Detection and safety Sensors solutions for conveying and handling applications
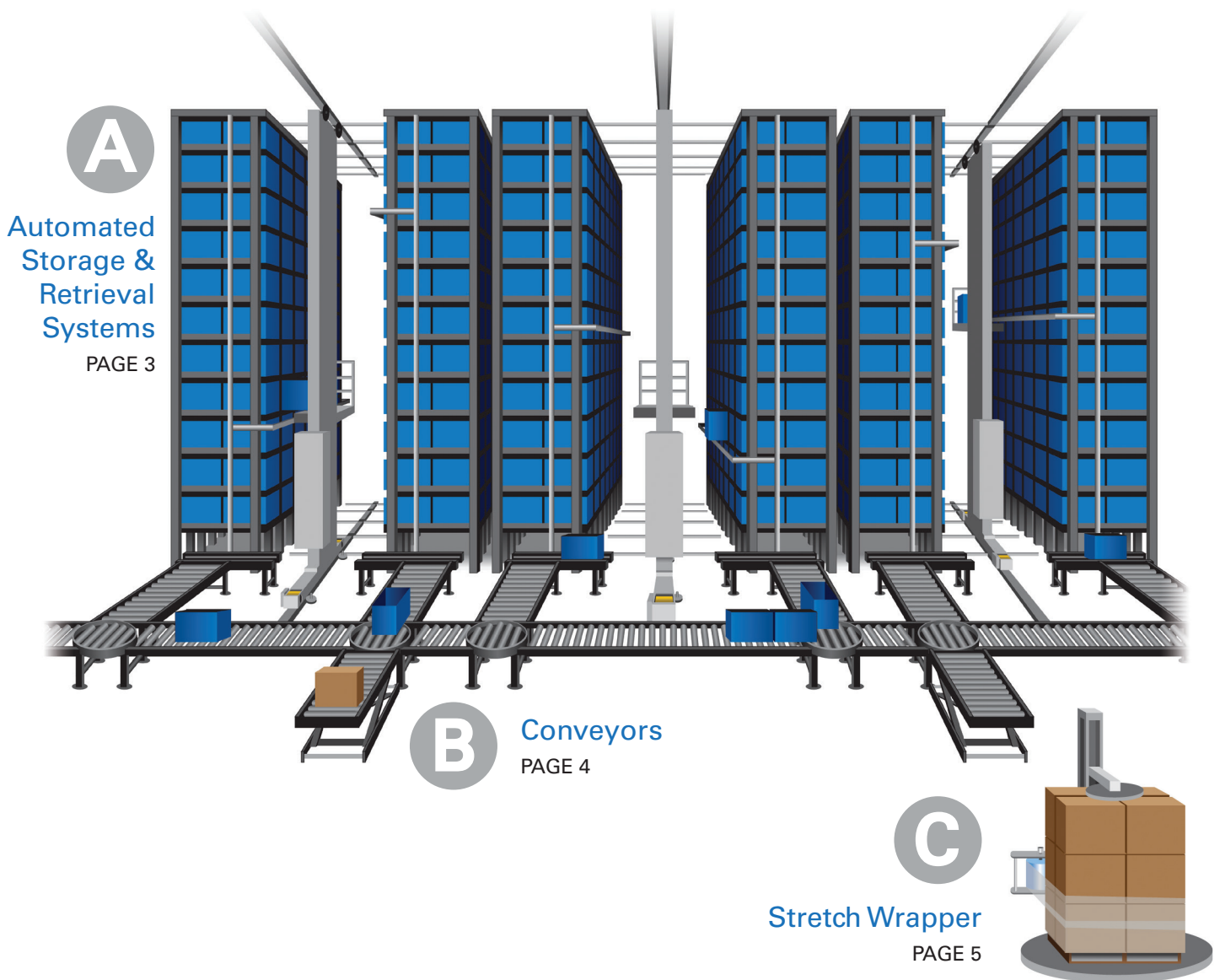
Telemecanique
Sensors

Simply easy!

Material Handling Automated Warehouse

A

Automated Storage & Retrieval Systems

PAGE 3

B Conveyors
PAGE 4
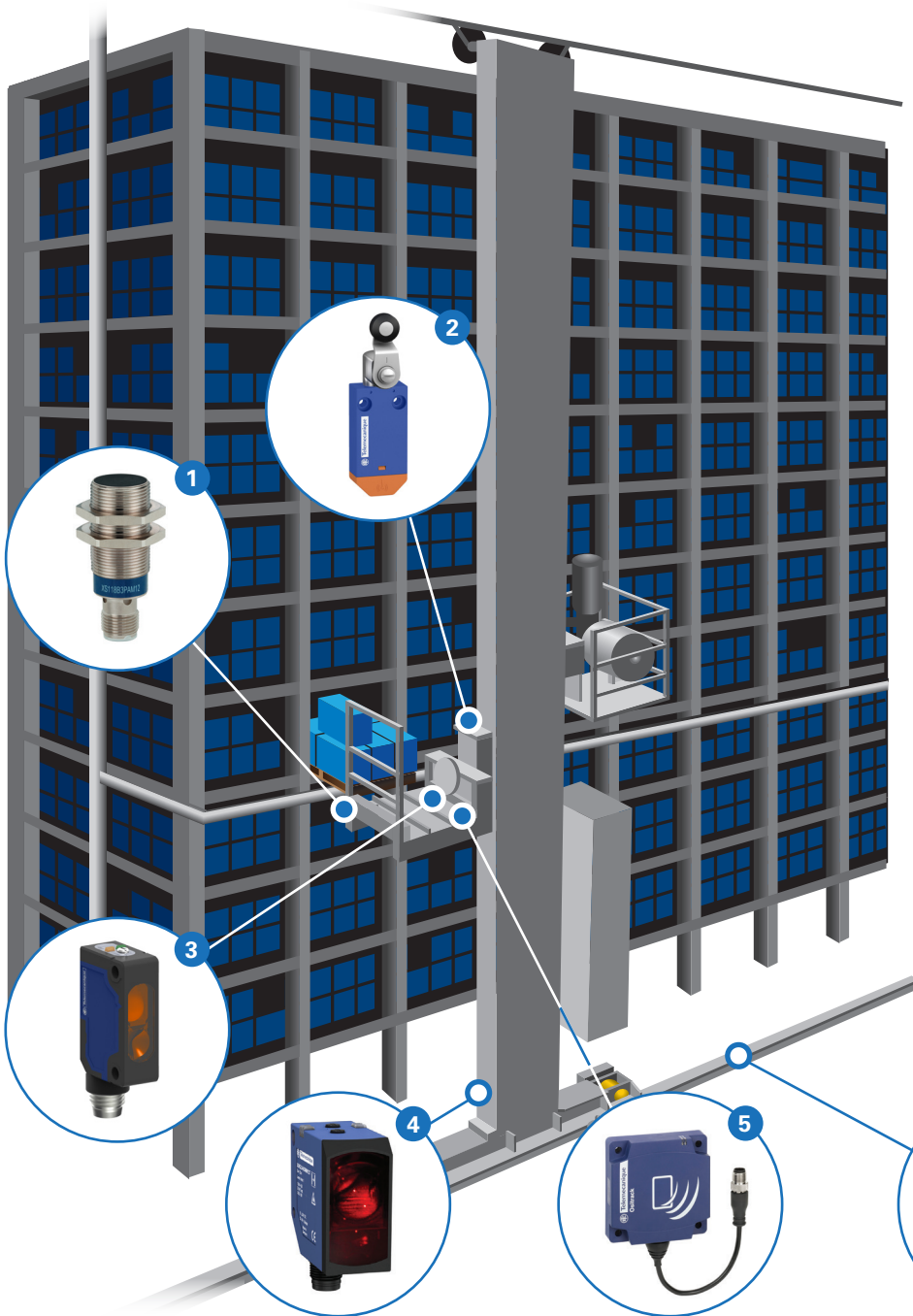
C

Stretch Wrapper
PAGE 5

Telemecanique Sensors is a world-class global brand offering a comprehensive line of products to support your material handling applications. Whether you are specifying a detection solution for an automated storage and retrieval system, a conveyor system, or a stretch wrapper machine, Telemecanique Sensors has a sensor solution for you!

On the following pages, the sensors used to operate these three primary material handling machine systems are identified by the function they perform. Locate the sensor performing the specific task you are addressing and then find the specification details for that sensor in the product index section beginning on Page 6.

We make the process of choosing a sensor Simply easy!

A Automated Storage & Retrieval Systems

1 | XS Cylindrical Inductive

Verifying the table position to validate the movement authorization.

2 | XCMW Wireless Limit Switch

Battery-less switch for detecting the compartment where the lift stops.

3 | XUM Photoelectric Miniature

Verifying the presence of load on the table.

4 | XUK Photoelectric Laser

Distance measurement for translation travel.
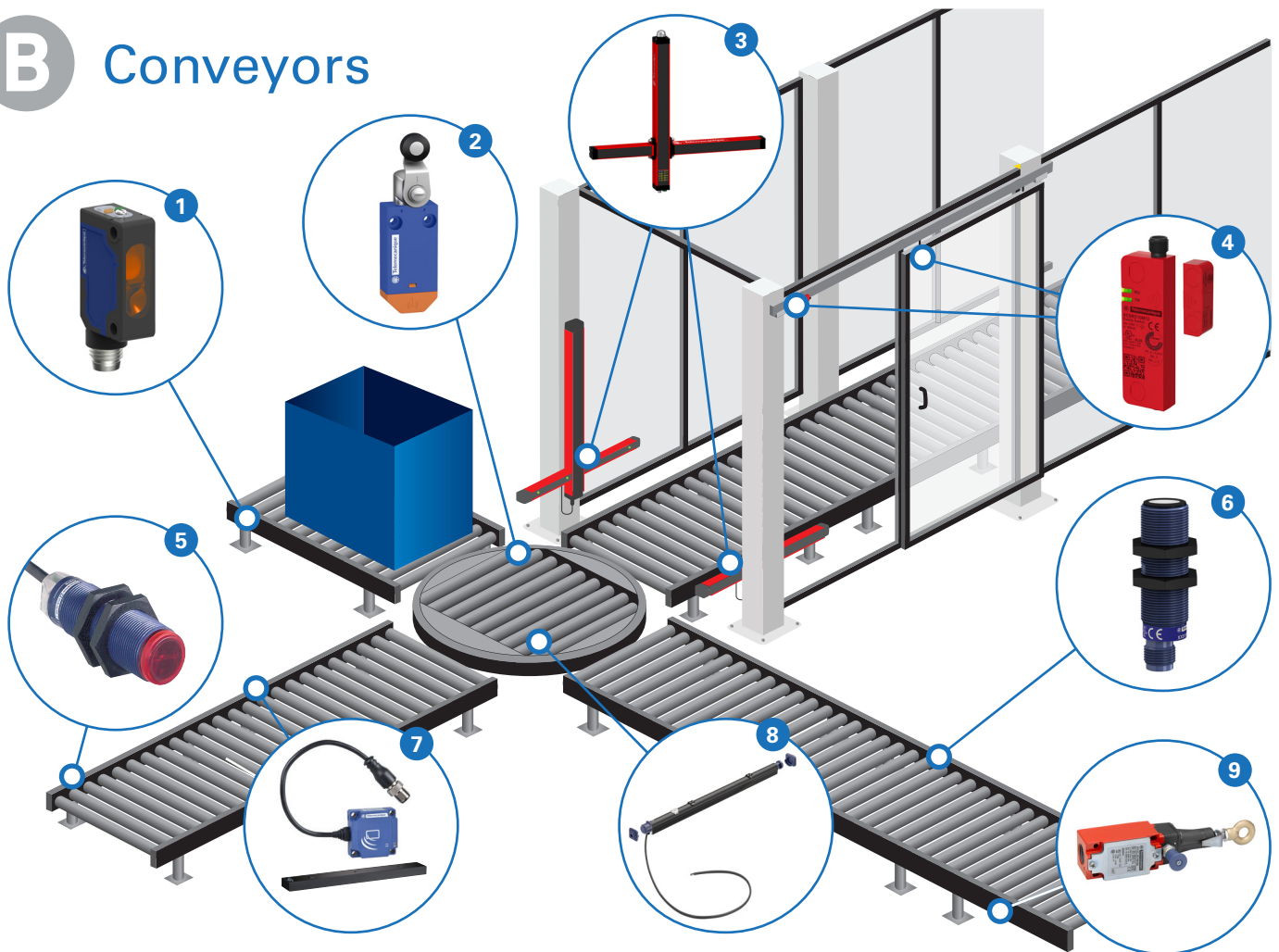
5 | XG Radio Frequency Identification

Traceability of bins in the warehouse.

6 | XS Rectangular Inductive

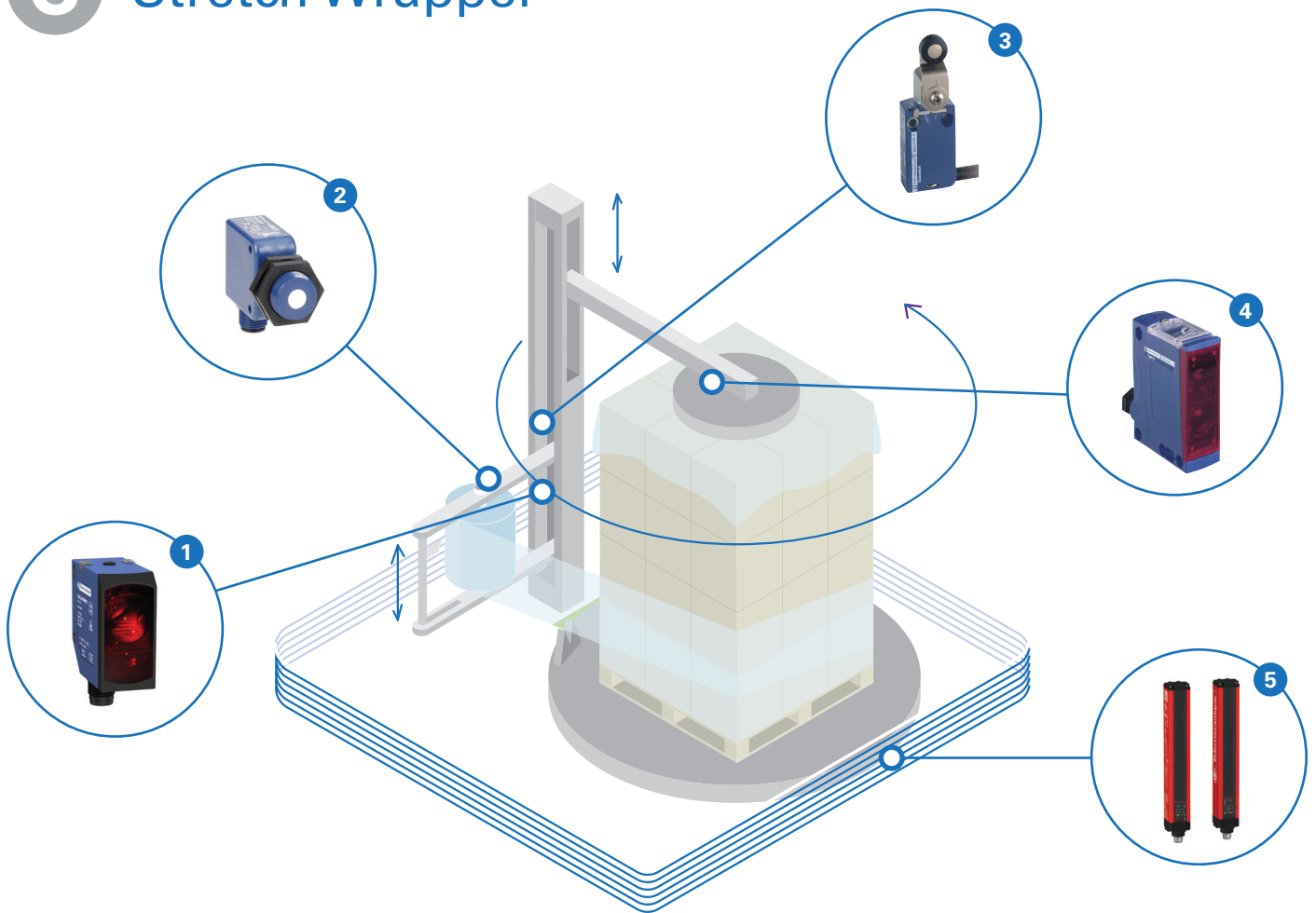Detecting an overtravel.

B Conveyors

1	XUM Miniature Photoelectric Sensor	Detecting the passage and presence of packages with background suppression.
2	XCMW Wireless Limit Switch	Transferring products from conveyor to conveyor without losing the exact direction orientation.
3	XUSL4M Safety Light Curtains with Muting	Efficient detection of machine operators with uninterrupted automation processes.
4	XCSR RFID Safety Sensor	Shuts down the machine if the door opens.
5	XUB Cylindrical Photoelectric Sensor	Detecting the passage and presence of packages using a reflector.
6	XX Ultrasonic Sensor	Detecting the passage and presence of objects regardless of their color, shape, or orientation.
7	XG Radio Frequency Identification	Traceability of packages in the warehouse.
8	XUY Roller Photoelectric Sensor	Integrated, between-the-rollers detection of the passage and presence of any object.
9	XY2 Emergency Stop	Emergency stop cable switch.

C Stretch Wrapper

1	XUK Laser Photoelectric Sensor	Distance measurement to the pallet.
2	XX Ultrasonic Sensor	Detecting end of film reel or film breakage.
3	XCMD Miniature Limit Switch	Detecting of the end positions.
4	XUX Photoelectric Sensor	Detection of package overhang.
5	XUSL Safety Light Curtains	Monitoring access of persons to hazardous zone(s) of the machine.

XU Photoelectric Sensors

XUB Cylindrical

Sensing mode	Sensing distance	Output	Catalog Part Number	
			Pre-Cabled	M12 Connector
Reflex, polarized	2 m	DC3 NO PNP	XUB9APANL2	XUB9APANM12
Background, supression	0.12 m	AC/DC NO	XU8M18MA230	XU8M18MA230K (1)
Reflex, polarized for transparent objects	0.8 m	DC3 NO/NC PNP	XUBT1PSNL2	XUBT1PSNM12

(1) - 1/2" 20 UNF connector

XUM Miniature

Sensing mode	Sensing distance	Output	Catalog Part Number	
			Pre-Cabled	M8 Connector
Reflex, polarized	8 m	DC3 NO/NC PNP	XUM9APXBL2	XUM9APXBM8
Background, supression	0.3 m	DC3 NO/NC PNP	XUM8APXBL2	XUM8APXBM8
Reflex, polarized for transparent objects	2 m	DC3 NO/NC PNP	XUMTAPCNL2	XUMTAPCNM8

XUK Laser

Sensing mode	Sensing distance	Output	Catalog Part Number
			M12 Connector
Reflex, polarized	14 m	DC4 NO/NC PNP	XUK9LAPSMM12
Reflex, polarized for distance measurement	70 m	4-20 mA + NO/NC	XUK9TAH2MM12
Background, supression	0.8 m	DC4 NO/NC PNP	XUK8LAPPNM12
Background supression for distance measurement	5 m	4-20 mA + NO/NC	XUK8TAE2MM12

XUX General Purpose

Sensing mode	Sensing distance	Output	Catalog Part Number (2)
			Screw terminals
Background supression	2 m	AC/DC RELAY NO/NC	XUX8ARCTT16
Reflex, polarized	11 m	AC/DC RELAY NO/NC	XUX9ARCNT16

(2) - Contact your sales person for different length

XUY Roller

Sensing mode	Sensing distance	Output	Catalog Part Number	
			Pre-Cabled	M12 Connector
Diffuse	0.1 m	DC3 NO/NC PNP/NPN	XUY415NC4H2	XUY415NC4H03M12

XS Inductive Sensors

XS Cylindrical

Body size	Sensing distance	Output	Catalog Part Number	
			Pre-Cabled	M12 Connector
Short M18	5 mm	DC3 NO PNP	XS518B1PAL2	XS518B1PAM12
	8 mm	DC3 NO PNP	XS118B3PAL2	XS118B3PAM12
	5 mm	DC2 NO	XS518BSDAL2	XS518BSDAM12
	8 mm	DC2 NO	XS618B3DAL2	XS618B3DAM12
Long M18	5 mm	DC3 NO PNP	XS518BLPAL2	XS518BLPAM12
	8 mm	DC3 NO PNP	XS618B1PAL2	XS618B1PAM12
	5 mm	DC2 NO	XS518B1DAL2	XS518B1DAM12
	8 mm	DC2 NO	XS618B1DAL2	XS618B1DAM12
	5 mm	AC/DC NO	XS518B1MAL2	XS518B1MAU20 (3)
	8 mm	AC/DC NO	XS618B1MAL2	XS618B1MAU20 (3)

XS Rectangular

Body size	Sensing distance	Output	Catalog Part Number
			M12 Connector
40 x 40 x 70 mm	15 mm	DC4 NO/NC PNP	XS7C2A1PCM12
	15 mm	DC2 NO	XS7C2A1DAM12
	15 mm	AC/DC NO	XS7C2A1MAU20(4)
	20 mm	DC4 NO/NC PNP	XS8C2A1PCM12
	20 mm	DC2 NO	XS8C2A1DAM12
	20 mm	AC/DC NO	XS8C2A1MAU20(3)

XX Ultrasonic Sensors

XX Cylindrical

Sensing mode	Sensing distance	Output	Catalog Part Number (5)	
			Straight	Angled
Diffuse (6)		PNP, NO or NC (6)	XXS18P1PM12	XXA18P1PM12
Window (6)	1 m (6)	4...20 mA	XXS18P1AM12	XXA18P1AM12
Reflex (6)		0-10V	XXS18P1VM12	XXA18P1VM12

XX Cylindrical / Dual mount

Sensing mode	Sensing distance	Output	Catalog Part Number	
			M18 barrel	Dual mount (7)
Diffuse		DC3 NO PNP	XX518A3PAM12	XX7V1A1PAM12
	0.5 m (8)	4 - 20 mA	XX918A3C2M12	XX9V1A1C2M12
		0-10V	XX918A3F1M12	XX9V1A1F1M12

(3) - 1/2» 20 UNF connector
(4) - Body format M30
(5) - 18mm barrel, plastic (P1), Nickel brass (B1)
    stainless steel (S1) versions available

(6) - Configurable with XX Software / remote teach push-button
(7) - Body format 60 x 30 x 18mm + M18
(8) - Adjustable with remote teach push-button
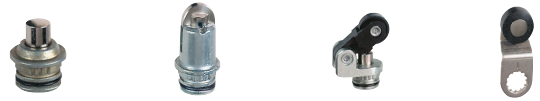
XC Limit Switches

XCMD & XCMN Miniature

Body size	Contact	Connection	Catalog Part Number			
Miniature Metal	NO+NC Snap action	1 m cable	XCMD2110L1	XCMD2102L1	XCMD2121L1	XCMD2115L1
		M12 4 Pins	XCMD2110M12	XCMD2102M12	XCMD2121M12	XCMD2115M12
Miniature Plastic	NO+NC Snap action	1 m cable	XCMN2110L1	XCMN2102L1	XCMN2121L1	XCMN2115L1

XCKP & XCKD Compact

Body size	Contact	Connection	Catalog Part Number			
Compact Metal	NO+NC Snap action	1/2" NPT	XCKD2110N12	XCKD2102N12	XCKD2121N12	XCKD2118N12
		M12 4 Pins	XCKD2110M12	XCKD2102M12	XCKD2121M12	XCKD2118M12
		M20	XCKP2110P20	XCKP2102P20	XCKP2121P20	XCKP2118P20
		PG11	XCKP2110G11	XCKP2102G11	XCKP2121G11	XCKP2118G11
Compact Plastic	NO+NC Snap action	1/2" NPT	XCKP2110N12	XCKP2102N12	XCKP2121N12	XCKP2118N12
		M12 4 Pins	XCKP2110M12	XCKP2102M12	XCKP2121M12	XCKP2118M12
		M20	XCKP2110P20	XCKP2102P20	XCKP2121P20	XCKP2118P20
		PG11	XCKP2110G11	XCKP2102G11	XCKP2121G11	XCKP2118G11

XCMW Wireless & Battery-less

Body size	Description	Catalog Part Number
Miniature format	Metal end plunger	XCMW110
	Metal roller plunger	XCMW102
	Plastic roller lever	XCMW115
	Metal roller lever	XCMW116
	Adjustable length plastic roller lever	XCMW145

XG Radio Frequency Identification

Smart antenna 13.56 MHz	Sensing distance	Protocol	Speed	Catalog Part Number
Flat form 40 x 40 x 15 mm	18 to 70 mm	Modbus & Uni-Telway	9600 to 115,200 Bauds	XGCS4901201
Flat form 80 x 80 x 26 mm	18 to 70 mm	Modbus & Uni-Telway	9600 to 115,200 Bauds	XGCS8901201
	20 to 100 mm	Modbus TCP/IP & EtherNet IP	10/100 MB	XGCS850C201

Electronic tags	Sensing distance	Memory capacity	Memory type	Catalog Part Number
Disc Ø 30 x 3 mm	45 to 80 mm	2000 bytes	FeRAM	XGHB320246
Disc Ø 50 x 3 mm	70 to 150 mm	2000 bytes	FeRAM	XGHB520246
Flat form 40 x 40 x 15 mm	25 to 39 mm	32000 bytes	FeRAM	XGHB443245

Field expander	Catalog Part Number
50 x 400 mm	XGFEC540
50 x 200 mm	XGFEC520

XZ Cables

Orientation	Cable Length	Connector	Catalog Part Number	
			M8 Connector	M12 Connector
Straight	2 m	4 pins	XZCPV0941L2	XZCPV1141L2
	5 m	4 pins	XZCPV0941L5	XZCPV1141L5
Elbowed	2 m	4 pins	XZCPV1041L2	XZCPV1241L2
	5 m	4 pins	XZCPV1041L5	XZCPV1241L5

Accessories

Dimensions	Reflector Catalog Part Number
Ø 16 mm	XUZC16
Ø 21 mm	XUZC21
24 x 21 mm	XUZC24
50 x 50 mm	XUZC50
100 x 100 mm	XUZC100

Mounting brackets	Catalog Part Number
XUB Cylindrical	XUZA118
XUM Miniature	XUZA50
XUK Laser	XUZASK001
XUX Compact	XUZX2000
XS Cylindrical	XSZB118

Adaptor	Catalog Part Number
XUM Ø 18 mm	XUZASM001

XY2 Emergency Stop

Cable length	Contact	Anchoring point	Connection	Catalog Part Number
< 20 m	2 NC+ 1 NO Slow break	To right or to left	Pg13.5	XY2CJS19 (9)

Cable length	Contact	Anchoring point	Connection	Catalog Part Number
< 30 m	2 NC+ 1 NO Slow break	To right	Pg13.5	XY2CJR19 (9)
< 30 m	2 NC+ 1 NO Slow break	To left	Pg13.5	XY2CJL19 (9)

(9) - For ISO M20, just add "H29" to the part number (example: XY2CJS19 becomes XY2CJS19H29).
For 1/2" NPT, just add "H7" to the part number (example: XY2CJS19 becomes XY2CJS19H7).

Cable length	Contact	Anchoring point	Connection	Catalog Part Number
< 30 m	2 NC+ 1 NO Slow break	To right or to left	Pg13.5	XY2CH13290 (10)

(10) - Also available with pilot light.
For ISO M20, just add "H29" to the part number (example: XY2CH13290 becomes XY2CH13290H29).
For 1/2" NPT, just add "H7" to the part number (example: XY2CH13290 becomes XY2CH13290H7).

Cable length	Contact	Anchoring point	Connection	Catalog Part Number
< 70 m	2 NC+ 2 NO Slow break	To right	Pg13.5 or ISO M20	XY2CE1A290 (11)
< 70 m	2 NC+ 2 NO Slow break	To left	Pg13.5 or ISO M20	XY2CE2A290 (11)

(11) - Also available with pilot light.
For 1/2" NPT, just add "H7" to the part number (example: XY2CE1A290 becomes XY2CE1A290H7).

Cable length	Contact	Anchoring point	Connection	Catalog Part Number
2 x 100 m	2 NC+ 2 NO Slow break	To right & to left	Pg13.5 or ISO M20	XY2CEDA290 (12)

(12) - Also available with pilot light.
For 1/2" NPT, just add "H7" to the part number (example: XY2CEDA290 becomes XY2CEDA290H7).

XUSL Light Curtains

Safety level	Height protected	Sensing distance	Catalog Part Number	
			Hand detection	Body detection
Type 2 PLd/cat2	910 mm	0…4 m or 0…12 m		XUSL2E4BB091N
	1060 mm		XUSL2E30H106N	
	1210 mm		XUSL2E30H121N	
	1360 mm		XUSL2E30H136N	
	1510 mm		XUSL2E30H151N	
	1660 mm		XUSL2E30H166N	
	1810 mm		XUSL2E30H181N	
Type 4 PLe/ca4	910 mm	0…4 m or 0…12 m		XUSL4E4BB091N
	1060 mm		XUSL4E30H106N	
	1210 mm		XUSL4E30H121N	
	1360 mm		XUSL4E30H136N	
	1510 mm		XUSL4E30H151N	
	1660 mm		XUSL4E30H166N	
	1810 mm		XUSL4E30H181N	
Type 4 PLe/ca4	910 mm	0…10 m or 3…20 m		XUSL4E4BB091L
	1060 mm		XUSL4E30H106L	
	1210 mm		XUSL4E30H121L	
	1360 mm		XUSL4E30H136L	
	1510 mm		XUSL4E30H151L	
	1660 mm		XUSL4E30H166L	
	1810 mm		XUSL4E30H181L	

Safety level	Height protected	Integrated muting (13) (16)
Type 4 PLe/ca4	510 mm	XUSL4MA2BB051N (14)
		XUSL4MB2BB051N (15)
	810 mm	XUSL4MA3BB081N (14)
		XUSL4MB2BB081N (15)
	910 mm	XUSL4MA4BB091N (14)
		XUSL4MB4BB091N (15)

(13) - Possible association with pre-built/pre-adjusted muting arms XUSZAS* (single beam muting sensors) and XUSZAM* (multi-beam muting sensors).
(14) - Hardware and software configuration (with SoMute free software), partial muting and integrated muting lamp.
(15) - Hardware configuration only
(16) - For hand detection, some models are available in 30mm and 40mm resolutions, in different protected heights.

XCSR RFID Safety Sensor

Type	EDM + Start	Pairing	Connection	Catalog Part Number
SINGLE		Unique	M12	XCSRC10M12
SINGLE		2 new possible	M12	XCSRC30M12
STANDALONE	EDM + Auto Start	Unique	M12	XCSRC11AM12
STANDALONE	EDM + Auto Start	2 new possible	M12	XCSRC31AM12
STANDALONE	EDM + Manual Start	Unique	M12	XCSRC11MM12
STANDALONE	EDM + Manual Start	2 new possible	M12	XCSRC31MM12
DAISY-CHAIN		Unique	M12	XCSRC12M12
DAISY-CHAIN		2 new possible	M12	XCSRC32M12

> Telemecanique Sensors

Simply easy!

Simplicity

+

Proximity

+

Expertise

Telemecanique Sensors is a world-class global brand offering a comprehensive line of over 25,000 types of sensors, including limit switches, pressure sensors, photoelectric sensors and proximity sensors. In addition, we provide state-of-the-art RFID systems compatible with most PLC manufacturers.

Telemecanique Sensors is focused on 3 core values - Simplicity, Expertise, and Proximity. Our focus on *Simplicity* is reflected in the ease with which our products can be specified, installed, and used. Our focus on *Expertise* is reflected in our 70+ years of securing all the necessary and applicable certifications and our long history of addressing some of the most demanding machine applications in the industry. Our focus on *Proximity* can be seen in the worldwide availability of our products and technical support.

In short, we make sensing technology simple. We have the experience to address the most challenging applications. And we are there to help.

We make detection solutions ''Simply easy!''

Discover our complete offer: www.tesensors.com or contact your local sales agency

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