Sensor Solutions
for Hoisting
Applications

Telemecanique
Sensors

Simply easy!

> Telemecanique Sensors

Simply easy!

Simplicity

+

Proximity

+

Expertise

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 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

XUK9T photoelectric sensors offer dedicated functions for overhead cranes: **anti-collision and tandem.**

Robust detection

- Up to 70m (230 ft.) range using time-of-flight method
- Simple alignment with a reflector is achieved using a bright red laser spot

Improved operator safety

- When several cranes use the same rail, the risk of collisions or dropped load is avoided by the anti-collision function
- Monitoring the synchronization of two cranes to translate heavy or large loads is made possible with the tandem function

Easy installation and teach-in

- Compact size: 50mm x 50mm x 23mm (2" x 2" x 1")
- Teach-in button available on the device or via an external wire

> Overhead and gantry crane

Detecting an over up
of the vertical movement

5

1 Controlling stop and
slow down of the
horizontal movement

2 Detecting another
crane; anticollision
function

4 Detecting an
over travel of
translation movement

3 Detecting an
over travel of
trolley movement
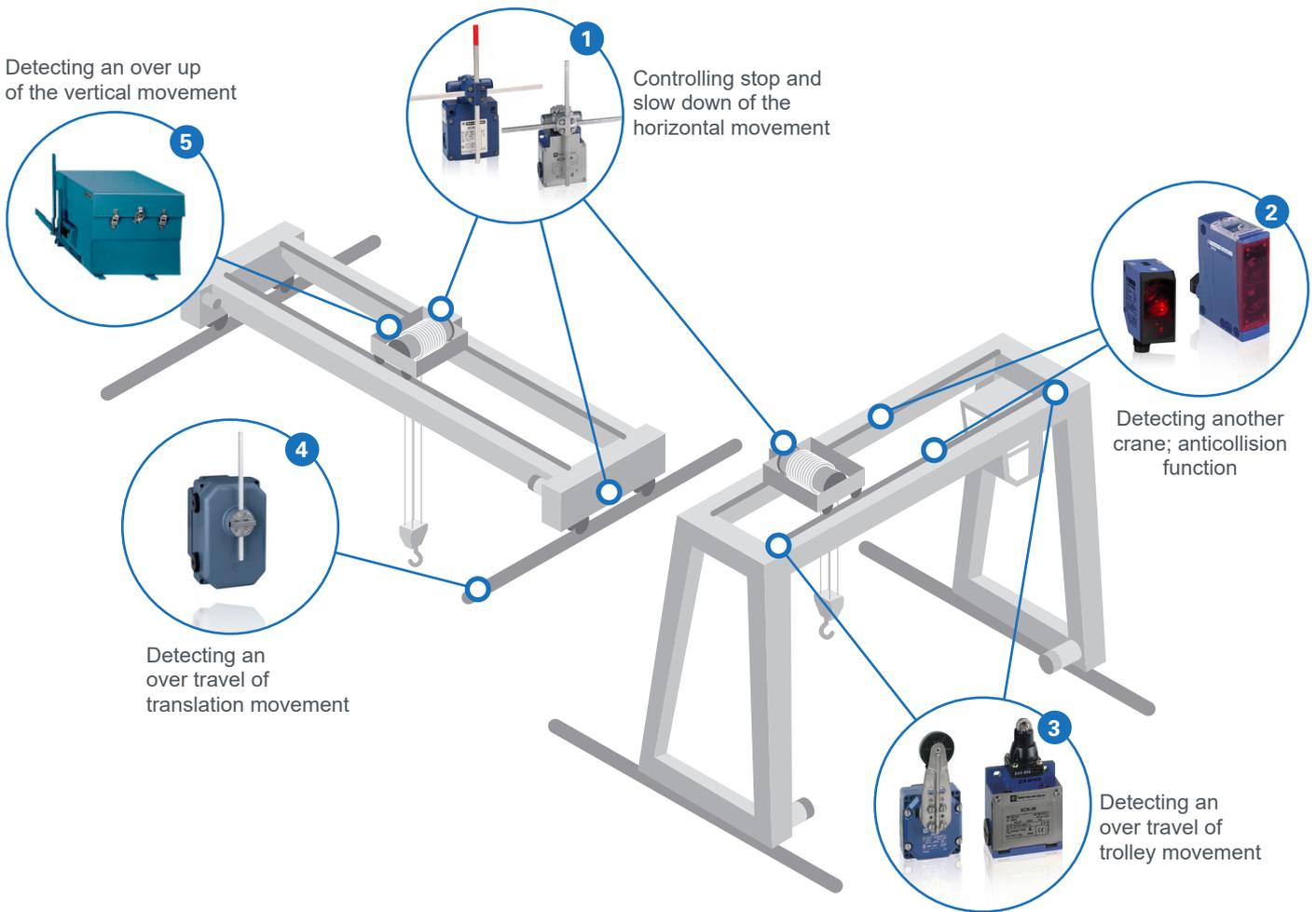
1	XCKVR / XCKMR Limit Switches	2 ways / 2 speeds by one single sensor, compactness and robustness with positivity.
2	XUX / XUK9T Photoelectric Sensors	Long distance detection.
3	XCKM / XCR Limit Switches	Robustness with positivity.
4 5	XF Limit Switch	The ultimate hoisting protection.

> Mobile crane

Monitoring
and regulating
hydraulic pressure

2

Detecting deployment
of the stabilizers

3

Detecting position
of the stabilizers
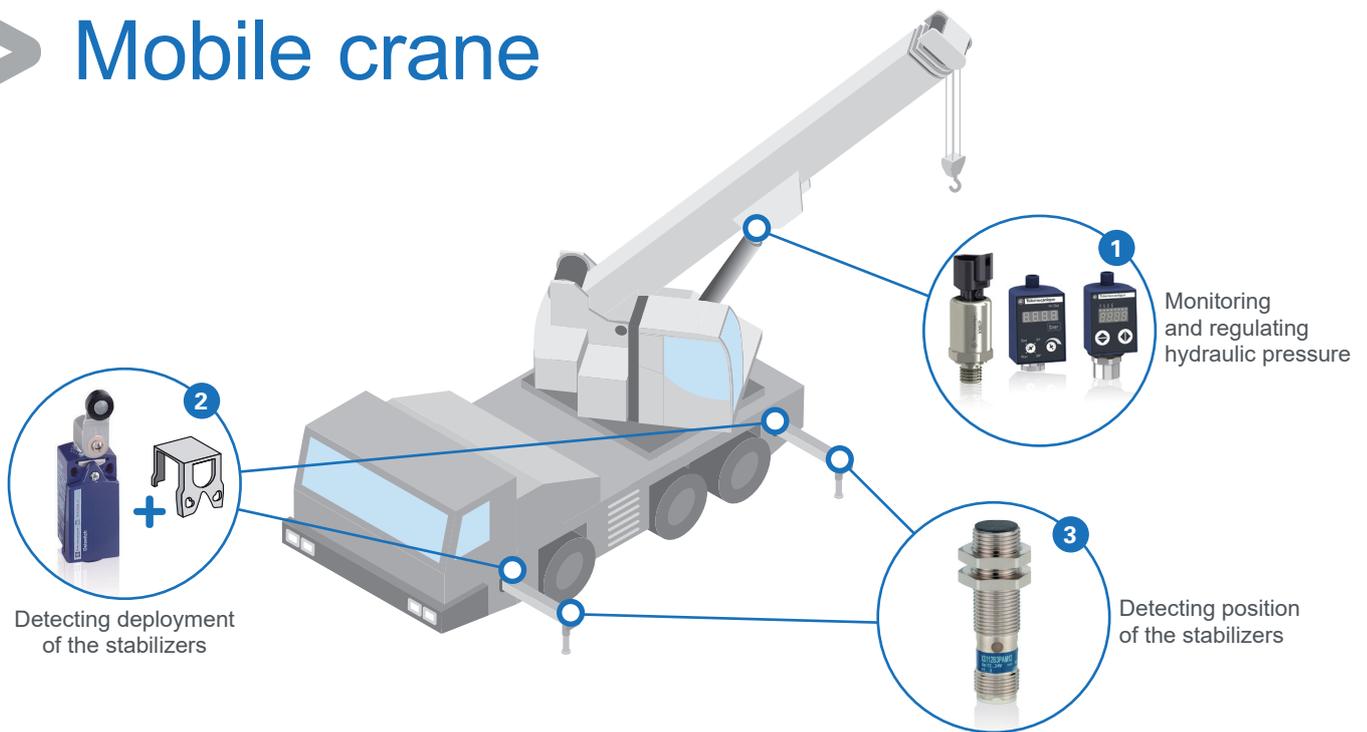
1	XMEP / XMLR/ ZMLP Pressure Sensors / Monitor	Compact and robust for reliable regulation.
2	XCKD Limit Switch + XCKZ05 Accessory	Robust for increased resistance to impact.
3	XS Inductive Sensor	Ease of installation and adjustable distance detection.

> Block hoist

2

Controlling
stop of the
horizontal
movement

1

Controlling stop, up, and down of
the vertical movement. Miniature
switches incorporated in the
hoist winch.
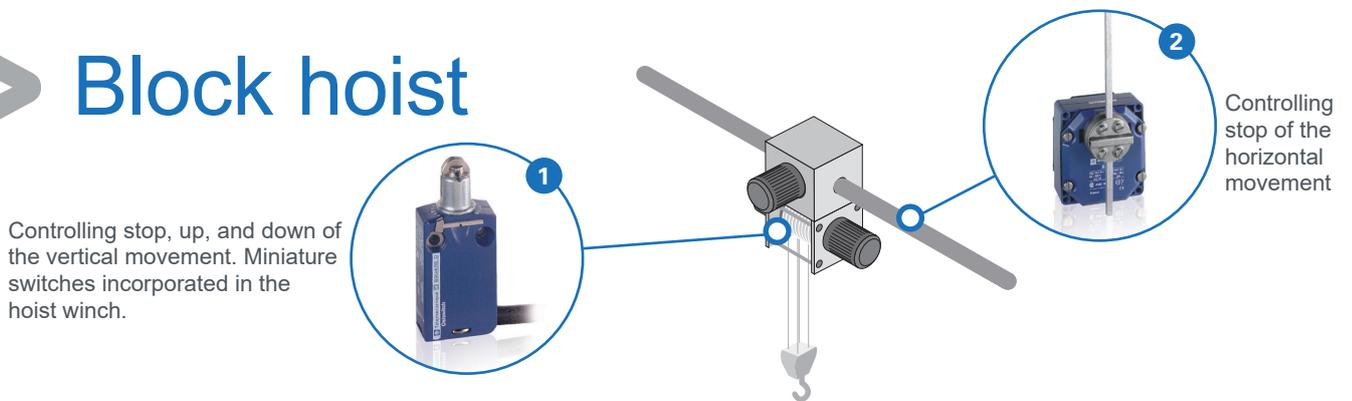
1	XCMD Limit Switch	Compact with modular head for easy mechanical integration.
2	XCR Limit Switch	2 ways / 1 speed, compact and robust with positivity.

> Tower crane

1 Detecting specific position for overload or overtorque control

2 Detecting an overtravel of trolley movement

3 Controlling stop and slow down of the horizontal movement
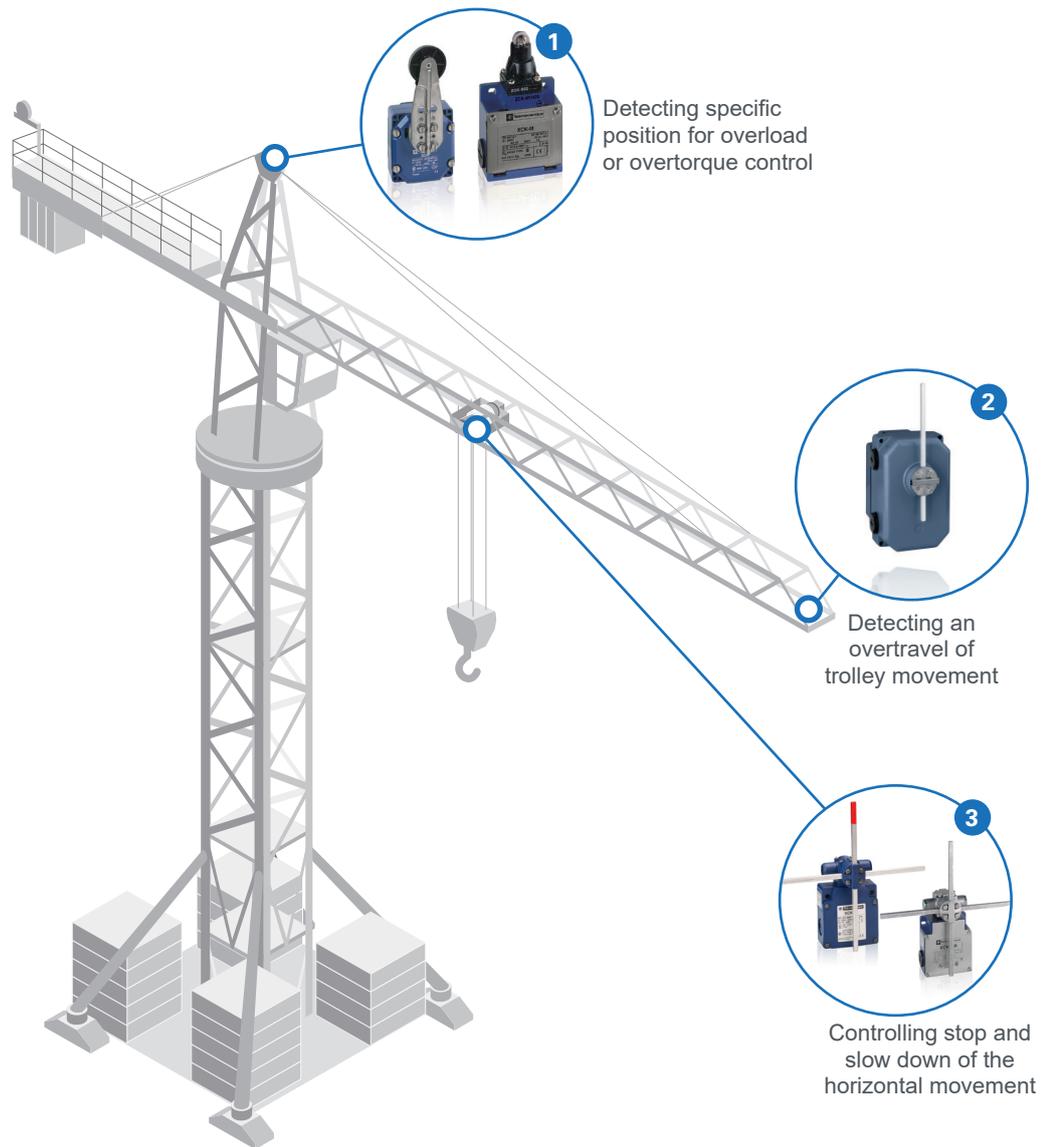
1	XCKM / XCR Limit Switches	Robust with positivity.
2	XF Limit Switch	The ultimate trolley protection.
3	XCKVR / XCKMR Limit Switches	2 ways / 2 speeds by one single sensor, compact and robust with positivity

5

> Harbour crane

Detecting an over travel of trolley movement; detecting anchoring of the long travel; monitoring the boom sequence

3

Controlling stop and slowdown of the horizontal movement

2

Detecting any trolley position with resynchronization position

1
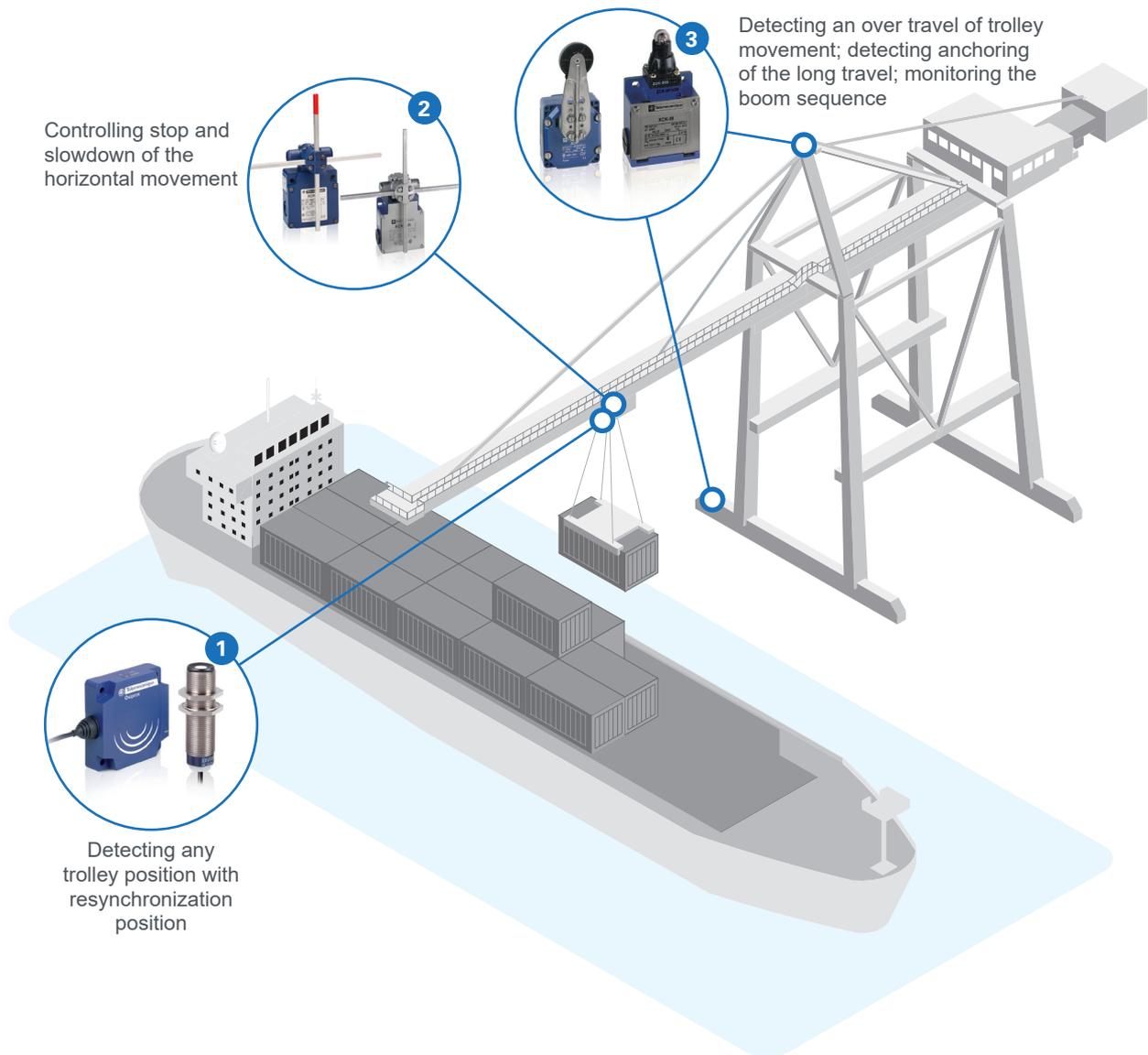
|		
1	XS Inductive Sensor	Easy installation and adjustment.
2	XCKVR / XCKMR Limit Switches	2 ways / 2 speeds by one single sensor, compact and robust with positivity.
3	XCKM / XCR Limit Switches	Robust with positivity.

Choose the best-suited product for your application

Limit switches

	Contact	Connection			
XCKD Metal	NO+NC Snap	M16	XCKD2110P16	XCKD2102P16	XCKD2118P16
		Pg11	XCKD2110G11	XCKD2102G11	XCKD2118G11

	Contact	Connection			
XCMD Metal	NO+NC Snap	cable	XCMD2110L1	XCMD2102L1	XCMD2115L1
	NO+NC Slow		XCMD2510L1	XCMD2502L1	XCMD2515L1

	Contact	Connection				
XCKM	NO+NC Snap	M20	XCKM110H29	XCKM102H29	XCKM115H29	XCKM121H29
		Pg13	XCKM110	XCKM102	XCKM115	XCKM121

	Contact	Connection	
XF9D	4 poles, 25A	Pg21	XF9D251
	4 poles, 65A	Pg29	XF9D651

	Contact	Connection	
XF9F	3 poles, 115A	Pg36	XF9F1151*
	3 poles, 185A		XF9F1851*
	3 poles, 265A		XF9F2651*

* reset knob : replace the last 1 by 2 in the reference

	Contact	Connection	
XCKVR Plastic	"By Pass"	M20x1.5	XCKVR24SR1H29
	"Single Speed"		XCKVR44D1H29
	"Double Speed"		XCKVR54SR1H29

	Contact	Connection	
XCKMR Metal	"By Pass"	M20x1.5	XCKMR24SR1H29
	"Single Speed"		XCKMR44D1H29
	"Double Speed"		XCKMR54D1H29
	"Double Speed"	Pg13.5	XCKMR54D1

	Contact	Connection		
XCRA	NO+NC Snap	Pg13.5	XCRA11	XCRA15

Photoelectric sensors

XU						
Sensing distance			11 m	70 m	Recommanded Reflector	Recommanded Cable
AC/DC	Relay	Terminals	XUX9ARCTN16		XUZC100	XZCP29P12L10
24 V	PNP	M12 - 5 pins	XUX9APANM12		XUZC250	
		M12 - 8 pins		XUK9TAH2MM12	XUZC250	XZCP29P12L10

Inductive sensors

XS	Sensing distance		Ø 12 mm	Ø 18 mm	15x32x8 mm	26x26x13 mm	40x40x15 mm
			4 mm	8 mm	5 mm	10 mm	15 mm
DC 3 wires NO	PNP	cable	XS112B3PAL2	XS118B3PAL2	XS7F1A1PAL2	XS7E1A1PAL2	XS7C1A1PAL2
		connector	XS112B3PAM12	XS118B3PAM12	XS7F1A1PAL01M8	XS7E1A1PAM8	XS7C1A1PAM8
	NPN	cable	XS112B3NAL2	XS118B3NAL2	XS7F1A1NAL2	XS7E1A1NAL2	XS7C1A1NAL2
		connector	XS112B3NAM12	XS118B3NAM12	XS7F1A1NAL01M8	XS7E1A1NAM8	XS7C1A1NAM8
DC 4 wires NO+NC	PNP	connector	XS112B3PCM12	XS118B3PCM12			

Pressure sensors

XMEP	Connector	Analogue output	0...60 bar	0...100 bar	0...250 bar	0...400 bar	0...600 bar
	M12	0,5-4, 5V	XMEP060BD11F	XMEP100BD11F	XMEP250BD11F	XMEP400BD11F	XMEP600BD11F
		4-20mA	XMEP060BD21F	XMEP100BD21F	XMEP250BD21F	XMEP400BD21F	XMEP600BD21F
		0-10V	XMEP060BD71F	XMEP100BD71F	XMEP250BD71F	XMEP400BD71F	XMEP600BD71F
	Deutsch DT04-3P	0,5-4, 5V	XMEP060BT11F	XMEP100BT11F	XMEP250BT11F	XMEP400BT11F	XMEP600BT11F
		4-20mA	XMEP060BT21F	XMEP100BT21F	XMEP250BT21F	XMEP400BT21F	XMEP600BT21F
		0-10V	XMEP060BT71F	XMEP100BT71F	XMEP250BT71F	XMEP400BT71F	XMEP600BT71F
	AMP Superseal 1,5 3-pin	0,5-4, 5V	XMEP060BV11F	XMEP100BV11F	XMEP250BV11F	XMEP400BV11F	XMEP600BV11F
		4-20mA	XMEP060BV21F	XMEP100BV21F	XMEP250BV21F	XMEP400BV21F	XMEP600BV21F
		0-10V	XMEP060BV71F	XMEP100BV71F	XMEP250BV71F	XMEP400BV71F	XMEP600BV71F

XMLR	Outputs	0...100 bar	0...160 bar	0...250 bar	0...400 bar	0...600 bar
	2 switching outputs	XMLR100M2P05	XMLR160M2P05	XMLR250M2P05	XMLR400M2P05	XMLR600M2P05
	Analogue 4...20mA + 1 switching output	XMLR100M1P05	XMLR160M1P05	XMLR250M1P05	XMLR400M1P05	XMLR600M1P05

Display for XMEP

PNP
2 switching outputs

ZMLPA2P0SH

PNP
Analogue 4...20mA
+ 1 swithing output

ZMLPA2P0SH

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

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