ≤ 4				≤ 2	≤ 2	≤ 2
	2-wire = 1500 / 4-wire = 1000		2-wire = 800 / 4-wire = 1000 (20mm) 500 (40mm)		2000	1000	150
	Screw terminals (2)				**Pre-cabled (2 m)**		
	–	–	–	–	**XS8E1A1MAL2**	**XS8C1A1MAL2**	**XS8D1A1MAL2**
	–	–	–	–	**XS8E1A1MBL2**	**XS8C1A1MBL2**	**XS8D1A1MBL2**
	XS7C40FP260	–	**XS8C40FP260**	–	–	–	–
	XS7C40MP230	–	**XS8C40MP230**	–	–	–	–
					1/2"-20 UNF connector		
	–	–	–	–	**XS8E1A1MAL01U20**	**XS8C1A1MAL01U20**	**XS8D1A1MAU20**
	–	–	–	–	**XS8E1A1MBL01U20**	**XS8C1A1MBL01U20**	**XS8D1A1MBU20**
	20…264				20…264	20…264	20…264
	AC version = 500 – AC/DC version = 300 / 200				200 AC or DC	300 AC / 200 DC	300 AC / 200 DC
	– / ⊗ / –				– / ⊗ / ⊗	– / ⊗ / ⊗	– / ⊗ / ⊗
	AC version = ≤ 1.5 – AC/DC version = ≤ 0.8 / 1.5				≤ 1.5	≤ 1.5	≤ 1.5
	≤ 5.5				≤ 5.5	≤ 5.5	≤ 5.5
	25 AC / 50 DC				2000	1000	150

(2) Sensors supplied without cable gland. Suitable cable gland: 13P. Also available in M20, 1/2" NPT output and M12, 7/8" connectors.

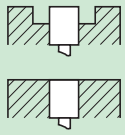
Pre-wired connectors

Straight

Elbowed

M8 (3 pin)			1/2"			M12 (4 pin)			
	Straight	Elbowed		Straight	Elbowed		Straight	Elbowed	Elbowed PNP LED
2 m	**XZCP0566L2**	**XZCP0666L2**	2 m	**XZCP1865L2**	**XZCP1965L2**	2 m	**XZCP1141L2**	**XZCP1241L2**	**XZCP1340L2**
5 m	**XZCP0566L5**	**XZCP0666L5**	5 m	**XZCP1865L5**	**XZCP1965L5**	5 m	**XZCP1141L5**	**XZCP1241L5**	**XZCP1340L5**
10 m	**XZCP0566L10**	**XZCP0666L10**	10 m	**XZCP1865L10**	**XZCP1965L10**	10 m	**XZCP1141L10**	**XZCP1241L10**	**XZCP1340L10**

OsiSense XS — 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			
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
2-wire (non polarised)		**NO or NC**	programmable	–	–	–	–
4-wire	**PNP**	**NO + NC**	complementary outputs	–	–	–	–
	NPN	**NO + NC**	complementary outputs	–	–	–	–
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**	**XS4P30NB340D**
Supply voltage limits, min./max. (V) including ripple				10…38	10…38	10…38	10…38
Switching capacity, max. (mA)				200	200	200	200
Short-circuit protect. (★) / LED output state indicator (⊗)				★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗
Voltage drop, closed state (V) at I nominal				≤ 2	≤ 2	≤ 2	≤ 2
Switching frequency (Hz)				5000	5000	2000	1000

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

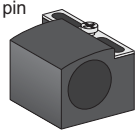
Connection			**Pre-cabled, PvR (2 m)**			
Dimensions (mm) Ø x L or W x D x H			M8 x 50	M12 x 50	M18 x 60	M30 x 60
2-wire	**AC/DC**	**NO** function	**XS4P08MA230**	**XS4P12MA230**	**XS4P18MA230**	**XS4P30MA230**
not short-circuit protected (1)		**NC** function	**XS4P08MB230**	**XS4P12MB230**	**XS4P18MB230**	**XS4P30MB230**
	AC	**NO** or **NC** programmable	–	–	–	–
	AC/DC	**NO** or **NC** programmable	–	–	–	–
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	20…264	20…264	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	≤ 0.6	≤ 0.6	≤ 0.6
Voltage drop, closed state (V) at I nominal			≤ 5.5	≤ 5.5	≤ 5.5	≤ 5.5
Switching frequency (Hz)			25 AC / 3000 DC	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.

Accessories

Fixing for cylindrical sensors

Fixing clamp with indexing pin for cylindrical sensors



M4	**XSZB104**	M12	**XSZB112**
M5	**XSZB105**	M18	**XSZB118**
M6.5	**XSZB165**	M30	**XSZB130**
M8	**XSZB108**		

Suitable female plug-in connectors

M8	Straight	Elbowed
Metal ring	**XZCC8FDM30S**	**XZCC8FCM30S**
M12 (4 pin)		
Metal ring	**XZCC12FDM40B**	**XZCC12FCM40B**
Plastic ring	**XZCC12FDP40B**	**XZCC12FCP40B**

Other versions: **please consult your Schneider Electric agency.**

Miniature cylindrical metal (assembly)

	Ø 4	M5	Ø 6.5	
Nominal sensing distance Sn	1 mm	1 mm	1.5 mm	2.5 mm
Operating zone (mm)	0…0.8	0…0.8	0…1.2	0…2
Suitability for flush mounting (metal environment)	flush mountable			
Temperature range (°C)	- 25…+ 70			
Product certification	CE - UL - CSA - CCC - C-TICK			
Degree of protection (conforming to IEC 60529)	IP 67			

Sensors for DC applications

Dimensions (mm) Ø x L			Ø 4 x 29	M5 x 29	Ø 6.5 x 33	
Connection			**Pre-cabled, PvR (2 m)**			
3-wire	**PNP**	**NO** function	**XS1L04PA310**	**XS1N05PA310**	**XS506B1PAL2**	**XS106B3PAL2**
		NC function	–	–	**XS506B1PBL2**	**XS106B3PBL2**
	NPN	**NO** function	**XS1L04NA310**	**XS1N05NA310**	**XS506B1NAL2**	**XS106B3NAL2**
		NC function	–	–	**XS506B1NBL2**	**XS106B3NBL2**
2-wire (polarised)		**NO** function	–	–	**XS506BSCAL2**	**XS606B3CAL2**
		NC function	–	–	**XS506BSCBL2**	**XS606B3CBL2**
Dimensions (mm) Ø x L			Ø 4 x 41	M5 x 41	Ø 6.5 x 42	
Connection			**M8**			
3-wire	**PNP**	**NO** function	**XS1L04PA310S**	**XS1N05PA311S** (1)	**XS506B1PAM8**	**XS106B3PAM8**
		NC function	–	–	**XS506B1PBM8**	**XS106B3PBM8**
	NPN	**NO** function	**XS1L04NA310S**	**XS1N05NA311S** (1)	**XS506B1NAM8**	**XS106B3NAM8**
		NC function	–	–	**XS506B1NBM8**	**XS106B3NBM8**
Connection			**M12**			
2-wire (polarised)		fonction **NO**	–	–	**XS506BSCAL01M12**	**XS506B3CAL01M12**
Supply voltage limits, min./max. (V) including ripple			5…30	5…30	10…36	
Switching capacity, max. (mA) 3-wire / 2-wire			100 / –	100 / –	200 / 100	
Short-circuit protect. (★) / LED output state indicator (⊗)			★ / ⊗	★ / ⊗	★ / ⊗	
Voltage drop, closed state (V) at I nominal 3-wire / 2-wire			≤ 2 / –	≤ 2 / –	≤ 2 / ≤ 4	
Switching frequency (Hz) 3-wire / 2-wire			5000 / –	5000 / –	5000 / 4000	2500 / 3000

(1) Stainless steel sensors, Sn = 0.8 mm

Pre-wired connectors

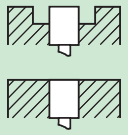
Straight

Elbowed

	M8 (3 pin)		1/2"			M12 (4 pin)			
	Straight	Elbowed		Straight	Elbowed		Straight	Elbowed	Elbowed PNP LED
2 m	**XZCP0566L2**	**XZCP0666L2**	2 m	**XZCP1865L2**	**XZCP1965L2**	2 m	**XZCP1141L2**	**XZCP1241L2**	**XZCP1340L2**
5 m	**XZCP0566L5**	**XZCP0666L5**	5 m	**XZCP1865L5**	**XZCP1965L5**	5 m	**XZCP1141L5**	**XZCP1241L5**	**XZCP1340L5**
10 m	**XZCP0566L10**	**XZCP0666L10**	10 m	**XZCP1865L10**	**XZCP1965L10**	10 m	**XZCP1141L10**	**XZCP1241L10**	**XZCP1340L10**

Inductive proximity sensors

Multi-voltage with short-circuit protection



		M12	M18	M30
Sensing distance Sn	flush mountable	2 mm	5 mm	10 mm
	non flush mountable	4 mm	8 mm	15 mm
Operating zone (mm)	flush mountable	0…1.6	0…4	0…8
	non flush mountable	0…3.2	0…6.4	0…12
Suitability for flush mounting (metal environment)		flush mountable or non flush mountable depending on model		
Case M (metal) P (plastic)		M		
Temperature range (°C)		- 25…+ 70		
Degree of protection (conforming to IEC 60529)		IP 68 (with connector: IP 67)		
Product certification		CE - UL - CSA - CCC - C-TICK		
Dimensions (mm) Ø x L Cable (Connector)		M12 x 55 (M12 x 66)	M18 x 60 (M18 x 72)	M30 x 60 (M30 x 72)

Sensors for DC applications

Connection						
4-wire	**PNP**	**NO + NC**	flush mountable	–	–	–
			non flush mountable	–	–	–
	NPN	**NO + NC**	flush mountable	–	–	–
			non flush mountable	–	–	–
	PNP+NPN	**NO/NC**	flush mountable (metal)	–	–	–
	programmable		non flush mntbl. (metal)	–	–	–
			non flush mntbl. (plastic)	–	–	–
Connection						
4-wire	**PNP**	**NO + NC**	flush mountable	–	–	–
			non flush mountable	–	–	–
	NPN	**NO + NC**	flush mountable	–	–	–
			non flush mountable	–	–	–
	PNP+NPN	**NO/NC**	flush mountable (metal)	–	–	–
	programmable		non flush mntbl. (metal)	–	–	–
			non flush mntbl. (plastic)	–	–	–
Supply voltage limits, min./max. (V) including ripple				–	–	–
Switching capacity, max. (mA)				–	–	–
Short-circuit protection (★) / LED output state indicator (⊗)				–	–	–
Voltage drop, closed state (V) at I nominal				–	–	–
Switching frequency (Hz)				–	–	–

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

Connection				**Pre-cabled, PvR (2 m)**		
2-wire AC/DC	**NO** function		flush mountable	**XS1M12MA250**	**XS1M18MA250**	**XS1M30MA250**
			non flush mountable	**XS2M12MA250**	**XS2M18MA250**	**XS2M30MA250**
	NC function		flush mountable	**XS1M12MB250**	**XS1M18MB250**	**XS1M30MB250**
			non flush mountable	**XS2M12MB250**	**XS2M18MB250**	**XS2M30MB250**
Connection				**1/2"-20 UNF connector**		
2-wire AC/DC	**NO** function		flush mountable	**XS1M12MA250K**	**XS1M18MA250K**	**XS1M30MA250K**
			non flush mountable	**XS2M12MA250K**	**XS2M18MA250K**	**XS2M30MA250K**
	NC function		flush mountable	**XS1M12MB250K**	**XS1M18MB250K**	**XS1M30MB250K**
			non flush mountable	**XS2M12MB250K**	**XS2M18MB250K**	**XS2M30MB250K**
Supply voltage limits, min./max. (V) 50-60 Hz				20…264		
Switching capacity, max. (mA)				5…200	5…200 AC, 5…300 DC	
LED output state indicator (⊗) / Power on LED (⊗)				⊗ / ⊗		
Residual current, open state (mA)				≤ 1.5		
Voltage drop, closed state (V) at I nominal				≤ 5.5		
Switching frequency (Hz)				25 AC, 4000 DC	25 AC, 2000 DC	25 AC, 2000 DC (1)

(1) 25 AC, 1000 DC for non flush mountable Ø 30 mm.

Schneider Electric

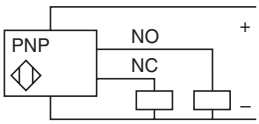
Other versions: **please consult your Schneider Electric agency.**

PNP or NPN
NO + NC Complementary outputs

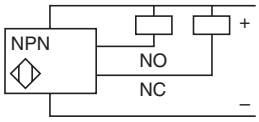
PNP + NPN outputs,
NO or NC programmable

	M8	M12	M18	M30	M12	M18	M30
	1.5 mm	2 mm	5 mm	10 mm	2 mm	5 mm	10 mm
	2.5 mm	4 mm	8 mm	15 mm	4 mm	8 mm	15 mm
	0…1.2	0…1.6	0…4	0…8	0…1.6	0…4	0…8
	0…2	0…3.2	0…6.4	0…12	0…3.2	0…6.4	0…12
	flush mountable or non flush mountable depending on model				flush mountable or non flush mountable depending on model		
	M				M or P depending on model		
	- 25…+ 70				- 25…+ 70		
	IP 67	IP 68 (with connector: IP 67)			IP 68 (with connector: IP 67)		
	CE - UL - CSA - CCC - C-TICK				CE - UL - CSA - CCC - C-TICK		
	M8 x 50 (M8 x 61)	M12 x 33 (M12 x 48)	M18 x 36.5 (M18 x 49)	M30 x 40.5 (M30 x 53)	M12 x 50 (M12 x 61)	M18 x 60 (M18 x 72)	M30 x 60 (M30 x 72)
	Pre-cabled, PvR (2 m)				**Pre-cabled, PvR (2 m)**		
	XS1M08PC410	**XS1N12PC410**	**XS1N18PC410**	**XS1N30PC410**	–	–	–
	XS2M08PC410	**XS2N12PC410**	**XS2N18PC410**	**XS2N30PC410**	–	–	–
	XS1NM08NC410	**XS1N12NC410**	**XS1N18NC410**	**XS1N30NC410**	–	–	–
	XS2M08NC410	**XS2N12NC410**	**XS2N18NC410**	**XS2N30NC410**	–		
	–	–	–	–	**XS1M12KP340**	**XS1M18KP340**	**XS1M30KP340**
	–	–	–	–	**XS2M12KP340**	**XS2M18KP340**	**XS2M30KP340**
	–	–	–	–	**XS4P12KP340**	**XS4P18KP340**	**XS4P30KP340**
	M12 connector				**M12 connector**		
	XS1M08PC410D	**XS1N12PC410D**	**XS1N18PC410D**	**XS1N30PC410D**	–	–	–
	XS2M08PC410D	**XS2N12PC410D**	**XS2N18PC410D**	**XS2N30PC410D**	–	–	–
	XS1M08NC410D	**XS1N12NC410D**	**XS1N18NC410D**	**XS1N30NC410D**	–	–	–
	XS2M08NC410D	**XS2N12NC410D**	**XS2N18NC410D**	**XS2N30NC410D**	–	–	–
	–	–	–	–	**XS1M12KP340D**	**XS1M18KP340D**	**XS1M30KP340D**
	–	–	–	–	**XS2M12KP340D**	**XS2M18KP340D**	**XS2M30KP340D**
	–	–	–	–	**XS4P12KP340D**	**XS4P18KP340D**	**XS4P30KP340D**
	10…36				10…36		
	200				200		
	★ / ⊗				★ / –		
	≤ 2				≤ 2.6		
	5000	5000	2000	1000	5000	2000	1000

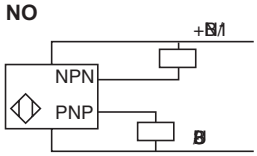
PNP



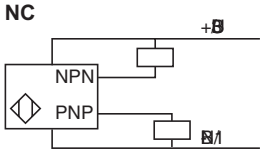
NPN



NO



NC



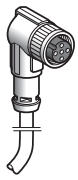
Accessories

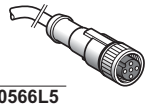
Fixing clamps

With indexing pin for cylindrical sensors

M8	**XSZB108**
M12	**XSZB112**
M18	**XSZB118**
M30	**XSZB130**

Suitable female plug-in connectors, including pre-wired versions





	length 5 m without LED	pre-wired, elbowed	pre-wired, straight	screw terminal
M8 (or S)		**XZCP0666L5**	**XZCP0566L5**	**XZCC8FCM30S**
M12 (or D)		**XZCP1241L5**	**XZCP1141L5**	**XZCC12FCM40B**
1/2" (or K)		**XZCP1965L5**	**XZCP1865L5**	**XZCC20FCM30B**

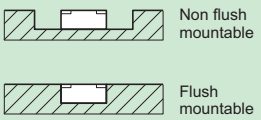
OsiSense XS

Inductive proximity sensors - Application

Rotation control

Fixed sensing distance

(for ferrous or non ferrous materials)



	26 x 26 x 13	40 x 40 x 15	M30	M18	M30
Nominal sensing distance Sn	**10** mm	**15** mm	**10** mm	**5** mm	**10** mm
Operating zone (mm)	0...8	0...12	0...8	0...4	0...8
Suitability for flush mounting (metal environment)	flush mountable			flush mountable	
Case M (metal) P (plastic)	P	P	M	M	M
Temperature range (°C)	- 25…+ 70			0…+ 50	
Degree of protection (conforming to IEC 60529)	IP 67			pre-cabled: IP 68 (with connector: IP 67)	
Product certification	CE - UL - CSA - CCC - C-TICK			CE - UL - CSA - CCC - C-TICK	
Dimensions (mm) Ø x L or W x H x D Cable (Connector)	26 x 26 x 13	40 x 40 x 15	M30 x 81	M18 x 60 (M18 x 70)	M30 x 60
Maximum speed of passing object (impulses/min)	48000	48000	6000...48000 (1)	–	–
Adjustable frequency range (impulses/min)	6...6000	6...6000	6...150 / 120...3000 (1)	–	–

Sensors for DC applications

Connection			**Pre-cabled, PvR (2 m)**				
4-wire	**PNP/NPN NO/NC**	programmable	–	–	–	**XS1M18KPM40**	**XS1M30KPM40**
3-wire	**PNP** **NC** function	slow version	–	–	**XSAV11373**	–	–
		fast version	–	–	**XSAV12373**	–	–
	0…10 V output	plastic	–	–	–	–	–
	4…20 mA output	metal, flush mountable	–	–	–	–	–
		plastic, flush mountable	–	–	–	–	–
		plastic, non flush mountable	–	–	–	–	–
Connection			**M8 or M12 connector**				**M12** on 0.8 m flying lead
4-wire	**PNP/NPN NO/NC**	programmable	–	–	–	**XS1M18KPM40D**	**XS1M30KPM40LD**
3-wire	**PNP** **NC** function		**XS9E11RPBL01M12** (3)	**XS9C11RPBL01M12** (3)	–	–	–
	0…10 V output		–	–	–	–	–
	4…20 mA output		–	–	–	–	–
Supply voltage limits, min./max. (V) including ripple			10...36	10...36	10...58	10...38	
Switching capacity, max. (mA)			100	200	200	200	
Short-circuit protect. (★) / LED output state indicator (⊗) / Power on LED (⊗)			(⊗)	★ / ⊗ / ⊗	★ / ⊗ / ⊗	★ / ⊗ / –	★ / ⊗ / –
Linearity error			–	–	–	–	
Voltage drop, closed state (V) at I nominal			≤ 2	≤ 2	≤ 2	≤ 2.6	
Switching frequency (Hz)			–	–	–	1000	
Operating frequency (Hz)			–	–	–	–	

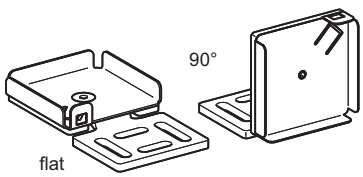
Multi-current/multi-voltage sensors for AC/DC applications

Connection			**Pre-cabled, PvR (2 m)**				
2-wire	**AC/DC** **NC** function		**XS9E11RMBL01U20** (5)	**XS9C11RMBL01U20** (5)	–	–	–
not short-circuit protected (2)	**NC** function	slow version	–	–	**XSAV11801**	–	–
		fast version	–	–	**XSAV12801**	–	–
Supply voltage limits, min./max. (V) 50-60 Hz			20...264	20...264	20...264	–	–
Switching capacity, max. (mA)			100	300 AC / 200 DC	300 AC / 200 DC	–	–
LED output state indicator (⊗) / Power on LED (⊗)			⊗ / ⊗	⊗ / ⊗	⊗ / –	–	–
Residual current, open state (mA)			≤ 1.5	≤ 1.5	≤ 1.5	–	–
Voltage drop, closed state (V) at I nominal			≤ 5.5	≤ 5.5	≤ 5.7	–	–
Switching frequency (Hz)			–	–	–	–	–

Accessories

Fixing

for flat sensors



	flat	90°	substitution of block type sensors XSE / XSC / XSD
8x22x8	**XSZBJ00**	**XSZBJ90**	–
15x32x8	**XSZBF00**	**XSZBF90**	**XSZBE10**
26x26x13	**XSZBE00**	**XSZBE90**	**XSZBC10**
40x40x15	**XSZBC00**	**XSZBC90**	**XSZBD10**

Fixing clamp with indexing pin for cylindrical sensors

M12	**XSZB112**
M18	**XSZB118**
M30	**XSZB130**

Other versions: **please consult your Schneider Electric agency.**

Analogue (Position control)

	8 x 32 x 8	26 x 26 x 13	40 x 40 x 15	80 x 80 x 26	M12	M18	M30
	5 mm	10 mm	15 mm	40 mm	M: 2 mm / P: 4 mm	M: 5 mm / P: 8 mm	M: 10 mm / P: 15 mm
	1...4	1...10	2...15	5...40	M: 0.2…2 / P: 0.4…4	M: 0.5…5 / P: 0.8…8	M: 1…10 / P: 1.5…15
	flush mountable	flush mountable	flush mountable	flush mountable	flush / non flush mountable	flush / non flush mountable	flush / non flush mountable
	P	P	P	P	M or P	M or P	M or P
	- 25…+ 70	- 25…+ 70	- 25…+ 70	- 25…+ 70	- 25…+ 70	- 25…+ 70	- 25…+ 70
	pre-cabled: IP 68 (with connector: IP 67)				IP 67		
	CE - UL - CSA - CCC - C-TICK						
	15 x 32 x 8	26 x 26 x 13	40 x 40 x 15	80 x 80 x 26	Ø 12 x 50	Ø 18 x 50	Ø 30 x 52.5
	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
	XS9F111A1L2	**XS9E111A1L2**	**XS9C111A1L2**	**XS9D111A1L2**	**XS4P12AB110**	**XS4P18AB110**	**XS4P30AB110**
	–	–	–	–	**XS1M12AB120**	**XS1M18AB120**	**XS1M30AB120**
	XS9F111A2L2	**XS9E111A2L2**	**XS9C111A2L2**	**XS9D111A2L2**	–	–	–
	–	–	–	–	**XS4P12AB120**	**XS4P18AB120**	**XS4P30AB120**
	M8 or M12 connector						
	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
	XS9F111A1L01M8 (4)	**XS9E111A1L01M12** (4)	**XS9C111A1L01M12** (4)	**XS9D111A1M12**	–	–	–
	XS9F111A2L01M8 (4)	**XS9E111A2L01M12** (4)	**XS9C111A2L01M12** (4)	**XS9D111A2M12**	–	–	–
	10...36	10...36	10...36	10...36	10…38	10…38	10…38
	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
	± 1 V for 0…10 V version / ± 2 mA for 4…20 mA version						
	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
	2000	1000	1000	100	1500	500	300

(1) 6...150 and 6000 impulses/min for XSAV11373 and XSAV11801 (slow version); 120...3000 and 48000 impulses/min for XSAV12373 and XSAV12801 (fast version).

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

(3) Flying lead (L = 0.15 m) with end mounted remote control incorporating M12 connector.

(4) Flying lead (L = 0.15 m) with end connector.

(5) Flying lead (L = 0.15 m) with end mounted remote control incorporating 1/2"-20 UNF connector.

Accessories

Pre-wired connectors

Straight Elbowed

	M8 (3 pin)		1/2"			M12 (4 pin)		
	Straight	Elbowed		Straight	Elbowed		Straight	Elbowed	Elbowed PNP LED
2 m	**XZCP0566L2**	**XZCP0666L2**	2 m	**XZCP1865L2**	**XZCP1965L2**	2 m	**XZCP1141L2**	**XZCP1241L2**	**XZCP1340L2**
5 m	**XZCP0566L5**	**XZCP0666L5**	5 m	**XZCP1865L5**	**XZCP1965L5**	5 m	**XZCP1141L5**	**XZCP1241L5**	**XZCP1340L5**
10 m	**XZCP0566L10**	**XZCP0666L10**	10 m	**XZCP1865L10**	**XZCP1965L10**	10 m	**XZCP1141L10**	**XZCP1241L10**	**XZCP1340L10**

Suitable female plug-in connectors

M8	Straight	Elbowed
Steel ring	**XZCC8FDM30S**	**XZCC8FCM30S**
M12 (4 pin)		
Steel ring	**XZCC12FDM40B**	**XZCC12FCM40B**
Plastic ring	**XZCC12FDP40B**	**XZCC12FCP40B**

Inductive proximity sensors - Application

Food and beverage processing

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 M (metal) (1)	M 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 55	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…36			
Switching capacity, max. (mA)			≤ 200			
Switching frequency (Hz)			2500	1000	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 (2)	**AC/DC**	**NO** function	**–**	**XS218SAMAL2**	**–**	**XS230SAMAL2**
Connection			**1/2"-20 UNF connector**			
Dimensions (mm)			–	M18 x 72	–	M30 x 74
2-wire (2)	**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

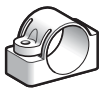
(1) Plastic range available. M12, M18, M30:
To order, replace the second letter **S** in the reference by **A** (example: XS212**S**APAL2 becomes XS212**A**APAL2).

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

Accessories

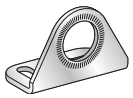
Fixing clamps

Plastic fixing centres 24.1 mm, with locking screw



for sensor	
Ø 18 plain	**XUZB2005**

Stainless steel



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

M12 pre-wired connector

female, 4-pin, stainless steel clamping ring

Straight connector

5 m cable	**XZCPA1141L5**

Elbowed connector

5 m cable	**XZCPA1241L5**

M12 jumper cable

male, 3-pin, stainless steel clamping ring

Straight connector	5 m	**XZCRA151140A5**

1/2" pre-wired connector

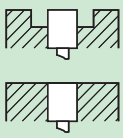
Straight	5 m	**XZCP1865L5**
Elbowed	5 m	**XZCP1965L5**

Other versions: **please consult your Schneider Electric agency.**

OsiSense XT

Capacitive proximity sensors

Detection of insulating materials or conductive materials



Suitability for flush mtg.		M12	M18	M30	Ø 32	40 x 40 x 117
Nominal sensing distance Sn	flush mountable	2 mm	5 mm	10 mm	15 mm	15 mm
	non flush mountable	–	8 mm	15 mm	20 mm	–
Operating zone Sa (mm) (2)	flush mountable	0…1.44	0…3.6	0…7.2	0…10	0…11
	non flush mountable	–	0…5.8	0…11	0…15	–
Case M (metal) P (plastic)	flush mountable	M	M	M	M	P
	non flush mountable	–	P	P	P	–
Product certification		CE				CE - UL - CSA
Temperature range (°C)		- 25…+ 70				
Degree of protection (conforming to IEC 60529)		IP 67				
Dimensions (mm) Ø x L or H x W x D		M12 x 70	M18 x 80	M30 x 80	M32 x 80	117 x 40 x 40

Sensors for DC applications

Connection				**Pre-cabled, PVC (2 m)**				
3-wire	**PNP**	**NO** function	flush mountable	**XT112S1PAL2**	**XT118B1PAL2**	**XT130B1PAL2**	–	–
			non flush mountable	–	**XT218A1PAL2**	**XT230A1PAL2**	–	–
		NO + NC functions	flush mountable	**XT112S1PCL2**	**XT118B1PCL2**	**XT130B1PCL2**	–	–
			non flush mountable	–	–	–	–	–
	NPN	**NO** function	flush mountable	**XT112S1NAL2**	**XT118B1NAL2**	**XT130B1NAL2**	–	–
			non flush mountable	–	**XT218A1NAL2**	**XT230A1NAL2**	–	–
Connection				**M12 connector**				**Screw terminals**
3-wire	**PNP**	**NO + NC** functions	flush mountable	**XT112S1PCM12**	**XT118B1PCM12**	**XT130B1PCM12**	–	**XT7C40PC440** (3)
			non flush mountable	–	**XT218A1PCM12**	**XT230A1PCM12**	–	–
	NPN	**NO + NC** functions	flush mountable	–	–	–	–	**XT7C40NC440** (3)
Supply voltage limits, min./max. (V) including ripple				10...38				10...58
Switching capacity, max. (mA)				200				200
Short circuit-protection (★) / LED output state indicator (⊗)				★ / ⊗				★ / ⊗
Voltage drop, closed state (V) at I nominal				≤ 2				≤ 2
Switching frequency (Hz)				300	100 (XT2) / 200 (XT1)	100 (XT2) / 150 (XT1)	–	100

Multi-current/multi-voltage sensors for AC applications

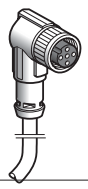
Connection				**Pre-cabled, PVC (2 m)**				
2-wire AC (1)		**NO** function	flush mountable	–	**XT118B1FAL2**	**XT130B1FAL2**	**XT132B1FAL2**	–
			non flush mountable	–	**XT218A1FAL2**	**XT230A1FAL2**	**XT232A1FAL2**	–
		NO function	flush mountable	–	**XT118B1FBL2**	**XT130B1FBL2**	**XT132B1FBL2**	–
			non flush mountable	–	–	XT230A1FBL2	XT232A1FBL2	–
Connection								**Screw terminals**
2-wire AC (1)		**NO or NC** programmable	flush mountable	–	–	–	–	**XT7C40FP262**
Supply voltage limits, min./max. (V) 50-60 Hz				–	20…264	20…264	20…264	20…264
Switching capacity, max. (mA)				–	300			350
LED output state indicator (⊗) / Power on LED (⊗)				⊗ / –				
Voltage drop, closed state (V) at I nominal				–	≤ 5.5	≤ 5.5	≤ 9	≤ 5.5
Switching frequency (Hz)				–	25	25	25	25

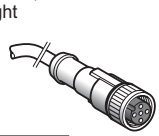
(1) For these sensors without short-circuit protection, it is essential to connect a 0.4 A quick-blow fuse in series with the load.
(2) The operating distance depends on the objet material.
(3) Only for detecting insulating materials.

Accessories

Suitable female plug-in connectors, including pre-wired versions

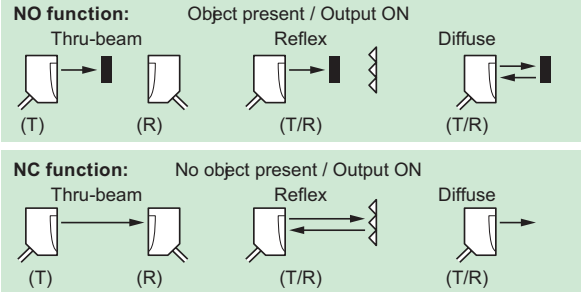
length 5 m without LED	pre-wired, elbowed	pre-wired, straight	screw terminal
M12	**XZCP1241L5**	**XZCP1141L5**	**XZCC12FCM40B**





OsiSense XU Photo-electric sensors

General Purpose



			M18 Metal (1) Cable	M18 Metal (1) M12 connector	M18 Plastic Cable	M18 Plastic M12 connector
Diffuse	**Sensing distance**		0.6 m (2) (3)		0.6 m (2) (3)	
Output type	DC3 NO	PNP	XUB5BPANL2	XUB5BPANM12	XUB5APANL2	XUB5APANM12
		NPN	XUB5BNANL2	XUB5BNANM12	XUB5ANANL2	XUB5ANANM12
		PNP/NPN	–	–	–	–
	AC/DC 1C/O relay		–	–	–	–
Reflex Polarised	**Sensing distance** (4)		2 m		2 m	
Output type	DC3 NO	PNP	XUB9BPANL2	XUB9BPANM12	XUB9APANL2	XUB9APANM12
		NPN	XUB9BNANL2	XUB9BNANM12	XUB9ANANL2	XUB9ANANM12
		PNP/NPN	–	–	–	–
	AC/DC 1C/O relay		–	–	–	–
Reflex	**Sensing distance** (4)		4 m		4 m	
Output type	DC3 NO	PNP	XUB1BPANL2	XUB1BPANM12	XUB1APANL2	XUB1APANM12
		NPN	XUB1BNANL2	XUB1BNANM12	XUB1ANANL2	XUB1ANANM12
	AC/DC 1C/O relay		–	–	–	–
Thru beam	**Sensing distance**		15 m		15 m	
Output type	DC3 NO	PNP	XUB2BPANL2R	XUB2BPANM12R	XUB2APANL2R	XUB2APANM12R
		NPN	XUB2BNANL2R	XUB2BNANM12R	XUB2ANANL2R	XUB2ANANM12R
		PNP/NPN	–	–	–	–
	AC/DC 1C/O relay		–	–	–	–
Output function	**NO**		A	A	A	A
	NC		B	B	B	B
Thru beam Transmitter		DC	XUB0BKSNL2T	XUB0BKSNM12T	XUB0AKSNL2T	XUB0AKSNM12T
		AC/DC	–	–	–	–
Multimode	Sensing distance		Background suppression: 0.12 m - Diffuse: 0.3 m Reflex polarised: 2 m - Thru beam: 18 m			
Output type	DC3 NO/NC	PNP	XUB0BPSNL2	XUB0BPSNM12	XUB0APSNL2	XUB0APSNM12
		NPN	XUB0BNSNL2	XUB0BNSNM12	XUB0ANSNL2	XUB0ANSNM12
		PNP/NPN	–	–	–	–
	AC/DC 1C/O relay		–	–	–	–
Thru beam Transmitter		DC	XUB0BKSNL2T	XUB0BKSNM12T	XUB0AKSNL2T	XUB0AKSNM12T
		AC/DC	–	–	–	–

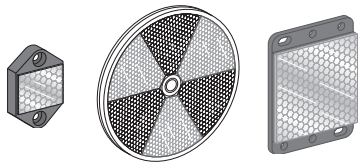
(1) Brass metal, aivailable also in stainless steel, see page food/beverage processing series

(2) For a sensing distance 0,1 m without sensitivity adjustment, change digit 5 by 4 into the reference (ex: XUB**5**BPANL2 becomes XUB**4**BPANL2)

Fixing	M18 x1	M18 x1
Dimensions	M18 x 64 mm / M18 x 78 mm	
Product certifications	CE, UL, CSA, C-Tick	CE, UL, CSA, C-Tick
DC common characteristics		
Supply voltage limits, min./max. (V) including ripple	10…36	10…36
Switching frequency (Hz)	500	500
Common characteristics for DC versions	Switching capacity, max. (mA): 100 / Overload and short-circuit protection (★) / LED output state	
AC/DC common characteristics		
Supply voltage limits, min./max. (V) including ripple	–	–
Switching frequency (Hz)	–	–
LED output state indicator (⊗) / power on LED (⊗)	–	–

Accessories

Reflectors



XUZC24 XUZC80 XUZC50

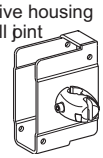
Reflectors (mm)	
Ø 21	**XUZC21**
24 x 21	**XUZC24**
11 x 33	**XUZC08**
Ø 39	**XUZC39**
Ø 80	**XUZC80**
50 x 50	**XUZC50**
100 x 100	**XUZC100**

3D fixings with ball joint

Bracket with ball pint for sensors and reflector XUZC50

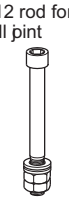
for	
XUB…	**XUZB2003**
XUM0…	**XUZM2003**
XUK…	**XUZK2003**
XUX…	**XUZX2003**

Protective housing with ball pint



for	
XUK…	**XUZK2004**
XUX…	**XUZX2004**

M12 rod for ball pint



XUZ2001

Schneider Electric

Other versions: **please consult your Schneider Electric agency.**

Miniature		Compact 50 x 50 mm		Compact 92 x 71 mm	
Cable	M8 connector	Cable	M12 connector	Screw terminal	M12 connector
1 m (3)		1 m (3)		2.1 m (3)	
–	–	XUK5AP ANL2	XUK5AP ANM12	XUX5AP ANT16	XUX5AP ANM12
–	–	XUK5AN ANL2	XUK5AN ANM12	XUX5AN ANT16	XUX5AN ANM12
XUM5APCNL2	XUM5APCNM8	–	–	–	–
–	–	XUK5ARCNL2	–	XUX5ARCNT16	–
5 m (3)		5 m		11 m (3)	
–	–	XUK9AP ANL2	XUK9AP ANM12	XUX9AP ANT16	XUX9AP ANM12
–	–	XUK9AN ANL2	XUK9AN ANM12	XUX9AN ANT16	XUX9AN ANM12
XUM9APCNL2	XUM9APCNM8	–	–	–	–
–	–	XUK9ARCNL2	–	XUX9ARCNT16	–
–		7 m		14 m (3)	
–	–	XUK1AP ANL2	XUK1AP ANM12	XUX1AP ANT16	XUX1AP ANM12
–	–	XUK1AN ANL2	XUK1AN ANM12	XUX1AN ANT16	XUX1AN ANM12
–	–	XUK1ARCNL2	–	XUX1ARCNT16	–
15 m (3)		30 m		40 m (3)	
–	–	XUK2AP ANL2R	XUK2AP ANM12R	XUX2AP ANT16R	XUX2AP ANM12R
–	–	XUK2AN ANL2R	XUK2AN ANM12R	XUX2AN ANT16R	XUX2AN ANM12R
XUM2APCNL2R	XUM2APCNM8R	–	–	–	–
–	–	XUK2ARCNL2R	–	XUX2ARCNT16R	–
NO or NC	NO or NC	A	A	A	A
		B	B	B	B
XUM2AKCNL2T	XUM2AKCNM8T	XUK2AKSNL2T	XUK2AKSNM12T	XUX0AKSAT16T	XUX0AKSAM12T
–	–	XUK2ARCNL2T	–	XUX2ARCTT16T	–
Background suppression: 0.1 m - Diffuse: 0.4 m Reflex polarised: 3 m - Thru beam: 10 m		Background suppression: 0.28 m - Diffuse: 0.8 m Reflex polarised: 4 m - Thru beam: 30 m		Background suppression: 1.3 m - Diffuse: 2 m Reflex polarised: 11 m - Thru beam: 40 m	
XUM0APSAL2	XUM0APSAM8	–	–	–	–
XUM0ANSAL2	XUM0ANSAM8	–	–	–	–
–	–	XUK0AKSAL2	XUK0AKSAM12	XUX0AKSAT16	XUX0AKSAM12
–	–	XUK0ARCTL2	–	XUX0ARCTT16	–
XUM0AKSAL2T	XUM0AKSAM8T	XUK0AKSAL2T	XUK0AKSAM12T	XUX0AKSAT16T	XUX0AKSAM12T
–	–	XUK0ARCTL2T	–	XUX0ARCTT16T	–

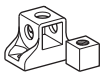
(3) With sensitivity adjustment

(4) With reflector XUZC50

Direct fixing centres 25.5, M3 screws		Direct fixing centres 40 x 40, M4 screws	Direct fixing centres 30/38 to 40/50/74, M5 screws
12 x 34 x 20		18 x 50 x 50	30 x 92 x 71
CE, UL, CSA, C-Tick		CE, UL, CSA, CCC, C-Tick	CE, UL, CSA, CCC, C-Tick
10…30		10…30	10…36
1000		500	500
indicator (⊗): yes / power on LED (⊗): yes			
–		20…264	20…264
–		20	20
–		⊗ / ⊗	⊗ / ⊗

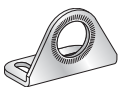
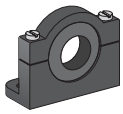
Simple fixings

Fixing support for M12 rod



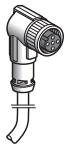
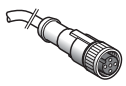
XUZ2003

Single bracket

for	standard	with ball joint
XUB...	**XUZA118** (stnls. steel)	**XUZA218** (plastic)
XUM...	**XUZAM02**	–
XUK...	**XUZA51**	–
XUX...	**XUZX2000**	–

Suitable female plug-in connectors, including pre-wired versions

length 5 m without LED	pre-wired, elbowed	pre-wired, straight	screw terminal
M8	**XZCP1041L5**	**XZCP0941L5**	**XZCC8FCM40S**
M12	**XZCP1241L5**	**XZCP1141L5**	**XZCC12FCM40B**

Other versions: **please consult your Schneider Electric agency.**

Photo-electric sensors

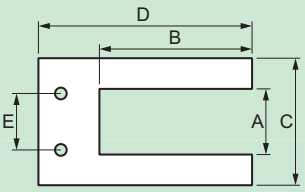
Optical forks without setting and frames

New

System	Thru-beam with modular red LED light source
Sensing distance	**2…180** mm
Fixing (mm)	(see column E below)
Minimum size of objet detected	0,8 mm
Case M (metal)	M
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	- 10…+ 60 / IP65 & IP67
Product certification	CE - cULus

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

Connection				M8 connector 3-pin						Pre-cabled L = 2 m.					
Dimensions (mm)					A	B	C	D	E		A	B	C	D	E
Transmitter / Receiver	3 wire	NO function	PNP	**XUVR0605P ANM8**	50	60	74	77,5	40	**XUVR0303PANL2**	30	40	54	57,5	30
			NPN	**XUVR0605N ANM8**											
		NO function	PNP	**XUVR0608P ANM8**	80	60	104	77,5	70						
			NPN	**XUVR0608N ANM8**											
		NO function	PNP	**XUVR1212P ANM8**	120	120	144	142	100						
			NPN	**XUVR1212N ANM8**											
		NO function	PNP	**XUVR1218P ANM8**	180	120	204	142	152						
			NPN	**XUVR1218N ANM8**											
Output function	**NO**			**A**											
	NC			**B**											
Supply voltage limits, min./max. (V) including ripple				10…30											
Switching capacity, max. (mA) / Switching frequency (Hz)				100/4kHz											
Overload and short-circuit protection (★) / LED output state indicator (⊗)				★ / ⊗											



System		Thru-beam with infrared emission				
Passageway dimensions		30 x 30 mm	60 x 60 mm	200 x 120 mm	200 x 180 mm	200 x 250 mm
Connection		M8 (4 pin)		M12 (4 pin)		
Minimum size of object to be detected	Ø 2 mm	**XUVF30M8**	**XUVF60M8**	–	–	–
	Ø 4 mm	–	–	**XUVF120M12**	**XUVF180M12**	**XUVF250M12**
	Ø 10 mm	–	–	**XUYFRS120S**	**XUYFRS180S**	**XUYFRS250S**
Type and output function		4-wire, PNP and NPN Output function ON or OFF on passage of object, programmable				
Supply voltage limits, min./max. (V) including ripple		18…30				
Switching capacity, max. (mA) / Switching frequency (Hz)		≤ 100 mA / 500 Hz				
Overload and short-circuit protection (★) / LED output state indicator (⊗)		★ / ⊗				

Accessories

Suitable female pre-wired plug-in connectors

Straight

Elbowed

	M8 (3 pin) For optical forks without setting		**M8** (4 pin) For optical forks and frame with setting		**M12** (4 pin) For frame with setting	
	Straight	Elbowed	Straight	Elbowed	Straight	Elbowed
2 m	**XZCP0566L2**	**XZCP0666L2**	**XZCP0941L2**	**XZCP1041L2**	**XZCP1141L2**	**XZCP1241L2**
5 m	**XZCP0566L5**	**XZCP0666L5**	**XZCP0941L5**	**XZCP1041L5**	**XZCP1141L5**	**XZCP1241L5**

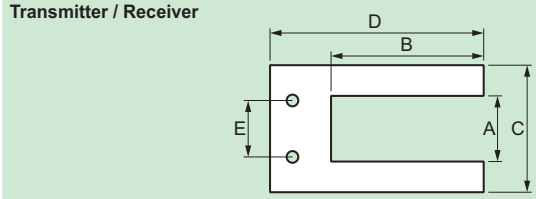
Other versions: **please consult your Schneider Electric agency.**

Forks with teach mode (1)

System, with teach mode	Thru-beam	Thru-beam laser
Sensing distance	**2…120** mm	**2…120** mm
Fixing (mm)	(see column E below)	
Minimum size of objet detected	0,2 mm	0,05 mm
Case M (metal) / Setting-up assistance LEDs ⊗	M / ⊗	
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	- 25…+ 60 / IP 65	
Product certification	CE - cULus	

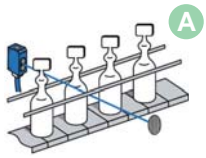
Sensors for DC applications (solid-state output: transistor)

Connection	**M8 connector** - 4 Pin												
Type of output	3-wire PNP/NPN programmable NO/NC												
Dimensions (mm)		A	B	C	D	E		A	B	C	D	E
Transmitter / Receiver	**XUYFANEP40002**	2	42	32	57	14	**XUYFALNEP40002**	2	42	41	57	14
	XUYFANEP60002	2	59		77		**XUYFALNEP60002**	2	59		77	
	XUYFANEP100002	2	95		110		**XUYFALNEP100002**	2	95		110	
	XUYFANEP40005	5	42	35	57	14	**XUYFALNEP40005**	5	42	44	57	14
	XUYFANEP60005	5	59		77		**XUYFALNEP60005**	5	59		77	
	XUYFANEP100005	5	95		110		**XUYFALNEP100005**	5	95		110	
	XUYFANEP40015	15	42	45	57	27	**XUYFALNEP40015**	15	42	54	57	27
	XUYFANEP60015	15	59		77		**XUYFALNEP60015**	15	59		77	
	XUYFANEP100015	15	95		110		**XUYFALNEP100015**	15	95		110	
	XUYFANEP40030	30	42	60	57	42	**XUYFALNEP40030**	30	42	69	57	42
	XUYFANEP60030	30	59		77		**XUYFALNEP60030**	30	59		77	
	XUYFANEP100030	30	95		110		**XUYFALNEP100030**	30	95		110	
	XUYFANEP40050	50	42	80	57	40	**XUYFALNEP40050**	50	42	89	57	40
	XUYFANEP60050	50	59		77		**XUYFALNEP60050**	50	59		77	
	XUYFANEP100050	50	95		110		**XUYFALNEP100050**	50	95		110	
	XUYFANEP40080	80	42	110	57	70	**XUYFALNEP40080**	80	42	119	57	70
	XUYFANEP60080	80	59		77		**XUYFALNEP60080**	80	59		77	
	XUYFANEP100080	80	95		110		**XUYFALNEP100080**	80	95		110	
	XUYFANEP40120	120	42	150	57	110	**XUYFALNEP40120**	120	42	159	57	110
	XUYFANEP60120	120	59		77		**XUYFALNEP60120**	120	59		77	
	XUYFANEP100120	120	95		110		**XUYFALNEP100120**	120	95		110	
Supply voltage limits, min./max. (V) including ripple	10…30						10…30					
Switching capacity, max. (mA) / Switching frequency (Hz)	100/10 kHz						100/10 kHz					
Overload and short-circuit protection (★) / LED output state indicator (⊗)	★ / ⊗						★ / ⊗					



(1) To order a fork without teach mode, delete **A** of the reference. Ex: XUYF**A**NEP40002 becomes XUYFNEP40002

System		Ultrasonic thru-beam Special transparent labels	Thru-beam For all other opaque labels
Sensing distance	3 mm version	**XUVU06M3KCNM8**	**XUYFA983003COS**
	5 mm version	–	**XUYFA983005COS**
Switching frequency (Hz)		500	10 000
Sensitivity adjustment		Numerical +/- button	Teach button
Connection		M8 (4 pin)	
Case M (metal) / Setting-up assistance LEDs ⊗		M / ⊗	
Temperature range (°C) / Degree of protection (conforming to IEC 60529)		- 5…+ 55 / IP 65	- 20…+ 60 / IP 65
Product certification		CE	CE - cULus



Accurate detection or very long sensing distance

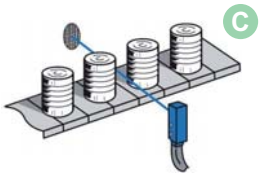
Robustness and compactness

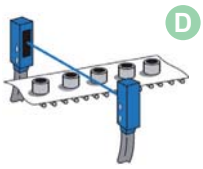
Application				A	B
System	**Thru-beam**	**Diffuse**	**Diffuse** (1)	**Reflex**	**Diffuse contrast**
Sensing distance	**100** m (2)	**0.07** m	**0.07** m	**10…1000** mm (3)	**40…150** mm
Fixing (mm)	M18 x 1	M8 x 1	Direct, 2 M3 holes, fxg. ctrs. 20 mm	Direct, 2 M3 holes, fixing centres 24 mm	
Sensitivity adjustment	Teach mode	–	Potentiometer	Teach mode	
Case M (metal) P (plastic) / Setting-up assistance LEDs ⊗	P / ⊗	M / –	M / ⊗	P	
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	- 10…+ 45°C	- 25…+ 55	- 25…+ 60	- 20…+ 60°C	
Degree of protection (conforming to IEC 60529)	IP 67	IP 67	IP 67, IP 69K	IP 67	
Product certification	CE - UL - CSA	CE - cULus	CE - cULus - C-TICK	CE - cULus	
Dimensions (mm) Ø x L or H x W x D	Ø 18 x 64	Ø 8 x 40	40.8 x 16.2 x 29.5	35.8 x 12 x 20	

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

Connection		**Pre-cabled**		**PVR (2 m)**	**PVC (2 m)**		
Transmitter / Receiver	3-wire PNP	NO function	–	**XUAH0515**	**XUM5BPANL2**	–	–
Connection		**Connector**	**M12**	**M8** 4-pin			
Transmitter / Receiver	3-wire PNP	NO function	–	**XUAH0515S**	–	–	–
	3-wire PNP	programmable NO / NC	**XUBLAPCNM12**	–	–	**XUYBCO929LSP**	**XUYPCCO929LSP**
	3-wire NPN	programmable NO / NC	**XUBLANCNM12**	–	–	–	–
Supply voltage limits, min./max. (V) including ripple			10…30	10…30	10…30	10…30	10…30
Switching capacity, max. (mA) / Switching frequency (Hz)			100 / 1500	100 / 700	100 / 1000	100 / 1000	100 / 1000
Overload and short-circuit protection (★) / LED output state indicator (⊗)			★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗

(1) Reflex and thru-beam systems also available.
(2) or min. size of object: 0.2 mm
(3) With specific reflector XUY1111, format 50 x 50 mm. To be ordered separately.





Miniature series sensors

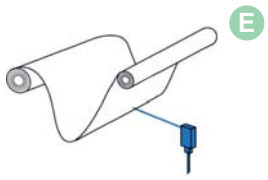
Application	C	D
System	**Polarised reflex** 50 x 50 reflector included	**Thru-beam**
Sensing distance	**1…1.5** m	**4** m
Fixing (mm)	2 x Ø 3 holes / fixing centres 9.5	3 x Ø 3 holes / fixing centres 9.5
Sensitivity adjustment	Potentiometer	Potentiometer
Case P (plastic) / Setting-up assistance LEDs ⊗	P / ⊗	P / ⊗
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	0…+ 50 / IP 65 & IP 67	0…+ 50 / IP 65 & IP 67
Product certification	CE - cULus	CE - cULus
Dimensions (mm) H x W x D	40 x 10 x 13.5	40 x 10 x 13.5

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

Connection			**M8 connector** (1) - 4 Pin	
	PNP	**NO** function	**XUYBCO989SP**	**XUYRCO989SP** (receiver)
	NPN	**NO** function	**XUYBCO989SN**	**XUYRCO989SN** (receiver)
	PNP/NPN	programmable **NO / NC**	–	**XUYECO989** (transmitter)
Supply voltage limits, min./max. (V) including ripple			10…30	10…30
Switching capacity, max. (mA) / Switching frequency (Hz)			100 / 500	100 / 500
Overload and short-circuit protection (★) / LED output state indicator (⊗)			★ / ⊗	★ / ⊗

(1) For 2 m pre-cabled version delete CO from the reference. Example: XUYPS**CO**989SP becomes XUYPS989SP.

Materials handing series - Analogue output

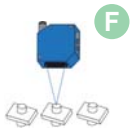


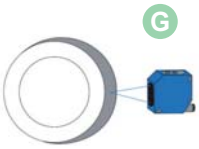
Application	Analogue output Position control (E)	(E)	High access gain for resistance to accumulation of dirt
System	**Diffuse**	**Diffuse**	**Thru-beam**
Sensing distance	**0.20...0.80** m	**0.05...0.40** m	**50** m
Fixing (mm)	fixing ctrs: 30 - 11P cable gland	M18 x 1	M18 x 1
Sensitivity adjustment	–	Potentiometer	Potentiometer
Case M (metal) P (plastic) / Setting-up assistance LEDs ⊗	P / ⊗	M / ⊗	M / ⊗
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	- 25…+ 60 / IP 67	- 25…+ 55 / IP 67	- 25…+ 55 / IP 67
Product certification	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA - C-TICK
Dimensions (mm) Ø x L or H x W x D	86 x 27 x 83	M18 x 95	M18 x 95

Sensors for DC applications

Connection		Screw terminals	M12 connector	M12 connector
Transmitter / Receiver	analogue 4-20 mA / 0-10 V	**XUJK803538** (5)	–	–
	analogue 4-20 mA	–	**XU5M18AB20D**	**XU2M18AP20D** (5)
Supply voltage limits, min./max. (V) including ripple		20…30	10…30	10…30
Switching capacity, max. (mA) / Switching frequency (Hz)		max: 20, min: 4 / 10000	max: 20, min: 4 / 20	100 / 30
Overload and short-circuit protection (★) / LED output state indicator (⊗)		★ / ⊗	★ / ⊗	★ / ⊗

(5) With 3-wire PNP output.





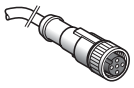
Application	(F) (G)	(F) (G)	(F) (G)
System	**Diffuse, 0-10 V analogue output**		**Diffuse, 4-20 mA analogue output**
	Sensing distance 1	**Sensing distance 2**	
Sensing distance	**40...60** mm	**45...85** mm	**80...300** mm
Minimum size of object	1 mm	0.8 mm	1.5 x 3.5 mm
Fixing (mm)	direct: 3 M4 holes, fixing centres 40 mm		
Sensitivity adjustment	Potentiometer		
Case P (plastic) / Setting-up assistance LEDs ⊗	P / ⊗		
Temperature range (°C)	0…+ 45°		
Product certification	CE - cULus		
Dimensions (mm) H x W x D	50 x 17 x 50		

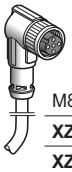
Sensors for DC applications (solid-state output: transistor)

Connection		M12 connector	M12 connector	M12 connector
Transmitter / Receiver	0…10 V	**XUYPCO925L1ANSP**	**XUYPCO925L2ANSP**	**XUYPCO925L3ANSP**
Supply voltage limits, min./max (V) including ripple		18…28		18…28
Switching capacity, max.		3 mA / 0…10 V analogue output		3 mA / 4…20 mA analogue output
Switching frequency (Hz)		40		40
Overload and short-circuit protection (★) / LED output state indicator (⊗)		★ / ⊗		★ / ⊗

Accessories

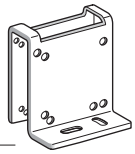
Suitable female pre-wired plug-in connectors





	M8 straight	M12 straight	M8 elbowed	M12 elbowed
2 m	**XZCP0941L2**	**XZCP1141L2**	**XZCP1041L2**	**XZCP1241L2**
5 m	**XZCP0941L5**	**XZCP1141L5**	**XZCP1041L5**	**XZCP1241L5**

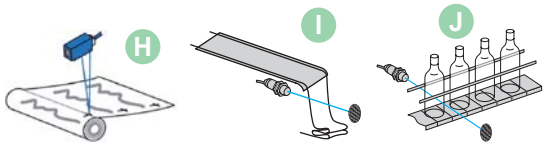
Fixing, for XUYPCO925



With protective cover
XUY 9251-DF525567

Simple
XUY 925-DF525568

Photo-electric sensors - Application
Packaging series



Application	Contrast sensors		
	H	H	H
System	**Diffuse** (with teach mode)	**Sensor with plastic fibre optics** (1)	**Diffuse** (with teach mode)
Sensing distance	**19** mm	**18** mm	**9** mm (2)
Fixing (mm)	direct: fixing centres 40 x 40	DIN rail	direct: 21 x 28, M5 screws
Sensitivity adjustment	Teach button	Teach button	Teach button
Case M (metal) P (plastic) / Setting-up assistance LEDs ⊗	P / ⊗	P / ⊗	M / ⊗
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	- 10…+ 55 / IP 65	0 … + 40 / IP 65	- 10…+ 55 / IP 67
Product certification	CE - cULus	CE - cULus	CE
Dimensions (mm) Ø x L or H x W x D	50 x 15 x 50	30 x 13 x 60	96 x 31 x 64

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

Connection			M12 connector	M8 connector	M12 connector
Transmitter / Receiver	3-wire PNP	NO function	**XUKR1PSMM12**	–	–
	3-wire NPN	NO function	**XUKR1NSMM12**	–	–
	3-wire PNP / NPN	programmable NO / NC	–	–	**XURK1KSMM12**
	NPN	NO function		**XUYDCFCO966S**	–
Supply voltage limits, min./max. (V) including ripple			10…30	10…30	10…30
Switching capacity, max. (mA) / Switching frequency (Hz)			100 / 5000	100 / 20 k	200 / 10000

(1) Suitable fibre optics, to be ordered separately:
Sensing distance: 18 mm (L = 0.6 m: XUYFPDC61),
60 mm (L = 1 m: XUYFPDC101)
18 mm (L = 0.6 m / M8: XUYFPDCM861),
60 mm (L = 1 m / M8: XUYFPDCM8101).

(2) 7 mm with XURZ02; 18 mm with XURZ01.

Application	Luminescence sensors		Detection of transparent materials	
	I J		I J	
System	**Diffuse** (manual)	**Lum. detection via fibre optics**	**Reflex** (with teach mode) (50 x 50 reflector included)	
Sensing distance	**0.02…0.08** m	dpg. on fibre & fitting (3)	**0…1.4** m (4)	**1.5** m
Fixing (mm)	M18 x 1	DIN rail	M18 x 1	direct: fixing ctrs. 40 x 40
Sensitivity adjustment	Potentiometer	+/- numeric potentiometer	Teach button	
Case M (metal) P (plastic) / Setting-up assistance LEDs ⊗	M / ⊗	P / ⊗	P / ⊗	
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	- 25…+ 55 / IP 67	0 … + 60 / IP 65	0…+ 55 / IP 67	- 25…+ 55 / IP 65
Product certification	CE - CSA - UL	CE - cULus	CE - UL - CSA - C-TICK	
Dimensions (mm) Ø x L or H x W x D	Ø 18 x 95	30 x 13 x 60	Ø 18 x 64	50 x 18 x 50

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

Connection			Pre-cabled, PVC (2 m)			
Transmitter / Receiver	3-wire PNP	programmable NO / NC	–	–	**XUBTAPSNL2** (5)	–
	3-wire NPN	programmable NO / NC	–	–	**XUBTANSNL2** (5)	–
	3-wire PNP / NPN	programmable NO / NC	–	–	–	**XUKT1KSML2**
Connection			**M12 connector**	**M8 connector**	**M12 connector**	**M12 connector**
Transmitter / Receiver	3-wire PNP	fonction NO	**XU5M18U1D**	–	–	–
	3-wire PNP	programmable NO / NC	–	–	**XUBTAPSNM12** (5)	–
	3-wire NPN	programmable NO / NC	–	–	**XUBTANSNM12** (5)	–
	3-wire PNP / NPN	programmable NO / NC	–	**XUYAFLCO966S**	–	**XUKT1KSMM12**
Supply voltage limits, min./max. (V) including ripple			10…30	10…30	10…32	10…30
Switching capacity, max. (mA) / Switching frequency (Hz)			100 / 1000	100 / 5	100 / 1000	100 / 1500

(3) Suitable fibre optics, to be ordered separately (usable Ø 1 mm): (L = 10 m: XUFZ910) (L = 20 m: XUFZ920) (L = 50 m: XUFZ950). End fittings see the fibre optic page
(4) 0…0.8 m for versions with 90° head, to order replace the 8e digit **N** by **W**. Example XUBTAPS**N**L2 becomes XUBTAPS**W**L2
(5) Also available in stainless steel for food and beverage processing applications. To order, replace the letter **A** by **S** in the ref. Example: XUBT**A**PSNL2 becomes XUBT**S**PSNL2.

Accessories

Suitable female plug-in connectors, including pre-wired versions

L = 5 m, without LED		Wired, elbowed	Wired, straight	Screw terminal
M8 (or S)	4 pin	**XZCP0666L5**	**XZCP0566L5**	**XZCC8FCM30S**
M12 (or D)	4 pin	**XZCP1241L5**	**XZCP1141L5**	**XZCC12FCM40B**
M12	8 pin	–	**XSZMCR03** (3 m)	–

Lenses for colour mark

Lens for 18 mm sensing distance

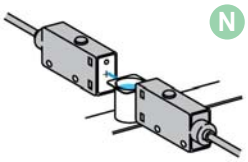
XURZ01

Lens for 7 mm sensing distance

XURZ02

Other versions: **please consult your Schneider Electric agency.**

Packaging series



Application	Colour sensors		N Detection of aqueous liquids
System	**Diffuse**	**Diffuse** (with integral amplifier)	**Thru-beam infrared**
Sensing distance	**0.02** m	**0.040...0.060** m	**0.2** m (1)
Fixing (mm)	direct: fixing ctrs. 40x40	drct: fxg ctrs. 68x42, M5 screws	direct: fixing ctrs. 20
Sensitivity adjustment	Teach button	Teach button	Potentiometer
Case M (metal) P (plastic) / Setting-up assistance LEDs ⊗	P / ⊗	M / ⊗	P / ⊗
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	- 10…+ 55 / IP 65	- 10…+ 55 / IP 67	0…+ 40 / IP 65
Product certification	CE - cULus	CE	CE
Dimensions (mm) Ø x L or H x W x D	50 x 25 x 50	80 x 30 x 57	47 x 13 x 33

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

Connection			**M12 connector** - 8 pin	**Pre-cabled (2 m)**	**Pre-cabled (2 m)**
Transmitter / Receiver	3-wire PNP	NO function	**XUKC1PSMM12**	**XURC3PPML2**	**–**
	3-wire NPN	NO function	**XUKC1NSMM12**	**XURC3NPML2**	**–**
	3-wire PNP / NPN	programmable NO / NC	**–**	**–**	**XUMW1KSNL2**
Supply voltage limits, min./max. (V) including ripple			10…30	10…30	10.8…26.4
Switching capacity, max. (mA) / Switching frequency (Hz)			100 / 1500	100 / 1200	100 / 1000

(1) Nominal sensing distance 50 m. Use between 10 and 20 cm, depending on application.

Food/beverage processing series

Stainless steel version for resistance to harsh agents

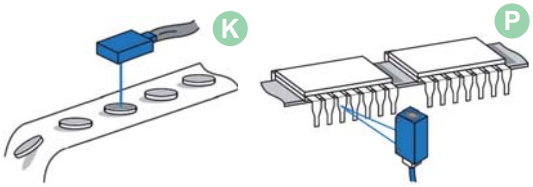
System			**Multimode** (3)	**Polarised relex** (2)	**Diffuse** (2)	**Thru-beam** (2)
Sensing distance			(4)	**3 / 2** m	**0.15 / 0.10** m	**20 / 15** m
Fixing (mm)			M18 x 1	M18 x 1	M18 x 1	M18 x 1
Case M (metal)			M (stainless steel)	M (stainless steel)	M (stainless steel)	M (stainless steel)
Temperature range (°C) / Degree of protection (conforming to IEC 60529)				- 25…+ 55 / IP 67	- 25…+ 55 / IP 67	- 25…+ 55 / IP 67
Product certification			CE - UL - CSA - C-TICK			
Dimensions (mm) Ø x L			Ø 18 x 64	Ø 18 x 62	Ø 18 x 62	Ø 18 x 64

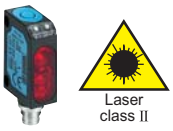
Sensors for DC applications (solid-state output: transistor)

Connection			**Pre-cabled, PvR (2 m)**			
Transmitter / Receiver	3-wire PNP	programmable NO / NC	**XUB0SPSNL2**	**XU9N18PP341**	**XU5N18PP341**	**XU2N18PP341**
	3-wire NPN	programmable NO / NC	**XUB0SNSNL2**	**XU9N18NP341**	**XU5N18NP341**	**XU2N18NP341**
Connection			**M12 connector**			
Transmitter / Receiver	3-wire PNP	programmable NO / NC	**XUB0SPSNM12**	**XU9N18PP341D**	**XU5N18PP341D**	**XU2N18PP341D**
	3-wire NPN	programmable NO / NC	**XUB0SNSNM12**	**XU9N18NP341D**	**XU5N18NP341D**	**XU2N18NP341D**
Thru-beam transmitter accessory		pre-cabled (2 m)	**XUB0SKSNL2T**	**–**	**–**	
		connector	**XUB0SKSNM12T**	**–**	**–**	
Supply voltage limits, min./max. (V) including ripple			10…36	10…30	10…30	
Switching capacity, max. (mA) / Switching frequency (Hz)			100 / 250	100 / 500	100 / 500	

(2) Also available with 90° head. To order, add the letter **W** after the numbers 341 in the reference. Example: XU9N18PP341 becomes XU9N18PP341**W** or XU9N18PP341D**W**.
(3) 0…0.8 m for versions with 90° head, to order replace the 8e digit **N** by **W**. Example XUB0SPS**N**L2 becomes XUB0SPS**W**L2
(4) Background suppression: **0.12 m** - Diffuse: **0.3 m** - Reflex polarised: **2 m** - Thru beam: **18 m**

Photo-electric sensors
with background suppression



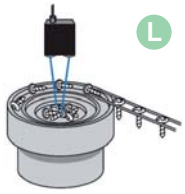


Application	K	P	K
System	**Background suppression**	**Diffuse with background suppression**	
		Sensing distance 1	**Sensing distance 2**
Sensing distance	**1.5…80** mm	**10…60** mm	**30…110** mm
Minium size of object	–	0.3 mm	0.7 mm
Fixing (mm)	2 x Ø 3 holes / fxg. ctrs. 14.5	direct: 2 M3 holes, fixing centres 24 mm	
Sensitivity adjustment	Potentiometer	Teach mode	
Case P (plastic) / Setting-up assistance LEDs ⊗	P / ⊗	P	
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	0…+ 50 / IP 65 & IP 67	- 20…+ 60°C / IP 67	
Product certification	CE - cULus	CE - cULus	
Dimensions (mm) H x W x D	32 x 13 x 20	35.8 x 12 x 20	

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

Connection			**M8 connector** (1) - 4 Pin	**M8 connector**- 4 Pin	**M8 connector**- 4 Pin
Transmitter / Receiver	**PNP**	**NO** function	**XUYPSCO989SP**	–	–
	NPN	**NO** function	**XUYPSCO989SN**	–	–
	PNP	programmable **NO / NC**	–	**XUYPSCO929L1SP**	**XUYPSCO929L2SP**
Supply voltage limits, min./max. (V) including ripple			10…30	10…30	10…30
Switching capacity, max. (mA) / Switching frequency (Hz)			100 / 500	100 / 1000	100 / 1000
Overload and short-circuit protection (★) / LED output state indicator (⊗)			★ / ⊗	★ / ⊗	★ / ⊗

(1) For 2 m pre-cabled connection delete CO from the reference. Example: XUYPS**CO**989SP becomes XUYPS989SP.



Application		M L
System	**Background suppression**	**Background suppression, 2 chnls.**
Sensing distance	**50…300** mm	**50…600** mm
Minimum size of object	0.5 mm	–
Fixing (mm)	direct: 2 M4 holes, ctrs. 54 mm	2 x Ø 4 holes, fixing ctrs. 54
Sensitivity adjustment	Potentiometer	Potentiometer
Case P (plastic) / Setting-up assistance LEDs ⊗	P / ⊗	P / ⊗
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	0…+ 50 / IP 65	0…+ 60 / IP 40
Product certification	CE - cULus	
Dimensions (mm) H x W x D	60 x 18 x 60	60 x 18 x 60

Sensors for DC applications (solid-state output: transistor). Sensors with overload and short-circuit protection

Connection			**M8 connector**	
Transmitter / Receiver	3-wire PNP / NPN	programmable NO / NC	**XUYPS1LCO965S**	**XUYPS2CO945S**
Supply voltage limits, min./max. (V) including ripple			10…30	10…30
Switching capacity, max. (mA) / Switching frequency (Hz)			100 / 5000	100 / 370

Accessories

Pre-wired connectors

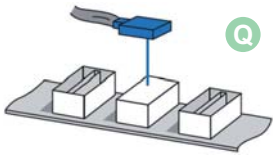
Straight

Elbowed

	M8 (4 pin)		**M12** (4 pin)			**7/8"** (5 pin)	
	Straight	Elbowed		Straight	Elbowed		Straight
2 m	**XZCP0941L2**	**XZCP1041L2**	2 m	**XZCP1141L2**	**XZCP1241L2**	2 m	**XZCP1764L2**
5 m	**XZCP0941L5**	**XZCP1041L5**	5 m	**XZCP1141L5**	**XZCP1241L5**	5 m	**XZCP1764L5**

Schneider Electric

Other versions: **please consult your Schneider Electric agency.**



Objets sur convoyeur

Application			
System	**Diffuse with adjustable background suppression**		
Sensing distance	**0…1** m	**1.2** m	**2** m
Fixing (mm)	direct: fixing ctrs. 40 x 40	M30 x 1.5 or M5, fixing ctrs. 30	direct: fixing ctrs. 30/38 to 40/50/74 M5 screw
Sensitivity adjustment	–	Potentiometer	–
Case P (plastic) / Setting-up assistance LEDs ⊗	P / ⊗	P / ⊗	P / ⊗
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	- 25…+ 55 / IP 65	- 25…+ 55 / IP 67, Nema 4X	- 25...+ 55 / IP 67
Product certification	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA
Dimensions (mm) H x W x D	50 x 18 x 50	95 x 45 x 44	92 x 30,5 x 71

Sensors for DC applications (solid-state output: transistor). Sensors with overload and short-circuit protection

Connection			**Pre-cabled, PVC** (2 m)		**Screw terminals**
Transmitter / Receiver	3-wire PNP / NPN	programmable NO / NC	**XUK8AKSNL2**	**XUC8AKSNL2** (3)	**XUX8AKSAT16** (3)
Connection			**M12 connector**		
Transmitter / Receiver	3-wire PNP / NPN	programmable NO / NC	**XUK8AKSNM12**	**XUC8AKSNM12** (3)	**XUX8AKSAM12**
Supply voltage limits, min./max. (V) including ripple			10…36	10…38	10…36
Switching capacity, max. (mA) / Switching frequency (Hz)			100 / 250	100 / 500	100 / 150

Système	Diffuse with adjustable background suppression		
Sensing distance	**70…120** mm	**1.2** m	**2** m
Fixing (mm)	M18 x 1	M30 x 1.5 or M5, fixing ctrs. 30	direct: fixing ctrs. 30/38 to 40/50/74 M5 screw
Sensitivity adjustment	Potentiometer	Potentiometer	–
Case M (metal) P (plastic) / Setting-up assistance LEDs ⊗	M / ⊗	P / ⊗	P / ⊗
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	- 25…+ 55°C / IP 67	- 25…+ 55 / IP 67, Nema 4X	- 25...+ 55 / IP 67
Product certification	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA
Dimensions (mm) Ø x L or H x W x D	M18 x 82	95 x 45 x 44	92 x 30,5 x 71

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

Connection			**Cable L = 2m**	**Cable 2m / Connector 7/8"**	**Screw terminals**
Transmitter / Receiver	**AC/DC**	**NO** function	**XU8M18MA230**	–	–
		programmable **NO / NC**	–	**XUC8ARCTL2 / XUC8ARCTU78**	**XUX8ARCTT16**
Supply voltage limits, min./max. (V) including ripple			20…264	20…264	20…264
Switching capacity, max. (mA) / Switching frequency (Hz)			200 / 25	3000 / 20	3000 / 20
Overload and short-circuit protection (★) / LED output state indicator (⊗)			(2) / ⊗	–	–

(2) Sensor not short-circuit protected. Therefore, it is essential to connect a 0.4 A quick-blow fuse in series with the load.

Photo-electric sensors, fibre optic

Amplifier

	+/- potentiometer	Teach	Teach + Timer	Teach + Timer
Max. / usable sensing distance	Depending on fibre used, plastic only			
Fixing (mm)	DIN rail or direct: fixing centres 25, M3 screws			
Sensitivity adjustment	+/- numeric potentiometer	using teach mode	+/- numeric potentiometer	using teach mode
Case P (plastic) / Setting-up assistance LEDs ⊗	P / ⊗	P / ⊗	P / ⊗	P / ⊗ and 4-digit display
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	0…+ 60 / IP 65	- 10…+ 55 / IP 65 (1)	0…+ 60 / IP 65	- 10…+ 55 / IP 65 (1)
Product certification	CE - cULus	CE - cULus - cURus	CE - cULus	CE - cULus - cURus
Dimensions (mm) L x H x W	60 x 30 x 13	65 x 40 x 10	60 x 30 x 13	65 x 40 x 10

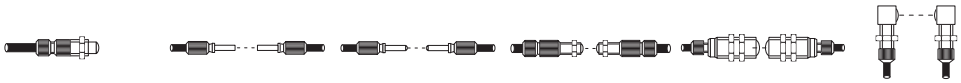
Sensors for DC applications (solid-state output: transistor)

Connection				**Pre-cabled, PVC (2 m)**		
References	3-wire **PNP**	programmable	**NO / NC**	–	**XUDA1PSML2**	–	**XUDA2PSML2**
Amplifier	3-wire **NPN**	programmable	**NO / NC**	–	**XUDA1NSML2**	–	**XUDA2NSML2**
Connection				**M8 connector** - 4 Pin		
References	3-wire **PNP**	programmable	**NO / NC**	–	**XUDA1PSMM8**	–	**XUDA2PSMM8**
Amplifier	3-wire **NPN**	programmable	**NO / NC**	–	**XUDA1NSMM8**	–	**XUDA2NSMM8**
	3-wire **PNP/NPN**	programmable	**NO / NC**	**XUYAFVCO966S** (Glass) **XUYAFPCO966S** (Plastic)	– –	**XUYAFVCO946S** (Glass) **XUYAFPCO946S** (Plastic)	– –
Supply voltage limits, min./max. (V) including ripple				10…30	10.8...26.4	10…30	10.8...26.4
Switching capacity, max. (mA) / Switching frequency (Hz)				100 / 1000	100 / 1000	100 / 1000 time delayable	100 / 1000 time delayable
Overload and short-circuit protection (★) / LED output state indicator (⊗)				★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗

(1) IP 65 with Ø 1 fibre/ IP 64 with Ø 0.5 fibre.

Ecofibre system, assemble your own plastic fibres

Fibre Ø 1 mm	Length = 10 m	Length = 20 m	Length = 50 m
References	**XUFZ910**	**XUFZ920**	**XUFZ950**

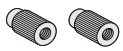


End fittings						
Sensing distance (mm)	70	200	800	1200	4000	1200
Type	with threaded end fitting	with plain end fitting, Ø 3, L = 9 mm	with plain end fitting, Ø 3, L = 9 mm	with threaded end fitting	with threaded end fitting	90° mirror, with threaded end fitting
Thread	M8 x 1, L = 10 mm	–	–	M6 x 1, L = 10 mm	M6 x 1, L = 10 mm	M6 x 1, L = 3 to 10 mm
Lens	yes	no	yes	yes	yes	yes
References	**XUYA110**	**XUYA210**	**XUYA211**	**XUYA212**	**XUYA212**	**XUYA220**

Accessories

For thru-beam system plastic fibre optics

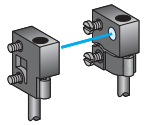
Lenses



For increasing sensing distance (pair) **XUFZ01**

With 90° mirror (pair) **XUFZ02**

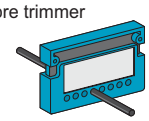
Fixing clamp with lens (set of 2)



Front screw fixing for fibre optics XUFZ920 **XUFZ04**

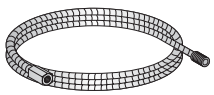
For all system plastic fibre optics

Fibre trimmer



For trimming fibres to length (included with all fibre optics) **XUFZ11**

Protective metal tubing



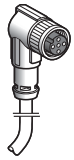
Length 1 m, for fibres with threaded end fittings

For M4 thread	**XUFZ210**
For M6 thread	**XUFZ310**

Plug-in pre-wired female connectors

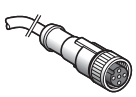
Cable length 5 m, without LED

pre-wired, elbowed



XZCP1041L5

pre-wired, straight



XZCP0941L5

Other versions: **please consult your Schneider Electric agency.**

Plastic fibre optic light guides (length 2 m)

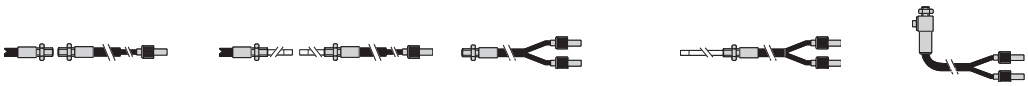
	M4 / M2.6 (1)	M4 / L = 90 mm	M3 / M2.6 (1)	Long range fibres with integrated lens M8 / L = 20 mm	Long range fibres M4 / M2.6 (1)	Flexible fibres M4 / M2.6 (1)
System	**Thru-beam**					
Sensing distance (mm)	**200 or 1500** (2)	**180**	**50 or 1000** (2)	**2500**	**300 or 2000** (2)	**100 or 750** (2)
Fibre cross-section						
Fibre Ø (mm)	Ø 1	Ø 1	Ø 0.5	Ø 1	Ø 1.5	Ø 1
Sheath Ø (mm)	Ø 2.2	Ø 2.2	Ø 1	Ø 2.2	Ø 2.2	Ø 2.2
Temperature range (°C)	- 25...+ 60	- 25...+ 60	- 25...+ 60	- 25...+ 60	- 25...+ 60	- 25...+ 60
References	**XUFN12301**	**XUFN12311**	**XUFN35301**	**XUFN2L01L2**	**XUFN2P01L2**	**XUFN2S01L2**
Fixing	M4 x 0.7	M4 x 0.7	M3 x 0.5	M8 x 1.25	M2.6 x 0.45 / M4 x 0.7	M2.6 x 0.45 / M4 x 0.7

(1) Can be used with 90° mirror XUFZ02 (see preceding page).
(2) With lens accessory XUFZ01 (see preceding page)

	M6	M4 / M6	M6/L = 90 mm	M4 / M2.6
System	**Diffuse**			
Sensing distance (mm)	**70**	**60**	**60**	**15**
Fibre cross-section				
Fibre Ø (mm)	Ø 1	Ø 1+16 Ø 0.265	Ø 1	Ø 0.5 + 4 Ø 0.23
Sheath Ø (mm)	Ø 2.2 x 2	Ø 2.2 x 2	Ø 2.2 x 2	Ø 1 x 2
Temperature range (°C)	- 25...+ 60	- 25...+ 60	- 25...+ 60	- 25...+ 60
References	**XUFN05321**	**XUFN05323**	**XUFN05331**	**XUFN02323**
Fixing	M6 x 0.75	M6 x 0.75 / M4 x 0.7	M6 x 0.75	M4 x 0.7

	M4 / L = 90 mm	M4 / M2.6	Long range fibres M6 / L = 15 mm
System	**Diffuse**		
Sensing distance (mm)	**18**	**18**	**95**
Fibre cross-section			
Fibre Ø (mm)	Ø 0.5	Ø 0.5	Ø 1.5
Sheath Ø (mm)	Ø 1 x 2	Ø 1 x 2	Ø 2.2 x 2
Temperature range (°C)	- 25...+ 60	- 25...+ 60	- 25...+ 60
References	**XUFN01331**	**XUFN01321**	**XUFN5P01L2**
Fixing	M4 x 0.7	M4 x 0.7	M6 x 0.75

Glass fibre optic light guides (length 0.6 m)



		M4	M4 / Ø 2.5 x 89	M4	M4 / Ø 2.5 x 89	M4
System		**Thru-beam**		**Diffuse**		
Sensing distance (mm)		**200**		**80**		
Fibre cross- section						
End fitting		Straight	Adaptable	Straight	Adaptable	90°
Fibre Ø (mm)		1		1		
Sheath Ø (mm)		2.2		2.2		
Temperature range (°C)		PVC sheath: - 25…+ 60 / Metal wound: - 25…+ 120 / Flexible stainless steel: - 25…+ 200				
References	PVC sheath	**XUYFVERSD61**	**XUYFVERSC61**	**XUYFVPSD61**	**XUYFVPSC61**	**XUYFVPSL61**
	Metal wound	**XUYFVERMD61**	**XUYFVERSC61**	**XUYFVPMD61**	**XUYFVPMC61**	**XUYFVPML61**
	Flexible stnl. steel	**XUYFVERTD61**	**XUYFVERTC61**	**XUYFVPTD61**	**XUYFVPTC61**	**XUYFVPTL61**

	Mini flat	Flat	Combined multi-fixing
Nominal sensing distance Sn	**10** cm	**25** cm	**50** cm
Operating zone (cm)	0.62…10.2 –	5.1…25.4 –	5.1…50.8 –
Sensitivity adjustment	Fixed	Fixed	Adjustable using remote control
Case P (plastic)	P	P	P
Product certification	CE	CE	CE
Temperature range (°C)	- 20…+ 65	0…+ 50	- 20…+ 65
Degree of protection (conforming to IEC 60529)	IP 67		
Dimensions (mm) Ø x L or H x W x D	33 x 19 x 7.6	74 x 30 x 16	M 18 / 18 x 33 x 60

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

Connection			**M12** on 0.15 m flying lead	**M12 connector**	
3-wire	**PNP**	**NO** function	**XX7F1A2PAL01M12**	**XX7K1A2PAM12**	**XX7V1A1PAM12**
	NPN	**NO** function	**XX7F1A2NAL01M12**	**XX7K1A2NAM12**	**XX7V1A1NAM12**
4-wire	**PNP/NPN**	**NO** function	–	–	–
	PNP	**NO + NC** function	–	–	–
	NPN	**NO + NC** function	–	–	–
Application - monitoring levels					
	2 emptying levels	**PNP NO** function	–	–	–
	2 filling levels	**PNP NO** function	–	–	–
Supply voltage limits, min./max. (V) including ripple			10…28		
Switching capacity, max. (mA)			<100		
Short-circuit protection (★)			★		
LED output state indicator (⊗) / Power on LED (⊗)			⊗ / ⊗		
Voltage drop, closed state (V) at I nominal			<1		
Switching frequency (Hz)			100	80	40
Transmission frequency (Hz)			500	500	300

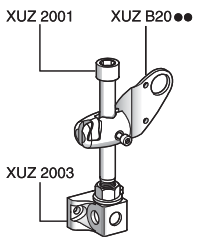
Sensors with “Analogue” output for DC applications (24 V)

Connection			–	**M12 connector**
4-wire	**Analogue**	**0…10 V** output	–	**XX9V1A1F1M12**
		4…20 mA output	–	**XX9V1A1C2M12**
Supply voltage limits, min./max. (V) including ripple			–	10…28
Short-circuit protection (★)			–	★
LED output state indicator (⊗) / Power on LED (⊗)			–	⊗ / ⊗
Transmission frequency (Hz)			–	300

Accessories

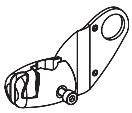
Fixings

3D fixings with ball joint



3D kit example

Bracket with ball joint for cylindrical sensors

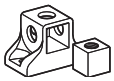


for	
Ø 12	**XUZB2012**
Ø 18	**XUZB2003**
Ø 30	**XUZB2030**

M12 rod for ball joint

XUZ2001

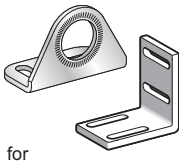
Fixing support for M12 rod



XUZ2003

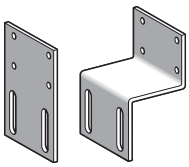
Simple fixings

90° fixing brackets



for	
Ø 12	**XXZ12**
Ø 18	**XUZA118**
Ø 30	**XXZ30**
XX7F	**XXZ1933**

Mounting plates for XX7K



flat	**XXZ3074F**
cranked	**XXZ3074S**

Other versions: **please consult your Schneider Electric agency.**

	M12	M18		M30			M30 Long range
	5 or 10 cm depending on model	15 or 50 cm depending on model		1 m	1 m	2 m	8 m
	0.64…5.1 (XX512A1…) 0.64…10.2 (XX512A2…)	1.9…15.2 (XX518A1…) 5.1…50.8 (XX518A3…)		10…100 –	5.1…99.1 –	12…200	20.3…800 –
	Fixed	Adjustable using remote control			Adjustable using teach mode		
	P	P		P			P
	CE	CE		CE			CE
	- 20…+ 65	0…+ 50 (XX518A1…) / - 20…+ 65 (XX518A3…)		0…+ 70	0…+ 70		- 20…+ 60
	IP 67			IP 67	IP 65		
	M12 x 50	M18 x 65		M30 x 78	M30 x 85		M30 x 106
	M8 connector	**M12 connector**	**Pre-cabled, PVC (2 m)**	**M12 connector**			**M12 connector**
	XX512A2PAM8 (10 cm)	**XX518A3PAM12** (50 cm)	**XX518A3PAL2**	**XX6V3A1PAM12**	–	–	–
	XX512A2NAM8 (10 cm)	**XX518A3NAM12** (50 cm)	**XX518A3NAL2**	**XX6V3A1NAM12**	–	–	–
	XX512A1KAM8 (5 cm)	**XX518A1KAM12** (15 cm)	–	–	**XX630A1KAM12**	–	–
	–	–	–	–	**XX630A1PCM12** (1)	–	**XX630A3PCM12**
	–	–	–	–	**XX630A1NCM12** (1)	–	**XX630A3NCM12**
	–	**XX218A3PHM12** (3)	–	–	**XX230A10PA00M12** (2)	**XX230A20PA00M12** (2)	–
	–	**XX218A3PFM12** (3)	–	–	**XX230A11PA00M12** (2)	**XX230A21PA00M12** (2)	–
	10...28						
	<100						
	★						
	⊗ / ⊗	⊗ / ⊗ except XX518A1.. (- / -)		⊗ / ⊗	⊗ / ⊗		⊗ / ⊗
	<1						
	125	40 / 80 (XX518A1..)		70	10		2
	500	300		180	200		75
	M12 connector						
	–	**XX918A3F1M12**	–	**XX9V3A1F1M12**	**XX930A1A1M12** (1)	–	**XX930A3A1M12**
	–	**XX918A3C2M12**	–	**XX9V3A1C2M12**	**XX930A1A2M12** (1)	–	**XX930A3A2M12**
	–	10…28	–	10…28	10…28	–	10…28
	–	★	–	★	★	–	★
	–	⊗ / ⊗	–	⊗ / ⊗	⊗ / ⊗	–	⊗ / ⊗
	–	300	–	180	200	–	75

(1) Stainless steel 303 version also available. To order, replace the first letter **A** in the reference by **S**. Example: XX630**A**1PCM12 becomes XX630**S**1PCM12.

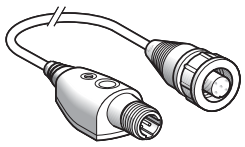
(2) 2 NO

(3) 1 NO

Programming

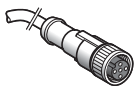
Remote control

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



XXZPB100

Suitable female plug-in connectors

		Pre-wired connectors elbowed	Pre-wired connectors straight	Other connectors screw terminal
				
L = 5 m (without LED)				
M8	for XX512A1…	**XZCP1041L5**	**XZCP0941L5**	**XZCC8FCM40V**
	for XX512A2…	**XZCP0666L5**	**XZCP0566L5**	**XZCC8FCM30V**
M12	for all sensors except XX512...	**XZCP1241L5**	**XZCP1141L5**	**XZCC12FCM40B**

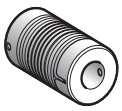
Opto-electronic rotary encoders
Incremental

Diameter of housing (mm)		**Ø 40**	**Ø 40**	**Ø 58**	**Ø 58**	**Ø 58 Parametrable**	**Ø 90**
Shaft Ø (mm)		**Ø 6**	**Ø 6**	**Ø 6**	**Ø 10**	**Ø 14** (1)	**Ø 12**
Type of shaft (2)		**solid shaft**	**through shaft**	**solid shaft**	**solid shaft**	**through shaft**	**solid shaft**
Maximum rotational speed (rpm)		9000	9000	9000	9000	6000	6000
Maximum frequency (kHz)		100	100	300	300	300	100
Maximum load (daN)		2	2	10	10	5	20
Torque (N.cm)		0.2	0.25	0.4	0.4	0.6	1
Product certification		CE	CE	CE	CE	CE	CE
Temperature range (°C)		- 20…+ 80	- 20…+ 80	- 30…+ 100	- 30…+ 100	- 30…+ 70	- 20…+ 80
Degree of protection (conforming to IEC 60529)		IP 54	IP 52	IP 65 / IP 67 (3)	IP 65 / IP 67 (3)	IP 65	IP 66
Supply voltage	5 V, RS 422	4.5…5.5 V	4.5…5.5 V	4.75…30 V	4.75…30 V	4.75…30 V	4.5…5.5 V
	Push-pull	11…30 V	11…30 V	5…30 V	5…30 V	5…30 V	11…30 V
Connection		**Pre-cabled (2 m)**, radial		**M23 male connector**, radial			
Resolution (Points)	Output stage						
100	5 V, RS 422	**XCC1406PR01R**	**XCC1406TR01R**	**XCC1506PS01X**	**XCC1510PS01X**	–	**XCC1912PS01RN**
	Push-pull	**XCC1406PR01K**	**XCC1406TR01K**	**XCC1506PS01Y**	**XCC1510PS01Y**	–	**XCC1912PS01KN**
360	5 V, RS 422	**XCC1406PR03R**	**XCC1406TR03R**	**XCC1506PS03X**	**XCC1510PS03X**	–	**XCC1912PS03RN**
	Push-pull	**XCC1406PR03K**	**XCC1406TR03K**	**XCC1506PS03Y**	**XCC1510PS03Y**	–	**XCC1912PS03KN**
500	5 V, RS 422	**XCC1406PR05R**	**XCC1406TR05R**	**XCC1506PS05X**	**XCC1510PS05X**	–	**XCC1912PS05RN**
	Push-pull	**XCC1406PR05K**	**XCC1406TR05K**	**XCC1506PS05Y**	**XCC1510PS05Y**	–	**XCC1912PS05KN**
1000	5 V, RS 422	**XCC1406PR10R**	**XCC1406TR10R**	**XCC1506PS10X**	**XCC1510PS10X**	–	**XCC1912PS10RN**
	Push-pull	**XCC1406PR10K**	**XCC1406TR10K**	**XCC1506PS10Y**	**XCC1510PS10Y**	–	**XCC1912PS10KN**
1024	5 V, RS 422	**XCC1406PR11R**	**XCC1406TR11R**	**XCC1506PS11X**	**XCC1510PS11X**	–	**XCC1912PS11RN**
	Push-pull	**XCC1406PR11K**	**XCC1406TR11K**	**XCC1506PS11Y**	**XCC1510PS11Y**	–	**XCC1912PS11KN**
2500	5 V, RS 422	–	–	**XCC1506PS25X**	**XCC1510PS25X**	–	**XCC1912PS25RN**
	Push-pull	–	–	**XCC1506PS25Y**	**XCC1510PS25Y**	–	**XCC1912PS25KN**
3600	5 V, RS 422	–	–	–	–	–	**XCC1912PS36RN**
	Push-pull	–	–	–	–	–	**XCC1912PS36KN**
256…4096	5 V, RS 422	–	–	–	–	**XCC1514TSM02X**	–
	Push-pull	–	–	–	–	**XCC1514TSM02Y**	–
5000	5 V, RS 422	–	–	**XCC1506PS50X**	**XCC1510PS50X**	–	**XCC1912PS50RN**
	Push-pull	–	–	**XCC1506PS50Y**	**XCC1510PS50Y**	–	**XCC1912PS50KN**
360…5760	5 V, RS 422	–	–	–	–	**XCC1514TSM03X**	–
	Push-pull	–	–	–	–	**XCC1514TSM03Y**	–
500…8000	5 V, RS 422	–	–	–	–	**XCC1514TSM05X**	–
	Push-pull	–	–	–	–	**XCC1514TSM05Y**	–
10 000	5 V, RS 422	–	–	–	–	–	**XCC1912PS00RN**
	Push-pull	–	–	–	–	–	**XCC1912PS00KN**
1024…16 384	5 V, RS 422	–	–	–	–	**XCC1514TSM11X**	–
	Push-pull	–	–	–	–	**XCC1514TSM11Y**	–
5000…80 000	5 V, RS 422	–	–	–	–	**XCC1514TSM50X**	–
	Push-pull	–	–	–	–	**XCC1514TSM50Y**	–

Accessories

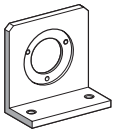
Shaft couplings

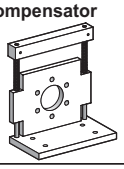
	Bore diameter (encoder side)	Bore diameter (machine side)	Reference
with spring	6 mm	6 mm	**XCCRAR0606**
	6 mm	8 mm	**XCCRAR0608**
	6 mm	10 mm	**XCCRAR0610**
	10 mm	10 mm	**XCCRAR1010**
	10 mm	12 mm	**XCCRAR1012**
elastic	6 mm	6 mm	**XCCRAE0606**



Fixing brackets

Plain bracket	for Ø 58 mm	**XCCRE5SN**
	for Ø 90 mm	**XCCRE9SN**
Bracket with play compensator	for Ø 58 mm	**XCCRE5RN**
	for Ø 90 mm	**XCCRE9RN**





Other versions: **please consult your Schneider Electric agency.**

Schneider Electric

Absolute - single turn

Absolute - multiturn

Communicating multiturn absolute

Diameter of housing (mm)			**Ø 58**	**Ø 90**	**Ø 58**	**Ø 90**	**Ø 58 CANopen**	**Ø 58 PROFIBUS-DP**
Shaft Ø (mm)			**Ø 6**	**Ø 12**	**Ø 10**	**Ø 12**	**Ø 10**	**Ø 10**
Type of shaft (2)			**solid shaft**	**solid shaft**	**solid shaft**	**solid shaft**	**solid shaft** (4)	**solid shaft** (4)
Maximum rotational speed (rpm)			9000	6000	6000	6000	6000	6000
Maximum frequency (kHz)			100	100 (1000 SSI)	100 (500 SSI)	100 (500 SSI)	800	800
Maximum load (daN)			10	20	10	20	11	11
Torque (N.cm)			0.4	1	0.4	1	0.3	0.3
Product certification			CE	CE	CE	CE	CE	CE
Temperature range (°C)			- 20…+ 90	- 20…+ 85	- 20…+ 85	- 20…+ 85	- 40…+ 85	- 40…+ 85
Degree of protection (conforming to IEC 60529)			IP 65	IP 66	IP 65 / IP 67 (3)	IP 66	IP 64	IP 64
Supply voltage			11…30 V					
Connection			**M23 male connector**, radial				**2** x **M12** + **1** x **Pg 9**	**3** x **Pg 9**
Resolution	Output stage	Code						
… 8192 points	Push-pull	Binary	**XCC2506PS81KB**	**XCC2912PS81KBN**	–	–	–	–
		Gray	**XCC2506PS81KGN**	**XCC2912PS81KGN**	–	–	–	–
	SSI, 13-bit	Binary	**XCC2506PS81SBN**	**XCC2912PS81SBN**	–	–	–	–
		Gray	**XCC2506PS81SGN**	**XCC2912PS81SGN**	–	–	–	–
4096 points / 8192 turns	SSI, 25-bit (5)	Gray	–	–	**XCC3510PS48SGN**	–	–	–
8192 points / 4096 turns	SSI, 25-bit (5)	Binary			**XCC3510PS84SBN**	**XCC3912PS84SBN**		
		Gray	–	–	**XCC3510PS84SGN**	**XCC3912PS84SGN**		
8192 points / 4096 turns	CANopen, 25-bit	Binary			–	–	**XCC3510PS84CB**	–
	PROFIBUS-DP, 25-bit	Binary	–	–	–	–	–	**XCC3510PV84FB**

(1) Anti-rotation device included with through shaft version encoders. To achieve Ø 6, 8, 10 or 12 mm through shafts, use the reduction collars.

(2) All versions are also available with through shaft and anti-rotation device.

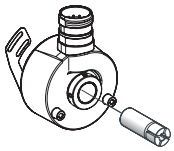
(3) IP 67 with sealed collar XCCRB3.

(4) Versions available with hollow shaft and anti-rotation device.

(5) “Parallel” outputs possible for multiturn absolute encoders using derserialisation jumper cables XCCRM23SUB37●●.

Reduction collars

For Ø 58 mm incremental encoders with through shaft



Ø 14 to Ø 6 mm	**XCCR158RDA06**
Ø 14 to Ø 8 mm	**XCCR158RDA08**
Ø 14 to Ø 10 mm	**XCCR158RDA10**
Ø 14 to Ø 12 mm	**XCCR158RDA12**

IP 67 sealed collar

For encoders XCC1510, 2510, 3510

Ø 58 mm	**XCCRB3**

Pre-wired connectors and jumper cables

Pre-wired M23 female connectors (cable length 5 m)

8-wire for SSI encoders	**XCCPM23122L5**
10-wire for incremental encoders	**XCCPM23121L5**
16-wire for parallel single turn absolute encoders	**XCCPM23161L5**

Deserialisation jumper cables (M23 F - SUB-D37 M) (L = 0.5 m)

SSI Gray - // Gray PNP	**XCCRM23SUB37PG**
SSI binary - // binary NPN	**XCCRM23SUB37PB**

Radio frequency identification
13.56 MHz RFID

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 compact stations (read/write)
- 6 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 compact stations 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 station
- Low sensitivity to metal environments.

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

Compact stations, 13.56 MHz		C format	D format
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		C format		ISO badge (1)	Disc	E format	Cylindrical
Dimensions (mm), W x H x D		40 x 40 x 15		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	13 632	256	112	256	256
Nominal sensing distance (mm)	With station XGCS49●	33	30	70	48	40	18
(Read/Write)	With station XGCS89●	48	40	100	65	55	20
Time (ms)	Read	9.25 + 0.375 x n (2)	16.25 + 0.375 x n (2)	12 + 0.825 x n (2)			
	Write	13 + 0.8 x n (2)	20 + 0.8 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			
Mounting on metal support		Yes		No		Yes	No
References		**XGHB444345**	**XGHB445345**	**XGHB90E340**	**XGHB320345**	**XGHB221346**	**XGHB211345**

(1) Customised versions on request. (2) n = number of 16-bit words.

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Other versions: **please consult your Schneider Electric agency.**

Connection boxes	Ethernet box	Profibus box	Tap-off box
Dimensions (mm), W x H x D	130 x 80 x 51		130 x 80 x 51
Protocols	Modbus TCP/IP	Profibus DP	Modbus, Uni-Telway
Supply voltage	24 VDC PELV. M12, 4-pin male, A coding, connector		
Conformity to standards	CE - UL	CE	CE - UL
Station connection	M12, 5-pin female, A coding, connector		
Degree of protection conforming to IEC 60529	IP 65		
References	**XGSZ33ETH**	**XGSZ33PDP**	**TCSAMT31FP**

Terminal		Portable 13.56 MHz RFID diagnostics terminal
Dimensions (mm), W x H x P		120 x 250 x 62
Function		Read/Write operations on electronic tags and diagnostics on compact stations
Operating system		Microsoft® Windows CE.NET Professional® version 4.2
Conformity to standards		CE, FCC class A, Part 15225
Display		72 x 54 mm colour touchscreen; QVGA TFT, 320 x 240 pixels resolution
Degree of protection conforming to IEC 60529		IP 65
Memory	RAM	64 Mb SDRAM
	Storage	Internal Compact Flash (512 Mb standard, expandable to 128 Mb) + Slot for Compact Flash card
Reference		**XGSTP401** (Battery, battery charger, carrying case and 3 styluses included with terminal)

Connection accessories	for Modbus network			for Profibus	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 female / Mini-DIN 8	Profibus connecting cables M12 connectors Male / Female	Ethernet ConneXium 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 compact station and a Modbus 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 Profibus box and Profibus network	Connection between an Ethernet box and the Ethernet network	24 VDC supply to connection boxes	For RS 485 network
L = 2 m	**TCSMCN1M1F2**	**TCSMCN1F2**	**TCSMCN1F9M2P**	**FTXDP1220**	**TCSECL1M3M3S2** (3)	**XGSZ09L2**	**TCSCTN011M11F**
L = 5 m	**TCSMCN1M1F5**	**TCSMCN1F5**	–	**FTXDP1250**	**TCSECL1M3M5S2**	**XGSZ09L5**	

(3) L = 3 m

Field expander

To be associated with a compact station XGCS4901201 for conveying and handling applications

New

50 x 400 mm
XGFEC540

250 x 250 mm
XGFEC2525

RS232/RS485 converter

For connecting a PC to an OsiSense XG station

XGSZ24

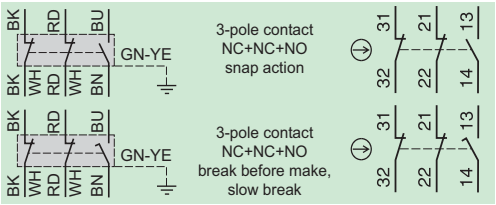
Technical documentation

OsiSense XG compact stations guide

DIA4ED3051001

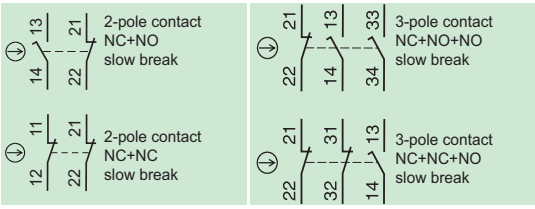
Other versions: **please consult your Schneider Electric agency.**

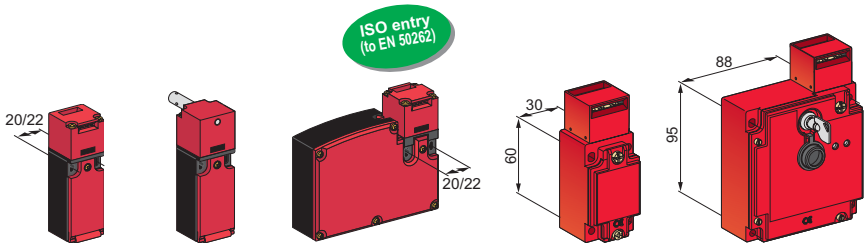
XCSM **XCSP/D**



Safety limit switches		Miniature			Compact		
Maximum actuation speed		0.5 m/s	0.5 m/s	1.5 m/s	0.5 m/s	0.5 m/s	1.5 m/s
Minimum force or torque (actuation / positive opening)		8.5 N / 42.5 N	7 N / 35 N	0.5 N.m / 0.1 N.m	15 N / 45 N	12 N / 36 N	10 N.m / 0.1 N.m
Degree of protection		IP 66 + IP 67 + IP 68			IP 66 + IP 67		
Complete switch, metal	NC+NC+NO snap action	**XCSM3910L1**	**XCSM3902L1**	**XCSM3915L1**	**XCSD3910P20**	**XCSD3902P20**	**XCSD3918P20**
	NC+NC+NO slow break	**XCSM3710L1**	**XCSM3702L1**	**XCSM3715L1**	**XCSD3710P20**	**XCSD3702P20**	**XCSD3718P20**
Complete switch, plastic	NC+NC+NO snap action	–	–	–	**XCSP3910P20**	**XCSP3902P20**	**XCSP3918P20**
	NC+NC+NO slow break	–	–	–	**XCSP3710P20**	**XCSP3702P20**	**XCSP3718P20**

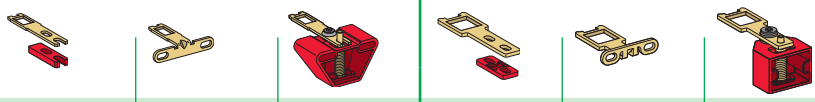
XCSPA/PR/TE **XCSA/E/PA/PR/TE**



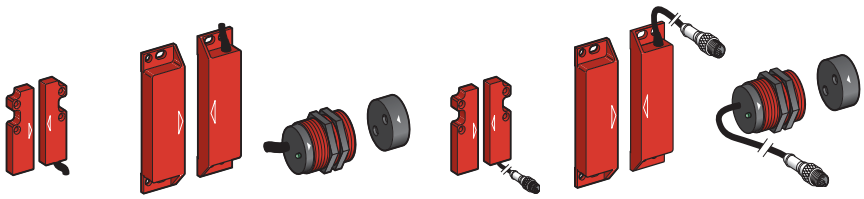


Safety switches							
Actuation speed (min. —> max.)		0.1 –> 0.5 m/s	–	0.1 –> 0.5 m/s	0.1 –> 0.5 m/s	0.1 –> 0.5 m/s	
Degree of protection conforming to IEC 60529		IP 67					
Body + head dimensions (mm) W x D x H		30 x 30 x 93.5	30 x 30 x 96	110 x 333 x 93.5	40 x 44 x 113.5	98 x 44 x 146	
Solenoid and pilot light supply voltage		–	–	∿ or ⎓ 24 V	–	∿ or ⎓ 24 V	∿ or ⎓ 220/240 V
Complete switch	NC+NO (NO staggered)	**XCSPA592**	**XCSPR552**	**XCSTE5312**	–	–	–
	NC+NC	**XCSPA792**	**XCSPR752**	**XCSTE7312**	–	–	–
Complete switch	NC+NO+NO (2 NO staggered)	**XCSPA892**	–	–	**XCSA502**	**XCSE5312**	**XCSE5342**
	NC+NC+NO (NO staggered)	**XCSPA992**	**XCSPR952**	–	**XCSA702**	**XCSE7312**	**XCSE7342**

Accessories for safety switches

	for XCSPA / PR / TE			for XCSA / E		
						
Actuators	**XCSZ11**	**XCSZ12**	**XCSZ13**	**XCSZ01**	**XCSZ02**	**XCSZ03**

NC+NO contact (NO staggered) NC+NO+NO contact (1N/O staggered)



Coded magnetic switches	Pre-cabled, L = 2 m			Connector on flying lead, L = 15 cm		
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 conforming to IEC 60529 / Type of contact	IP 66 + IP 67 / REED			IP 67 / REED		
Dimensions (mm) W x D x H or Ø x L	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
Switch with coded magnet (NC+NO, NO staggered)	**XCSDMC5902**	**XCSDMP5902**	**XCSDMR5902**	**XCSDMC590L01M8**	**XCSDMP590L01M12**	**XCSDMR590L01M12**
Switch with coded magnet (NC+NO+NO, 1 NO staggered)	–	**XCSDMP5002**	–	–	**XCSDMP500L01M12**	–

Other versions: **please consult your Schneider Electric agency.**

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