Telemecanique Sensors

Sensors, Switches and Machine Safety Product Guide

Limit Switches

Proximity

Photoelectric

Ultrasonic

Pressure

Machine Safety

RFID

Cabling

Simply easy!™

SQUARE D™ by Schneider Electric

Telemecanique Sensors

Telemecanique Sensors

Simply easy!™

Founded over 90 years ago,
Telemecanique Sensors specializes in sensors and sensor-related technology.

As a global leader in the sensors business, we help our customers select the right technology to get the best performance and reliability from their machines.

Focused on 3 core values – Simplicity, Proximity and Expertise – we have become experts in factory automation sensors as well as specialists in demanding applications, making our customers' lives "Simply easy!"

Sensors, Switches and Machine Safety Product Guide

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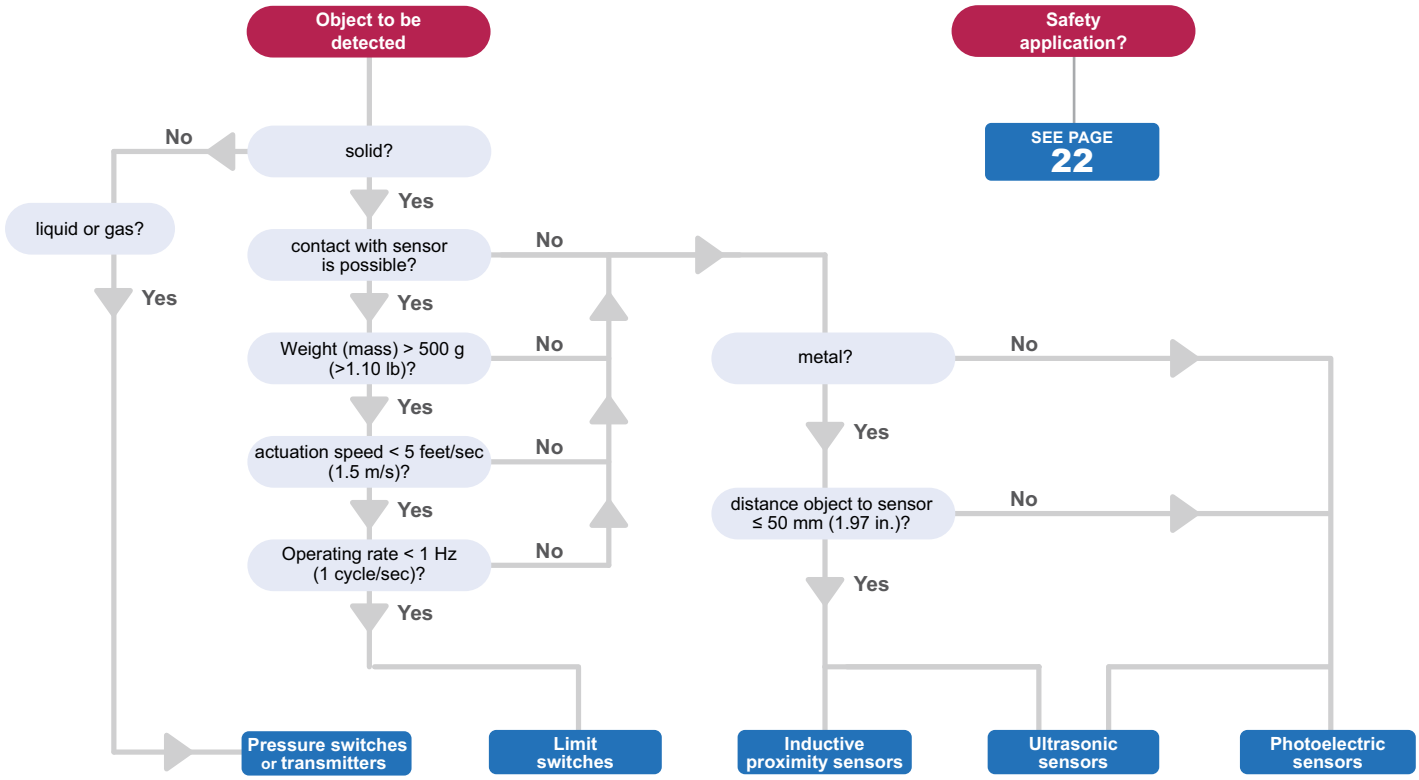
www.tesensors.com

Detection sensor selection guide



Industries	XM	XC	XS	XX	XU
Machine tools	Recommended	Recommended	Recommended	Unsuitable	Unsuitable
Food & beverage	Recommended	Possible	Recommended	Recommended	Possible
Packaging	Recommended	Recommended	Recommended	Recommended	Recommended
Hoisting	Recommended	Recommended	Possible	Possible	Possible
Conveying	Recommended	Recommended	Recommended	Recommended	Recommended
Mobile equipment	Recommended	Recommended	Recommended	Recommended	Unsuitable
Assembly	Recommended	Recommended	Recommended	Possible	Recommended
Wood industry	Recommended	Recommended	Recommended	Recommended	Unsuitable
Automotive industry	Recommended	Recommended	Recommended	Possible	Possible
Paper industry	Recommended	Possible	Possible	Recommended	Recommended
Mines & minerals	Recommended	Recommended	Possible	Recommended	Possible
Pumping & water treatment	Recommended	Possible	Possible	Recommended	Unsuitable
Railroad & embedded vehicles	Recommended	Recommended	Recommended	Possible	Unsuitable
Lifts & escalators	Recommended	Recommended	Recommended	Unsuitable	Recommended
Service industry & building	Recommended	Recommended	Possible	Unsuitable	Recommended
	SEE PAGE 4	SEE PAGE 7	SEE PAGE 10	SEE PAGE 13	SEE PAGE 14

Recommended
Possible
Unsuitable

Pressure sensors

Pressure sensors are control circuit rated devices used in pneumatic or hydraulic systems on a wide variety of machine and process applications to protect the equipment and control or monitor system pressure.

1 - Choose the fluid, pressure range and fluid temperature

...appropriate to the application.

If response time is not critical, consider

Electromechanical pressure switch with contacts

If response time is critical or you need to monitor pressure, consider

Electronic pressure sensor with solid-state or analog output

2 - Choose the output type

according to the load compatibility (contactor, PLC) Contact C/O, DC3-wire, PNP, NPN, DC NO or NC, analog, or 3 or 4-wire

3 - Choose the electrical connection

M12 connector, Packard Metri-Pack, DIN43650A or screw clamp terminals with a tapped cable entry

4 - Choose the fluid connection

according to facility standards or machine requirements… 1/4" NPT female, G 1/4 BSP female...

Pressure switches: Class 9012

CLASS 9012 Pressure Switches

1/4" NPTF

Air, water, hydraulic oils, gases, steam (depending on model)			
Range on decreasing pressure, psig	Approx. differential Mid-Range [1]	Adjustable Differential NEMA Type 4, 4X, 13	
psi		SPDT	DPDT
Diaphragm Actuated		1/2" - 14 NPTF Elec Conn	
0.2 - 10	0.7 - 2	9012GAW1	9012GAW21
1 - 40	2.4 - 7	9012GAW2	9012GAW22
1.5 - 75	3.9 - 15	9012GAW4	9012GAW24
3 - 150	6.6 - 30	9012GAW5	9012GAW25
5 - 250	11 - 49	9012GAW6	9012GAW26
13 - 425	20 - 82	9012GBW1	9012GBW21
20 - 675	35 - 130	9012GBW2	9012GBW22

1/4" NPTF

Air, water, hydraulic oils, gases, steam (depending on model)			
Range on decreasing pressure, psig	Approx. differential Mid-Range [1]	Adjustable Differential NEMA Type 4, 4X, 13	
psi		SPDT	DPDT
Piston Actuated		1/2" - 14 NPTF Elec Conn	
20 - 1000	65 - 200	9012GCW1	9012GCW21
90 - 2900	187 - 560	9012GCW2	9012GCW22
170 - 5600	425 - 1050	9012GCW3	9012GCW23

1/4" NPTF

Air, water, hydraulic oils, gases, steam (depending on model)			
Range on decreasing pressure, psig	Approx. differential Mid-Range [1]	Adjustable Differential Open Type or NEMA Type 1 Enclosure	
psi		Open Type	NEMA Type 1
Diaphragm Actuated		1/2" conduit entry, unthreaded	
0.2 - 10	0.4 - 0.9	9012GNO1	9012GNG1
1 - 40	1.2 - 3.6	9012GNO3	9012GNG3
1.5 - 75	2.2 - 6.6	9012GNO4	9012GNG4
3 - 150	4.2 - 13.2	9012GNO5	9012GNG5
5 - 250	7.4 - 33.6	9012GNO6	9012GNG6
13 - 425	13 - 37.2	9012GPO1	9012GPG1
20 - 675	19 - 58.8	9012GPO2	9012GPG2
Piston Actuated		1/2" conduit entry, unthreaded	
20 - 1000	49 - 150	---	9012GQG1
90 - 2900	141 - 455	9012GQO2	9012GQG2
170 - 5600	200 - 950	9012GQO3	9012GQG3
270 - 9000	350 - 1400	---	9012GQG4

[1] The differential adds to the range setting and determines the operating point on rising pressure.

SQUARE D™ by Schneider Electric

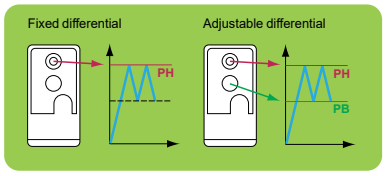
See our Industrial Pressure Switch Catalog at: https://tesensors.com/us/en/document/9012CT9701

Pressure switches: XM Range

XMLA / XMLB Electromechanical	Hydraulic oils, air, fresh water, sea water / Temp. : up to 70° C			
			1 C/O single pole contact fixed differential	1 C/O single pole contact adjustable differential
Screw terminal	Bar	psi	1/2"-14 NPT	1/2"-14 NPT
	-1	-14.5	XMLAM01V2S13	XMLBM02V2S13
	2.5	36.3	XMLA002A2S13	XMLB002A2S13
	4	58	XMLA004A2S13	XMLB004A2S13
	10	145	XMLA010A2S13	XMLB010A2S13
	20	290	XMLA020A2S13	XMLB020A2S13
	35	508	XMLA035A2S13	XMLB035A2S13
	Hydraulic oils / Temp. : up to 160° C			
	1	14.5	XMLA001R2S13	XMLB001R2S13
	70	1015	XMLA070D2S13	XMLB070D2S13
	160	2320	XMLA160D2S13	XMLB160D2S13
	300	4350	XMLA300D2S13	XMLB300D2S13
1/4" -18NPTF	500	7250	XMLA500D2S13	XMLB500D2S13

Pressure transducers: XM Range

XMLR Electronic + Display	Hydraulic oils, air, fresh water, refrigerant fluids				
	-20… +80° C		Analog output		Analog + 2 switching outputs
					PNP - NO/NC programmable
M12 4 pin or 5 pin	Bar	psi	4…20 mA	0…10 V	4…20 mA
	-1	-14.5	XMLRM01G0T25	XMLRM01G0T75	XMLRM01G2P25
	1	14.5	XMLR001G0T25	XMLR001G0T75	
	2.5	35.2	XMLR2D5G0T25	XMLR2D5G0T75	
	10	145	XMLR010G0T25	XMLR010G0T75	XMLR010G2P25
	16	232	XMLR016G0T25	XMLR016G0T75	XMLR016G2P25
	25	362	XMLR025G0T25	XMLR025G0T75	
	40	580	XMLR040G0T25	XMLR040G0T75	XMLR040G2P25
	100	1450	XMLR100M0T25	XMLR100M0T75	
	160	2320	XMLR160M0T25	XMLR160M0T75	
	250	3625	XMLR250M0T25	XMLR250M0T75	XMLR250M2P25
	400	5800	XMLR400M0T25	XMLR400M0T75	XMLR400M2P25
	600	8700	XMLR600M0T25	XMLR600M0T75	
	Hydraulic oils, air, fresh water, refrigerant fluids				
	-20… +80° C		Analog + switching output		2 switching outputs
			PNP - NO/NC programmable		PNP - NO/NC programmable
	Bar	psi	4…20 mA	0…10 V	
	-1	-14.5	XMLRM01G1P26		XMLRM01G2P06
	1	14.5	XMLR001G1P26		XMLR001G2P06
	2.5	35.2	XMLR2D5G1P26		XMLR2D5G2P06
	10	145	XMLR010G1P26	XMLR010G1P76	XMLR010G2P06
	16	232	XMLR016G1P26		XMLR016G2P06
	25	362	XMLR025G1P26		XMLR025G2P06
	40	580	XMLR040G1P26		XMLR040G2P06
	100	1450	XMLR100M1P26		XMLR100M2P06
	160	2320			XMLR160M2P09
	250	3625	XMLR250M1P26	XMLR250M1P76	XMLR250M2P06
	400	5800	XMLR400M1P26		XMLR400M2P06
1/4"-14 NPTF	600	8700	XMLR600M1P26	XMLR600MP76	



Pressure transducers: XM Range

XMLP Electronic transmitter	Hydraulic oils, air, fresh water				
M12 4 pin (male)	-22...+185° F (-30...+85°C)		Analog output		
	psi	bar	4…20 mA	0…10 V	0.5…4.5 V ratiometric
	-14.5...0		XMLPM00RD23F	XMLPM00RD73F	XMLPM00RD13F
	-14.5...15		XMLPM15RD23F	XMLPM15RD73F	
	-14.5...60	-1...4.13	XMLPM60RD23F	XMLPM60RD73F	
	0...5	0...0.34	XMLPM15RD23FSD2		
	0...15	0...1	XMLP015RD23F	XMLP015RD73F	
	0...30	0...2	XMLP030RD23F	XMLP030RD73F	
	0...50	0...3.4	XMLP050RD23F	XMLP050RD73F	
	0...100	0...6.8	XMLP100PD230	XMLP100PD730	XMLP100PD130
	0...150	0...10.3	XMLP150PD230	XMLP150PD730	XMLP150PD130
	0...300	0...20.6	XMLP300PD230	XMLP300PD730	XMLP300PD130
	0...600	0...41.3	XMLP600PD230	XMLP600PD730	XMLP600PD130
	0...1000	0...68.9	XMLP1K0PD230	XMLP1K0PD730	XMLP1K0PD130
	0...2000	0...137.8	XMLP2K0PD230	XMLP2K0PD730	XMLP2K0PD130
	0...3000	0...206.8	XMLP3K0PD230	XMLP3K0PD730	XMLP3K0PD130
1/4"-18 NPT	0...6000	0...413.6	XMLP6K0PD230	XMLP6K0PD730	XMLP6K0PD130

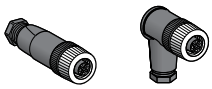
Other fluid and electrical connections available. Connect with a Telemecanique Sensors specialist or review catalog at: https://tesensors.com/us/en/document/DIA4ED2150102EN

ZMLP Display and switch	4-20 mA analog + switching output		2 switching outputs
M12 4 pin (male)	NO/NC Programmable		NO/NC Programmable
PNP	Window	Hysteresis	Fixed hysteresis
	ZMLPA1P2SW	ZMLPA1P2SH	ZMLPA2P0SH

M12 4 pin (female)

Only usable with 4-20mA analog output XMLP electronic transmitter

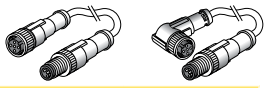
Quick mounting bracket	Horizontal plan	Vertical plan or pipe
	XMLPZLH01	XMLPZLV01



Cabling XM		Connectors (female)	
M12		straight	elbowed
(1)	4 pin	XZCC12FDM40B	XZCC12FCM40B
(1)	5 pin	XZCC12FDM50B	XZCC12FCM50B
		Connectors (male)	
(1)	5 pin	XZCC12MDM50B	XZCC12MCM50B

(1) Plastic rings may be available in some versions

		PUR pre wired connectors (female)*		
M12		straight	elbowed	elbowed PNP LED
4 pin	2 m	XZCP1141L2	XZCP1241L2	XZCP1340L2
	5 m	XZCP1141L5	XZCP1241L5	XZCP1340L5
	10 m	XZCP1141L10	XZCP1241L10	XZCP1340L10



		PUR Jumper cables	
M12 (female)		straight	elbowed
M12 (male)		straight	straight
4 pin	1 m	XZCR1511041C1	XZCR1512041C1
	2 m	XZCR1511041C2	XZCR1512041C2

* For a PVC cable, add the letter V after the P. Example: XZCPxxxxxx become XZCPVxxxxxx

Limit switches

Limit Switches detect solid objects by contact using varying heads depending on the application. Common detection head types include plungers, levers, roller levers, spring rods, and cat whiskers.

1 - Choose the body

...appropriate to the environment:
Choose size, material and duty

2 - Choose a head

according to the object to be detected
Detection movement type:
- Linear
- Rotary
- Lever
- Multidirectional Plunger
- Spring rod or cat whiskers

3 - Choose the contact

according to the automation function to achieve
Snap action or slow break , 2, 3 or 4 contacts;
NO, NC…

Snap recommended

4 - Choose the electrical connection

according to facility standards or machine requirements…
M12 connector or screw clamp terminal with different tapped cable entries

Telemecanique Sensors **Wireless**

Limit switches: XC Wireless

XCMW	Snap Action	One way pulsed wireless transmission	Metal Roller Plunger	Metal End Plunger	Plastic Roller Lever	Metal Roller Lever	Plastic Roller Lever	Adjustable Length Plastic Roller Lever	Adjustable Length Plastic Roller Lever	Round Plastic Rod Lever
			XCMW102	XCMW110	XCMW115	XCMW116	XCMW139	XCMW145	XCMW149	XCMW159

Receivers

ZBRR	32 Transmitters	4xPNP	2xRelays
		ZBRRC	ZBRRD

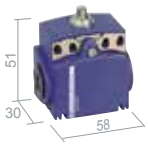
Radio transmitter

Connects
to any sensor
or switch!

XZBW	2 Transmitters	2 + 2 PNP (Q1 & Q2)	NO (PNP, NPN or contact)	2-way continuous Wireless transmission	XZBWE112A24
		XZBWR2STT24			

See our Wireless Catalog at: https://tesensors.com/us/en/document/DIA4ED2150902EN

Limit switches: XC Range



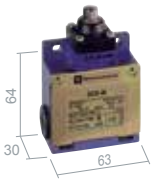
							(1)	(1)
XCKD Metal	NO+NC Snap	1/2" NPT	XCKD2110N12	XCKD2102N12	XCKD2121N12	XCKD2106N12	XCKD2118N12	XCKD2145N12
		Pg11	XCKD2110G11	XCKD2102G11	XCKD2121G11	XCKD2106G11	XCKD2118G11	XCKD2145G11
		M12 5P	XCKD2110M12	XCKD2102M12	XCKD2121M12	XCKD2106M12	XCKD2118M12	XCKD2145M12
XCKP Plastic	NO+NC Snap	1/2" NPT	XCKP2110N12	XCKP2102N12	XCKP2121N12	XCKP2106N12	XCKP2118N12	XCKP2145N12
		Pg11	XCKP2110G11	XCKP2102G11	XCKP2121G11	XCKP2106G11	XCKP2118G11	XCKP2145G11
		M12 4P	XCKP2110M12	XCKP2102M12	XCKP2121M12	XCKP2106M12	XCKP2118M12	XCKP2145M12
XCKT Plastic	NO+NC Snap	1/2" NPT	XCKT2110N12	XCKT2102N12	XCKT2121N12	XCKT2106N12	XCKT2118N12	XCKT2145N12
		Pg11	XCKT2110G11	XCKT2102G11	XCKT2121G11	XCKT2106G11	XCKT2118G11	XCKT2145G11

					(1)
XCMV Metal	NO+NC Snap	Deutsch	XCMV2110D44	XCMV2102D44	XCMV2115D44
	NO+NC Snap	M12 4P	XCMV2110M12	XCMV2102M12	XCMV2115M12

Cabled and AMP connector versions also available

								(1)	(2)
XCMD Metal	NO+NC Snap	1 m*	XCMD2110L1	XCMD2102L1	XCMD2124L1	XCMD21F0L1	XCMD21F2L1	XCMD2115L1	XCMD2116L1
	NO+NC Slow	1 m*	XCMD2510L1	XCMD2502L1	XCMD2524L1	XCMD25F0L1	XCMD25F2L1	XCMD2515L1	XCMD2516L1
	NO+NC Snap	M12 5P	XCMD2110C12	XCMD2102C12	XCMD2124C12	XCMD21F0C12	XCMD21F2C12	XCMD2115C12	XCMD2116C12
	1 C/O Snap	M12 4P	XCMD2110M12	XCMD2102M12	XCMD2124M12	XCMD21F0M12	XCMD21F2M12	XCMD2115M12	XCMD2116M12

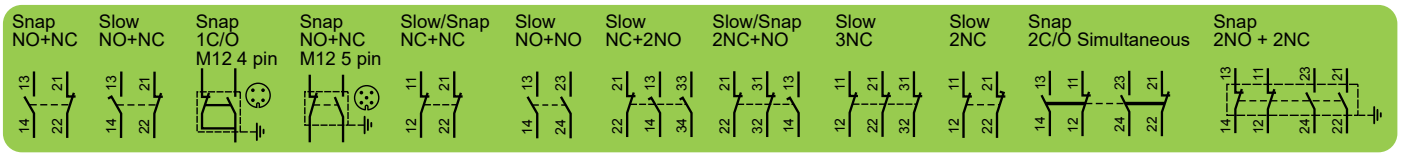
*Many other cable lengths are available



						(1)	
XCKM Metal	NO+NC Snap	1/2" NPT	XCKM110H7	XCKM102H7	XCKM121H7	XCKM115H7	XCKM106H7
		Pg11	XCKM110	XCKM102	XCKM121	XCKM115	XCKM106
XCKL Metal	NO+NC Snap	1/2" NPT	XCKL110H7	XCKL102H7	XCKL121H7	XCKL115H7	XCKL106H7

					(1)	(2)	(1)	
XCKJ Metal	NO+NC Snap	M20	XCKJ161H29	XCKJ167H29	XCKJ10511H29	XCKJ10513H29	XCKJ10541H29	XCKJ10559H29
		Pg13	XCKJ161	XCKJ167	XCKJ10511	XCKJ10513	XCKJ10541	XCKJ10559
		1/2NPT	XCKJ161H7	XCKJ167H7	XCKJ10511H7	XCKJ10513H7	XCKJ10541H7	XCKJ10559H7
		M12 5P	XCKJ161D	XCKJ167D	XCKJ10511D	XCKJ10513D	XCKJ10541D	XCKJ10559D

(1) Plastic roller (2) Steel roller



M16	Tapped M16x1.5 for ISO cable gland
M20	Tapped M20x1.5 for ISO cable gland
Pg11	Tapped for a N°11 cable gland
Pg13	Tapped for a N°13 cable gland
1/2NPT	Tapped for a 1/2" NPT
PF1/2	Tapped for a PF1/2"
M12 5P	Connector M12, 5 pin
M12 4P	Connector M12, 4 pin
CG	Tapped with cable gland included

Cabling XC

M12		PUR pre wired connectors straight	elbowed	(female)* elbowed PNP LED
4 pin	2 m	XZCP1141L2	XZCP1241L2	XZCP1340L2
	5 m	XZCP1141L5	XZCP1241L5	XZCP1340L5
	10 m	XZCP1141L10	XZCP1241L10	XZCP1340L10
5 pin	5 m	XZCP1164L5	XZCP1264L5	

*For a PVC cable, add the letter V after the P. Example:XZCPxxxxxx becomes XZCPVxxxxxx

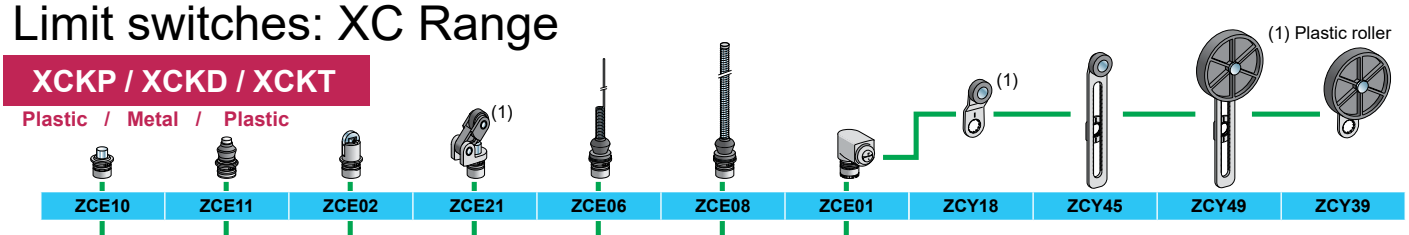
	M12	Connectors (female) straight	elbowed
(1)	4 pin	XZCC12FDM40B	XZCC12FCM40B
(1)	5 pin	XZCC12FDM50B	XZCC12FCM50B
		Connectors (male)	
(1)	5 pin	XZCC12MDM50B	XZCC12MCM50B

(1) Plastic rings may be available in some versions

Limit switches: XC Range

XCKP / XCKD / XCKT

Plastic / Metal / Plastic



ZCE10	ZCE11	ZCE02	ZCE21	ZCE06	ZCE08	ZCE01	ZCY18	ZCY45	ZCY49	ZCY39

	NO+NC Snap	NO+2NC Snap	NO+NC Slow	NC+NC Snap	NC+NC Snap	NO+NO Slow
XCKP	ZCP21	ZCP39	ZCP25	ZCP27	ZCP29	ZCP28
XCKD	ZCD21	ZCD39	ZCD25	ZCD27	ZCD29	ZCD28

	N0+NC Snap
M12 4P	ZCP21M12
M12 5P	ZCD21M12

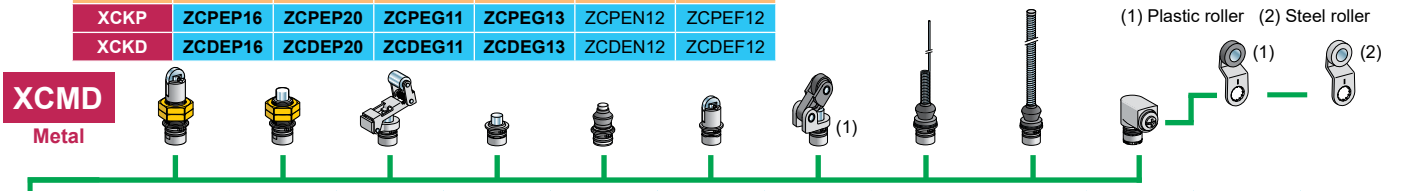
XCKT	NC+NC Snap
M16	ZCT21P16
Pg11	ZCT21G11
1/2" NPT	ZCT21N12
	NO+NC Slow
M16	ZCT25P16
Pg11	ZCT25G11
1/2" NPT	ZCT25N12

Cable entry	M16	M20	Pg11	Pg13.5	1/2 NPT	PF1/2
XCKP	ZCPEP16	ZCPEP20	ZCPEG11	ZCPEG13	ZCPEN12	ZCPEF12
XCKD	ZCDEP16	ZCDEP20	ZCDEG11	ZCDEG13	ZCDEN12	ZCDEF12

XCMD

Metal

(1) Plastic roller (2) Steel roller



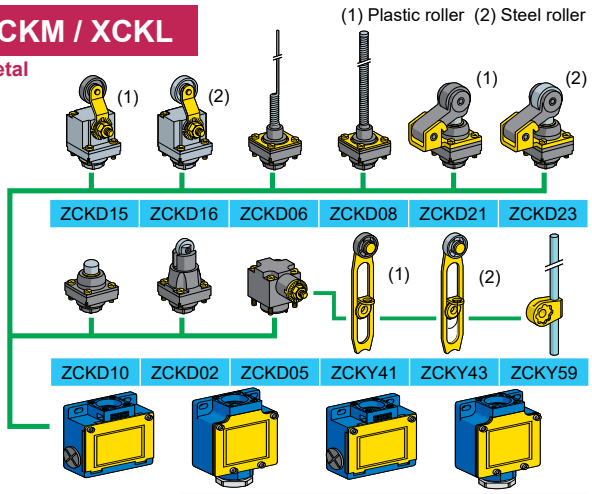
ZCEF2	ZCEF0	ZCE24	ZCE10	ZCE11	ZCE02	ZCE21	ZCE06	ZCE08	ZCE01	ZCY15	ZCY16

NO+NC Snap		NO+NC Slow		2NO+2NC Snap		NO+NC Snap	1C/O Snap
ZCMD21 +		ZCMD25 +		ZCMD4D +		M12 5P	M12 4P
						ZCMD21C12	ZCMD21M12
1 m ZCMC21L1	ZCMD21L1	ZCMC25L1	ZCMD25L1	ZCMC4DL1	ZCMD41L1		
2 m ZCMC21L2	ZCMD21L2	ZCMC25L2	ZCMD25L2	ZCMC4DL2	ZCMD41L2		
5 m ZCMC21L5	ZCMD21L5	ZCMC25L5	ZCMD25L5	ZCMC4DL5	ZCMD41L5		

XCKM / XCKL

Metal

(1) Plastic roller (2) Steel roller



ZCKD15	ZCKD16	ZCKD06	ZCKD08	ZCKD21	ZCKD23
ZCKD10	ZCKD02	ZCKD05	ZCKY41	ZCKY43	ZCKY59

XCKM/XCKL	NO+NC Snap		NO+NC Slow	
3xPg11	ZCKM1		ZCKM5	
3xM20	ZCKM1H29		ZCKM5H29	
PE		ZCKL1		ZCKL5
1/2" NPT		ZCKL1H7		ZCKL5H7

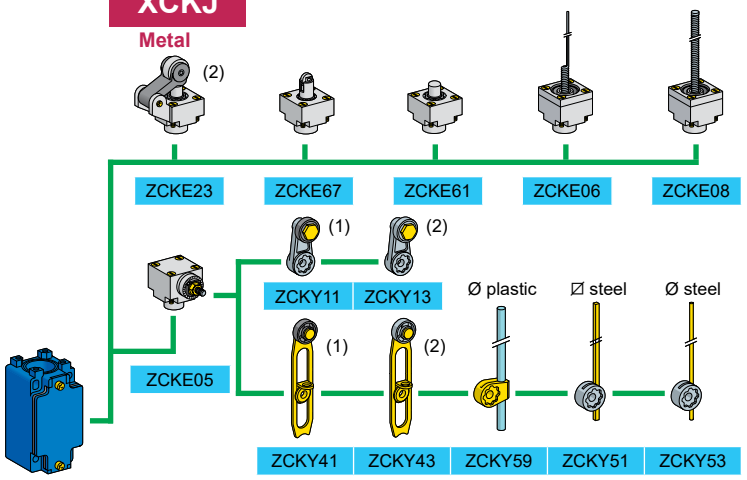
XCKS	NO+NC Snap	NO+NC Slow
1/2" NPT	ZCKS1H7	ZCKS5H7
M20	ZCKS1H29	ZCKS5H29

XCKJ	NO+NC Snap	NO+NC Slow	2C/O Simult. Snap
Pg13	ZCKJ1	ZCKJ5	ZCKJ2
M20	ZCKJ1H29	ZCKJ5H29	ZCKJ2H29
1/2" NPT	ZCKJ1H7	ZCKJ5H7	ZCKJ2H7
M12 5P	ZCKJ1D	ZCKJ5D	–

XCKJ

Metal

(1) Plastic roller (2) Steel roller



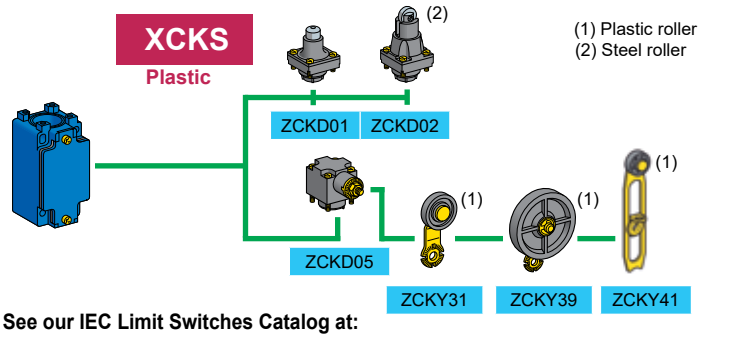
ZCKE23	ZCKE67	ZCKE61	ZCKE06	ZCKE08

ZCKE05	ZCKY11	ZCKY13	Ø plastic	Ø steel	Ø steel
	ZCKY41	ZCKY43	ZCKY59	ZCKY51	ZCKY53

XCKS

Plastic

(1) Plastic roller
(2) Steel roller

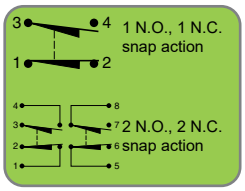


ZCKD01	ZCKD02

ZCKD05	ZCKY31	ZCKY39	ZCKY41

See our IEC Limit Switches Catalog at:
https://tesensors.com/us/en/document/DIA4ED2170406EN

Limit switches: Class 9007

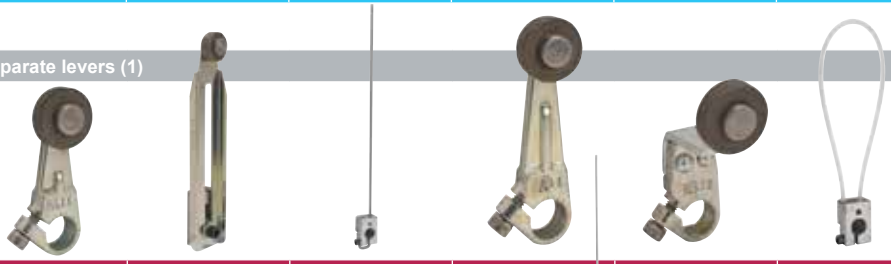


			Top metal end plunger	Top steel roller plunger	Plastic wobble stick	Rotary level arm type (1)	Side push rod plunger	Metal wire "cat's whisker"
9007 Metal	NO + NC Snap	1/2-14 NPT	9007C54E	9007C54D	9007C54J	9007C54B2	9007C54G	9007C54L
	2 NO + 2 NC Snap	1/2-14 NPT	9007C62E	9007C62D	9007C62J	9007C2B2	9007C62G	9007C62L

Plunger style heads (2)

9007H	9007F

Separate levers (1)



9007MA11	9007HA1	9007FA1	9007CA11	9007B11	9007FA6

(1) Over 200 lever arms and roller types available, order separately
(2) See main catalog for other types

			Top push plunger	Parallel roller plunger	Cross roller plunger	Rotary lever CW & CCW	Omnidirection wire whisker	Bushing mounted Parallel roller plunger	Booted top push plunger
9007 MINI	Form C contact 3 wire (NO + NC) + GND	3' (0.9m) Cable (3)	9007MS01S0100	9007MS02S0100	9007MS03S0100	9007MS04S0100	9007MS05S0100	9007MS07S0100	9007MS10S0100
		DC Connector 4P		9007MS02S0054	9007MS03S0054	9007MS04S0054			9007MS10S0054
		AC Connector 4P (4)		9007MS02S0084		9007MS04S0084	9007MS05S0082		

(3) 01=3ft(0.9m), 02=6ft(1.8m), 03=9ft(2.7m), 04=12ft(3.7m), 05=18ft(5.5m), 13=33ft(10m) Ex: 9007MS01S0100 with 9ft (2.7m) cable becomes 9007MS01S0300. 9007MS01S0100 with side entrance 9007MS01S0106. Not all combinations possible.
(4) AC Connector, 82 has dual keyway with Pin 1=common, Pin 2=N.O. Pin 3=N.C. Pin 4=gnd, 84 has single keyway with Pin 1=common, Pin 2=N.C. Pin 3=gnd, Pin 4=N.O.

Separate levers

7A1N	7D	7XJ1N	7S

For many other possible options and more information, see our catalog at the link below.

See our NEMA Catalog at: https://tesensors.com/us/en/document/9007CT0501

Inductive Proximity Sensors

Inductive proximity sensors use the principle of electromagnetic induction to detect or measure metal objects without contact. An inductor develops a magnetic field capable of detection when a current flows through it.

1 - Choose the body size
and the sensing distance

XS1, 2, 4, 5, 6

appropriate to the environment:
- Requested sensing range
- Size of product (diameter, length) and sensing range

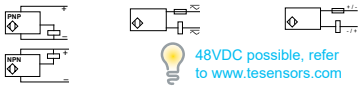
XS7, 8

Choose a sensing range double the distance to the object.

2 - Choose the output type

according to the load compatibility (contactor, PLC…)
DC3 wires 24V PNP, NPN, DC or AC/DC 2 wires 24-240V…

DC3 24 V | AC/DC 24...240 V | DC2 24 V



48VDC possible, refer to www.tesensors.com

3 - Choose the electrical connection

according to facility standards or machine requirements…
Cable, connector (M8, M12 in DC, 1/2 in AC/DC), screw clamp terminals.

4 - Choose the output signal & function

according to the automation function to achieve
Discrete (NO, NC, NO+NC), analogue 0-10V 4 20mA rotation monitoring …

Inductives: XS Range

Flush mountable

Short

Long

			M8		M12	
	Sensing distance		1.5 mm	2.5 mm	2 mm	4 mm
DC3	PNP	cable	XS508B1P A L2	XS108B3P A L2	XS512B1P A L2	XS112B3P A L2
		connector	XS508B1P A M8	XS108 B3P A M8	XS512B1P A M12	XS112B3P A M12
	NPN	cable	XS508B1N A L2	XS108B3N A L2	XS512B1N A L2	XS112B3N A L2
		connector	XS508B1N A M8	XS108B3N A M8	XS512B1N A M12	XS112B3N A M12
DC2		cable	XS508BSC A L2	XS608B3C A L2	XS512BSD A L2	XS612B3D A L2
		connector	XS508BSC A L01M12	XS608B3C A L01M12	XS512BSD A M12	XS612B3D A M12
DC3	PNP	cable	XS508BLP A L2	XS608B1P A L2	XS512BLP A L2	XS612B1P A L2
		connector	XS508BLP A M12	XS608B1P A M12	XS512BLP A M12	XS612B1P A M12
	NPN	cable	XS508BLN A L2	XS608B1N A L2	XS512BLN A L2	XS612B1N A L2
		connector	XS508BLN A M12	XS608B1N A M12	XS512BLN A M12	XS612B1N A M12
DC2		cable	XS508B1D A L2	XS608B1D A L2	XS512B1D A L2	XS612B1D A L2
		connector	XS508B1D A M12	XS608B1D A M12	XS512B1D A M12	XS612B1D A M12
AC/DC		cable			XS512B1M A L2	XS612B1M A L2
		connector			XS512B1M A U20	XS612B1M A U20
Output function		NO	A	A	A	A
		NC	B	B	B	B
		NO + NC				(short only) C

See our Inductive Sensors Catalog at: https://tesensors.com/us/en/document/DIA4ED2150801EN

Inductives: XS Range

			M18		M30	
	Sensing distance		5 mm	8 mm	10 mm	15 mm
DC3	PNP	cable	XS518B1P A L2	XS118B3P A L2	XS530B1P A L2	XS130B3P A L2
		connector	XS518B1P A M12	XS118B3P A M12	XS530B1P A M12	XS130B3P A M12
	NPN	cable	XS518B1N A L2	XS118B3N A L2	XS530B1N A L2	XS130B3N A L2
		connector	XS518B1N A M12	XS118B3N A M12	XS530B1N A M12	XS130B3N A M12
DC2		cable	XS518BSD A L2	XS618B3D A L2	XS530BSD A L2	XS630B3D A L2
		connector	XS518BSD A M12	XS618B3D A M12	XS530BSD A M12	XS630B3D A M12
DC3	PNP	cable	XS518BLP A L2	XS618B1P A L2	XS530BLP A L2	XS630B1P A L2
		connector	XS518BLP A M12	XS618B1P A M12	XS530BLP A M12	XS630B1P A M12
	NPN	cable	XS518BLN A L2	XS618B1N A L2	XS530BLN A L2	XS630B1N A L2
		connector	XS518BLN A M12	XS618B1N A M12	XS530BLN A M12	XS630B1N A M12
DC2		cable	XS518B1D A L2	XS618B1D A L2	XS530B1D A L2	XS630B1D A L2
		connector	XS518B1D A M12	XS618B1D A M12	XS530B1D A M12	XS630B1D A M12
AC/DC		cable	XS518B1M A L2	XS618B1M A L2	XS530B1M A L2	XS630B1M A L2
		connector	XS518B1M A U20	XS618B1M A U20	XS530B1M A U20	XS630B1M A U20
Output function		NO	A	A	A	A
		NC	B	B	B	B
		NO + NC		(short only) C		(short only) C

Accessories

M8	XSZB108
M12	XSZB112
M18	XSZB118
M30	XSZB130

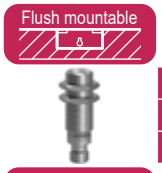
Inductives: Unshielded - Non Flush Mountable

Long body

			M12	M18	M30
	Sensing distance		7 mm	12 mm	22 mm
DC3	PNP	cable	XS612B4P A L2	XS618B4P A L2	XS630B4P A L2
		connector	XS612B4P A M12	XS618B4P A M12	XS630B4P A M12
	NPN	cable	XS612B4N A L2	XS618B4N A L2	XS630B4N A L2
		connector	XS612B4N A M12	XS618B4N A M12	XS630B4N A M12
AC/DC		cable		XS618B4M A L2	XS630B4M A L2
		connector		XS618B4M A U20	XS630B4M A U20
Output function		NO	A	A	A
		NC	B	B	B

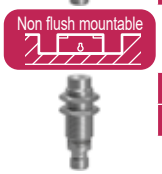
See our Inductive Sensors Catalog at: https://tesensors.com/us/en/document/DIA4ED2150801EN

Inductives: 1 Piece Stainless Steel Body & Face



Factor 1

				M8	M12	M18	M30
		Sensing distance		3 mm	6 mm	10 mm	20 mm
303 SS	DC3	PNP NO	connector	XS908R1P A M12	XS912R1P A M12	XS918R1P A M12	XS930R1P A M12
316L SS ECOLAB					XS912S1P A M12	XS918S1P A M12	XS930S1P A M12
303SS WFI					XS912RWP A M12	XS918RWP A M12	



Factor 1

				6 mm	10 mm	20 mm	40 mm
303 SS	DC3	PNP NO	connector	XS908R4P A L2	XS912R4P A M12	XS918R4P A M12	XS930R4P A M12
316L SS					XS912S4P A M12		XS930S4P A M12

Factor 1 = Ferous and non-Ferrous at same sensing range. WFI - Weld Field immune.

Inductives: Unshielded - Food & Beverage

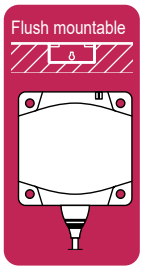
316L body, Natural PPS face, FDA approved			M12	M18	M18 - Smooth	M30
	Sensing distance		7 mm	12 mm	12 mm	22 mm
DC3	PNP NO	cable	XS212SAP A L2	XS218SAP A L2	XS2L2SAP A L2	XS230SAP A L2
		connector	XS212SAP A M12	XS218SAP A M12	XS2L2SAP A M12	XS230SAP A M12
	NPN NO	cable	XS212SAN A L2	XS218SAN A L2	XS2L2SAP A L2	XS230SAN A L2
		connector	XS212SAN A M12	XS218SAN A M12	XS2L2SAP A M12	XS230SAN A M12
AC/DC		cable		XS218SAM A L2		XS230SAM A L2
		connector		XS218SAM A U20		XS230SAM A U20

Inductives: Increased Range Extra Unshielded

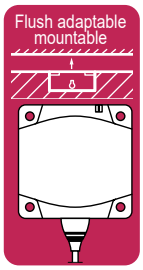
Short body (except 30mm)			M12	M18	M30 - Long Body
	Sensing distance		8 mm	16 mm	30 mm
DC3	PNP	cable	XS212B4P A L2	XS218B4P A L2	XS630B5P A L2
		connector	XS212B4P A M12	XS218B4P A M12	XS630B5P A M12
	NPN	cable	XS212B4N A L2	XS218B4N A L2	XS630B5N A L2
		connector	XS212B4N A M12	XS218B4N A M12	XS630B5N A M12
Output function		NO	A	A	A
		NC	B	B	B

See our Inductive Sensors Catalog at: https://tesensors.com/us/en/document/DIA4ED2150801EN

Inductives: XS Range



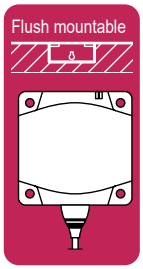
			⌀ 8x22x8 mm	⌀ 15x32x8 mm	⌀ 26x26x13 mm	⌀ 40x40x15 mm
	Sensing distance		2.5 mm	5 mm	10 mm	15 mm
DC3	PNP	cable	XS7J1A1P A L2	XS7F1A1P A L2	XS7E1A1P A L2	XS7C1A1P A L2
		connector	XS7J1A1P A L01M8	XS7F1A1P A L01M8	XS7E1A1P A M8	XS7C1A1P A M8
	NPN	cable	XS7J1A1N A L2	XS7F1A1N A L2	XS7E1A1N A L2	XS7C1A1N A L2
		connector	XS7J1A1N A L01M8	XS7F1A1N A L01M8	XS7E1A1N A M8	XS7C1A1N A M8
DC2		cable	XS7J1A1D A L2	XS7F1A1D A L2	XS7E1A1D A L2	XS7C1A1D A L2
		connector	XS7J1A1D A L01M8	XS7F1A1D A L01M8	XS7E1A1D A M8	XS7C1A1D A M8



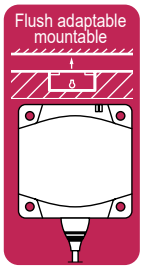
			⌀ 26x26x13 mm	⌀ 40x40x15 mm
	Sensing distance		15 mm	25 mm
DC3	PNP	cable	XS8E1A1P A L2	XS8C1A1P A L2
		connector	XS8E1A1P A M8	XS8C1A1P A M8
	NPN	cable	XS8E1A1N A L2	XS8C1A1N A L2
		connector	XS8E1A1N A M8	XS8C1A1N A M8
AC/DC		cable	XS8E1A1M A L2	XS8C1A1M A L2
		connector	XS8E1A1M A L01U20	XS8C1A1M A L01U20
Output function		NO	A	A
		NC	B	B

Screw terminal M 20

Connector M 12, 4 pin

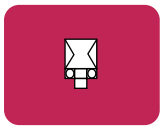


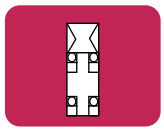
			⌀ 80x80x26 mm
	Sensing distance		40 mm
DC3	PNP	cable	XS7D1A1P A L2
		connector	XS7D1A1P A M12
	NPN	cable	XS7D1A1N A L2
		connector	XS7D1A1N A M12
DC2		cable	XS7D1A1D A L2
		connector	XS7D1A1D A M12



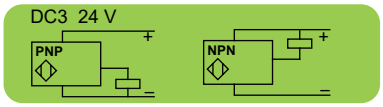
			⌀ 80x80x26 mm
	Sensing distance		60 mm
DC3	PNP	cable	XS8D1A1P A L2
		connector	XS8D1A1P A M12
	NPN	cable	XS8D1A1N A L2
		connector	XS8D1A1N A M12
AC/DC		cable	XS8D1A1M A L2
		connector	XS8D1A1M A U20
Output function		NO	A
		NC	B

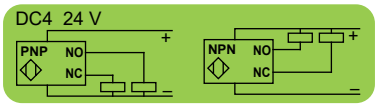
Cubic





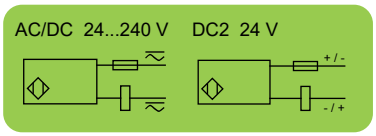
			⌀ 40x40x117 mm			
			20 mm		40 mm	
DC4	PNP	NO+NC	XS8C2A1PCM12		XS8C2A4PCM12	
	NPN	NO+NC	XS8C2A1NCM12		XS8C2A4NCM12	
DC2		NO	XS8C2A1DAM12		XS8C2A4DAM12	
AC/DC		NO	XS8C2A1MAU20		XS8C2A4MAU20	
DC4	PNP	NO+NC	XS8C4A1PC	N12	XS8C4A4PC	N12
	NPN	NO+NC	XS8C4A1NC	N12	XS8C4A4NC	N12
DC2		NO or NC	XS8C4A1DP	N12	XS8C4A4DP	N12
AC/DC		NO or NC	XS8C4A1MP	N12	XS8C4A4MP	N12
Select the type of connection		M20		P20		P20
		PG13		G13		G13
		1/2" NPT		N12		N12



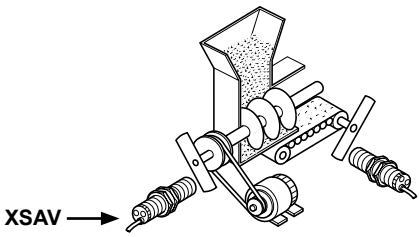


Accessories

For 26x26	XSZBE00	XSZBE90
For 40x40	XSZBC00	XSZBC90



Rotation monitoring: XSAV Range



					Low Speed	High Speed
				Sensing distance	10 mm	10 mm
M30	Flush	cable	Output type	DC3-PNP	XSAV11373	XSAV12373
				AC/DC	XSAV11801	XSAV12801

See our Inductive Sensors Catalog at: https://tesensors.com/us/en/document/DIA4ED2150801EN

Capacitive Sensors

Capacitive Proximity Sensors follow similar principles to the Inductive Sensors, but they produce an electrostatic field instead of an electromagnetic field. They can sense metallic as well as non-metallic materials such as paper, glass, liquids, and cloth. They can be used to detect any type of material, but need to be used in dry environments due to water being the easiest target to detect.

1 - Choose the body size

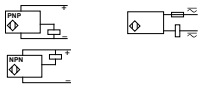
and the sensing distance

appropriate to the environment:
-Requested sensing range (from 0.05m to 8m)
-Size of product (diamter, length) and sensing range

2 - Choose the output type

according to the load compatibility (contactor, PLC…)
DC 3 or 4 wires PNP, NPN, or AC2 wire.

DC3 24 V **AC 24...240 V**



3 - Choose the electrical connection

according to facility standards or machine requirements…
cable, connector, screw clamp terminals

4 - Choose the output signal & function

according to the automation function to achieve
Discrete (NO, NC, NO+NC)

Capacitive: Shielded (Flush mountable)

			M12	M18	M30	M32 smooth (1)
	Sensing distance		2 mm	5 mm	10 mm	15 mm
DC3	PNP	cable	XT512B1P A L2	XT518B1P A L2	XT530B1P A L2	---
DC3	PNP	connector	XT512B1P A M12	XT518B1P A M12	XT530B1P A M12	---
AC		cable	---	XT518B1F A L2	---	XT532B1F A L2
Output function		NO	A	A	A	A
		NC	B	B	B	B
		NO + NC	C	C	C	C

(1) Mounting accessory included with sensor

Capacitive: Unshielded (Not flush mountable)

			M18	M30	M30 w/cable gland	M32 smooth (1)
	Sensing distance		8 mm	15 mm	15 mm	15 mm
DC3	PNP	cable	XT218A1P A L2	XT230A1P A L2	---	---
DC3	PNP	connector	XT218A1P C M12	XT230A1P C M12	---	---
DC3	NPN	cable	XT218A1N A L2	XT230A1N A L2	---	---
AC		cable	XT218A1F A L2	XT230A1F A L2	XT230A2M D B	XT232A1F A L2
Output function		NO	A	A	A	A
		NC	B	B	B	B
		NO + NC	C	C	C	C
		NO or NC			D	

Accessories		
	XXZ12	Ø 12 90-degree fixing bracket
	XUZA118	Ø 18 90-degree fixing bracket
	XXZ30	Ø 30 90-degree fixing bracket
	XTAZ30	Threaded sleeve (mounting well)

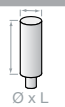
See our Capacitive Sensors Catalog at: https://tesensors.com/us/en/document/DIA4ED2170904EN

Ultrasonic Sensors

Ultrasonic Sensors perform contactless detection using reflected sound regardless of the target's shape, texture, color, or transparency. Ultrasonic Sensors typically operate in either diffuse, reflex, or thru-beam modes.

1 - Choose the body size

and the sensing distance



appropriate to the environment:
-Requested sensing range (from 0.05m to 8m)
-Size of product (cylindrical or flat) and sensing range
Material of body

– Plastic housing
– Metal housing
– Stainless steel housing

2 Choose the output signal & function

according to the automation function to achieve
discrete (NO, NC, NO+NC).....or analog (0-10V, 4-20mA)

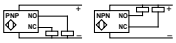
– Software configurable or only remote teach button

3 Choose the output type

according to the load compatibility (contactor, PLC…)
DC 3-wires PNP, NPN, or DC …Analog 3 or 4-wires.

DC3 24 V NO

DC4 24 V



4 Choose the electrical connection

according to facility standards or machine requirements…
cable, connector (M8 or M12)

Ultrasonics: XX Range

			M12		M18		M18 plastic (2)	M18 brass (2)	M18 stainless (2)	M18 metal
Sensing distance			0.05 m	0.1 m	0.15 m	0.5 m Adjust. (1)	1 m Adjust. (1)	1 m Adjust. (1)	1 m Adjust. (1)	0.05 m
	Connectors/Cables		M8 4 pin	M8 3 pin	M12 4 pin	M12 4 pin	M12 5 pin	M12 5 pin	M12 5 pin	M12 4 pin
NO	DC4	PNP/NPN	XX512A1KAM8		XX518A1KAM12					
	DC3	PNP		XX512A2PAM8		XX518A3PAM12				XXV18B1PAM12
		NPN		XX512A2NAM8		XX518A3NAM12				XXV18B1NAM12
NO or NC	DC3	PNP					XX S 18P1PM12	XX S 18B1PM12	XX S 18S1PM12	
							XX A 18P1PM12	XX A 18B1PM12	XX A 18S1PM12	
Analog		4…20 mA				XX918A3C2M12	XX S 18P1AM12	XX S 18B1AM12	XX S 18S1AM12	
							XX A 18P1AM12	XX A 18B1AM12	XX A 18S1AM12	
		0…10 V				XX918A3F1M12	XX S 18P1VM12	XX S 18B1VM12	XX S 18S1VM12	
							XX A 18P1VM12	XX A 18B1VM12	XX A 18S1VM12	

(1) Adjustable with XXZPB100 (2) Configurable with XXZBOX01 by software S = straight A = angled

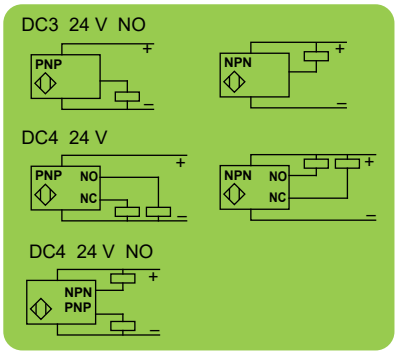
			M30 plastic (2)				M30 Brass (2)			M30 Stainless (2)		
Sensing distance			1 m Adjust. (1)	2 m Adjust. (1)	4 m Adjust. (1)	8 m Adjust. (3)	1 m Adjust. (1)	2 m Adjust. (1)	4 m Adjust. (1)	1 m Adjust. (1)	2 m Adjust. (1)	4 m Adjust. (1)
	Connectors		M12 5-pin	M12 5-pin	M12 5-pin	M12 5-pin	M12 5-pin	M12 5-pin	M12 5-pin	M12 5-pin	M12 5-pin	M12 5-pin
NO or NC	DC3	PNP	XX S 30P1PM12	XX S 30P2PM12	XXS30P4PM12		XX S 30B1PM12	XX S 30B2PM12	XXS30B4PM12	XX S 30S1PM12	XX S 30S2PM12	XXS30S4PM12
			XX A 30P1PM12	XX A 30P2PM12			XX A 30B1PM12	XX A 30B2PM12		XX A 30S1PM12	XX A 30S2PM12	
	DC4	2 x PNP				XXS30P8PPM12						
		2 x NPN				XXS30P8NNM12						
Analog	DC3	4…20mA	XX S 30P1AM12	XX S 30P2AM12	XXS30P4AM12		XX S 30B1AM12	XX S 30B2AM12	XXS30B4AM12	XX S 30S1AM12	XX S 30S2AM12	XXS30S4AM12
			XX A 30P1AM12	XX A 30P2AM12			XX A 30B1AM12	XX A 30B2AM12		XX A 30S1AM12	XX A 30S2AM12	
		0…10V	XX S 30P1VM12	XX S 30P2VM12	XXS30P4VM12		XX S 30B1VM12	XX S 30B2VM12	XXS30B4VM12	XX S 30S1VM12	XX S 30S2VM12	XXS30S4VM12
			XX A 30P1VM12	XX A 30P2VM12			XX A 30B1VM12	XX A 30B2VM12		XX A 30S1VM12	XX A 30S2VM12	
Analog + NO or NC	DC4	4...20 mA + PNP				XXS30P8APM12						
		0...10V + PNP				XXS30P8VPM12						

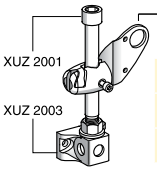
(1) Adjustable with XXZPB100 (2) Configurable with XXZBOX01 or XXZKIT01 by software. Software at: https://tesensors.com/us/en/support/software/ultrasonic-xx-software. (3) Push-button integrated on the product S = straight A = angled

Ultrasonics: XX Range

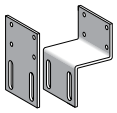
			Flat 7.6x19x33	Flat 16x30x74	Flat 60x30x18 + M18	
Sensing distance			0.1 m	0.25 m	0.5 m Adjust. (1)	0.5 m Adjust. (1)
	Connectors		M12 4 pin	M12 4 pin	M12 4 pin	M12 4 pin
NO	DC3	PNP	XX7F1A2PAL01M12	XX7K1A2PAM12		XX7V1A1PAM12 (1)
		NPN	XX7F1A2NAL01M12	XX7K1A2NAM12		XX7V1A1NAM12 (1)
Analog		4…20 mA			XX9V1A1C2M12 (1)	
		0…10 V			XX9V1A1F1M12 (1)	

(1) Adjustable with XXZPB100



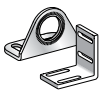


M12	XUZB2012
M18	XUZB2003
M30	XUZB2030

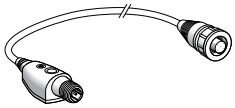


For XX7K

Flat	XXZ3074F
Cranked	XXZ3074S



M12	XXZ12
M18	XUZA118
M30	XXZ30
XX7F	XXZ1933



Teach button	XXZPB100

Ultrasonics: XXW54 Wide Beam Range

Sensing distance				3 m			
Connectors/Cables				0.5m cable	0.15 cable + 6-pin Deutsch male connector	0.15 cable + M12 5-pin connector	0.15 m cable + DTM04-6P Connector
Digital Output	PNP	Analog Output	0.5 - 4.5 V	XXW54P3HPL05	XXW54P3HPL01DM6	XXW54P3HPL01M12	
			4…20 mA	XXW54P3APL05	XXW54P3APL01DM6	XXW54P3APL01M12	
	CANJ1939			XXW54P3JL05			XXW54P3JL01DM6

Accessory: Deutsch male connector to M12 for connection to the configuration box.	XXZKITDM6		XX Configuration Kit	XXZKIT01

XXW54 Wide Beam Ultrasonic Sensor: Ideal for Mobile Equipment obstacle detection

See our Ultrasonic Sensors Catalog at: https://tesensors.com/us/en/document/DIA4ED2191101EN

Photoelectric Sensors

Photoelectric Sensors detect objects using a light beam transmitter (light-emitting diode) and a light-sensitive receiver. Detection occurs when an object enters the transmitted light beam's path.

1 - Choose the body / the system
and the sensing distance

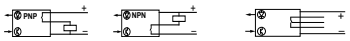
appropriate to the environment and requested accuracy of detection. Find a balance between location to install with access to the object (one or two sides), type of object, sensing distance and accuracy of detection desired.

		XUB	XUM	XUK	XUX	
Size (mm)	ØxL	Ø18x46	–	–	–	
	LxHxP	–	10.8x31.5x19.5	18x50x50	30x92x71	
Sensing range, m (ft.)		15 (49.21)	30 (98.42)	30 (98.42)	40 (131.23)	Thru beam
		4 (13.12)	8 (26.24)	7 (22.97)	14 (45.93)	Reflex
		0.6 (1.97)	1.9 (6.23)	1 (3.28)	2.1 (6.89)	Diffuse

2 - Choose the output type

according to the load compatibility (contactor, PLC…)
DC3 wires 24V PNP, NPN, AC/DC 5 wires relay 24-240V

DC3 24 V **AC/DC Relay 24...240 V**



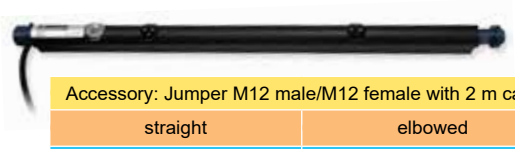
3 - Choose the electrical connection

according to facility standards or machine requirements…
Cable, connector (M8, M12), screw clamp terminals (XUX)

4 - Choose the output signal & function

according to the automation function to achieve
Discrete (NO, NC, NO+NC)

Roller Conveyor Sensors: XUY Range

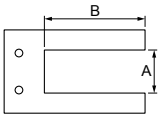


Roller Sensor XUY	Hexagonal mounting
	Cable Length 0.3 m with M12 connector, 4 pins
	Connection for 474mm conveyor (1)
	XUY474NB4H03M12

Accessory: Jumper M12 male/M12 female with 2 m cable	
straight	elbowed
XZCR1511041C2	XZCR1512041C2

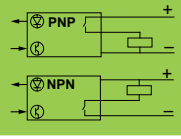
Please contact your local Sensors sales staff for assistance or go to: https://tesensors.com/us/en/support/technical-support
(1) Other lengths available from 200 to 1300mm, on request.

Forks: XUV Range



			A: 50 mm / B: 60 mm			A: 80 mm / B: 60 mm			A: 120 mm / B: 120 mm			A: 180 mm / B: 120 mm		
DC3	PNP	M8 3 pin	XUVR0605P	A	NM8	XUVR0608P	A	NM8	XUVR1212P	A	NM8	XUVR1218P	A	NM8
	NPN	M8 3 pin	XUVR0605N	A	NM8	XUVR0608N	A	NM8	XUVR1212N	A	NM8	XUVR1218N	A	NM8
Output function		NO		A			A			A			A	
		NC		B			B			B			B	

DC3 24 V

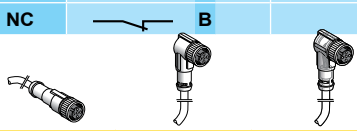


XX512A1●●M8:
Connector M8 4 pin

XX512A2●●M8,
XUVR●●●●●●M8:
Connector M8 3 pin

XX●●●●●●●M12:
Connector M12 4 pin

Cabling XS, XX & XU



M8		PUR pre wired connectors (female)* straight	elbowed	elbowed PNP LED
3 pin	2 m	XZCP0566L2	XZCP0666L2	
	5 m	XZCP0566L5	XZCP0666L5	
	10 m	XZCP0566L10	XZCP0666L10	
4 pin	2 m	XZCP0941L2	XZCP1041L2	
	5 m	XZCP0941L5	XZCP1041L5	
	10 m	XZCP0941L10	XZCP1041L10	
M12				
4 pin	2 m	XZCP1141L2	XZCP1241L2	XZCP1340L2
	5 m	XZCP1141L5	XZCP1241L5	XZCP1340L5
	10 m	XZCP1141L10	XZCP1241L10	XZCP1340L10

M12		Connectors (female) straight	elbowed
(1)	4 pin	XZCC12FDM40B	XZCC12FCM40B
(2)	4 pin	XZCC12FDP40B	XZCC12FCP40B

(1) Steel ring (2) Plastic ring

M12		Connectors (male) straight	elbowed
4 pin		XZCC12MDM40B	XZCC12MCM40B
5 pin		XZCC12MDM50B	XZCC12MCM50B

*For a PVC cable, add the letter V after the P. Example: XZCPxxxxxx become XZCPVxxxxxx

Photo-electrics: XU Range

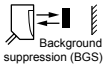
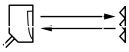
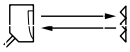
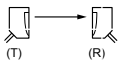
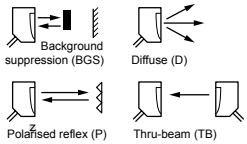
	Sensing distance				M18 metal	M18 plastic	Miniature	
Diffuse	0.6 m	DC3	PNP	cable	XUB5BP **A** NL2	XUB5AP **A** NL2	1.9 m	XUM5AP **X** BL2
(T/R)				connector 4P	XUB5BP **A** NM12	XUB5AP **A** NM12		XUM5AP **X** BM8
			NPN	cable	XUB5BN **A** NL2	XUB5AN **A** NL2		XUM5AN **X** BL2
				connector 4P	XUB5BN **A** NM12	XUB5AN **A** NM12		XUM5AN **X** BM8
		DC3	PNP	cable			1.1 m	XUM6AP **X** BL2
				connector 4P				XUM6AP **X** BM8
			NPN	cable				XUM6AN **X** BL2
				connector 4P				XUM6AN **X** BM8
	0.1 m	DC3	PNP	cable	XUB4BP **A** NL2	XUB4AP **A** NL2	0.25 m	XUM4AP **X** BL2
				connector 4P	XUB4BP **A** NM12	XUB4AP **A** NM12		XUM4AP **X** BM8
			NPN	cable	XUB4BN **A** NL2	XUB4AN **A** NL2		XUM4AN **X** BL2
				connector 4P	XUB4BN **A** NM12	XUB4AN **A** NM12		XUM4AN **X** BM8
Background Suppression							0.3 m	XUM8AP **X** BL2
 Background suppression (BGS)								XUM8AP **X** BM8
								XUM8AN **X** BL2
								XUM8AN **X** BM8
Polarized Reflex	2 m	DC3	PNP	cable	XUB9BP **A** NL2	XUB9AP **A** NL2	8 m	XUM9AP **X** BL2
 (T/R)				connector 4P	XUB9BP **A** NM12	XUB9AP **A** NM12		XUM9AP **X** BM8
			NPN	cable	XUB9BN **A** NL2	XUB9AN **A** NL2		XUM9AN **X** BL2
				connector 4P	XUB9BN **A** NM12	XUB9AN **A** NM12		XUM9AN **X** BM8
		Accessory: Reflector			XUZC50	XUZC50		XUZC50
Reflex	4 m	DC3	PNP	cable	XUB1BP **A** NL2	XUB1AP **A** NL2		
 (T/R)				connector 4P	XUB1BP **A** NM12	XUB1AP **A** NM12		
			NPN	cable	XUB1BN **A** NL2	XUB1AN **A** NL2		
				connector 4P	XUB1BN **A** NM12	XUB1AN **A** NM12		
		Accessory: Reflector			XUZC50	XUZC50		
Thru-beam	15 m	DC3	PNP	cable	XUB2BP **A** NL2R	XUB2AP **A** NL2R	30 m	XUM2AP **X** BL2
 (T) (R)				connector 4P	XUB2BP **A** NM12R	XUB2AP **A** NM12R		XUM2AP **X** BM8
			NPN	cable	XUB2BN **A** NL2R	XUB2AN **A** NL2R		XUM2AN **X** BL2
				connector 4P	XUB2BN **A** NM12R	XUB2AN **A** NM12R		XUM2AN **X** BM8
		Transmitter		cable	XUB2BKSNL2T	XUB2AKSNL2T		Transmitters are already included
				connector 4P	XUB2BKSNM12T	XUB2AKSNM12T		
		Output function		**NO**	**A**	**A**		
				NC	**B**	**B**		
Multimode		DC3	PNP	cable	XUB0BPSNL2	XUB0APSNL2		XUM0APSAL2
 Background suppression (BGS) Diffuse (D) Polarised reflex (P) Thru-beam (TB)				connector 4P	XUB0BPSNM12	XUB0APSNM12		XUM0APSAM8
			NPN	cable	XUB0BNSNL2	XUB0ANSNL2		XUM0ANSAL2
				connector 4P	XUB0BNSNM12	XUB0ANSNM12		XUM0ANSAM8
			Sensing distance		Background Sup: 0.12 m	Diffuse: 0.3 m	BGS: 0.1 m	D: 0.4 m
		Output function		**NO or NC**	Polarized reflex: 3 m	Thru-beam: 20 m	P: 3 m	TB: 10 m
Transmitter		DC		cable	XUB0BKSNL2T	XUB0AKSNL2T		XUM0AKSAL2T
				connector 4P	XUB0BKSNM12T	XUB0AKSNM12T		XUM0AKSAM8T

Photo-electrics: XU Range

	Sensing distance				Compact 50x50 mm		Sensing distance				Compact 92x71 mm
Diffuse (T/R)	1 m	DC3	PNP	cable	XUK5AP A NL2		2.1 m	DC3	PNP	terminals	XUX5AP A NT16
				connector 4P	XUK5AP A NM12					connector 4P	XUX5AP A NM12
			NPN	cable	XUK5AN A NL2				NPN	terminals	XUX5AN A NT16
				connector 4P	XUK5AN A NM12					connector 4P	XUX5AN A NM12
		AC/DC	Relay	cable	XUK5ARCNL2			AC/DC	Relay	terminals	XUX5ARCNT16
		Output function		NO	A						A
				NC	B						B
Background Suppression (Class 1 Laser conforming to IEC 60825-1; UTILIZING TOF Technology)	5 m	0-10V + PNP/NPN		connector 5P	XUK8T A E1MM12*						
		4-20mA+PNP/NPN		connector 5P	XUK8T A E2MM12*						
		1 x PNP/NPN		connector 4P	XUK8T A KSMM12*						
		2 x PNP/NPN		connector 5P	XUK8T A KDMM12*						
Polarized Reflex (T/R)	5 m	DC3	PNP	cable	XUK9AP A NL2		11 m	DC3	PNP	terminals	XUX9AP A NT16
				connector 4P	XUK9AP A NM12					connector 4P	XUX9AP A NM12
			NPN	cable	XUK9AN A NL2				NPN	terminals	XUX9AN A NT16
				connector 4P	XUK9AN A NM12					connector 4P	XUX9AN A NM12
		AC/DC	Relay	cable	XUK9ARCNL2			AC/DC	Relay	terminals	XUX9ARCNT16
(Class 1 Laser conforming to IEC 60825-1; UTILIZING TOF Technology)	70 m	4-20mA+2 x PNP/NPN		connector 8P	XUK9TAH2MM12		Anti-collision and Tandem functions				XUZC50
	Accessory: Reflector			XUZC50 (XUZC250 for XUK9T)							
Reflex (T/R)	7 m	DC3	PNP	cable	XUK1AP A NL2		14 m	DC3	PNP	terminals	XUX1AP A NT16
				connector 4P	XUK1AP A NM12					connector 4P	XUX1AP A NM12
			NPN	cable	XUK1AN A NL2				NPN	terminals	XUX1AN A NT16
				connector 4P	XUK1AN A NM12					connector 4P	XUX1AN A NM12
		AC/DC	Relay	cable	XUK1ARCNL2			AC/DC	Relay	terminals	XUX1ARCNT16
	Accessory: Reflector				XUZC50						XUZC50
Thru-beam (T) (R)	30 m	DC3	PNP	cable	XUK2AP A NL2R		40 m	DC3	PNP	terminals	XUX2AP A NT16R
				connector 4P	XUK2AP A N M12R					connector 4P	XUX2AP A NM12R
			NPN	cable	XUK2AN A NL2R				NPN	terminals	XUX2AN A NT16R
				connector 4P	XUK2AN A NM12R					connector 4P	XUX2AN A NM12R
	Accessory: Transmitter			cable	XUK2AKSNL2T					terminals	XUX0AKSAT16T
				connector 4P	XUK2AKSNM12T					connector 4P	XUX0AKSAM12T
		AC/DC	Relay	cable	XUK2ARCNL2R			AC/DC	Relay	terminals	XUX2ARCNT16R
				cable	XUK2ARCNL2T					terminals	XUX0ARCTT16T
Multimode (Background suppression (BGS); Diffuse (D); Polarised reflex (P); Thru-beam (TB))		DC3 PNP/NPN		cable	XUK0AKSAL2			DC3 PNP/NPN		terminals	XUX0AKSAT16
				connector 4P	XUK0AKSAM12					connector 4P	XUX0AKSAM12
		AC/DC	Relay	cable	XUK0ARCTL2			AC/DC	Relay	terminals	XUX0ARCTT16
		Background Suppression: 0.28 m			Diffuse: 0.8 m			Background Suppression: 1.3 m			Diffuse: 2 m
		Polarized reflex: 4 m			Thru-beam: 30 m			Polarized reflex: 11 m			Thru-beam: 40 m
	Accessory: Transmitter	DC		cable	XUK0AKSAL2T			DC		terminals	XUX0AKSAT16T
				connector 4P	XUK0AKSAM12T					connector 4P	XUX0AKSAM12T
		AC/DC		cable	XUK0ARCTL2T			AC/DC		terminals	XUX0ARCTT16T

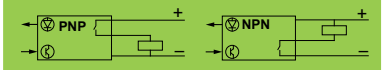
* = with I/O link TOF = Time of Flight

Other fixings

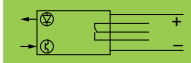
Single bracket

	standard	with ball joint
XUB	XUZA118 (stainlesss steel)	XUZA218 (plastic)
XUM	XUZA50	–
XUK	XUZA51	–
XUX	XUZX2000	–

DC3 24 V



AC/DC Relay 24...240 V



	XUK_T Accessories
Precision bracket	XUZASK004
Protective bracket	XUZASK001
L fixing bracket	XUZA51S
	XUK9T Accessory
M12 8-pin cable	XZCP29P12L5
250 x 250 mm adhesive reflector	XUZC250

See our Photoelectric Catalog at: https://tesensors.com/us/en/document/DIA4ED2140904EN

RFID Systems

XG RFID Systems make it possible to perform traceability, object identification (tracking) and access control functions. The information stored in the electronic tag is accessed using a simple radio frequency link.

The applications are numerous:

- Logistics: Goods out, goods in, transit, etc.
- Tracking and sorting of baggage
- Flexible assembly lines in the automotive sector
- Automatic toll booths
- Access control, etc.

XG RFID systemd are also suitable for use in difficult environments (humidity, temperature, mechanical shock, vibration, dust, etc.)

Please contact your local Sensors sales staff for assistance or go to: https://tesensors.com/us/en/support/technical-support

RFID 13.56 MHz HF Readers: XG Range

	Compact 40x40mm		
	Sensing distance 18-70mm		
	Standalone - PNP output with 1 pulse	Modbus RTU	
	Blue body, M12 connector on back	IP69K White body with wiremote lights, M12 connector	Blue body, M12 connector on back
Panel mounting (1)	XGCS491B201	XGCS49LB201	XGCS490B201

(1) compatible with ZB5AZ905 and XGSZCNFAC For more info on 22mm readers, see: https://tesensors.com/us/en/document/DIA4ED2160801EN

	Compact 40x40mm	Compact 80x80mm	
	Sensing distance 18-70mm	Sensing distance 20-100mm	
	Modbus RTU		Modbus TCP & Ethernet/IP
	Blue body, connector and cable by side		
Screw mounting	XGCS4901201	XGCS8901201	XGCS850C201

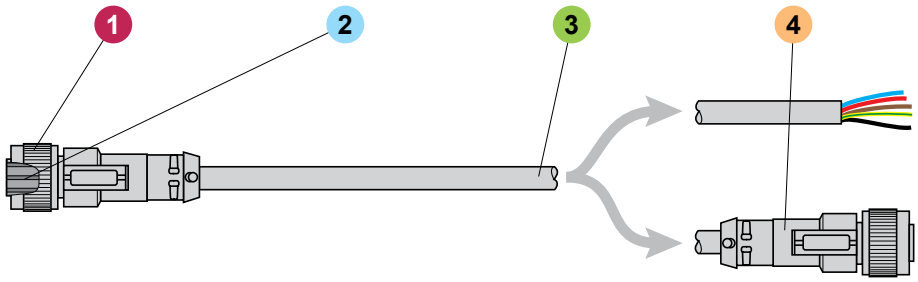
	XGSZCNFAC	Set of configuration badges
	XGSZCNF01	Configuration badge
	XGHB90E341	Pack of user's badges
Accessories	XGHBPB3345	Key fob tag

XZCC12MDB50R	M12 connector
XZCPV11V2L2/5/10	M12 pre-wired connector
XZCPV12V2L2/5/10	M12 pre-wired connector

See our complete RFID catalog at: https://tesensors.com/us/en/document/DIA4ED2140601EN

Cabling: General

1 Mechanical compatibility with sensors > 2 Pin > 3 Wire > 4 Mechanical compatibility with splitter boxes > Reference



PUR cable for severe industrial environments

Designed for highly demanding industrial requirements, they are halogen free, UL certified and have high degrees of protection (IP67 and IP69K).

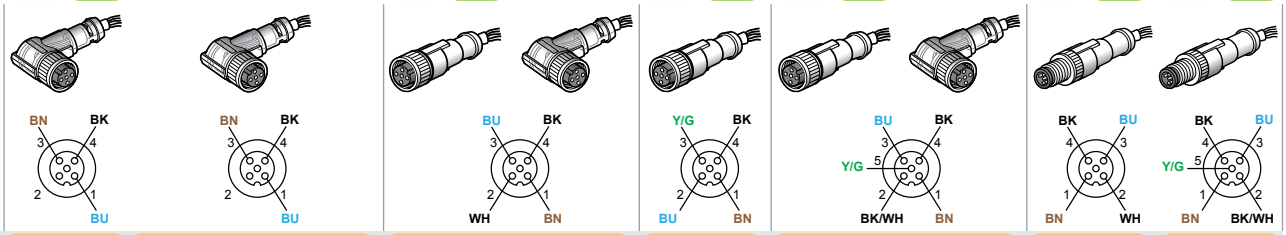
PVC cable for general use

Recommended for machines in non demanding environments and subject only to moderate mechanical stress.

F&B cable reinforced cable for food & beverage environments

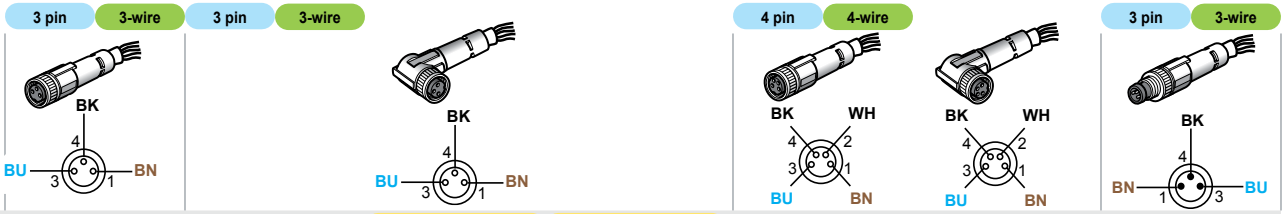
Featuring hygienic design stainless steel 316L connectors with smooth clamping ring, these products withstand high pressure washing and disinfection using aggressive products.

Cabling: Pre-wired connectors **M12**



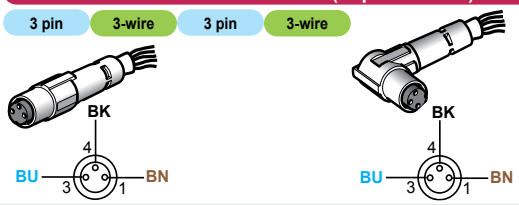
		M12 female								M12 male	
		5 pin 3-wire			5 pin 4-wire		5 pin 4-wire	5 pin 5-wire		5 pin 4-wire	5 pin 5-wire
Clamping ring		Stainlesss steel	metal		metal		metal	metal		metal	metal
		LED PNP	LED PNP	LED NPN							
PUR	0.5 m									XZCP1541L05	XZCP1564L05
	1 m									XZCP1541L1	XZCP1564L1
	2 m	XZCP2540L2	XZCP1340L2	XZCP1440L2	XZCP1141L2	XZCP1241L2	XZCP1169L2	XZCP1164L2	XZCP1264L2	XZCP1541L2	XZCP1564L2
	5 m	XZCP2540L5	XZCP1340L5	XZCP1440L5	XZCP1141L5	XZCP1241L5	XZCP1169L5	XZCP1164L5	XZCP1264L5		
	10 m	XZCP2540L10	XZCP1340L10	XZCP1440L10	XZCP1141L10	XZCP1241L10	XZCP1169L10	XZCP1164L10	XZCP1264L10		
	15 m				XZCP1141L15	XZCP1241L15					
	20 m				XZCP1141L20	XZCP1241L20					
PVC	1 m									XZCPV1541L1	XZCPV1564L1
	2 m		XZCPV1340L2		XZCPV1141L2	XZCPV1241L2		XZCPV1164L2	XZCPV1264L2	XZCPV1541L2	XZCPV1564L2
	5 m		XZCPV1340L5		XZCPV1141L5	XZCPV1241L5		XZCPV1164L5	XZCPV1264L5	XZCPV1541L5	XZCPV1564L5
	10 m		XZCPV1340L10		XZCPV1141L10	XZCPV1241L10		XZCPV1164L10	XZCPV1264L10		
F&B	2 m				XZCPA1141L2	XZCPA1241L2			XZCPA1164L2		
	5 m				XZCPA1141L5	XZCPA1241L5			XZCPA1164L5		
	10 m				XZCPA1141L10	XZCPA1241L10			XZCPA1164L10		

Cabling: Pre-wired connectors **M8**



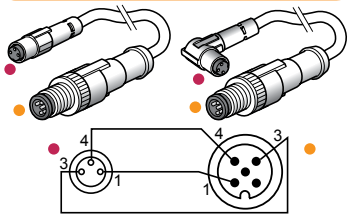
		M8 female						M8 male
		3 pin, 3-wire	3 pin, 3-wire			4 pin, 4-wire		3 pin, 3-wire
				LED PNP	LED NPN			
PUR	2 m	XZCP0566L2	XZCP0666L2	XZCP0766L2	XZCP0866L2	XZCP0941L2	XZCP1041L2	XZCP2737L05
	5 m	XZCP0566L5	XZCP0666L5	XZCP0766L5	XZCP0866L5	XZCP0941L5	XZCP1041L5	XZCP2737L1
	10 m	XZCP0566L10	XZCP0666L10	XZCP0766L10	XZCP0866L10	XZCP0941L10	XZCP1041L10	XZCP2737L2
PVC	2 m	XZCPV0566L2	XZCPV0666L2	XZCPV0766L2		XZCPV0941L2	XZCPV1041L2	
	5 m	XZCPV0566L5	XZCPV0666L5	XZCPV0766L5		XZCPV0941L5	XZCPV1041L5	
	10 m	XZCPV0566L10	XZCPV0666L10	XZCPV0766L10		XZCPV0941L10	XZCPV1041L10	
F&B	5 m	XZCPA0566L5				XZCPA0941L5		
	10 m	XZCPA0566L10				XZCPA0941L10		

Cabling: Pre-wired connectors **Ø8**



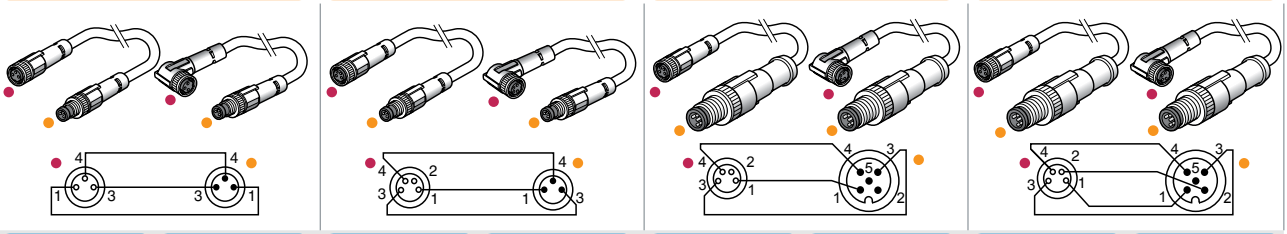
		Ø 8 female (Clip connector)			
		3 pin, 3-wire	3 pin, 3-wire		
				LED PNP	LED NPN
PUR	2 m	XZCP0166L2	XZCP0266L2	XZCP0366L2	XZCP0466L2
	5 m	XZCP0166L5	XZCP0266L5	XZCP0366L5	XZCP0466L5
	10 m	XZCP0166L10	XZCP0266L10	XZCP0366L10	XZCP0466L10

Cabling: Jumpers **Ø8**



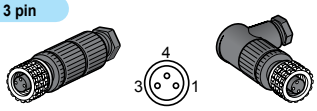
Ø8 Female	3 pin	3 pin / 90°
M12 male	5 pin	
PUR 1 m	XZCR1501040G1	XZCR1502040G1
2 m	XZCR1501040G2	XZCR1502040G2

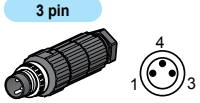
Cabling: Jumpers

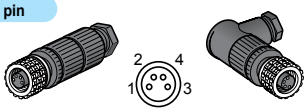


M8 Female	3 pin	3 pin / 90°	4 pin	4 pin / 90°	4 pin	4 pin / 90°	4 pin	4 pin / 90°
Male	M8 / 3 pin		M8 / 3 pin		M12 / 5 pin		M12 / 5 pin	
PUR 1 m	XZCR2705037R1	XZCR2706037R1	XZCR2709037S1	XZCR2710037S1	XZCR1509040H1	XZCR1510040H1	XZCR1509041J1	XZCR1510041J1
2 m	XZCR2705037R2	XZCR2706037R2	XZCR2709037S2	XZCR2710037S2	XZCR1509040H2	XZCR1510040H2	XZCR1509041J2	XZCR1510041J2
F&B 2 m							XZCRA150941J2	
5 m							XZCRA150941J5	

Cabling: Connectors **M8**







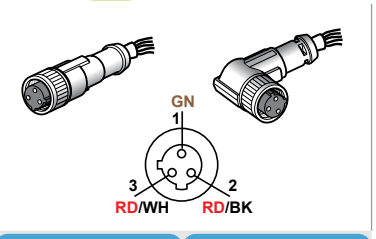
	M8 female 3 pin		M8 male 3 pin		M8 female 4 pin	
By axial IDC (1)	XZCC8FDM30V	XZCC8FCM30V	XZCC8MDM30V	By axial IDC (1)	XZCC8FDM40V	XZCC8FCM40V
To solder terminals	XZCC8FDM30S	XZCC8FCM30S		To solder terminals	XZCC8FDM40S	XZCC8FCM40S

(1) IDC (Insulation Displacement Connector)

Cabling: Pre-wired connectors **1/2"**

1/2" female

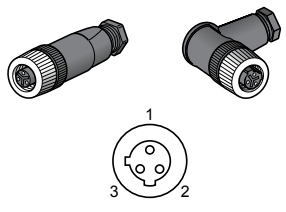
3 pin | 3-wire

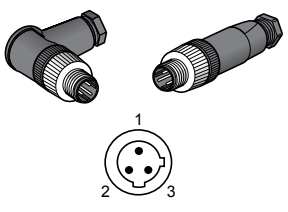


PUR	2 m	XZCP1865L2	XZCP1965L2
	5 m	XZCP1865L5	XZCP1965L5
	10 m	XZCP1865L10	XZCP1965L10
PVC	2 m	XZCPV1865L2	XZCPV1965L2
	5 m	XZCPV1865L5	XZCPV1965L5
	10 m	XZCPV1865L10	XZCPV1965L10
F&B	5 m	XZCPA1865L5	XZCPA1965L5
	10 m	XZCPA1865L10	XZCPA1965L10

Connectors **1/2"**

	1/2" female		1/2" male	
	3 pin		3 pin	
Metal clamping ring				
To screw terminals	XZCC20FDM30B	XZCC20FCM30B	XZCC20MDM30B	XZCC20MCM30B

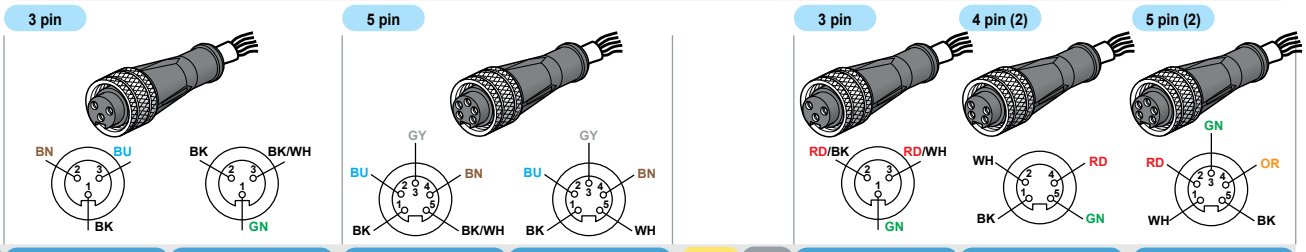




Cabling: Pre-wired connectors **7/8"**(1)

7/8" female

3 pin | 5 pin | 3 pin | 4 pin (2) | 5 pin (2)



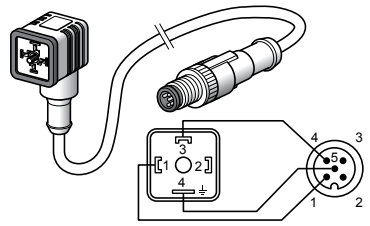
PUR	2 m	XZCP1662L2	XZCP1670L2	XZCP1764L2	XZCP1774L2	PVC	2 m	XZCPV1670L2	XZCPY4275L2	XZCPY1764L2
	5 m	XZCP1662L5	XZCP1670L5	XZCP1764L5	XZCP1774L5		5 m	XZCPV1670L5	XZCPY4275L5	XZCPY1764L5
	10 m		XZCP1670L10	XZCP1764L10	XZCP1774L10		10 m	XZCPV1670L10	XZCPY4275L10	XZCPY1764L10

(1) UL listing available for XZCPV and XZCPY 7/8" Pre-Wired connectors only. (2) XZCPY 4 and 5 pin Pre-Wired Connectors are yellow PVC and STOOW exterior cable material.

Jumper for valve

EN 175301-803-A / Female 4 pin

M12 male 5 pin

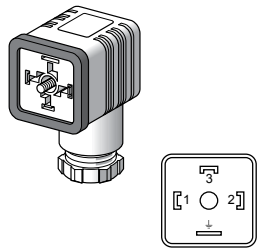


PUR	1 m	XZCR1523062K1
	2 m	XZCR1523062K2

Connector for valve

EN 175301-803-A female

4 pin

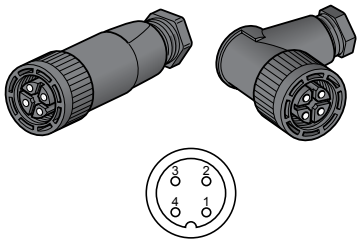


To screw terminals	XZCC43FCP40B

Connectors **M18**

M18 female

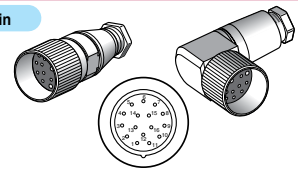
4 pin

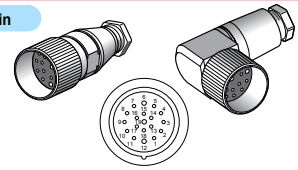


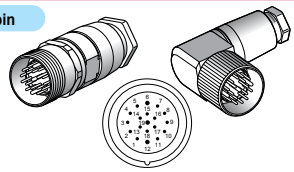
To screw terminals	XZCC18FDP40B	XZCC18FCP40B

Connectors **M23**

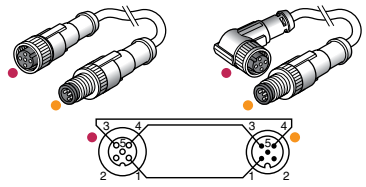
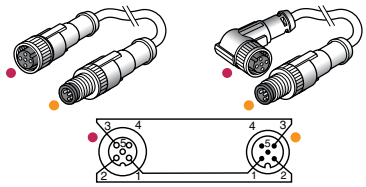
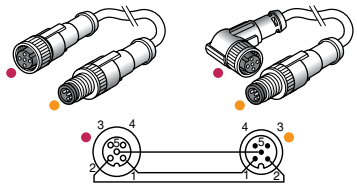
	M23 female		M23 female		M23 male	
	16 pin		19 pin		19 pin	
To solder terminals	XZCC23FDM160S	XZCC23FCM160S	XZCC23FDM190S	XZCC23FCM190S	XZCC23MDM190S	XZCC23MCM190S

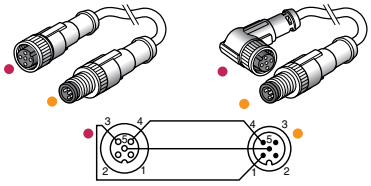
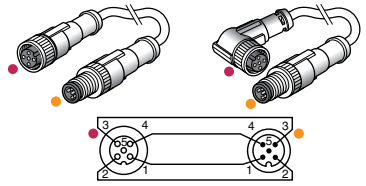
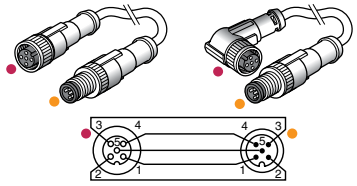




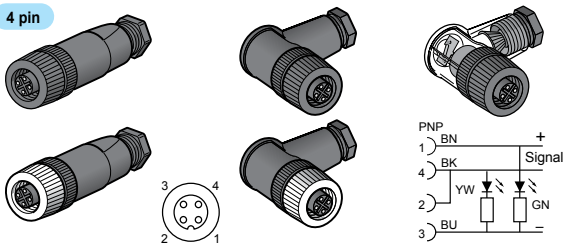
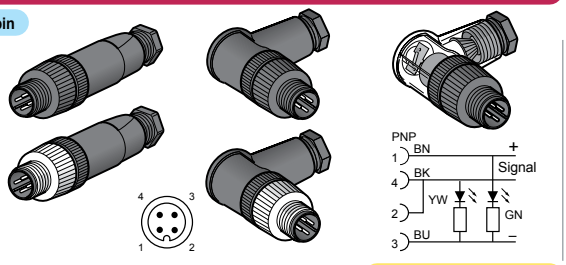


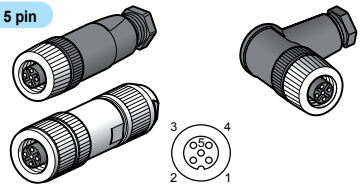
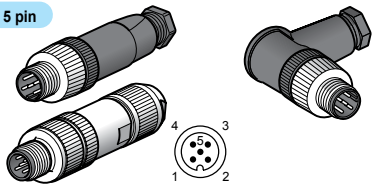
Jumpers **M12**

M12 Female		5 pin	5 pin / 90°	5 pin	5 pin / 90°	5 pin	5 pin / 90°
M12 Male		5 pin		5 pin		5 pin	
							
PUR	1 m	XZCR1511040A1	XZCR1512040A1	XZCR1511040E1	XZCR1512040E1	XZCR1511062B1	XZCR1512062B1
	2 m	XZCR1511040A2	XZCR1512040A2	XZCR1511040E2	XZCR1512040E2	XZCR1511062B2	XZCR1512062B2
PVC	1 m	XZCRV1511040A1	XZCRV1512040A1				
	2 m	XZCRV1511040A2	XZCRV1512040A2				
F&B	2 m	XZCRA151140A2					
	5 m	XZCRA151140A5					

M12 Female		5 pin	5 pin / 90°	5 pin	5 pin / 90°	5 pin	5 pin / 90°
M12 Male		5 pin		5 pin		5 pin	
							
PUR	1 m	XZCR1511062F1	XZCR1512062F1	XZCR1511041C1	XZCR1512041C1	XZCR1511064D1	XZCR1512064D1
	2 m	XZCR1511062F2	XZCR1512062F2	XZCR1511041C2	XZCR1512041C2	XZCR1511064D2	XZCR1512064D2
PVC	1 m			XZCRV1511041C1	XZCRV1512041C1		
	2 m			XZCRV1511041C2	XZCRV1512041C2		
	5 m			XZCRV1511041C5	XZCRV1512041C5		
F&B	2 m			XZCRA151141C2		XZCRA151164D2	
	5 m			XZCRA151141C5		XZCRA151164D5	

Connectors **M12**

M12	Female			Male		
	4 pin			4 pin		
						
To screw terminals			LED PNP			LED PNP
Plastic clamping ring	XZCC12FDP40B	XZCC12FCP40B	XZCC12FCP42B	XZCC12MDP40B	XZCC12MCP40B	XZCC12MCP42B
Metal clamping ring	XZCC12FDM40B	XZCC12FCM40B		XZCC12MDM40B	XZCC12MCM40B	

M12	Female		Male	
	5 pin		5 pin	
				
Metal clamping ring				
To screw terminals	XZCC12FDM50B	XZCC12FCM50B	XZCC12MDM50B	XZCC12MCM50B
To spring terminals	XZCC12FDB50R		XZCC12MDB50R	

Telemecanique Sensors safety sensing

...because just ONE workplace accident is too many...

For over 90 years, Telemecanique Sensors has developed quality sensor products to help engineers ensure their machines are safe to operate and meet all the industry's applicable safety standards.

Whether you need to secure a hazardous area, automate hazardous machinery shutdown when a specific area is entered, or provide workers with a readily available means to shut down hazardous machinery, Telemecanique Sensors has you covered with a variety of machine safety solutions.

Lock it. [Pages 27 - 28]

Telemecanique Sensors XCSLE and XCSLF solenoid locking safety interlock switches are designed to help protect personnel in hazardous machines applications where doors and guards must remain closed until the conditions behind the door or guard are no longer hazardous. The XCSLF switch will resist up to an industry leading 675 pounds (Fmax=3,000 Newtons) to keep the doors and guards in place. We also have a selection of safety switches for light machines without inertia with hinged doors, covers or protective guards; industrial and light machines without inertia for monitoring access guards, and safety magnetic switches.

Restrict access to it when it's running. [Pages 32 - 33]

For hazardous machine environments utilizing doors or guards to separate workers from hazardous machinery, the XCSR RFID safety sensor provides a TÜV certified safety solution that comes with a Cat4/PL e - SIL3 rating. Easy to install and virtually tamper-proof, this contactless RFID safety sensor shuts down potentially hazardous machinery as soon as the door or designated guard to the machine area begins to open. This reliable solution comes in standalone, series, and single models.

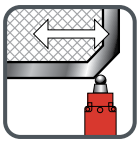
Telemecanique Sensors' XUSL light curtains are designed to help protect persons operating or working in the vicinity of hazardous machinery by stopping the machine as soon as one of the light beams is broken. XUSL light curtains are built for rugged manufacturing environments, withstanding temperatures from -30° C to 55° C and carrying an IP67 rating (IP69K special models with ECOLAB conformity are available for XUSL4E and XUSL2E). Telemecanique Sensors new XUSL4M Light Curtains with integrated muting provide efficient detection of machine operators with uninterrupted automation processes.

Provide an easy way to shut it down. [Page 34]

The XY2CJ Emergency Stop Cable Pull Switch provides workers an emergency stop function of hazardous machinery with a single, quick pull. It replaces a number of emergency stop buttons over 100 feet / 30 meters. The XY2CJ Cable Pull Switch from Telemecanique Sensors is certified by UL-NiSD, allowing it to function as an emergency stop. For longer applications (up to 656 feet / 200 meters wide), the XY2CED Double-Sided Cable Pull Switch provides a UL-NiSD certified safety solution.

The following pages detail the above safety detection solutions and more!

Safety interlocking switches

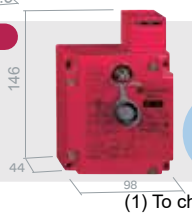


For industrial machines with inertia for monitoring access guards

XCSLF Metal

		Safety contacts (2)	NC+NO Slow	2NC Slow	NC+2NO Slow	2NC+NO Slow	3NC Slow
		Solenoid contacts	NC+NO Slow	2NC Slow	NC+2NO Slow	2NC+NO Slow	3NC Slow
Locks on de-energisation of solenoid (1)	24V AC/DC (3)	ISO M20	XCSLF2525312	XCSLF2727312	XCSLF3535312	XCSLF3737312	XCSLF3838312
		1/2"NPT		XCSLF2727313	XCSLF3535313	XCSLF3737313	XCSLF3838313
		M23 connector			XCSLF353531M3	XCSLF373731M3	XCSLF383831M3
Locking on de-energisation of solenoid with emergency by mushroom head pushbutton (1)	24V AC/DC (3)	ISO M20			XCSLF3535412	XCSLF3737412	
		1/2"NPT				XCSLF3737413	
		M23 connector			XCSLF353541M3	XCSLF373741M3	

XCSE Metal

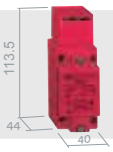


		Safety contacts (2)	NC+2NO Slow	2NC+NO Slow	3NC Slow
		Solenoid contacts	NC+NO Slow	NC+NO Slow	NC+NO Slow
Locking on de-energisation of solenoid (1)	24V AC/DC (3)	ISO M20	XCSE5312	XCSE7312	XCSE8312
		Pg13.5	XCSE5311	XCSE7311	XCSE8311
		1/2"NPT	XCSE5313	XCSE7313	XCSE8313

(1) To choose the type of key actuator, please refer to Accessories
(2) Schematic diagrams shown at the bottom of this page represent the contact states while the actuator is inserted in the head of the switch.
(3) Some models with 120V AC/DC or 230V AC/DC are available.

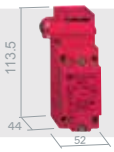
For industrial machines without inertia for monitoring access guards

XCSA Metal



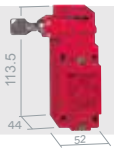
	Safety contacts (2)	NC+2NO Slow	2NC+NO Slow	3NC Slow
Without locking of the actuator (1)	ISO M20	XCSA502	XCSA702	XCSA802
	Pg13.5	XCSA501	XCSA701	XCSA801
	1/2"NPT	XCSA503	XCSA703	XCSA803

XCSB Metal



	Safety contacts (2)	NC+2NO Slow	2NC+NO Slow	3NC Slow
Manual unlocking by button (1)	M20	XCSB502	XCSB702	XCSB802
	Pg13.5	XCSB501	XCSB701	XCSB801
	1/2"NPT	XCSB503	XCSB703	XCSB803

XCSC Metal

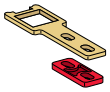


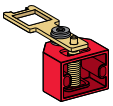
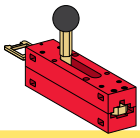
	Safety contacts (2)	NC+2NO Slow	2NC+NO Slow	3NC Slow
Manual unlocking by key lock (1)	M20	XCSC502	XCSC702	XCSC802
	Pg13.5	XCSC501	XCSC701	XCSC801
	1/2"NPT	XCSC503	XCSC703	XCSC803

(1) To choose the type of key actuator, please refer to Accessories
(2) Schematic diagrams shown at the bottom of this page represent the contact states while the actuator is inserted in the head of the switch.

See our Safety Switches Catalog at: https://tesensors.com/us/en/document/DIA4ED2191001EN

Accessories for safety interlocking switches



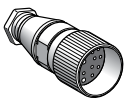
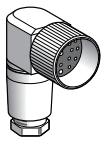



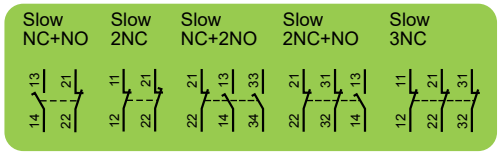
Key actuator	Straight key actuator	Key actuator with mounting bracket	Pivoting key actuator	Key actuator with latch for sliding doors
XCSLF, XCSE, XCSA, XCSB & XCSC	XCSZ01	XCSZ02	XCSZ03	XCSZ05

Connection information

ISO M20 Tapped M20x1.5 for ISO cable gland
Pg13.5 Tapped for a N°13 cable gland
1/2" NPT Tapped for a 1/2" NPT

M23 to XCSLF***M3 products Connector M23, 19 pin

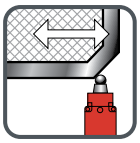





Cabling XCS

	Connectors (female)	
M23	straight	elbowed
19 pin	XZCC23FDM190S	XZCC23FCM190S

Safety interlocking switches



For light machines with inertia for monitoring access guards

XCSLE Plastic

Locking on de-energisation of solenoid (1) — 24V AC/DC (3)

Safety contacts (2)	NC+NO Slow	2NC Slow	NC+2NO Slow	2NC+NO Slow	3NC Slow
Solenoid contacts	NC+NO Slow	2NC Slow	NC+2NO Slow	2NC+NO Slow	3NC Slow
ISO M20	XCSLE2525312	XCSLE2727312	XCSLE3535312	XCSLE3737312	XCSLE3838312
1/2"NPT		XCSLE2727313			
M23 connector			XCSLE353531M3	XCSLE373731M3	

XCSTE Plastic

Locking on de-energisation of solenoid (1) — 24V AC/DC (3)

Safety contacts (2)	NC+NO Slow	2NC Slow
Solenoid contacts	NC+NO Slow	2NC Slow
ISO M16	XCSTE5312	XCSTE7312
Pg11	XCSTE5311	XCSTE7311
1/2"NPT	XCSTE5313	XCSTE7313

(1) To choose the type of key actuator, please refer to Accessories
(2) Schematic diagrams shown represent the contact states whilst the actuator is inserted in the head of the switch.
(3) Some models with 120V AC/DC or 230V AC/DC are available.

For light machines without inertia for monitoring access guards

XCSPA Plastic

Without locking of the actuator (1)

Safety contacts (2)	NC+NO Slow	2NC Slow	NC+2NO Slow	2NC+NO Slow
ISO M16	XCSPA592	XCSPA792	XCSPA892	XCSPA992
Pg11	XCSPA591	XCSPA791	XCSPA891	XCSPA991
1/2"NPT	XCSPA593	XCSPA793	XCSPA893	XCSPA993

XCSTA Plastic

Without locking of the actuator (1)

Safety contacts (2)	NC+2NO Slow	2NC+NO Slow	3NC Slow
ISO M16	XCSTA592	XCSTA792	XCSTA892
Pg11	XCSTA591	XCSTA791	XCSTA891
1/2"NPT	XCSTA593	XCSTA793	XCSTA893

XCSM Plastic

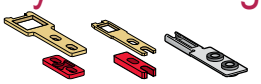
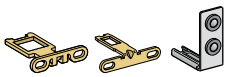
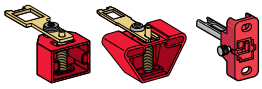
Without locking of the actuator (1)

Safety contacts (2)	NC+NO Slow	2NC Slow	2NC+NO Slow	3NC Slow
Cable 2 m	XCSMP59L2	XCSMP79L2	XCSMP70L2	XCSMP80L2
Cable 5 m	XCSMP59L5	XCSMP79L5	XCSMP70L5	XCSMP80L5
Cable 10 m			XCSMP70L10	XCSMP80L10

(1) To choose the type of key actuator, please refer to Accessories
(2) Schematic diagrams shown represent the contact states whilst the actuator is inserted in the head of the switch.

See our Safety Switches Catalog at: https://tesensors.com/us/en/document/DIA4ED2191001EN

Accessories for safety interlocking switches

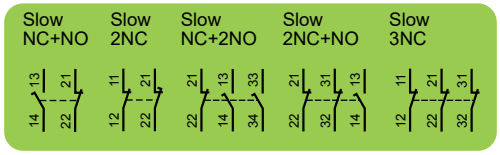




Key actuator	Straight key actuator	Key actuator with wide fixing	Pivoting key actuator
XCSLE	XCSZ01	XCSZ02	XCSZ03
XCSTE, XCSPA, XCSTA	XCSZ11	XCSZ12	XCSZ13
XCSMP	XCSZ81	XCSZ84	XCSZ83 (1)

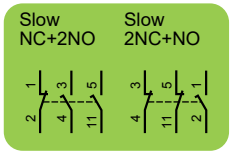
(1) The key actuator XCSZ83 can be used just for right-hand doors. To ordered for left-hand doors, the reference will be XCSZ85.

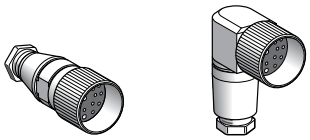
Connection information

- **ISO M16** Tapped M16x1.5 for ISO cable gland
- **ISO M20** Tapped M20x1.5 for ISO cable gland
- **Pg11** Tapped for a N°11 cable gland
- **Pg13.5** Tapped for a N°13 cable gland
- **1/2" NPT** Tapped for a 1/2" NPT



M23 to XCSLE*M3 products** Connector M23, 19 pin





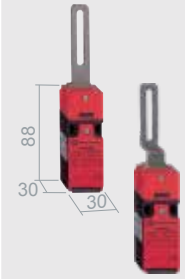
Cabling XCS

M23	Connectors (female) straight	Connectors (female) elbowed
19 pin	XZCC23FDM190S	XZCC23FCM190S

Safety switches with rotary level

For light machines without inertia with hinged doors, covers or protective guards

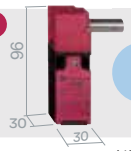
XCSPL
Plastic



	Safety contacts (1)	Elbowed lever, operator to left	Elbowed lever, operator to centre	Elbowed lever, operator to right	Straight lever, operator to right OR to left (2)	Straight lever, operator to centre
ISO M16	NC+NO slow	XCSPL592	XCSPL582	XCSPL572	XCSPL562	XCSPL552
	2NC slow	XCSPL792	XCSPL782	XCSPL772	XCSPL762	XCSPL752
	NC+2NO slow				XCSPL862	
	2NC+NO slow				XCSPL962	
Pg11	NC+NO slow	XCSPL591	XCSPL581	XCSPL571	XCSPL561	XCSPL551
	2NC slow	XCSPL791	XCSPL781	XCSPL771	XCSPL761	XCSPL751
	2NC+NO slow		XCSPL981			
1/2"NPT	NC+NO slow	XCSPL593	XCSPL583	XCSPL573	XCSPL563	XCSPL553
	2NC slow	XCSPL793	XCSPL783	XCSPL773	XCSPL763	XCSPL753

(1) Schematic diagrams shown represent the contact states whilst the lever is in the rest position.
(2) To change the operator from right to left, rotate the turret head by 180°.

XCSPR
Plastic



	Safety contacts (1)	NC+NO Slow	2NC Slow	NC+2NO Slow	2NC+NO Slow
Spindle length 30 mm (2)	ISO M16	XCSPR552	XCSPR752		XCSPR952
	Pg11	XCSPR551	XCSPR751	XCSPR851	XCSPR951
	1/2"NPT	XCSPR553	XCSPR753		

(1) Schematic diagrams shown represent the contact states whilst the spindle is the rest position.
(2) For switches with 80 mm spindle, replace the 2nd number in the reference by 6. Ex: XCSPR562.

XCSTR
Plastic

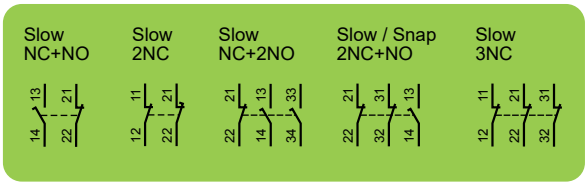
	Safety contacts (1)	NC+2NO Slow	2NC+NO Slow	3NC Slow
Spindle length 30 mm (2)	ISO M16	XCSTR552	XCSTR752	XCSTR852
	Pg11	XCSTR551	XCSTR751	XCSTR851
	1/2"NPT (3)	XCSTR553	XCSTR753	XCSTR853

(1) Schematic diagrams shown represent the contact states whilst the spindle is the rest position.
(2) For switches with 80 mm spindle, replace the 2nd number in the reference by 6. Ex: XCSTR562
(3) Supply with one metal adaptator DE9RA1012 (Pg11 1/2"NPT) and one blanking plug. For a second 1/2"NPT conduit entry please order a second adaptator.

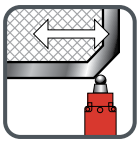
See our Safety Switches Catalog at: https://tesensors.com/us/en/document/DIA4ED2191001EN

Connection information

- **ISO M16** Tapped M16x1.5 for ISO cable gland
- **Pg11** Tapped for a N°11 cable gland
- **1/2" NPT** Tapped for a 1/2" NPT



Safety limit switches



For industrial and Light machines without inertia for monitoring access guards

XCSD Metal

Safety contacts (3)	Type of operator	Metal end plunger	Steel roller plunger	Thermoplastic roller lever	Steel roller lever
2NC+NO Snap	ISO M20	XCSD3910P20	XCSD3902P20	XCSD3918P20	XCSD3919P20
	Pg13.5	XCSD3910G13	XCSD3902G13	XCSD3918G13	XCSD3919G13
	1/2» NPT	XCSD3910N12	XCSD3902N12	XCSD3918N12	XCSD3919N12
2NC+NO Slow	ISO M20	XCSD3710P20	XCSD3702P20	XCSD3718P20	XCSD3719P20
	Pg13.5	XCSD3710G13	XCSD3702G13	XCSD3718G13	XCSD3719G13
	1/2" NPT	XCSD3710N12	XCSD3702N12	XCSD3718N12	XCSD3719N12

XCSP Plastic

Safety contacts (3)	Type of operator	Metal end plunger	Steel roller plunger	Thermoplastic roller lever	Steel roller lever
2NC+NO Snap	ISO M20	XCSP3910P20	XCSP3902P20	XCSP3918P20	XCSP3919P20
	Pg13.5	XCSP3910G13	XCSP3902G13	XCSP3918G13	XCSP3919G13
	1/2" NPT	XCSP3910N12	XCSP3902N12	XCSP3918N12	XCSP3919N12

XCSM Metal

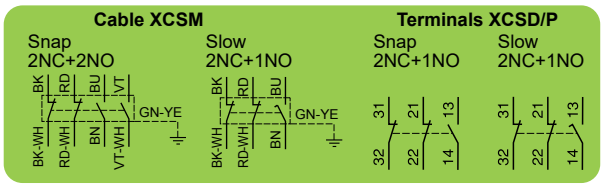
Safety contacts (3)	Type of operator	Metal end plunger	Steel roller plunger	Thermoplastic roller lever	Steel roller lever
2NC+NO Slow	Cable 1m	XCSM3710L1	XCSM3702L1	XCSM3715L1	XCSM3716L1
	Cable 2m	XCSM3710L2	XCSM3702L2	XCSM3715L2	XCSM3716L2
	Cable 5m	XCSM3710L5	XCSM3702L5	XCSM3715L5	XCSM3716L5
2NC+2NO Snap	Cable 1m	XCSM4110L1	XCSM4102L1	XCSM4115L1	XCSM4116L1
	Cable 2m	XCSM4110L2	XCSM4102L2	XCSM4115L2	XCSM4116L2
	Cable 5m	XCSM4110L5	XCSM4102L5	XCSM4115L5	XCSM4116L5

(1) Schematic diagrams shown represent the contact states whilst the actuator is the rest position.

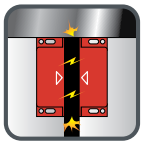
See our Safety Switches Catalog at: https://tesensors.com/us/en/document/DIA4ED2191001EN

Connection information

- **ISO M20** Tapped M20x1.5 for ISO cable gland
- **Pg13.5** Tapped for a N°13 cable gland
- **1/2" NPT** Tapped for a 1/2" NPT



Safety magnetic switches



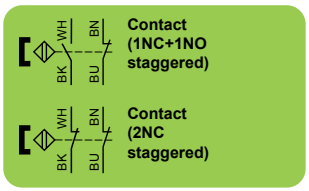
ECOLAB

For industrial machines without inertia with imprecise guidance and frequent washing

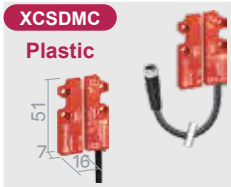
Coded magnetic switches

XCSDMR
Plastic

		Operating zone (1) Sao: 8 mm / Sar: 20 mm	
	Safety contacts (2)	NC + NO	2NC
Without LED	Cable 2 m (3)	XCSDMR5902	XCSDMR7902
	M12 4P	XCSDMR590L01M12	XCSDMR790L01M12
With LED	Cable 2 m (3)	XCSDMR5912	XCSDMR7912
	M12 4P	XCSDMR591L01M12	XCSDMR791L01M12

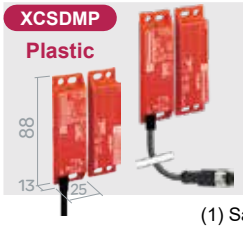


XCSDMC
Plastic



		Operating zone (1) Sao: 5 mm / Sar: 15 mm	
	Safety contacts (2)	NC + NO	2NC
Without LED	Cable 2 m (3)	XCSDMC5902	XCSDMC7902
	M8 4P	XCSDMC590L01M8	XCSDMC790L01M8
With LED	Cable 2 m (3)	XCSDMC5912	XCSDMC7912
	M8 4P	XCSDMC591L01M8	XCSDMC791L01M8

XCSDMP
Plastic



		Operating zone (1) Sao: 8 mm / Sar: 20 mm			
	Safety contacts (2)	NC + NO	2NC	NC + 2NO	2NC + NO
Without LED	Cable 2 m (3)	XCSDMP5902	XCSDMP7902	XCSDMP5002	XCSDMP7002
	M12 4P or 8P (4)	XCSDMP590L01M12	XCSDMP790L01M12	XCSDMP500L01M12	XCSDMP700L01M12
With LED	Cable 2 m (3)	XCSDMP5912		XCSDMP5012	XCSDMP7012
	M12 4P or 8P (4)	XCSDMP591L01M12	XCSDMP791L01M12	XCSDMP501L01M12	XCSDMP701L01M12

(1) Sao: Assured operating distance; Sar: Assured tripping distance
(2) Schematic diagrams shown represent the contact states whilst the magnet is in front of the switch.
(3) For switches with other cable lengths, replace the last number in the reference by 5 for 5 meters or 10 by 10 meters. Ex: **XCSDMC5905**
(4) M12 4P for XCSDMP59/79 (2 contacts), M12 8P for XCSDMP50/70 (3 contacts)

Accessories for safety magnetic switches

Pre-wired female connectors		M8 4 pin	M12 8 pin	M12 4 pin	M12 8 pin (A coding)
Straight	2 m	XZCP0941L2	XZCP29P11L2	XZCP1141L2	XZCP29P12L2
	5 m	XZCP0941L5	XZCP29P11L5	XZCP1141L5	XZCP29P12L5
	10 m	XZCP0941L10	XZCP29P11L10	XZCP1141L10	XZCP29P12L10

See our Safety Switches Catalog at: https://tesensors.com/us/en/document/DIA4ED2191001EN

RFID contactless safety switches

ECOLAB

XCSR			
Maximum Safety Level	PL=e, category4 conforming to EN/ISO 13849-1 and SIL 3 conforming to EN/IEC 61508		
Type	Standalone	Series connection (Daisy-chain) (2) (3)	Point-to-point connection (Single)
	Possible functioning with no safety control unit	Functioning in combination with a safety control unit PL=e/Cat4 - SIL3	
Transponder + Factory matched reader - Single matching Automatic start + EDM	XCSRC11AM12 (1)		
Transponder + Factory matched reader - Single matching Manual monitored start + EDM	XCSRC11MM12 (1)		
Transponder + Reader matched in factory - Single matching		XCSRC12M12 (1)	XCSRC10M12 (1)

(1) For the versions allowing a new pairing of a blank transponder XCSRK2A3 (maximum 2 new pairings), replace the first reference digit '1' by '3' For example, reference XCSRC10M12 becomes XCSRC30M12. As soon as a blank transponder has been paired, the former transponder is no longer valid. A blank transponder can be matched only once
(2) The use of the serial diagnosis unit XCSRD210MDB is optional but highly recommended. This diagnosis unit provides and localizes the state of every XCSR sensors of the chain (open/close safe guard status, presence of errors, cabling issue, ...).
(3) The first sensor of serial connexion must be coupled with the loopback chain adaptator XCSRZE

RFID contactless safety switch accessories

XZCP29P12Lpp

XZCP11V12Lp

XZCP12V12p

Type		Connection M12 - Pre-wired - for XCSR "Single" or "Daisy Chain" (1)			
		XCSRC10M12 - XCSRC30M12 - XCSRC12M12 (1) and XCSR32M12 (1)			
Pre-wired length (cable material: PUR)		2 m	5 m	10 m	20 m
Connector M12 / 5-pin Female	Straight - Pre-wired	XZCP11V12L2	XZCP11V12L5	XZCP11V12L10	XZCP11V12L20
	90° - Pre-wired	XZCP12V12L2	XZCP12V12L5	XZCP12V12L10	XZCP12V12L20

Type		Connection M12 - Pre-wired - for XCSR "Standalone"			
		XCSRC11AM12 - XCSRC31AM12 - XCSRC11MM12 and XCSR31M12			
Pre-wired length (cable material: PUR)		2 m	5 m	10 m	20 m
Connector M12 / 8-pin Female	Straight - Pre-wired	XZCP29P12L2	XZCP29P12L5	XZCP29P12L10	XZCP29P12L20
	90° - Pre-wired	XZCP53P12L2	XZCP53P12L5	XZCP53P12L10	XZCP53P12L20

Type		Connection 2xM12 - Jumpers for XCSR "Daisy Chain"				
		XCSRC12M12 - XCSRC32M12				
Pre-wired length (cable material: PUR)		0.3 m	3 m	5 m	10 m	25 m
2 Connectors Straight female M12 5 pins	Pre-cabled for serial link directly between the sensors	XZCR1111064D03	XZCR1111064D3	XZCR1111064D5	XZCR1111064D10	XZCR1111064D25

(1) For the connection of the last safety switch of the chain (XCSRC12M12 or XCSRC32M12) to the safety control unit

See our Safety Switches Catalog at: https://tesensors.com/us/en/document/DIA4ED2191001EN

Safety light curtains

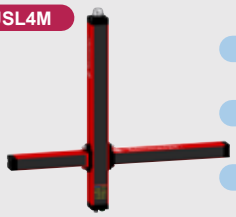
XUSL **Type 4**

Finger, hand and body detection (5)

PLe/Cat4 - SIL3

Height protected (mm)	Finger detection (resolution 14 mm)	Hand detection (resolution 30 mm)	Body detection (detection thru 2-3 or 4 beams)
	Sensing distance 0…3m or 1…6m selectable	Sensing distance 0…4m or 0…12m selectable	Sensing distance 0…4m or 0…12m selectable
	Automatic or manual start/restart		
	External Device Monitoring (EDM)		
160	XUSL4E14F016N	XUSL4E30H016N	
260		XUSL4E30H026N	
310	XUSL4E14F031N	XUSL4E30H031N	
460	XUSL4E14F046N	XUSL4E30H046N	
510 - 2 beams			XUSL4E2BB051N
610	XUSL4E14F061N	XUSL4E30H061N	
760	XUSL4E14F076N	XUSL4E30H076N	
810 - 3 beams			XUSL4E3BB081N
910	XUSL4E14F091N	XUSL4E30H091N	
910 - 4 beams			XUSL4E4BB091N
1060	XUSL4E14F106N	XUSL4E30H106N	
1210	XUSL4E14F121N	XUSL4E30H121N	
1360	XUSL4E14F136N	XUSL4E30H136N	
1510	XUSL4E14F151N	XUSL4E30H151N	
1660	XUSL4E14F166N	XUSL4E30H166N	
1810	XUSL4E14F181N	XUSL4E30H181N	

XUSL4M



	Integrated muting (1) (4)
510 - 2 beams	XUSL4MA2BB051N (2)
	XUSL4MB2BB051N (3)
810 - 3 beams	XUSL4MA3BB081N (2)
	XUSL4MB3BB081N (3)
910 - 4 beams	XUSL4MA4BB091N (2)
	XUSL4MB4BB091N (3)

(1) Possible association with pre-built/ pre-adjusted muting arms XUSZAS* (single beam muting sensors) and XUSZAM* multi-beam muting sensors).

(2) Hardware and Software configuration (with SoMute software), partial muting and integrated muting lamp

(3) Hardware configuration only

(4) For hand detection, some models are available in 30mm and 40mm resolutions, in different protected heights

(5) IP69K special models with ECOLAB conformity are available for XUSL4E and XUSL2E

XUSL **Type 2**

Hand and body detection (5)

PLc/Cat2 - SIL1

Height protected (mm)	Hand detection (resolution 30 mm)	Body detection (thru 2-3 or 4 beams)
	Sensing distance 0…4m or 0…12m selectable	
	Automatic or manual start/restart	
	External Device Monitoring (EDM)	
160	XUSL2E30H016N	
260	XUSL2E30H026N	
310	XUSL2E30H031N	
460	XUSL2E30H046N	
510 - 2 beams		XUSL2E2BB051N
610	XUSL2E30H061N	
760	XUSL2E30H076N	
810 - 3 beams		XUSL2E3BB081N
910	XUSL2E30H091N	
910 - 4 beams		XUSL2E4BB091N
1060	XUSL2E30H106N	
1210	XUSL2E30H121N	
1360	XUSL2E30H136N	
1510	XUSL2E30H151N	
1660	XUSL2E30H166N	
1810	XUSL2E30H181N	

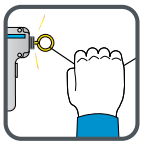
Accessories

Pre-wired connectors

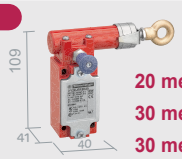
	Length	For use with... XUSL2E*/4E*/4M*	For use with... XUSL2E*/4E*
		M12 connector 5 pins - Female	
		Transmitter	
		Straight	90°
XZCP1164L●	2 m	XZCP1164L2	XZCP1264L2
	5 m	XZCP1164L5	XZCP1264L5
	10 m	XZCP1164L10	XZCP1264L10
	15 m	XZCP1164L15	XZCP1264L15
XZCP1264L●	25 m	XZCP1164L25	XZCP1264L25
		For use with XUSL2E* / 4E*	
		M12 connector 8 pins - Female	
		Receiver	
	Length	Straight	90°
XZCP29P11L●●	2 m	XZCP29P11L2	XZCP53P11L2
	5 m	XZCP29P11L5	XZCP53P11L5
	10 m	XZCP29P11L10	XZCP53P11L10
	15 m	XZCP29P11L15	XZCP53P11L15
	25 m	XZCP29P11L25	XZCP53P11L25
		For use with XUSL4M*	
		M12 connector 12 pins - Female	
		Receiver	
	Length	Straight	
XZCP57V12L●	5 m	XZCP57V12L5	
	10 m	XZCP57V12L10	
	15 m	XZCP57V12L15	

See our Safety Light Curtains Catalog at: https://tesensors.com/us/en/document/DIA4ED2150403EN

Emergency stop rope pull switches



XY2CJ
Metal



	Threaded cable entries - anchoring point	NC+NO	2NC	2NC+NO
20 meters cable length	Pg13.5 - straight	XY2CJS15 (1)	XY2CJS17 (1)	XY2CJS19 (1) (2)
30 meters cable length	Pg13.5 - right side	XY2CJR15 (1)	XY2CJR17 (1)	XY2CJR19 (1) (2)
30 meters cable length	Pg13.5 - left side	XY2CJL15 (1)	XY2CJL17 (1)	XY2CJL19 (1) (2)

(1) For ISO M20, just add "H29" to the part number (example: XY2CJS15 becomes XY2CJS15H29)
(2) For 1/2" NPT, just add "H7" to the part number (example: XY2CJS19 becomes XY2CJS19H7)

XY2CH
Metal

30 meters cable length	Tapped cable entries	NC+NO	2NC	2NC+NO
Reset by booted pushbutton;	Pg13.5	XY2CH13250 (3)	XY2CH13270 (3)	XY2CH13290 (3)
	ISO M20	XY2CH13250H29	XY2CH13270H29	XY2CH13290H29
	1/2" NPT	XY2CH13250H7	XY2CH13270H7	XY2CH13290H7

(3) Also available with pilot light

XY2CE
Metal

70 meters cable length	Plain hole cable entries	NC+NO	2NC	2NC+2NO
Reset by booted pushbutton; Anchor point on right side.	Pg13.5	XY2CE1A250	XY2CE1A270	XY2CE1A290 (4)
	1/2" NPT	XY2CE1A250H7	XY2CE1A270H7	XY2CE1A290H7
Reset by booted pushbutton; Anchor point on left side.	Pg13.5	XY2CE2A250	XY2CE2A270	XY2CE2A290 (4)
	1/2" NPT	XY2CE2A250H7	XY2CE2A270H7	XY2CE2A290H7

(4) Also available with pilot light

XY2CED
Metal

>=2 x 35 meters cable length and <=2 x 100 meters cable length	Plain hole cable entries	2 NC + 2 NO slow break
Reset by booted pushbutton	Pg13.5	XY2CEDA290 (5)
	1/2" NPT	XY2CEDA290H7
Reset by key release (N° 455) pushbutton	Pg13.5	XY2CEDA590 (5)

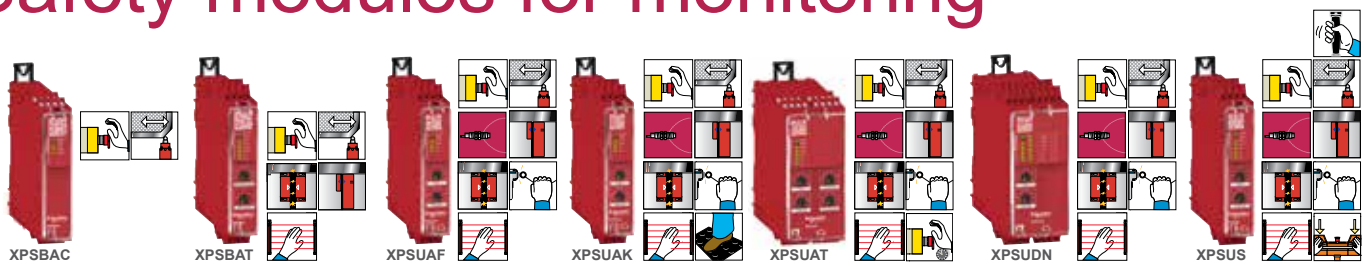
(5) Also available with pilot light
An adjustment shim and 2 end springs are supplied with ***XY2CED*** switches.

Accessories	XY2CJ	XY2CH	XY2CE	XY2CED
Mounting kit	XY2CZ9425 (5)	XY2CZ9330 (6)	XY2CZ9570 (7)	XY2CZ96200 (8)

(5) Kit contents: 1 galvanised cable L:30.5 (Ø 3.2 mm), quick tensioner, cable supports, and end spring.
(6) Kit contents: 1 galvanised cable L: 30.5 m (Ø 3.2 mm) and end spring.
(7) Kit contents: 1 galvanised cable L: 70.5 m (Ø 5 mm), turnbuckle, cable supports, cable end protectors and end spring.
(8) Kit contents: 2 galvanised cables L: 100.5m (D 5mm) and quick tensioners.

See our Emergency Stop Rope Pull Switches Catalog at: https://tesensors.com/us/en/document/DIA4ED2151201EN

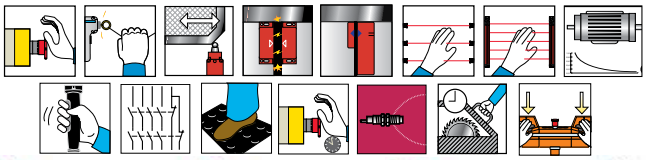
Safety modules for monitoring



Maximum acheivable safety level	PL e / Category 4 conforming to ISO 13849-1 SILCL3 conforming to IEC 62061 SIL3 conforming to IEC61508						
Number of outputs	4 NO + 2 NC	2 NO, 1 NO delayed (selectable from 0.1s to 15min) 1 solid state	3 NO 1 pulsed output	2 NO 1 redundant NC, 1 pulsed output	3 NO immediate, 3 NO delayed (selectable from 0.1 s to 15 min. by 10 steps of 10 steps of 0.1 s which can be multiplied by 1, 10, 100, and 1,000) or immediate + 1 NC	3 NO 1 redundant NC, 1 pulsed output	2 NO 1 pulsed output
References	XPSBAC	XPSBAT	XPSUAF	XPSUAK	XPSUAT	XPSUDN	XPSUS
Display	5 LEDS	8 LEDS	6 LEDS	6 LEDS	8 LEDS	16 LEDS	6 LEDS
Supply voltage	240 V AC/DC	24 V AC/DC	24 V AC/DC and 48-240 V AC/DC				
Supply voltage	24 V AC/DC & 48-240 V AC/DC	24 V AC/DC	24 V AC/DC and 48-240 V AC/DC				
Synchronization time between inputs	Fixed		Selectable				
Input channels	2	2	2	2	3	12	4
Start input	Automatic, manual & monitored start						
Control configurable pulsed outputs	NA		3 ON/OFF		4 ON/OFF	7 ON/OFF	3 ON/OFF
Module width	22.5 mm/0.886 in.				45 mm/1.77 in.	45 mm/1.77 in.	22.5 mm/0.886 in.

Complete references and other XPS Basic and Universal Modules are available on www.schneider-electric.com

Modular safety controller XPSMCM



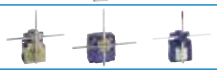
Maximum safety level reached	PL e / Cat 4 SILCL 3 5 (EN/ISO 13849-1, EN/IEC 62061)					Without safety level
Function	Central Unit (CPU) (standalone) (2)	Extension units input/output	Extension units Outputs Relay	Extension units speed control	Extension units Communication	Extension units communication bus
Case dimensions	22.5 x 99 x 114.5					
References	XPSMCMCP0802 (1)	XPSMCMMX	XPSMCMER	XPSMCMEN	XPSMCMCO0000S	XPSMCMCO0000
Main characteristics	- 8 digital inputs - 2 OSSD pairs 400mA - 4 Test outputs - 2 Status outputs - 2 EDM inputs	- 8 digital inputs - 2 OSSD pairs 400mA - 4 Test outputs - 2 Status outputs - 2 EDM inputs	- 2 or 4 Safety relay outputs 2NO + 1NC (without connection to the extension bus) - 1 or 2 EDM inputs	- 1 or 2 inputs for coder (TTL or HTL or Sin/Cos) or 1 or 2 inputs for proximity sensors - 2 Outputs digital configurables	- for connection XPSM-CMCP0802• to remote modules (≤ 50m) - creation to 6 islands, with full length of 250m and maximum 50m between 2 communication modules	- For data exchange and network systems diagnosis or field-bus - available interfaces (CAN open, Ethernet IP, Modbus RTU, Modbus TCP, Profibus DP and EtherCAT USB)
References	XPSMCMC10804 (1)	XPSMCMDI	XPSMCMRO			
Main characteristics	- 8 digital inputs - 4 OSSDs 400mA - 4 Test outputs - 4 Status outputs - 4 EDM inputs - Compatible with Extension module XPSMCMAI0400, channels analogic input	- 8 or 16 digital inputs - 4 Test outputs	- 4 modules Safety relay outputs 2NO + 1NC (with connection to the extension bus) - 4 independent safety relay outputs and 4 EDM outputs corresponding - 0 or 8 Status outputs			
Reference		XPSMCMDO				
Main characteristics		- 2 pairs or 4 OSSDs 400mA - 2 or 4 Status outputs - 2 or 4 EDM inputs				

(1) Configuration, Programming, simulation and documentation by means of an intuitive software (SoSafe).
(2) Extension units available (input, output, relay, speed control, communication).

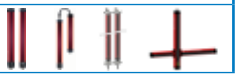
Applications

For more complex sensing needs, refer to **www.tesensors.com** or the Telemecanique Sensors Essentials Catalog for information relative to the sensors described below.

XC for special applications

One of the most comprehensive offering of special limit switches dedicated to severe environments and heavy duty service. Mainly for: hoisting, handling, mining, minerals and metals and other harsh environmental constraints (foundry, welding and automotive industries etc…)	
Severe duty for hoisting and material handling applications	
Specifically designed products for belt shift monitoring	
Cross Limit Switches - Dedicated products for overhead cranes and block hoists for end of travel control	
Robust Mill & Foundry Switch	

Safety detection

One of the most comprehensive offerings of industrial safety switches on the market, complemented by a range of safety light curtains and safety mats for dangerous machines in industrials segments. Example: packaging, handling, robotics, machines tools, presses, automotive market.	
Detection of gates or cover openings	
Guard switches with mechanical actuator	
Rotary lever and spindle-operated guard switches for hinge guards	
Coded magnetic guard switches	
Safety RFID switches	
Detection of operators in free access zone	
Safety light curtains	

XS for special applications

One of the most comprehensive offerings of inductive sensors for general purpose as well as assembly machines, robotics, machine-tools, machining, packaging, materials handling, conveying and food and beverage industry.	
Rotation control, ferrous/non-ferrous detection	
Plastic case sensors for double insulation and chemical environment compliance	
Miniature cylindrical format plain, smooth barrel 4 mm and 6.5 mm or M5 for assembly applications	
Stainless steel and plastic housings for dedicated food & beverage applications	
Capacitive sensors XT range for detection of insulating or conductive materials	

The information and dimensions in this catalog are provided for the convenience of our customers. While this information is believed to be accurate, Schneider Electric reserves the right to make updates and changes without prior notification and assumes no liability for any errors or ommissions.

XU for special applications

A dedicated offering of application specific products for packaging, handling, assembly, conveying, food & beverage, complete the general purpose offer.	
Detection of transparent materials	
Mark readers, luminescence sensors, color sensors	
Label detection	
Laser technology sensors	

XG RFID inductive identification system

With OsiSense XG, discover a complete RFID system comprised of 13.56 MHz smart antennas, electronic tags and network connection accessories. OsiSense XG simplifies access to tag data with automatic adaptation to the protocol and speed of the network used (Ethernet IP, ModbusTCP/IP, Modbus RTU, Uni-Telway and Profibus DP). With a broad line of RFID tags and accessories, OsiSense XG is the ideal choice for manufacturing track, trace and control applications.	
Compact stations with integrated controller and antenna, now with integrated Ethernet IP and Modbus TCP/IP.	
13.56 MHz electronic tags	
Portable RFID terminal and network connection boxes	

Cabling Accessories

High-performance, quick and easy connectors to all our sensors are available in our XZ range. Reference identification and the connection processes are user friendly.	
Pre-wired connectors	
Jumper cables	
Connectors	

For our complete selection of sensor solutions, visit www.tesensors.com

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