

## Compact, reliable detection and distance measurement at all times

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### Detection and ranging solutions

Laser measurement technology devices can be used for a wide range of applications. These devices detect both 2D and multi-dimensional contour data and can process information either externally or in the sensor itself. They are ideal for in-

door and outdoor applications, including anti-collision in harbors, classification in traffic, detection in building automation, or position evaluation in navigation.



## Detection and ranging solutions

Selection guide detection and ranging solutions . . . . . 206



**TiM3xx . . . . . 208**  
Perfect in detail, brilliant overall



**LMS1xx . . . . . 209**  
Works in all weather conditions – compact and economical



**LMS4xx . . . . . 211**  
Fast and exact level and shape measurement



**LMS5xx . . . . . 212**  
More than meets the eye. Powerful unit for big solutions.



**LMC1xx . . . . . 214**  
Laser Measurement Certified (LMC) - intelligent and flexible security

Selection guide detection and ranging

Product family	Working ranges (with 10% reflectivity)																	
	0.05	0.1	0.5	1	2	3	4	5	10	20	30	40	50	60	70	80		
TiM3xx		0.05 m - 4 m (2 m)																
LMS1xx				0.5 m - 50 m (18 m)														
LMS4xx				0.7 m - 3 m (3 m)														
LMS5xx	0 m - 80 m (26 m/40 m)																	
LMC1xx				0.5 m - 20 m (18 m)														

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	Principle of operation			Applications										Page
	Detection	Measurement	Multi-echo technology	Level measurement	Checking height	Area monitoring	Checking presence	Collision prevention	Position detection	Electronic routing	Range finding	Shape recognition	Classification	
	■				■	■	■	■						208
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### At a glance

- Configure without a PC using “touch and teach”
- Small, lightweight and economical measurement sensor
- Field evaluation using intelligent algorithms
- Set parameter interface is accessible while device is mounted
- One of the smallest laser scanners on the market
- Proven industrial design
- Low power consumption (typ. 3 W)

### Your benefits

- Low cost of ownership
- Easily hidden from view due to small dimensions
- Low installation costs and exchange time due to D-Sub connector
- Long operation for battery-driven vehicles
- Intuitive and preconfigured fields ensure short installation time
- Reduced hardware costs since one sensor can be used for large anti-collision fields
- No wiring necessary between sender and receiver

→ [www.mysick.com/en/TiM3xx](http://www.mysick.com/en/TiM3xx)

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.






### Ordering information

Other models available at [www.mysick.com/en/TiM3xx](http://www.mysick.com/en/TiM3xx)

Sub product family	Version	Field of application	Electrical connection	Switching outputs	Object remission	Housing color	Model name	Part no.
TiM31x	Short Range	Indoor	1 15-pin D-sub HD plug (0.9 m)	3 (plus 1 x “device ready”)	4 % ... > 1,000 %, reflectors	Light blue (RAL 5012)	TiM310-1030000	1052627

### Accessories

	Accessory category	Brief description	Model name	Part no.
 Illustration may differ	Modules	Small connection module for one sensor, 4 cable glands (only for TiM310-1030000)	CDB730-001	1055981
	Plug connectors and cables	Extension cable, 2 m, 15-wired, shielded, with 15-pin D-sub HD (socket/open end) AWG26	Extension cable 2 m (socket-open end)	2043413
		USB cable, 2 m	USB cable	6036106



## At a glance

- Economical measurement sensor
- Real-time output of measurement data via Ethernet interface
- Field evaluation using intelligent algorithms and programmable applications
- Number of switching outputs can be expanded via external CAN modules
- Parameter setting interface is accessible from the front while the device is mounted
- Rugged housing

## Your benefits

- Lightweight housing makes it easy to mount
- No wiring between sender and receiver
- Advanced filtering technology rigorously reduces false trips caused by outdoor environmental factors like fog, rain and snow
- Optional external CAN I/O module increases number of switching outputs for greater application flexibility
- Fast, easy commissioning due to SOPAS software

→ [www.mysick.com/en/LMS1xx](http://www.mysick.com/en/LMS1xx)

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



## Ordering information











Other models available at [www.mysick.com/en/LMS1xx](http://www.mysick.com/en/LMS1xx)

- **Version:** Short Range
- **Object remission:** 2 % ... > 1,000 %, reflectors

Sub product family	Field of application	Heating	Electrical connection	Switching outputs	Housing color	Model name	Part no.
LMS100	Indoor	–	1 system plug with screw terminal block	3	Light blue (RAL 5012)	LMS100-10000	1041113
LMS111	Outdoor	Yes	M12 circular plug-in connector	3	Gray (RAL 7032)	LMS111-10100	1041114
LMS12x	Security, Indoor	–	1 system plug with screw terminal block	3 (2 relay, 1 digital)	Gray (RAL 7032)	LMS121-10000 Security	1051384
					Black (RAL 9005)	LMS122-10000 Security	1044322
					Signal white (RAL 9003)	LMS123-10000 Security	1044321
LMS13x	Security, Semi-Out-door	Yes	1 M12 circular plug-in connector	3 (2 relay, 1 digital)	Gray (RAL 7032)	LMS131-10100 Security	1051379
					Black (RAL 9005)	LMS132-10100 Security	1051402
					Signal white (RAL 9003)	LMS133-10100 Security	1051403
LMS151	Outdoor	Yes	M12 circular plug-in connector	3	Gray (RAL 7032)	LMS151-10100	1047607



## Accessories

	Accessory category	Brief description	Model name	Part no.
	Device protection (mechanical)	Weather hood, 190°	Weather hood	2046459
	Modules	External CAN extension module for up to 8 additional outputs	Fieldbus module	6038825
	Mounting brackets/plates	Standard mounting set for 190°/270° weather hood	Mounting bracket	2046025
		Mounting bracket for rear mounting on wall or machine	Mounting kit 1a	2034324
		Mounting bracket for rear mounting on wall or machine with protection of optics hood	Mounting kit 1b	2034325
	Plug connectors and cables	I/O connection cable, 8-pole, shielded, M12 plug, 8-pin (A-type encoded) / open end, 5 m	Connecting cable (plug-open)	6036155
		Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 5 m	Connecting cable (plug-plug)	6034415
		Data (RS-232/422) and synchronization input cable, 8-pole, shielded, M12 socket, 8-pin (A-type encoded) / open end, 5 m	Connecting cable (socket-open)	6036153
		Power supply cable, 4 x 0,50 mm², shielded, M12 socket, 5-pin (A-type encoded) / open end, 5 m	Connecting cable (socket-open)	6036159
	Terminal and alignment brackets	Quick-action lock system for weather hood 190°/270°	Quick clamp	2046989



## At a glance

- The Level Control feature, which is integrated into the sensor, features a gap-free scanning surface that can detect objects in containers, without any impairment from a shadow. Smaller objects, regardless of color, are detected at any place in the container.
- Large dynamic measurement range of 0.7 m to 3 m
- High ambient light immunity
- Rugged design
- High angular resolution
- Ideal for vision applications on pallets

## Your benefits

- The integrated Level Control feature replaces a number of sensors and drastically reduces the effort required for wiring and programming
- Reliable detection at high conveyor speeds
- Neither shading nor artificial lighting is necessary
- Simple, flexible installation at positions beyond the robot collision area
- High accuracy detection and positioning measurements in real-time provide rapid data capture

→ [www.mysick.com/en/LMS4xx](http://www.mysick.com/en/LMS4xx)

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



## Ordering information

Other models available at [www.mysick.com/en/LMS4xx](http://www.mysick.com/en/LMS4xx)

- **Sub product family:** LMS400
- **Version:** Short Range
- **Field of application:** Indoor
- **Reading field:** front
- **Switching outputs:** 5 (4 x PNP / analog 1 x 4 mA ... 20 mA)
- **Housing color:** light blue (RAL 5012)

Object remission	Model name	Part no.
4.5 % ... 100 %	LMS400-2000	1041725
6.5 % ... 200 %	LMS400-1000	1027897

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Modules	Modular connection module for one sensor	CDM490-0001	1025363
	Plug connectors and cables	Connection cable (3 m), Ø 8 mm, shielded, with 15-pin D-sub HD receptacle and 15-pin D-sub HD plug	Connecting cable for CLV/X490 to CDM 490	2020302
		Communication cable for connection to the terminal interface of the connector hood set 2031364, 3 m	Connection cable (plug-plug)	2031372
		Ethernet-cable, for plug hood, Crossover, RJ45/RJ45, 10 m	Connection cable (plug-plug)	2032821
		Connection hood, with connection cable 15-pin D-sub, 3 m	Connection hood	2030535





### At a glance

- Powerful and efficient laser measurement sensor for ranges of up to 80 m
- Outstanding performance in adverse environmental conditions due to multi-echo technology
- IP 67 enclosure rating, built-in heater, highly compact design
- Low power consumption
- Fast signal processing
- Multiple I/Os
- Synchronization of multiple sensors possible

### Your benefits

- Superior performance in a vast range of applications
- Smallest sensor with highest accuracy in its class
- Comprehensive range of lines and models to suit all performance and price requirements
- Fast, reliable object detection in nearly any weather conditions
- Low power consumption reduces total cost of ownership
- Best price/performance ratio in this sensor class on the market
- Fast, easy commissioning due to SOPAS software
- Self-monitoring functions increase system availability

→ [www.mysick.com/en/LMS5xx](http://www.mysick.com/en/LMS5xx)

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.









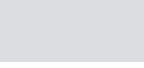
### Ordering information

Other models available at [www.mysick.com/en/LMS5xx](http://www.mysick.com/en/LMS5xx)

- **Version:** Mid Range
- **Object remission:** 2 % ... > 1,000 %, reflectors

Sub product family	Field of application	Variant	Resolution power	Model name	Part no.
LMS500	Indoor	Lite	High Resolution	LMS500-21000 Lite	1054153
		PRO	High Resolution	LMS500-20000 PRO	1047468
LMS511	Outdoor	Lite	Standard Resolution	LMS511-11100 Lite	1054155
			High Resolution	LMS511-21100 Lite	1054154
		PRO	Standard Resolution	LMS511-10100 PRO	1046135
			High Resolution	LMS511-20100 PRO	1047782
LMS531	Outdoor, Security	Lite	Standard Resolution	LMS531-11100	1055376

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Device protection (mechanical)	Protection hood	Protective hood	2056850
	Mounting brackets/plates	Mounting bracket for direct mounting, from the rear, on wall or machine, not adjustable	Mounting kit 1	2015623
	Plug connectors and cables	I/O connection cable, 8-pole, shielded, M12 plug, 8-pin (A-type encoded) / open end, 5 m	Connecting cable (plug-open)	6036155
		I/O connection cable, 12-pole, shielded, M12 plug, 12-pin (A-type encoded) / open end, 5 m	Connecting cable (plug-open)	6042732
		Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 5 m	Connecting cable (plug-plug)	6034415
		Data (RS-232/422) and synchronization input cable, 8-pole, shielded, M12 socket, 8-pin (A-type encoded) / open end, 5 m	Connecting cable (socket-open)	6036153
		Power supply cable, 4 x 0,50 mm², shielded, M12 socket, 5-pin (A-type encoded) / open end, 5 m	Connecting cable (socket-open)	6036159
		Power supply cable, 4 x 0,75 mm², shielded, M12 socket, 5-pin (A-type encoded) / open end, 10 m	Connecting cable (socket-open)	6042565
		Data (RS-232/-422) and I/O connection cable, 12-pole, shielded, M12 socket, 12-pin (A-type encoded) / open end, 5 m	Connecting cable (socket-open)	6042735

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## At a glance

- The only VdS-certified laser scanner on the market (German certificate standard)
- Highest class "C" with environmental class II or IVa
- Flexible connection to DC 9 V to 30 V
- Two isolated relays (alarms) and one obstruction output
- Long detection range of 20 m, horizontal and vertical
- Up to 10 freely definable monitoring fields with intelligent evaluation algorithms
- Certified QuickStart menu
- 200 RAL colors available

## Your benefits

- VdS certification for proven and reliable system acceptance by insurance companies (German certificate standard)
- High angular resolution provides a secure solution that improves reliability
- Secure, reliable detection with few false alarms due to precise field configuration of the detection area
- Small size provides unobtrusive solution
- Intelligent evaluation provides maximum application flexibility
- Easy integration into existing alarm management systems
- Low maintenance due to high immunity against environmental influences
- Cost-effective retrofitting due to low installation and wiring costs

→ [www.mysick.com/en/LMC1xx](http://www.mysick.com/en/LMC1xx)

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## Ordering information





Other models available at [www.mysick.com/en/LMC1xx](http://www.mysick.com/en/LMC1xx)

- **Version:** Short Range
- **Switching outputs:** 3 (2 relay, 1 digital)
- **Angular resolution:** 0.25°, 0.5°
- **Object remission:** 2 % ... > 1,000 %, reflectors

Sub product family	Field of application	Heating	Housing color	Items supplied	Model name	Part no.
LMC12x	Security, Indoor	–	Signal white (RAL 9003)	LMS12x VdS (Indoor), Mounting protection bracket VdS 1 (long)	LMC123-11000 VdS	1051301
				LMS12x VdS (Indoor), Mounting protection bracket VdS 2 (short)	LMC123-11001 VdS	1051316
			Black (RAL 9005)	LMS12x VdS (Indoor), Mounting protection bracket VdS 1 (long, uncoated aluminium)	LMC124-11000 VdS	1051303
			Gray (RAL 7032)	LMS12x VdS (Indoor), Mounting protection bracket VdS 2 (short)	LMC121-11001 VdS	1051314
LMC13x	Security, Semi-Outdoor	Yes	Gray (RAL 7032)	LMS13x VdS (Outdoor), Mounting protection bracket VdS 2 (short)	LMC131-11101 VdS	1051487

Sub product family	Field of application	Heating	Housing color	Items supplied	Model name	Part no.
LMC12x	Security, Indoor	–	Gray (RAL 7032)	LMS12x VdS (Indoor), Mounting protection bracket VdS 1 (long)	LMC121-11000 VdS	1051287
			Black (RAL 9005)		LMC122-11000 VdS	1051300
					LMS12x VdS (Indoor), Mounting protection bracket VdS 2 (short)	LMC122-11001 VdS
LMC13x	Security, Semi-Outdoor	Yes	Black (RAL 9005)	LMS13x VdS (Outdoor), Mounting protection bracket VdS 2 (short)	LMC132-11101 VdS	1051488
			Signal white (RAL 9003)		LMC133-11101 VdS	1051489

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Plug connectors and cables	I/O connection cable, 8-pole, shielded, M12 plug, 8-pin (A-type encoded) / open end, 5 m	Connecting cable (plug-open)	6036155
		Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 5 m	Connecting cable (plug-plug)	6034415
		Data (RS-232/422) and synchronization input cable, 8-pole, shielded, M12 socket, 8-pin (A-type encoded) / open end, 5 m	Connecting cable (socket-open)	6036153
		Power supply cable, 4 x 0,50 mm², shielded, M12 socket, 5-pin (A-type encoded) / open end, 5 m	Connecting cable (socket-open)	6036159

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