



TELEMECANIQUE SENSORS GUIDE

Discover Telemecanique Sensors
Simplify your project with the right
technology and expert service

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TELEMECANIQUE SENSORS SOLUTIONS GUIDE

Making Sense of Sensors

Choose Telemecanique Sensors and simplify your project with the right technology and expert service for any job.

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

Focused on 3 core values – Simplicity, Proximity and Expertise – Telemecanique have become experts in factory automation sensors as well as specialists in demanding applications, making customers lives “simply easy!”.

As experts in the detection industry for over a century, Telemecanique Sensors tailors its vast range of sensor products, so they will address the various needs of specific industries.

- Hositing
- Mobile lifts
- Water pumping
- Material handling
- Elevators & escalaters
- Railway



RS stocks a full range of Telemecanique sensors to satisfy any application from factory to process automation, from RFID to load cell.

CONTENTS

- 6** Choosing the right sensing solution
- 3** OsiSense XS
- 4** Safety Switches
- 5** Photoelectric Sensors
- 6** Proximity Sensors
- 7** Limit Switches

PRODUCT RANGE OVERVIEW



Limit Switches

As market leader, Telemecanique Sensors offers a comprehensive range of IEC limit-switches.



Inductive Sensors & Capacitive Sensors

Regardless of the material you need to detect - without contacting it, Telemecanique Sensors has you covered with a full range of high quality and high performance inductive and capacitive



Photoelectric Sensors

Browse the wide range, including diffuse, Background Suppression (BGS), polarized reflex, laser reflex & thru-beam sensors.



Pressure Sensors

From basic pressure transmitters to configurable pressure switches for pumping, hydraulic, and HVAC machinery.



Ultrasonic Sensors

From basic pressure transmitters to configurable pressure switches for pumping, hydraulic, and HVAC machinery.



SAFETY SENSORS & SWITCHES

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



RFID AND INDUCTIVE IDENTIFICATION SYSTEMS

From basic pressure transmitters to configurable pressure switches for pumping, hydraulic, and HVAC machinery.



CORDSETS AND CONNECTORS

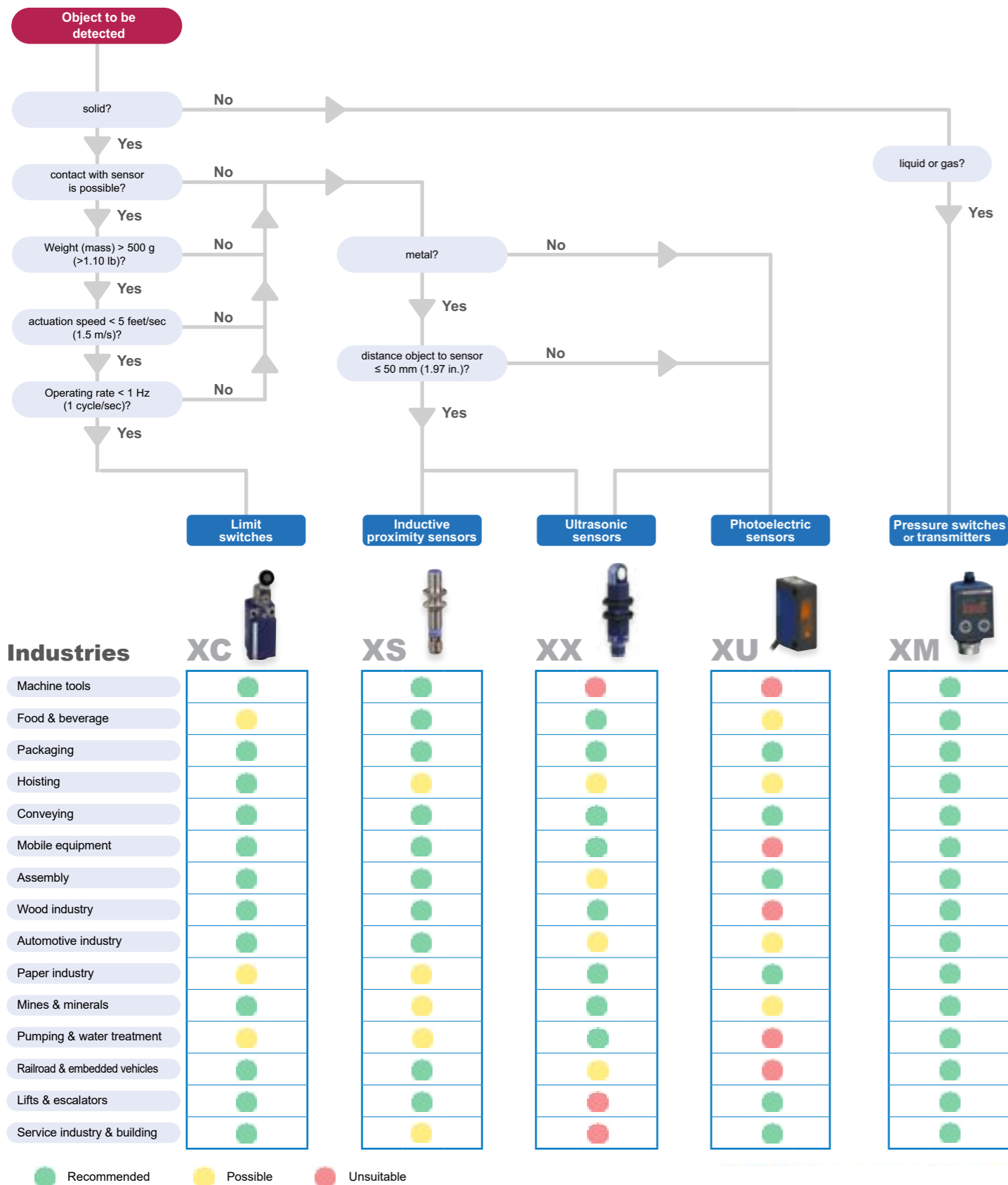
Reliable sensors need a reliable pathway to transmit the signals about their detection!



Shop the range at au.rs-online.com/telemecanique-sensors



CHOOSING THE RIGHT TEMECANIQUE SENSING SOLUTION



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 omissions.

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

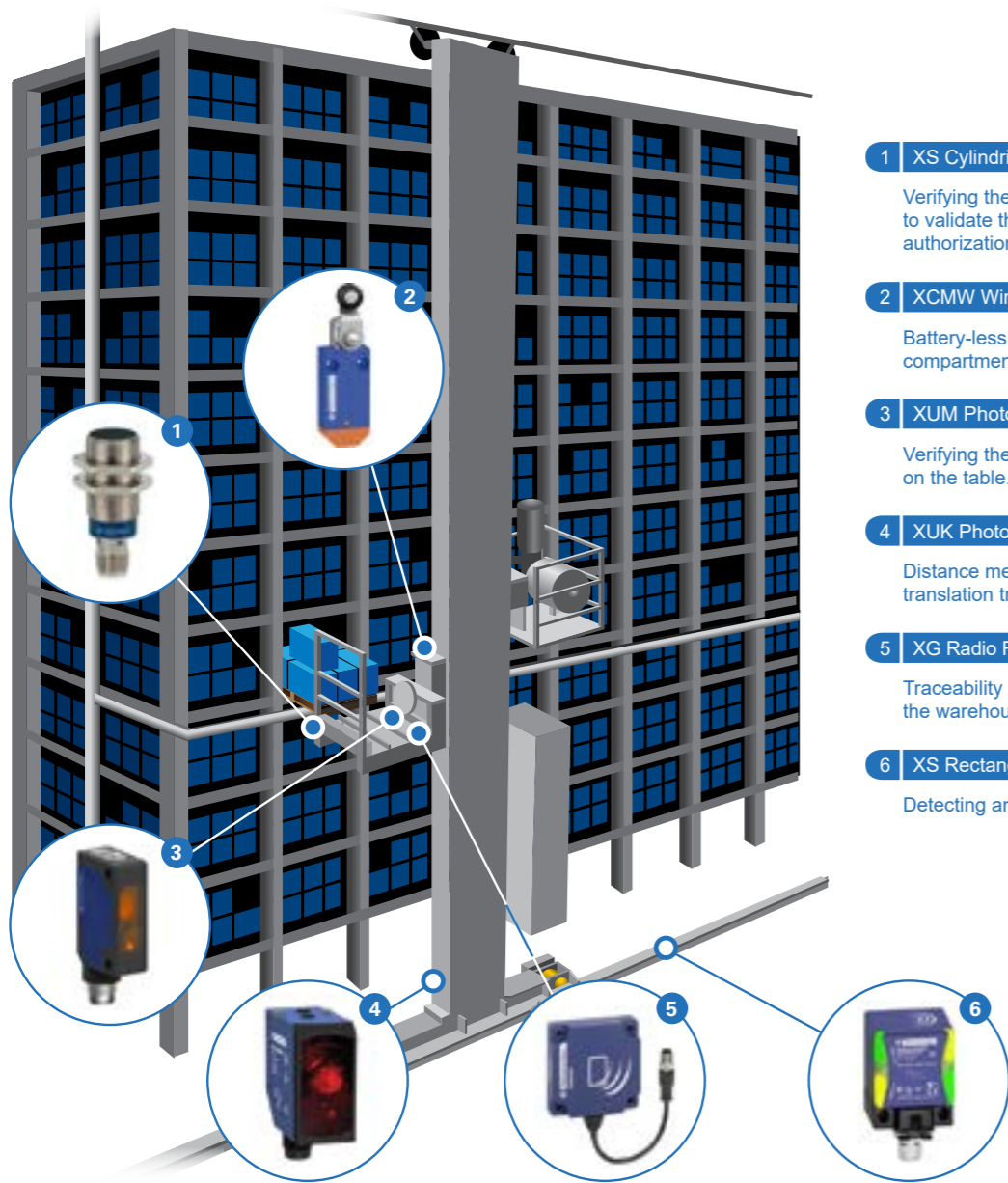
With OsiSense XG, discover a complete RFID system comprised of 13.56 MHz smart antennas, electronic tags and network connection accessories. OsiSense XG simplifies access to tag data with automatic adaptation to the protocol and speed of the network used (Ethernet IP, ModbusTCP/IP, Modbus RTU, Uni-Telway 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	

Shop the range at au.rs-online.com/telemecanique-sensors

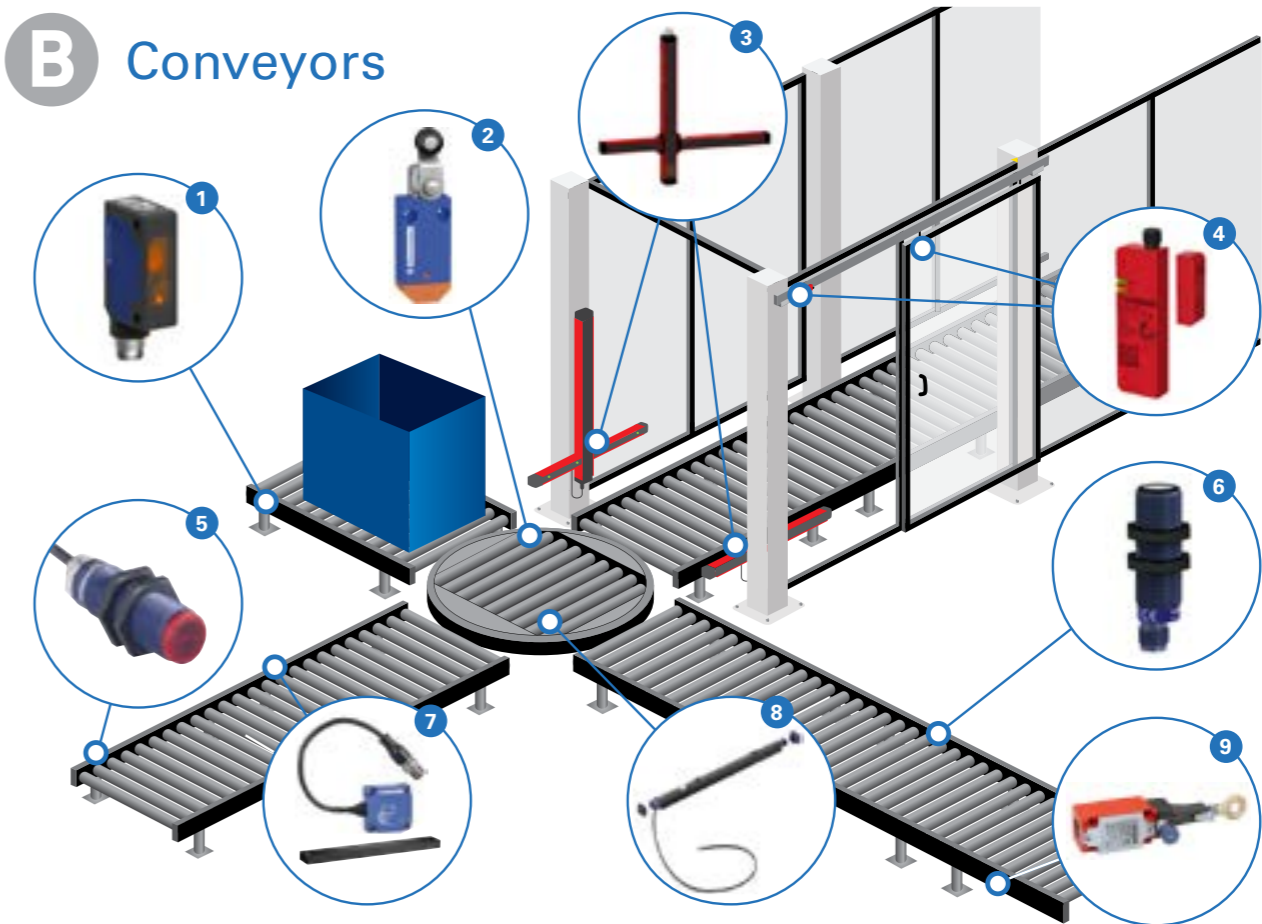
A Automated Storage & Retrieval Systems



- 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.



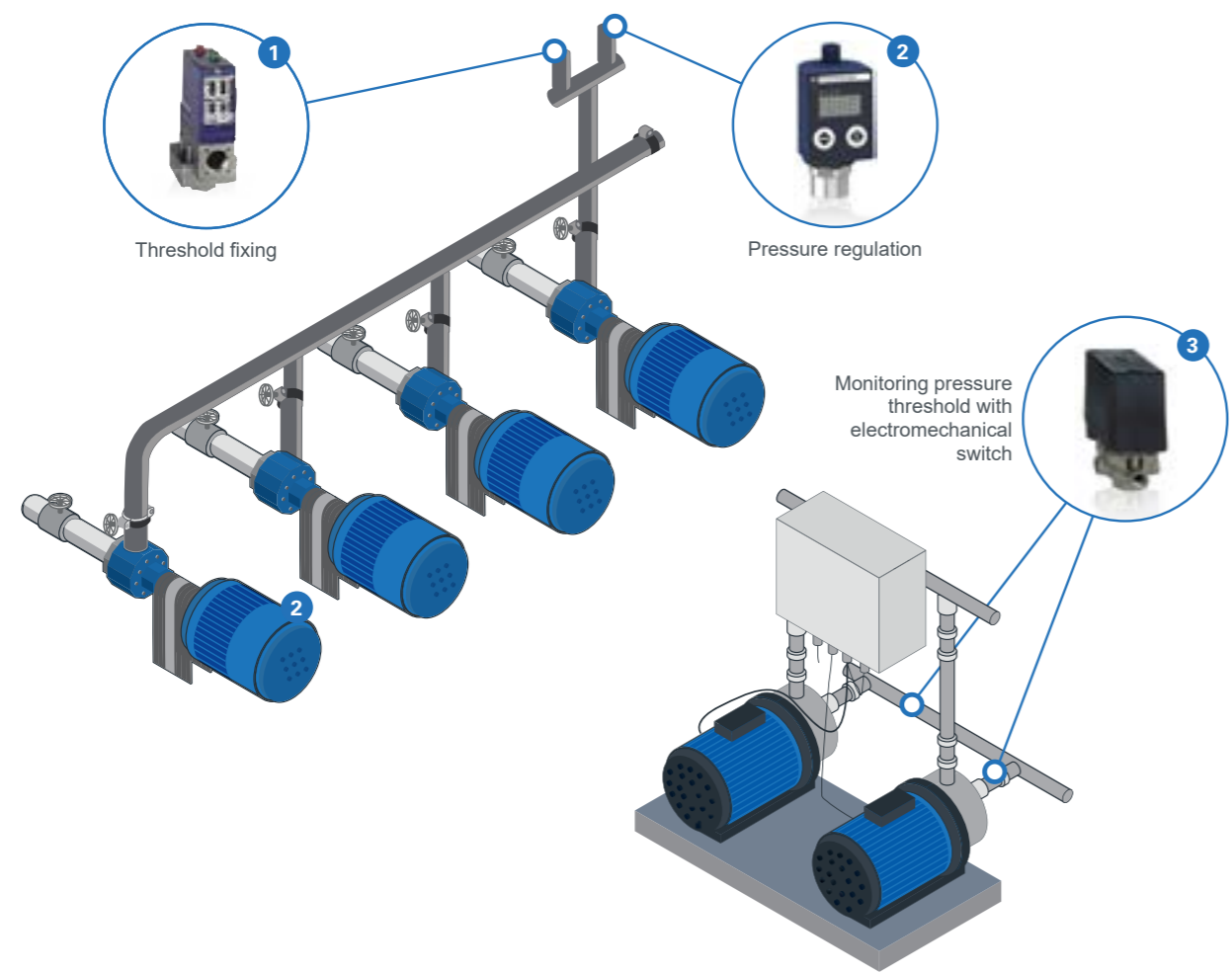
B Conveyors



- 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.



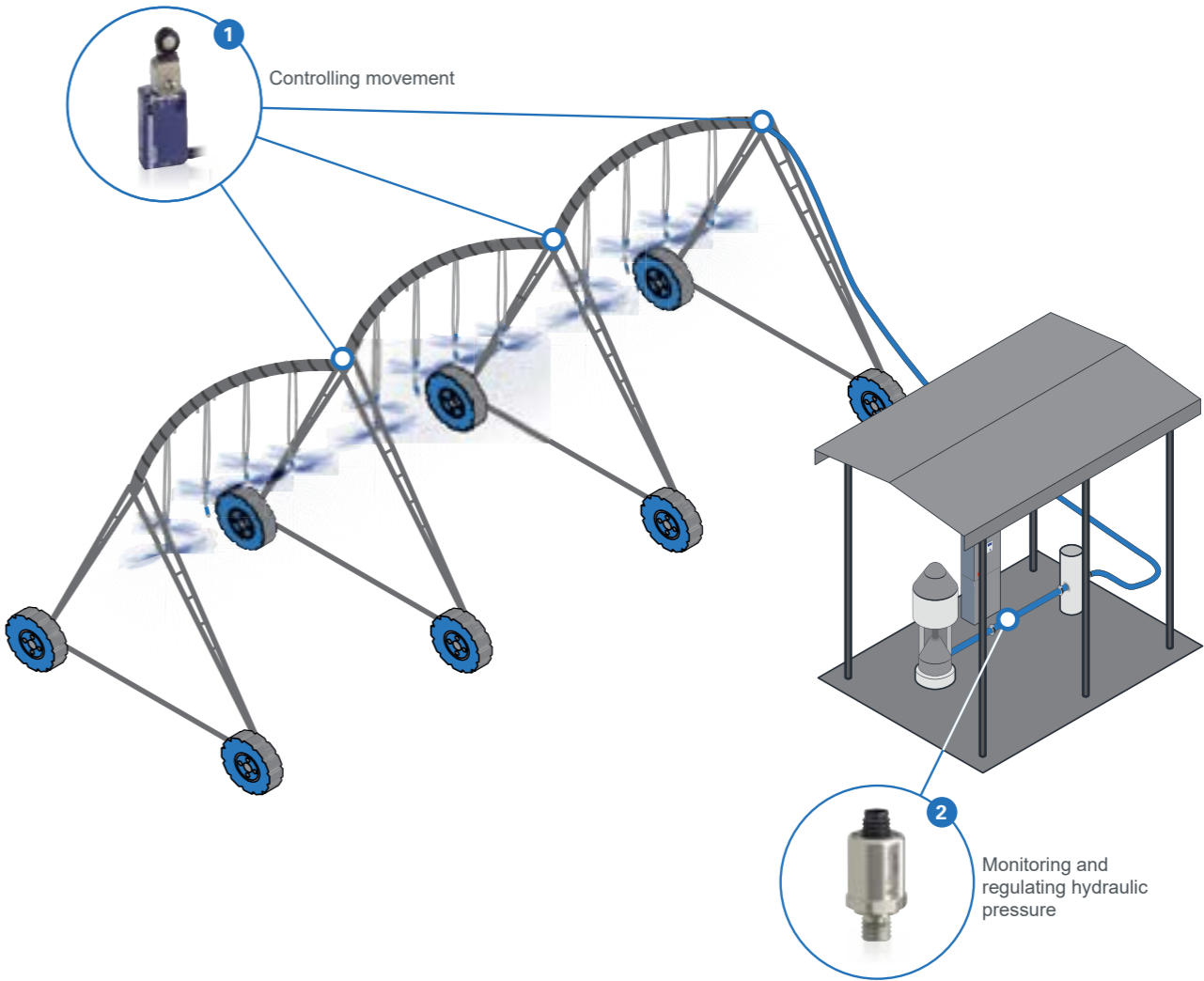
> Lifting and boosting station



- 1 XMLA or XMX Pressure Sensor XMX for simple regulation between two thresholds; XMLA designed for harsh environments.
- 2 XMLR Pressure Switch Easy, two-button configuration.
- 3 XMP Pressure Sensor Direct power switching up to 3 kw.



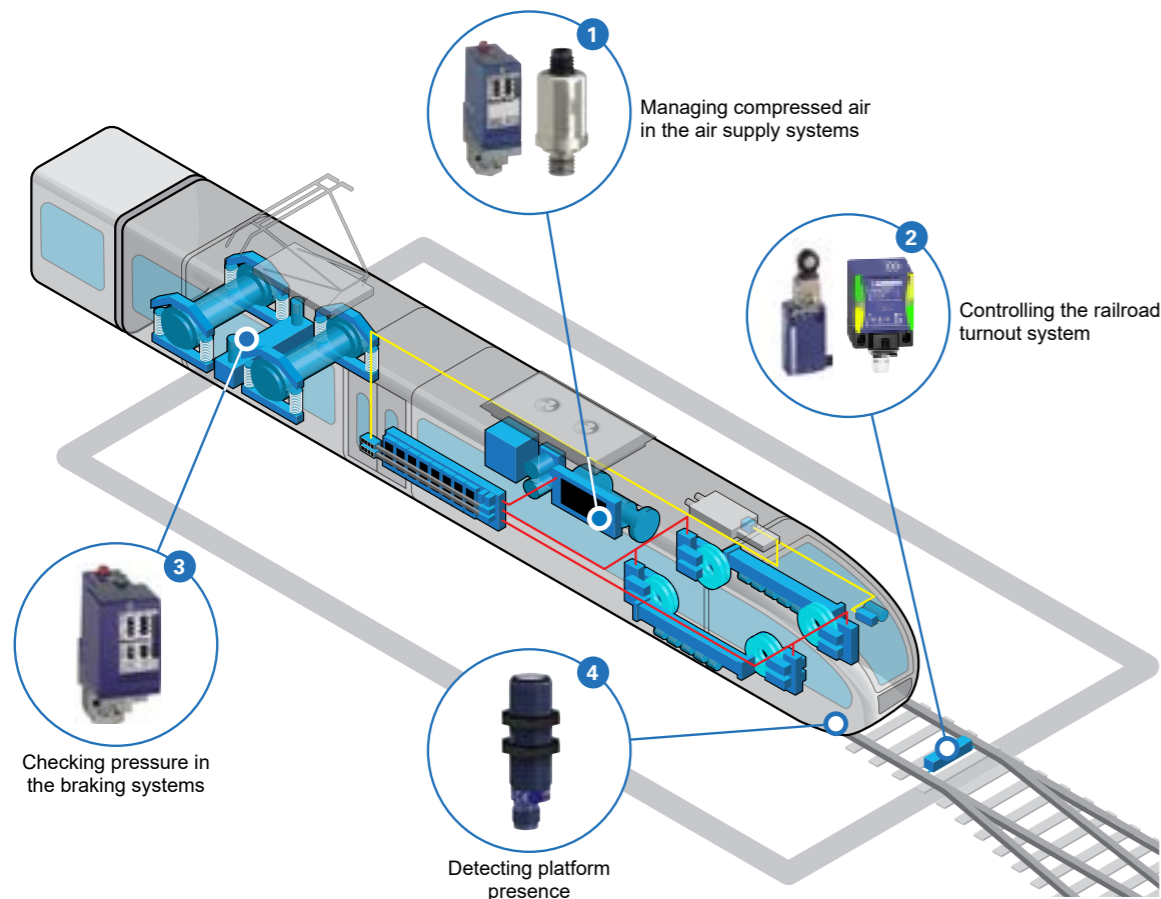
> Irrigation



- 1 XCMD Limit Switch The most compact Limit Switch body on the market with integrated connectors.
- 2 XMLP Pressure Sensor Compact and robust for reliable operation.



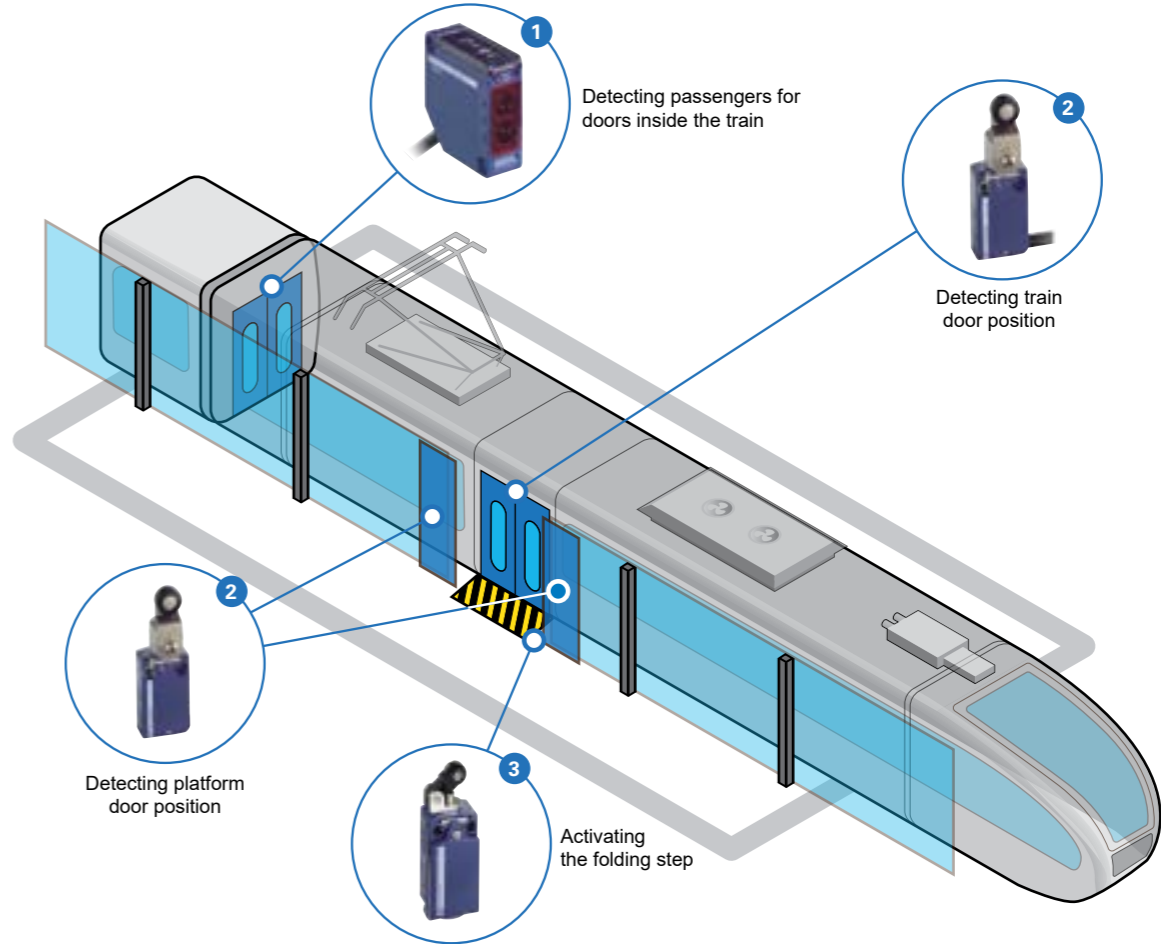
> Air supply and braking system



- | | |
|-------------------------------------|------------------------------------------------------------------------|
| 1 XMLA/B or XMED Pressure Sensor | Electromechanical or electronic pressure sensor |
| 2 XCMD Limit Switch or XS Inductive | Limit switch or inductive proximity sensor |
| 3 XMLA/B or C Pressure Sensor | Electromechanical pressure sensor with pre-adjusted pressure threshold |
| 4 XX Ultrasonic Sensor | Software configurable and resistant to electromagnetic interference |



> Automatic doors



- | | |
|-----------------------------|--------------------------------------------------|
| 1 XUK9 Photoelectric Sensor | Compact photoelectric sensor |
| 2 XCMD or XCMN Limit Switch | Miniature limit switch |
| 3 XCKD Limit Switch | Universal limit switch with roller lever plunger |



XCSPA Safety Interlock Switches

- 3 positive opening contacts as standard (on guard opening)
- A key operated lock enables positive locking of the guard
- Optional version with orange LED to indicate guard open/closed



263-3595	1NC + 2NO	XCSPA502
397-2166	3NC	XCSPA801
252-3858	Flexible actuator	XCSP03

XCSPA Miniature Safety Interlock Switches

- 2 positive opening contacts as standard, on guard opening
- Head rotates in 90° steps giving 8 actuator entry points
- Minimum operating force for positive opening: 15N



252-3864	1NO+NC	XCSPA591
296-4675	2N/C	XCSPA792
252-3870	Straight actuator	XCSP11
252-3886	T actuator	XCSP12

Preventa XCS-DMP Magnetic Safety Switches

- Actuation on 3 sides: face to face and face to side
- 8mm tolerance to misalignment (5mm for XCS-DMC)
- Coded reed technology - switch cannot be totally defeated by a simple magnet



422-5095	2 NC + 1 NO - 1 NC staggered - 2m	XCSMP7002
422-5089	1 NC + 2 NO - 1 NO staggered - 2m	XCSMP5012

XY2-CE Cable Switch

- Emergency stop trip wire switch designed to reduce the risk of injury to persons and damage either to machines or work in progress
- They can be tripped by a single human



742-3829	Right Side, 50m, 2NO/2NC	XY2CE1A296
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XY2-CH Cable Switch

- For machine tools, conveyors & handling applications
- Recommended distance between cable supports: 5m
- They can be tripped by a single human



742-3924	Straight, 15m, 2NC	XY2CH13270H29
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XY2CZ105 Rope Pull Cable

- Cables galvanised with a red sheath to support the Preventa XY2C rope pull switches



609-1945	50m	XY2CZ105
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XCS-DMR Cylindrical safety switch

- 1 approach direction
- 8mm tolerance to misalignment
- Coded reed technology - switch cannot be totally defeated by a simple magnet
- Cylindrical plastic housing



766-1703	5m, 2NO 1NO	XCSDMR7915
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XCS-E Solenoid Interlock Switches

- Key operated lock to allow authorised override of solenoid (key supplied)
- 2 LED indicators (orange/guard open, green/guard closed, key in locked position)
- Heavy duty metal compact style to IP67
- Turret heads can be rotated through 360° in 90 steps



263-3725	2NO + 1NC	XCSE5312
263-3753	2NC+1NO	XCSE7312

Preventa XCS Safety Rotating Hinge Switch

- Ideal for light industrial machines fitted with hinged or rotary protective covers with small opening radius e.g. double gate guards
- 2 outputs
- 5° displaced tripping angle
- 4 position turret head



360-4403	2NC, M16 x 1.5	XCSPR752
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Osiconcept XUK Through Beam photoelectric sensor

- Four modes of detection in one unit
- Easy set-up at the touch of a button



444-3530	30m PNP M12 conn	XUK0AKSAM12
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OsiSense XU Retro-reflective Photoelectric Sensor

- Service alarm output
- Sensing distance 7000 mm
- Response time 25ms



512-4640	7m, Compact 50 x 50	XUK1ARCNL2
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Osiris XUX Long Distance Photoelectric Sensors

- Four modes of detection in one unit
- Easy set-up at the touch of a button
- Self teach precise set-up 'multi-mode detection



444-3619	Diffuse, Retro-Reflective, Through Beam (Receiver)	XUX0ARCTT16
444-3625	Through Beam (Emitter)	XUX0ARCTT16T

XUB Optimum cylindrical diffuse photoelectric sensor

- M18 Optimum cylindrical sensors in metallic casing
- For use in DC circuit applications. Solid-state PNP transistor output (NO or NC)
- Supply Voltage 10 ÷ 24 Vdc



695-6823	M18, 0.6M, PNP NO	XUB5BPANM12
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XUB Osiconcept photo-electric sensor

- Four modes of detection in one unit
- Easy set-up at the touch of a button
- Self teach precise set-up multi-mode detection
- Sensing distance dependent on



444-3445	Retro-Reflective, Through Beam (Receiver)	XUB0BPSNL2
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OsiSense XUM Miniature Photoelectric Detector

- Four modes of detection in one unit
- Easy set-up at the touch of a button
- Self teach precise set-up multi-mode detection
- Sensing distance dependent



444-3489	Multimode, 10m PNP	XUM0APSAL2
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Reflectors For Use With XU Series

- A range of Telemecanique square reflectors for use with the OsiSense XU series of Photoelectric sensors



324-1585	100 x 100mm	XUZC100
281-1767	80mm dia	XUZC80
281-1751	50 x 50mm	XUZC50

OsiSense XX Cylindrical Ultrasonic Sensor

- IP67 rated
- M18 cylindrical body
- 4 to 20 mA analogue output
- Precise object detection of any material



753-0511	M18, 4-20mA - 0.5m	XX918A3C2M12
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Osi Optimum Proximity Sensors

- Flush-mountable inductive proximity sensors, designed for essential and repetitive applications
- 2m cable pre-wired versions (IP68 sealed)



512-4426	1.5mm, M8 x 1, NO	XS508B1DAL2
444-3243	2.5mm M8 x 1, PNP	XS608B1PAL2

OsiSense XS 8mm Inductive proximity sensor

- 2 & 3 wire controlled devices
- LED status display
- Operating temperature range: -25 °C to +70° C
- Reverse polarity and short circuit protection (dc types only)



444-3293	M18 x 1, PNP	XS618B1PAM12
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OsiSense XS 4mm Inductive Sensor

- Twice nominal sensing distance
- Flush mount
- Fast switching frequency
- 2 & 3 wire controlled devices



444-3271	4mm, PNP	XS612B1PAM12
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OsiSense XS 4mm Inductive proximity sensors

- Twice nominal sensing distance
- Flush mount
- Fast switching frequency



695-6766	M12 x 1, NC	XS612B1MBL2
444-3322	M12 x 1, NO	XS612B1MAL2
444-3265	M12 x 1, PNP	XS612B1PAL2

Osiprox Inductive Proximity Sensor

- Flat format
- Flush or non flush mountable versions
- LED status display
- Operating temperature range -25 to +70° C



444-3192	PNP Non-Flush Mount	XS8D1A1PAM12
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OsiSense XS 15mm Inductive Sensor

- 2 & 3 wire controlled devices
- LED status display
- Operating temperature range: -25 °C to +70° C
- Reverse polarity and short circuit protection



444-3316	15mm, PNP	XS630B1PAM12
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OsiSense XS 8mm Inductive proximity sensors

- 2 & 3 wire controlled devices
- LED status display
- Operating temperature range: -25 °C to +70° C
- Reverse polarity and short circuit



609-7369	M18 x 1, NC	XS618B1MBL2
444-3344	M18 x 1, NO	XS618B1MAL2
444-3287	M18 x 1, PNP	XS618B1PAL2

OsiSense XS Cylindrical M30 Inductive proximity sensor

- Adjustment of speed threshold by potentiometer
- 120 to 3000 impulses/minute (High speed types)



283-482	15mm, NC	XS630B1MBL2
608-5748	10mm, NC	XSAV11801
281-1442	10mm, NO	XSAV12801
444-3366	15mm, NO	XS630B1MAL2

5m Female Cable & Connector

- Accessories for use with Telemecanique Osisonic Ultrasonic Sensors



612-2235	M12 4 Pin Straight	XZCP1141L5
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XCKJ Snap Action Lever Limit Switch

- Rated 240V 3A at AC15 10A Ith
- Snap action NC contacts with positive opening operation
- Comes with a pre-tapped ½" NPT cable gland entry



700-4309	NO/NC, 240V	XCKJ10541H29
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XCKP Snap Action Limit Switches

- Visible operation
- Precise operating points
- Double insulation
- 1 NO and 1 NC contact



447-3418	Metal end plunger	XCKP2110P16
447-3395	Roller lever	XCKP2118P16
447-3430	Horizontal plunger	XCKP2121P16

ZCKM Snap Action Limit Switch

- 1 N/O (aux) and 1 N/C (safety) contacts
- Rating: 240 Vac, 3A
- Protected to IP65



360-8562	NO/NC, 240V	ZCKM1H29
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XCKM Roller Plunger Limit switch

- 1 N/O (aux) and 1 N/C (safety) contacts
- Rating: 240 Vac, 3A
- Protected to IP65



235-981	NO/NC, 240V	XCKM102H29
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XCKS Snap Action Limit Switches

- Rated 240V 3A at AC15 10A Ith
- Snap action NC contacts with positive opening operation
- -25 to +70°C operating temperature
- Protected to IP66



243-780	Roller plunger actuator	XCKS102H29
236-029	Roller lever actuator	XCKS131H29

Contact Block

- Contact Blocks for XCKJ/XCKM/XCKS Limit Switch Ranges



360-8685	NO/NC, 240V	XE2SP2151
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XC Plunger Snap Action Limit Switch

- Visible operation
- Precise operating points
- Double insulation
- 1 NO and 1 NC contact



447-3840	NO/NC, 240V	XCMD2102L1
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ZCKJ Snap Action Limit Switch Body

- Limit Switch Body
- Silver plated contacts with snap action
- 2 Poles
- Durable and strong housing



700-4324	2NO/2NC, 240V	ZCKJ2H29
360-8433	NO/NC, 240V	ZCKJ11H29

Limit switch heads



360-8629	Steel roller plunger	ZCKD02
360-8663	Plastic horizontal roller plunger	ZCKD21
360-8506	Steel roller plunger reinforced	ZCKE67
360-8641	Plastic roller lever	ZCKD15



CONTACT US TO LEARN MORE:

RS Components Pty Ltd (Part of RS Group)
25 Pavesi Street,
Smithfield NSW 2164
Australia

T 1300 656 636

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