

# Sensor Solutions for Mobile Lift Applications



**Telemecanique**

**Sensors**

Simply easy!

# > Telemecanique Sensors

Simply easy!

Simplicity



Expertise



Proximity



Telemecanique Sensors is a world-class global brand offering a comprehensive line of products with 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 that are compatible with many PLC manufacturers.

Telemecanique Sensors has all the right agency approvals, such as UL, IEC, NEMA, CE, CCC, UL, CSA, and EAC.

Telemecanique Sensors is focused on three 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!"

## > Innovation focus



The new, software-configurable XXW54 Wide Beam Ultrasonic Sensor is a highly effective way to avoid mobile equipment collisions, both on the ground and when boom or scissor lift platforms rise into the air. The newly designed PCB of the sensor expands the width of the detection beam so it can cover a greater area.

### Detection over a large coverage area



- Emits a beam with a 50° angle up to 1.5 meters.
- When conditions require multiple sensors installed in close proximity to each other, the 'synchronization' feature of the new XX Ultrasonic sensors allows reliable detection of objects from each sensor with minimal risk of cross-talk.

### Detection of obstacles in harsh environments



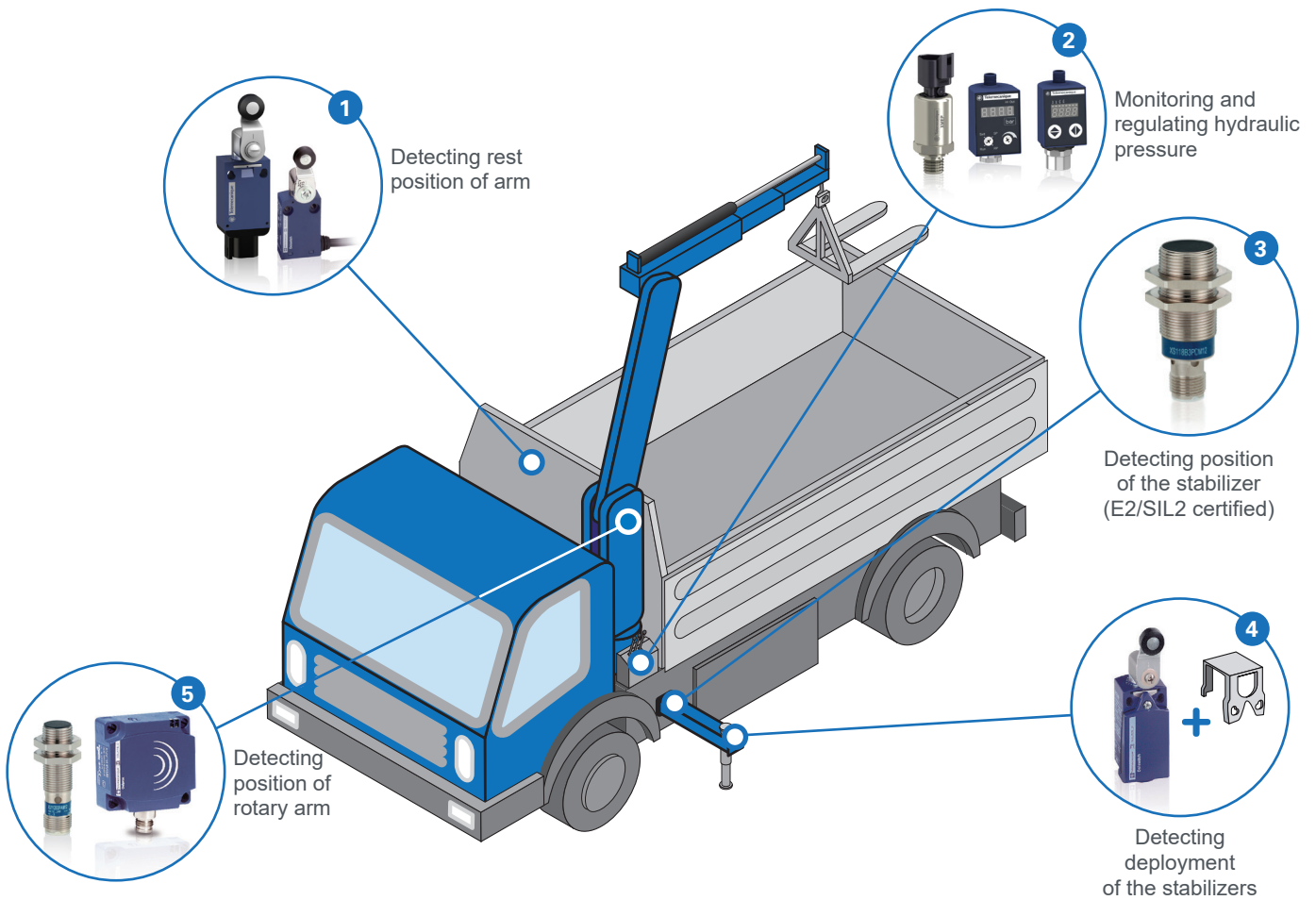
- Anti-UV plastic housing allows operation in temperatures ranging from -40° C to +70° C.

### Highly immune to electromagnetic interference



- The new XX Ultrasonic Sensors are E2-certified for mobile equipment. This entails a higher immunity to electromagnetic interference even in the most demanding environments.

# > Truck loading cranes



1 XCMV or XCMD Limit Switch

Compact body and modular head allows easy mechanical adaptation.

2 XMEP / XMLR / ZMLP Pressure Sensors / Monitor

Compact and robust for reliable operation.

3 XS SIL2 Inductive Sensor

Compact, robust, and increases level of safety.

4 XCKD Limit Switch & XCKZ05 Accessory

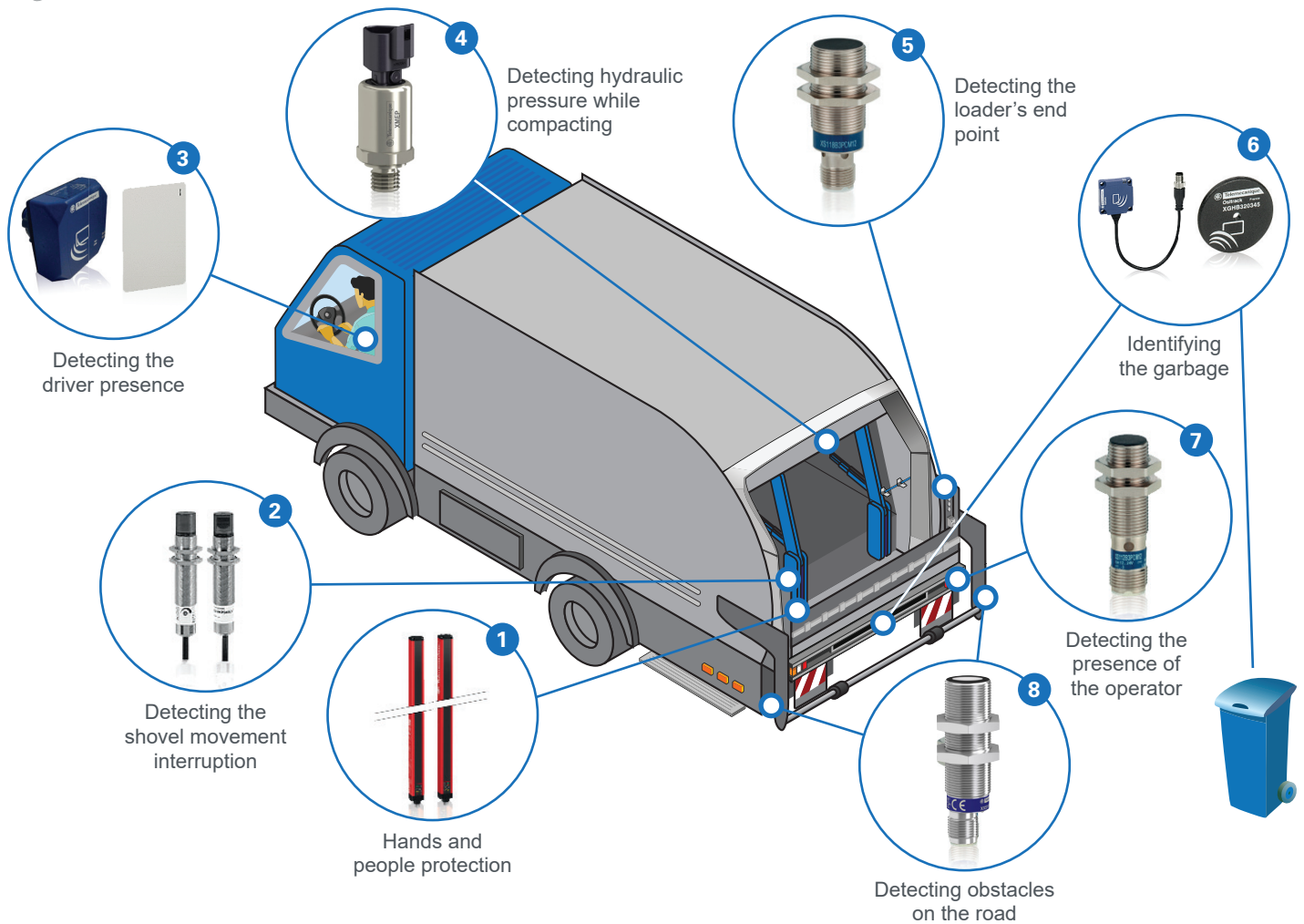
Robust for increased resistance to the operating environment.

5 XS Inductive Sensor

Easy installation and adjustment.



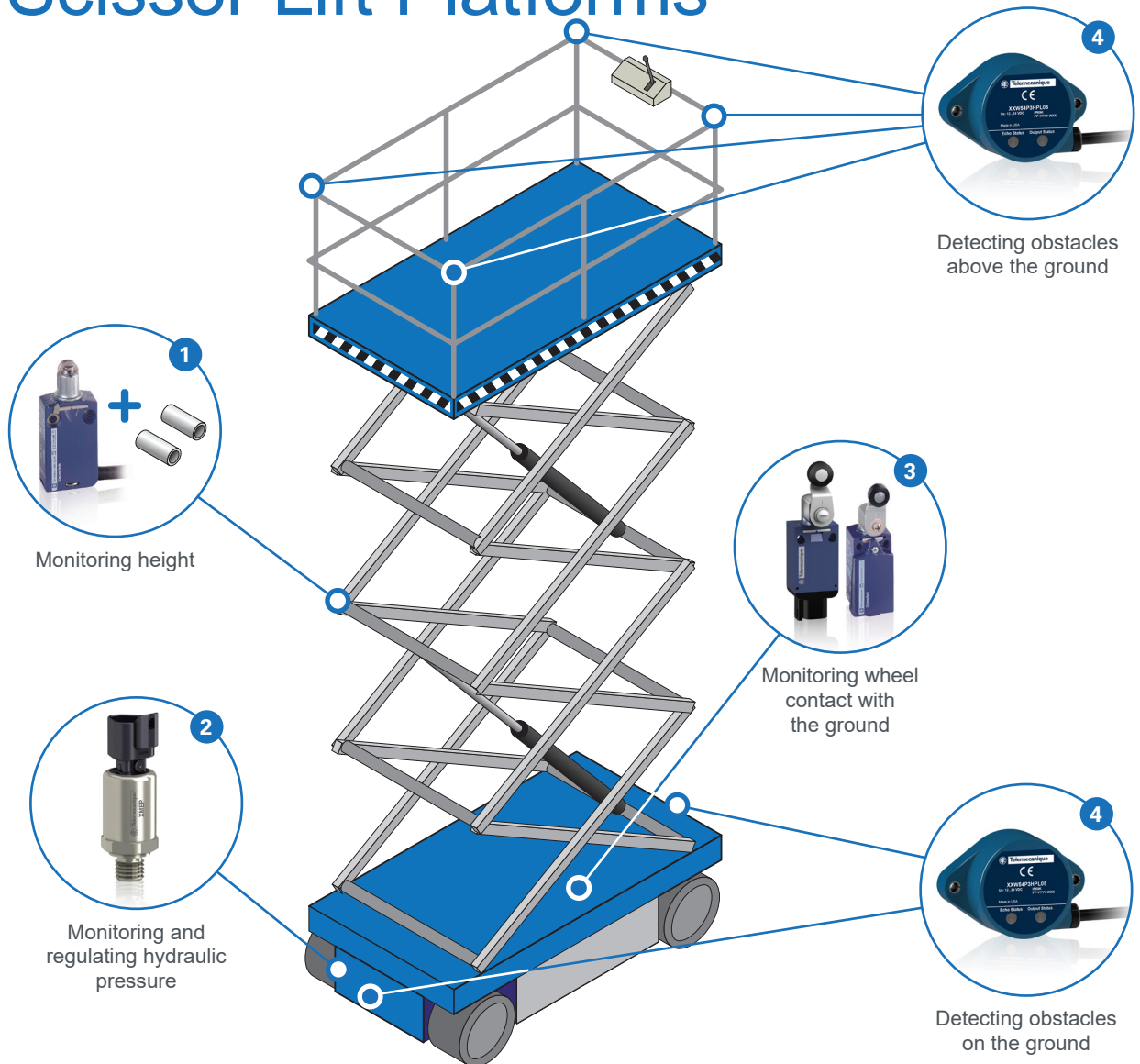
# > Garbage Trucks



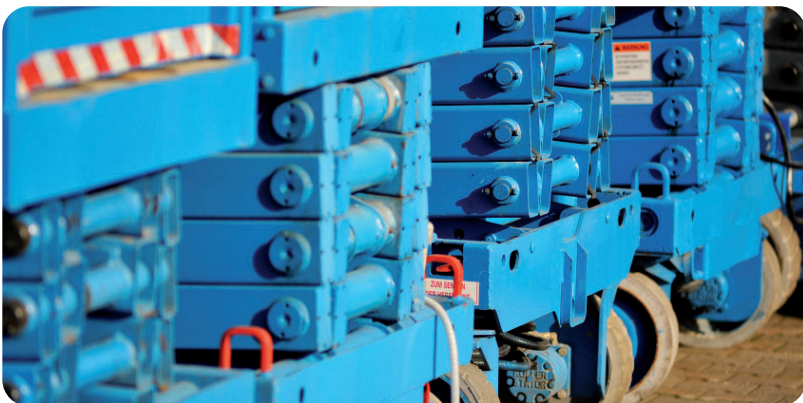
- |                             |                                                                                  |
|-----------------------------|----------------------------------------------------------------------------------|
| 1 XUSL Light Curtains       | Compact and robust for reliable operation.                                       |
| 2 XU2S Photoelectric Sensor | High levels of reliability and quality as well as long life duration.            |
| 3 6 XG RFID Systems         | Open for a free choice of electronic tags and networks.                          |
| 4 XMEP Pressure Transmitter | Easy installation and adjustment.                                                |
| 5 7 XS Inductive Sensors    | Simple set-up and maintenance.                                                   |
| 8 XX Ultrasonic Sensors     | E2-certified for Mobile Equipment with better immunity against EMC interference. |



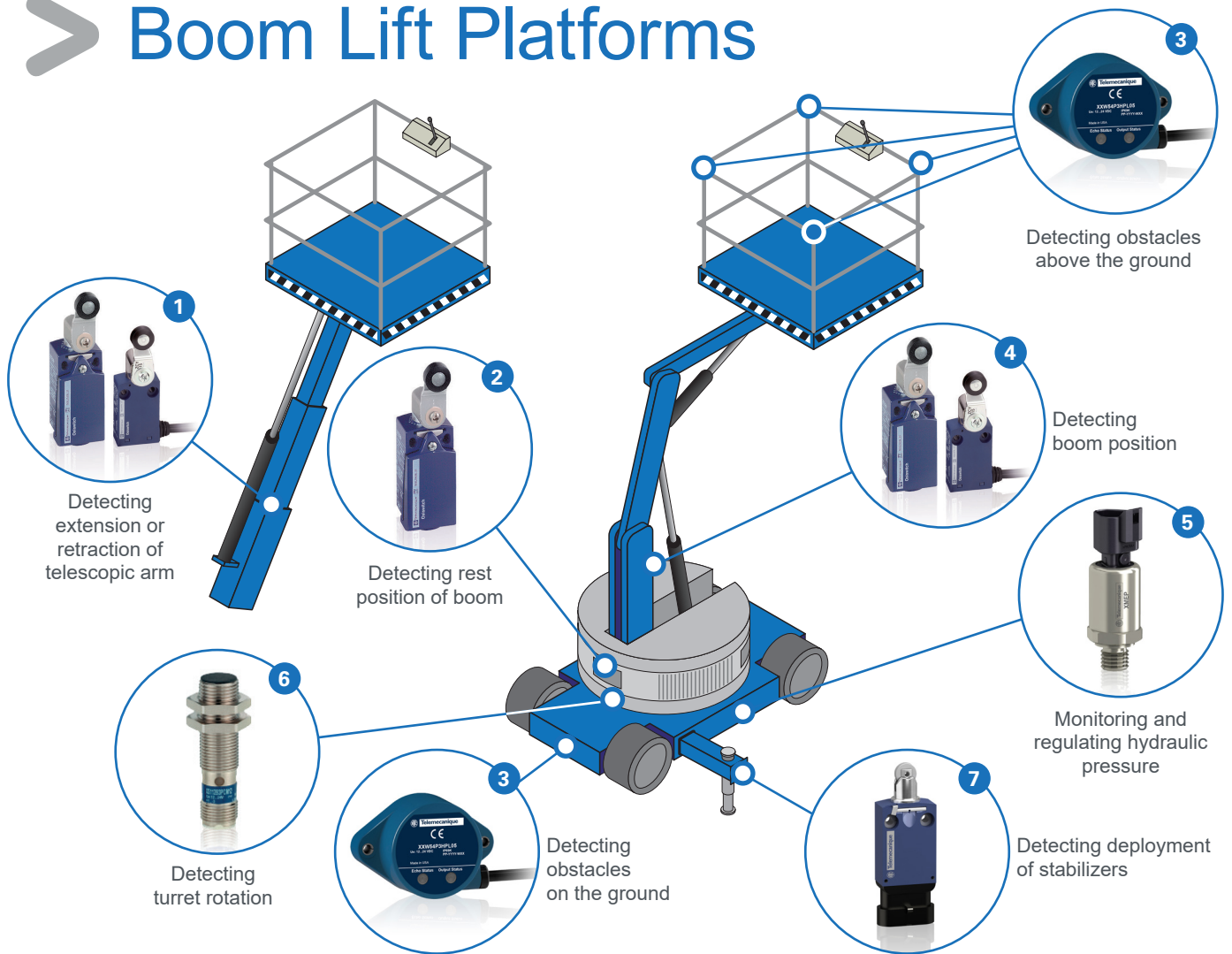
# > Scissor Lift Platforms



- 1 XCMD Limit Switch & XCMZ06 Accessory    Compact and multitrack mounting for detecting the various heights.
- 2 XMEP Pressure Sensor    Compact and robust for reliable operation.
- 3 XCMV or XCKP Limit Switch    Compact, providing easy mechanical adaptation.
- 4 XXW54 Wide Beam Ultrasonic Sensors    E-certified with better immunity against EMC interference and a larger beam width.



# > Boom Lift Platforms

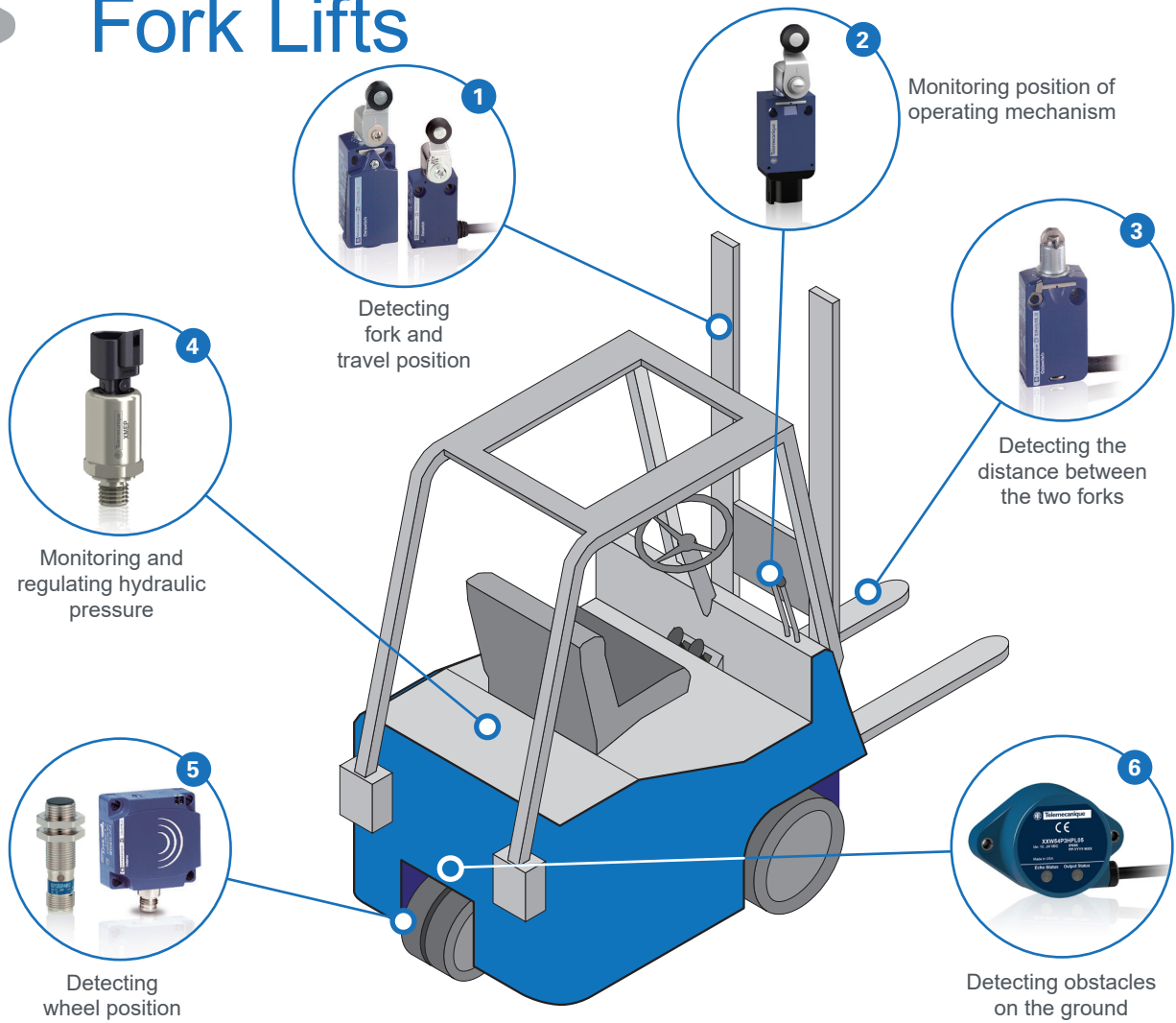


- |   |   |                                    |                                                                                    |
|---|---|------------------------------------|------------------------------------------------------------------------------------|
| 1 | 4 | XCKP or XCMD Limit Switch          | Compact body and modular head allows easy mechanical adaptation.                   |
| 2 |   | XCKP Limit Switch                  | Compact, providing easy mechanical adaptation.                                     |
| 3 |   | XXW54 Wide Beam Ultrasonic Sensors | E-certified with better immunity against EMC interference and a larger beam width. |
| 5 |   | XMEP Pressure Transmitter          | Compact and robust for reliable operation.                                         |
| 6 |   | XS Inductive Sensors               | Easy installation and adjustment.                                                  |
| 7 |   | XCMD Limit Switch                  | The most compact Limit Switch body on the market with integrated connectors.       |





# Fork Lifts



- |   |                                    |                                                                                    |
|---|------------------------------------|------------------------------------------------------------------------------------|
| 1 | XCKP or XCMD Limit Switch          | Compact body and modular head allows easy mechanical adaptation.                   |
| 2 | XCMV Limit Switch                  | The most compact Limit Switch body on the market with integrated connectors.       |
| 3 | XCMD Limit Switch                  | Compact body and a wide variety of heads for easier integration.                   |
| 4 | XMEP Pressure Sensor               | Compact and robust for reliable operation.                                         |
| 5 | XS Inductive Sensor                | Easy installation and adjustment.                                                  |
| 6 | XXW54 Wide Beam Ultrasonic Sensors | E-certified with better immunity against EMC interference and a larger beam width. |



# > Choose product best-suited for your application

## Limit switches

Product	Contact	Connection	Connection			Product	NO+NC snap		NO+NC slow	
			Ø 12 mm	Ø 18 mm	15 x 32 x 8 mm		Product	AMP 4P Connector	Product	AMP 4P Connector
XCKD Metal	NO+NC Snap	1/2 NPT	XCKD2110N12	XCKD2102N12	XCKD2118N12	XCMD	Plunger	XCMD2110AM4	XCMD2510AM4	
			M16	XCKD2110P16	XCKD2102P16		XCKD2118P16	Roller plunger	XCMD2102AM4	XCMD2502AM4
			Pg11	XCKD2110G11	XCKD2102G11		XCKD2118G11	Plastic roller lever	XCMD2115AM4	XCMD2515AM4
XCKP Plastic	NO+NC Snap	1/2 NPT	XCKP2110N12	XCKP2102N12	XCKP2118N12	XCMV	Plunger	XCMV2110D44	XCMV2510D44	
			M16	XCKP2110P16	XCKP2102P16		XCKP2118P16	Roller plunger	XCMV2102D44	XCMV2502D44
			Deutsch	XCKP2110D44	XCKP2102D44		XCKP2118D44	Plastic roller lever	XCMV2115D44	XCMV2515D44
XCKT Plastic	NO+NC Snap	1/2 NPT	XCKT2110N12	XCKT2102N12	XCKT2118N12	XCMV	Plunger	XCMV2110M12	XCMV2510M12	
			M16	XCKT2110P16	XCKT2102P16		XCKT2118P16	Roller plunger	XCMV2102M12	XCMV2502M12
			Pg11	XCKT2110G11	XCKT2102G11		XCKT2118G11	Plastic roller lever	XCMV2115M12	XCMV2515M12
XCMD Metal	NO+NC Snap NO+NC Slow	1 m	XCMD2110L1	XCMD2102L1	XCMD2115L1	XCMD	Plunger	XCMD2110M12	XCMD2510M12	
		1 m	XCMD2510L1	XCMD2502L1	XCMD2515L1		Roller plunger	XCMD2102M12	XCMD2502M12	

## Inductive sensors

Sensing distance	Sensing distance					Sensing distance		
	Ø 12 mm	Ø 18 mm	15 x 32 x 8 mm	26 x 26 x 13 mm	40 x 40 x 15 mm	Ø 12 mm	Ø 18 mm	
XS	4 mm	8 mm	5 mm	10 mm	15 mm	4 mm	8 mm	
DC 3 wires NO	PNP cable	XS112B3PAL2	XS118B3PAL2	XS7F1A1PAL2	XS7E1A1PAL2	XS7C1A1PAL2	XS112B3PCL2	XS118B3PCL2
	PNP connector	XS112B3PAM12	XS118B3PAM12	XS7F1A1PAL01M8	XS7E1A1PAM8	XS7C1A1PAM8	XS112B3PCM12	XS118B3PCM12
NPN	NPN cable	XS112B3NAL2	XS118B3NAL2	XS7F1A1NAL2	XS7E1A1NAL2	XS7C1A1NAL2		
	NPN connector	XS112B3NAM12	XS118B3NAM12	XS7F1A1NAL01M8	XS7E1A1NAM8	XS7C1A1NAM8		



## Pressure transmitters

Product	Connector	Analogue output	Pressure range					Product	Outputs
			0...60 bar	0...100 bar	0...250 bar	0...400 bar	0...600 bar		
XMPEP	M12	0,5-4, 5V	XMPEP060BD11F	XMPEP100BD11F	XMPEP250BD11F	XMPEP400BD11F	XMPEP600BD11F	Display for XMPEP	
		4-20mA	XMPEP060BD21F	XMPEP100BD21F	XMPEP250BD21F	XMPEP400BD21F	XMPEP600BD21F		
		0-10V	XMPEP060BD71F	XMPEP100BD71F	XMPEP250BD71F	XMPEP400BD71F	XMPEP600BD71F		
Deutsch DT04-3P	AMP Superseal 1,5 3-pin	0,5-4, 5V	XMPEP060BT11F	XMPEP100BT11F	XMPEP250BT11F	XMPEP400BT11F	XMPEP600BT11F	PNP 2 switching outputs ZMLPA2P0SH	
		4-20mA	XMPEP060BT21F	XMPEP100BT21F	XMPEP250BT21F	XMPEP400BT21F	XMPEP600BT21F		
		0-10V	XMPEP060BT71F	XMPEP100BT71F	XMPEP250BT71F	XMPEP400BT71F	XMPEP600BT71F		
XMLR	2 switching outputs Analogue 4...20mA + 1 switching output	0,5-4, 5V	XMLR100M2P05	XMLR160M2P05	XMLR250M2P05	XMLR400M2P05	XMLR600M2P05	PNP Analogue 4...20mA + 1 switching output ZMLPA2P0SH	
		4-20mA	XMLR100M1P05	XMLR160M1P05	XMLR250M1P05	XMLR400M1P05	XMLR600M1P05		
		0-10V	XMLR100M1P05	XMLR160M1P05	XMLR250M1P05	XMLR400M1P05	XMLR600M1P05		

## Ultrasonic Sensors

Sensing Distance	Analogue Output	Digital output	Connection		Reference Number
			0.15 cable + 6-pin Deutsch male connector	0.5M cable	
3m	0,5 - 4,5 V	PNP	0.15 cable + 6-pin Deutsch male connector	0.5M cable	XXW54P3HPLO1DM6 XXW54P3HPL05
1m Adjustable	n/a 4-20mA	PNP n/a	5-pin M12 male connector		XXS18S1PM12 XXS18S1AM12

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