/ DISTANCE SENSORS

YOUR YARDSTICK

Our distance sensors stand for maximum accuracy - over small as well as large distances. They are used everywhere geometric parameters such as height or width need to be determined. They are characterized by high resolving capacity at high measurement rates. Especially our ultrasonic sensors facilitate reliable measurement results with transparent objects – even under difficult environmental conditions.
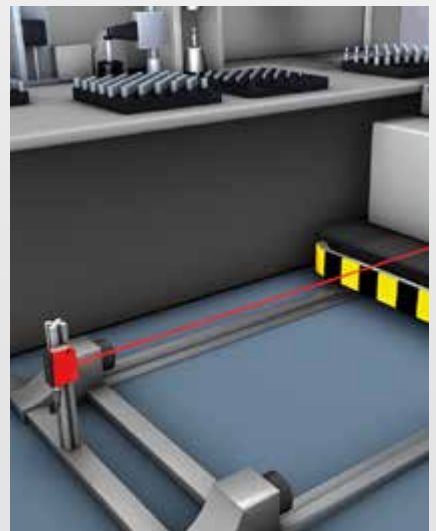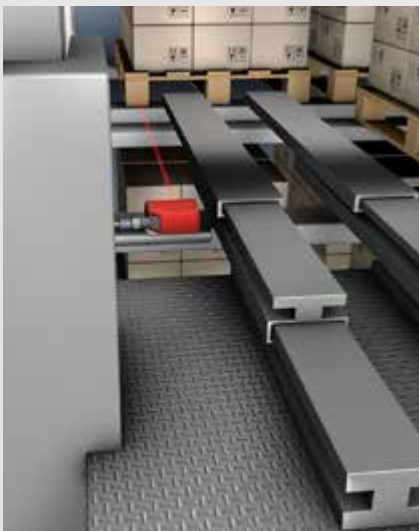
//OPTICAL DISTANCE SENSORS

LIGHTS ON – MEASUREMENT STARTS

These sensors use laser or LED light to quickly and precisely measure distances on a wide range of materials, even at large ranges.

/// ODSL 8

The compact laser distance sensors of this series in a compact metal housing supply reflection-independent distance information. The sensor can be quickly commissioned through teach-in.
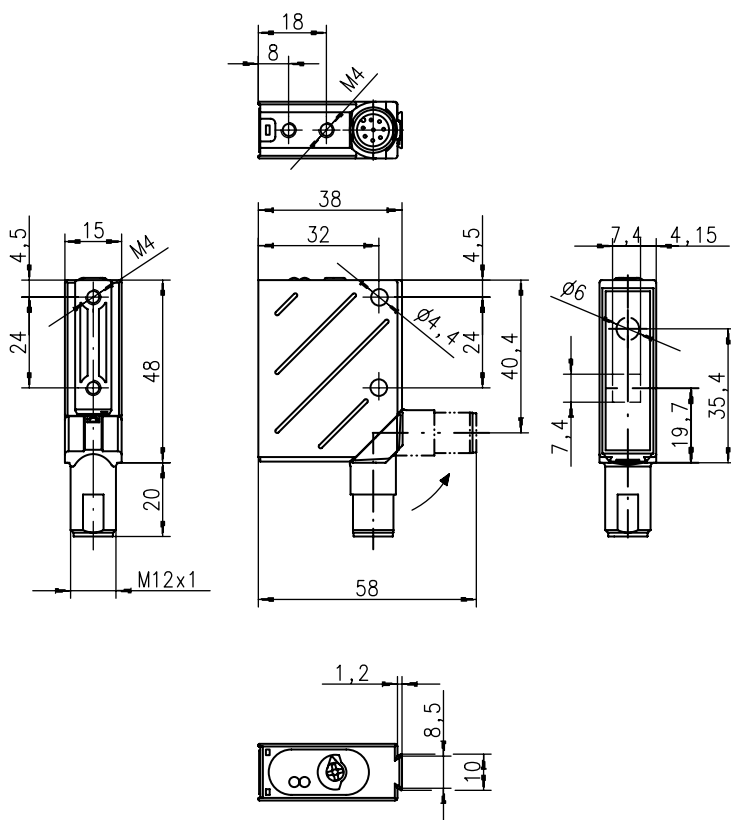
CE   CDRH

Benefits:
- 20 mm … 500 mm measurement range
- Robust metal housing
- Teachable analog and switching outputs
- Turnable M12 connector

Direct access to the online product selector at **www.leuze.com/en/odsl8**

Part no.	Part description	Measurement range	Light source Safety class	Light spot dimensions	Analog outputs	Digital switching outputs	Resolution	Measure-ment time	Description
50101880	**ODSL 8/66-500-S12**	20 … 500 mm	Laser, red, 2	2 mm × 6 mm		2x	0.1 … 0.5 mm	2 … 7 ms	Connector, M12, metal, 5-pin
50108361	**ODSL 8/C66-500-S12**	20 … 500 mm	Laser, red, 2	2 mm × 6 mm	1x, current	2x	0.1 … 0.5 mm	2 … 7 ms	Connector, M12, metal, 5-pin
50101879	**ODSL 8/V66-500-S12**	20 … 500 mm	Laser, red, 2	2 mm × 6 mm	1x, voltage	2x	0.1 … 0.5 mm	2 … 7 ms	Connector, M12, metal, 5-pin
50111175	**ODSL 8/V66.01-500-S12**	20 … 500 mm	Laser, red, 2	2 mm × 6 mm	1x, voltage	2x	0.1 … 0.5 mm	2 … 7 ms	Connector, M12, metal, 5-pin
50108362	**ODSL 8/C66-200-S12**	20 … 200 mm	Laser, red, 2	1 mm	1x, current	2x	0.1 … 0.2 mm	2 … 7 ms	Connector, M12, metal, 5-pin
50105761	**ODSL 8/V66-200-S12**	20 … 200 mm	Laser, red, 2	1 mm	1x, voltage	2x	0.1 … 0.2 mm	2 … 7 ms	Connector, M12, metal, 5-pin
50108364	**ODSL 8/C66-45-S12**	25 … 45 mm	Laser, red, 2	1 mm	1x, current	2x	0.03 mm	2 … 7 ms	Connector, M12, metal, 5-pin
50108363	**ODSL 8/V66-45-S12**	25 … 45 mm	Laser, red, 2	1 mm	1x, voltage	2x	0.03 mm	2 … 7 ms	Connector, M12, metal, 5-pin

Dimensioned drawings: ODSL 8

ODSL 8 optical distance sensor

Switching sensors

Measuring sensors

Products for safety at work

Identification

Data transmission/ Control components

Industrial image processing

Accessories

ACCESSORIES: ODSL 8

Connection technology

Connection cables

Part no.	Part description	Connection 1	No. of pins	Cable length	Sheathing material
50104568	K-D M12W-5P-2m-PUR	Connector, M12, angled, female	5-pin	2,000 mm	PUR
50104762	K-D M12W-5P-5m-PUR	Connector, M12, angled, female	5-pin	5,000 mm	PUR
50104556	K-D M12W-5P-2m-PVC	Connector, M12, angled, female	5-pin	2,000 mm	PVC
50104558	K-D M12W-5P-5m-PVC	Connector, M12, angled, female	5-pin	5,000 mm	PVC
50104567	K-D M12A-5P-2m-PUR	Connector, M12, axial, female	5-pin	2,000 mm	PUR
50104569	K-D M12A-5P-5m-PUR	Connector, M12, axial, female	5-pin	5,000 mm	PUR
50104555	K-D M12A-5P-2m-PVC	Connector, M12, axial, female	5-pin	2,000 mm	PVC
50104557	K-D M12A-5P-5m-PVC	Connector, M12, axial, female	5-pin	5,000 mm	PVC

Further connection cables can be found on our website

Mounting systems

Mounting brackets

Part no.	Part description	Design	Fastening at device	Fastening at system	Material
50036195	BT 8	Angle, L-shape	Screw type	Through-hole mounting	Metal

Further mounting brackets can be found on our website

Rod mounts

Part no.	Part description	Design	Fastening at device	Fastening at system	Material
50127177	BTU 008M-D10	Mounting system	Screw type	Sheet-metal mounting, for 10 mm rod	Metal

Further rod mounts can be found on our website

/// ODSL 9

The ODSL 9 optical distance sensors set new standards in precision and ease of use. The sensor enables accurate measurements even under difficult conditions, e. g., with glossy objects. The integrated display shows the measurement values and facilitates easy adjustment of the sensor. The distance sensors reveal their enormous potential for precision when used in combination with digital interfaces.

CE cULus LISTED CDRH IO-Link

Direct access to the online product selector at **www.leuze.com/en/odsl9**

ODSL 9

This series measures very precisely even over longer distances making it suitable for the positioning of actuators and robots.

Benefits:

- High accuracy up to 650 mm
- Reflection-independent distance measurement
- Display for measured value display and configuration
- Analog current/voltage output
- Switching outputs adjustable with millimeter accuracy
- IO-Link, serial interface RS 232/485

Part no.	Part description	Measurement range	Light source Safety class	Light spot dimensions	Analog outputs	Digital switching outputs	Resolution	Measure-ment time	Description
50113583	ODSL 9/C6-650-S12	50 … 650 mm	Laser, red, 2	1 mm	1x, current	1x	0.1 … 0.5 mm	2 ms	Connector, M12, plastic, 5-pin
50120000	ODSL 9/D36-650-S12	50 … 650 mm	Laser, red, 2	1 mm		1x	0.1 … 0.5 mm	2 ms	Type of interface: RS 485, connector, M12, plastic, 5-pin
50120825	ODSL 9/L-650-S12	50 … 650 mm	Laser, red, 2	1 mm			0.1 … 0.5 mm	2 ms	Type of interface: IO-Link, connector, M12, plastic, 5-pin
50114627	ODSL 9/V6-650-S12	50 … 650 mm	Laser, red, 2	1 mm	1x, voltage	1x	0.1 … 0.5 mm	2 ms	Connector, M12, plastic, 5-pin
50111157	ODSL 9/C6-450-S12	50 … 450 mm	Laser, red, 2	1 mm	1x, current	1x	0.1 mm	2 ms	Connector, M12, plastic, 5-pin
50111161	ODSL 9/C66-450-S12	50 … 450 mm	Laser, red, 2	1 mm	1x, current	2x	0.1 mm	2 ms	Connector, M12, plastic, 5-pin

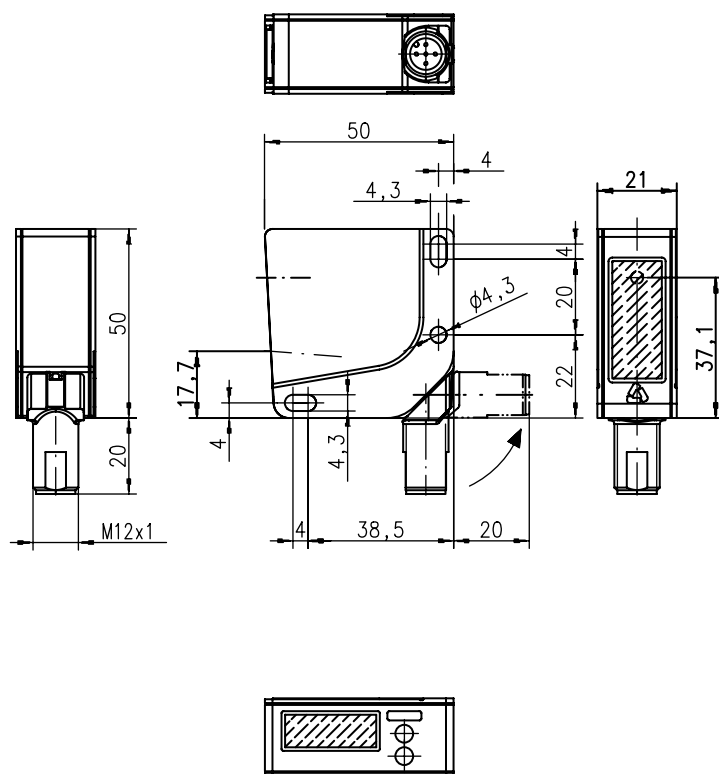| Part no.	Part description	Measurement range	Light source Safety class	Light spot dimensions	Analog outputs	Digital switching outputs	Resolution	Measure-ment time	Description
50111159	ODSL 9/D26-450-S12	50 … 450 mm	Laser, red, 2	1 mm		1x	0.1 mm	2 ms	Type of interface: RS 232, connector, M12, plastic, 5-pin
50111160	ODSL 9/D36-450-S12	50 … 450 mm	Laser, red, 2	1 mm		1x	0.1 mm	2 ms	Type of interface: RS 485, connector, M12, plastic, 5-pin
50111166	ODSL 9/L-450-S12	50 … 450 mm	Laser, red, 2	1 mm			0.1 mm	2 ms	Type of interface: IO-Link, connector, M12, plastic, 5-pin
50111158	ODSL 9/V6-450-S12	50 … 450 mm	Laser, red, 2	1 mm	1x, voltage	1x	0.1 mm	2 ms	Connector, M12, plastic, 5-pin
50111162	ODSL 9/V66-450-S12	50 … 450 mm	Laser, red, 2	1 mm	1x, voltage	2x	0.1 mm	2 ms	Connector, M12, plastic, 5-pin
50115029	ODSL 9/C6.C1-450-S12	50 … 450 mm	Laser, red, 1	1 mm	1x, current	1x	0.1 mm	4 ms	Connector, M12, plastic, 5-pin
50115030	ODSL 9/V6.C1-450-S12	50 … 450 mm	Laser, red, 1	1 mm	1x, voltage	1x	0.1 mm	4 ms	Connector, M12, plastic, 5-pin
50117334	ODSL 9/C6-200-S12	50 … 200 mm	Laser, red, 2	1 mm	1x, current	1x	0.1 mm	2 ms	Connector, M12, plastic, 5-pin
50113332	ODSL 9/V6-200-S12	50 … 200 mm	Laser, red, 2	1 mm	1x, voltage	1x	0.1 mm	2 ms	Connector, M12, plastic, 5-pin

ODSL 9 high resolution

With a resolution of 0.01 mm, the sensors are designed for the contour measurement of small objects and quality control on assembly lines.

Benefits:

- Maximum accuracy in compact design
- Resolution 0.01 mm with a measurement range of 50 mm
- Reflection-independent distance measurement
- Display for measured value display and configuration
- Analog voltage/current output, switching outputs
- IO-Link, serial interface RS 232

Part no.	Part description	Measurement range	Light source Safety class	Light spot dimensions	Analog outputs	Digital switching outputs	Resolution	Measure-ment time	Description
50111167	ODSL 9/C6-100-S12	50 … 100 mm	Laser, red, 2	1 mm	1x, current	1x	0.01 mm	2 ms	Connector, M12, plastic, 5-pin
50111171	ODSL 9/C66-100-S12	50 … 100 mm	Laser, red, 2	1 mm	1x, current	2x	0.01 mm	2 ms	Connector, M12, plastic, 5-pin
50111169	ODSL 9/D26-100-S12	50 … 100 mm	Laser, red, 2	1 mm		1x	0.01 mm	2 ms	Type of interface: RS 232, connector, M12, plastic, 5-pin
50111170	ODSL 9/D36-100-S12	50 … 100 mm	Laser, red, 2	1 mm		1x	0.01 mm	2 ms	Type of interface: RS 485, connector, M12, plastic, 5-pin
50111174	ODSL 9/L-100-S12	50 … 100 mm	Laser, red, 2	1 mm			0.01 mm	2 ms	Type of interface: IO-Link, connector, M12, plastic, 5-pin
50111168	ODSL 9/V6-100-S12	50 … 100 mm	Laser, red, 2	1 mm	1x, voltage	1x	0.01 mm	2 ms	Connector, M12, plastic, 5-pin
50111172	ODSL 9/V66-100-S12	50 … 100 mm	Laser, red, 2	1 mm	1x, voltage	2x	0.01 mm	2 ms	Connector, M12, plastic, 5-pin

Dimensioned drawings: ODSL 9

ODSL 9 optical distance sensor

Switching sensors

Measuring sensors

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Identification

Data transmission/ Control components

Industrial image processing

Accessories

ACCESSORIES: ODSL 9

Connection technology

Connection cables

Part no.	Part description	Connection 1	No. of pins	Cable length	Sheathing material
50104568	K-D M12W-5P-2m-PUR	Connector, M12, angled, female	5-pin	2,000 mm	PUR
50104762	K-D M12W-5P-5m-PUR	Connector, M12, angled, female	5-pin	5,000 mm	PUR
50104556	K-D M12W-5P-2m-PVC	Connector, M12, angled, female	5-pin	2,000 mm	PVC
50104558	K-D M12W-5P-5m-PVC	Connector, M12, angled, female	5-pin	5,000 mm	PVC
50104567	K-D M12A-5P-2m-PUR	Connector, M12, axial, female	5-pin	2,000 mm	PUR
50104569	K-D M12A-5P-5m-PUR	Connector, M12, axial, female	5-pin	5,000 mm	PUR
50104555	K-D M12A-5P-2m-PVC	Connector, M12, axial, female	5-pin	2,000 mm	PVC
50104557	K-D M12A-5P-5m-PVC	Connector, M12, axial, female	5-pin	5,000 mm	PVC

Further connection cables can be found on our website

Mounting systems

Mounting brackets

Part no.	Part description	Design	Fastening at device	Fastening at system	Material
50036195	BT 8	Angle, L-shape	Screw type	Through-hole mounting	Metal

Further mounting brackets can be found on our website

Rod mounts

Part no.	Part description	Design	Fastening at device	Fastening at system	Material
50117253	BTU 300M-D10	Mounting system, clampable, adjustable, turning, 360 °	Screw type	For 10 mm rod, sheet-metal mounting	Metal
50117252	BTU 300M-D12	Mounting system, clampable, adjustable, turning, 360 °	Screw type	For 12 mm rod, sheet-metal mounting	Metal
50117251	BTU 300M-D14	Mounting system, clampable, adjustable, turning, 360 °	Screw type	For 14 mm rod, sheet-metal mounting	Metal

Further rod mounts can be found on our website

/// ODS 10

The ODS 10 is an optical distance sensor that measures distance against a non-cooperating target and makes the information available as a measurement value. The maximum range of the device is 8,000 mm, whereby an accuracy of ± 15 mm is achieved. A range of up to 25,000 mm can be achieved for distance measurements using a reflector. The level of accuracy is almost fully independent of the material.

CE ⚠ CDRH ⬡ IO-Link

Benefits:

- Eye-safe laser class 1
- Reliable detection of dark, glossy and colored objects
- Recess for M4 bolts enables the installation of this device using just one tool
- No tools required for locking of nuts and screws
- Rotatable M12 connection, space-saving cable outlet or pigtail
- Large buttons enable finger operation without tools
- Status LED indicators on top and front allow detection of switching state from afar
- Configuration options via I/O-Link and Sensor Studio
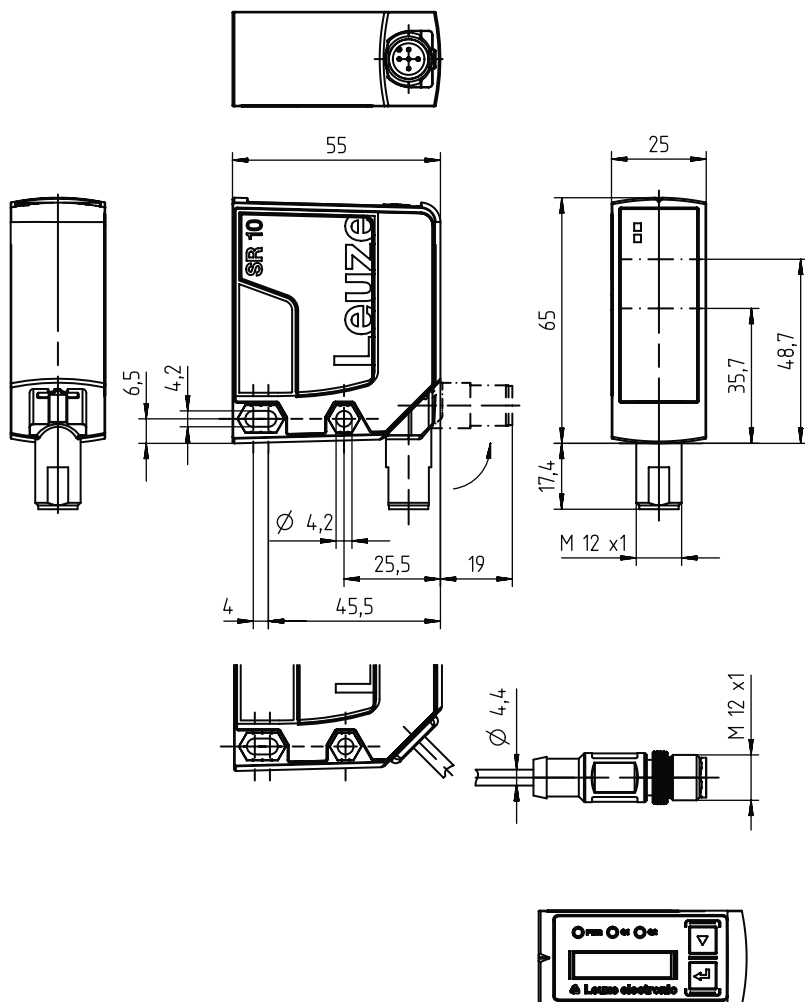- Compact housing

Direct access to the online product selector at **www.leuze.com/en/ods10**

Part no.	Part description	Measurement range	Light source Safety class	Light spot dimensions	Analog outputs	Digital switching outputs	Resolution	Measure-ment time	Description
50129533	ODS10L1-25M.8/LAK	100 … 25,000 mm	Laser, red, 1	25 mm × 25 mm	1x, configurable, factory setting: current	1x	1.0 mm	3.5 … 50 ms	Type of interface: IO-Link, deactivation input, activation input, teach input, cable, 2,000 mm, 5-wire
50129536	ODS10L1-25M.8/LAK,200-M12	100 … 25,000 mm	Laser, red, 1	25 mm × 25 mm	1x, configurable, factory setting: current	1x	1.0 mm	3.5 … 50 ms	Type of interface: IO-Link, deactivation input, activation input, teach input, cable with connector, 200 mm, M12, plastic, 5-pin

Part no.	Part description	Measurement range	Light source Safety class	Light spot dimensions	Analog outputs	Digital switching outputs	Resolution	Measure-ment time	Description
50129530	ODS10L1-25M.8/LAK-M12	100 … 25,000 mm	Laser, red, 1	25 mm × 25 mm	1x, configurable, factory setting: current	1x	1.0 mm	3.5 … 50 ms	Type of interface: IO-Link, deactivation input, activation input, teach input, connector, M12, plastic, 5-pin
50129528	ODS10L1.8/L6X-M12	50 … 8,000 mm	Laser, red, 1	7 mm × 7 mm		2x	1.0 mm		Type of interface: IO-Link, connector, M12, plastic, 5-pin
50129532	ODS10L1.8/LA6	50 … 8,000 mm	Laser, red, 1	7 mm × 7 mm	1x, configurable, factory setting: current	2x	1.0 mm		Type of interface: IO-Link, cable, 2,000 mm, 5-wire
50129535	ODS10L1.8/LA6,200-M12	50 … 8,000 mm	Laser, red, 1	7 mm × 7 mm	1x, configurable, factory setting: current	2x	1.0 mm		Type of interface: IO-Link, cable with connector, 200 mm, M12, plastic, 5-pin
50129529	ODS10L1.8/LA6-M12	50 … 8,000 mm	Laser, red, 1	7 mm × 7 mm	1x, configurable, factory setting: current	2x	1.0 mm		Type of interface: IO-Link, connector, M12, plastic, 5-pin
50129531	ODS10L1.8/LAK	50 … 8,000 mm	Laser, red, 1	7 mm × 7 mm	1x, configurable, factory setting: current	1x	1.0 mm		Type of interface: IO-Link, deactivation input, activation input, teach input, cable, 2,000 mm, 5-wire
50129534	ODS10L1.8/LAK,200-M12	50 … 8,000 mm	Laser, red, 1	7 mm × 7 mm	1x, configurable, factory setting: current	1x	1.0 mm		Type of interface: IO-Link, deactivation input, activation input, teach input, cable with connector, 200 mm, M12, plastic, 5-pin
50127853	ODS10L1.8/LAK-M12	50 … 8,000 mm	Laser, red, 1	7 mm × 7 mm	1x, configurable, factory setting: current	1x	1.0 mm		Type of interface: IO-Link, deactivation input, activation input, teach input, connector, M12, plastic, 5-pin

Dimensioned drawings: ODS 10

ODS 10 optical distance sensor

> KNOW-HOW!?

ACCESSORIES: ODS 10

Connection technology

Connection cables

Part no.	Part description	Connection 1	No. of pins	Cable length	Sheathing material
50104568	**K-D M12W-5P-2m-PUR**	Connector, M12, angled, female	5-pin	2,000 mm	PUR
50104762	**K-D M12W-5P-5m-PUR**	Connector, M12, angled, female	5-pin	5,000 mm	PUR
50104556	**K-D M12W-5P-2m-PVC**	Connector, M12, angled, female	5-pin	2,000 mm	PVC
50104558	**K-D M12W-5P-5m-PVC**	Connector, M12, angled, female	5-pin	5,000 mm	PVC
50104567	**K-D M12A-5P-2m-PUR**	Connector, M12, axial, female	5-pin	2,000 mm	PUR
50104569	**K-D M12A-5P-5m-PUR**	Connector, M12, axial, female	5-pin	5,000 mm	PUR
50104555	**K-D M12A-5P-2m-PVC**	Connector, M12, axial, female	5-pin	2,000 mm	PVC
50104557	**K-D M12A-5P-5m-PVC**	Connector, M12, axial, female	5-pin	5,000 mm	PVC

Further connection cables can be found on our website

Mounting systems

Rod mounts

Part no.	Part description	Design	Fastening at device	Fastening at system	Material
50128379	**BTU 460M-D10**	Mounting system	Screw type	For 10 mm rod	Metal
50128380	**BTU 460M-D12**	Mounting system	Screw type	For 12 mm rod	Metal

Further rod mounts can be found on our website

Reflective tapes

Reflective tapes for distance sensors

Part no.	Part description	Design	Reflective surface	Fastening	Material
50111527	**REF 7-A-100x100**	Rectangular	100 mm × 100 mm	Self-adhesive	Plastic

Further reflective tapes can be found on our website

/// ODS 96B

Series ODS 96B distance sensors with large measurement ranges of 60 to 25,000 mm are suitable for many different applications and, thanks to the metal housing, are extremely robust. They measure in the ms range. The integrated display shows the measurement values and allows the sensor to be easily adapted to the measurement task. Apart from analog current/voltage interfaces and binary switching outputs, digital interfaces are also available. Digital interfaces prevent conversion losses in the sensor, control and during measurement data transfer.

CE · c(UL)us LISTED · CDRH · IO-Link

Direct access to the online product selector at **www.leuze.com/en/ods96b**

ODS(R) 96B

Measures with either red LED light or infrared light and is suitable for large-area objects, such as bulk material.

Benefits:
- For measurements on objects with large surface area, e. g. bulk material, band materials, plate materials
- Robust metal housing
- High accuracy – reflection-independent distance measurement
- Display for measured value display and configuration

Part no.	Part description	Measurement range	Light source Safety class	Light spot dimensions	Analog outputs	Digital switching outputs	Resolution	Measure-ment time	Description
50106727	ODS 96B M/C66.01-1400-S12	120 … 1,400 mm	LED, infrared	15 mm × 15 mm	1x, current	2x	0.1 … 0.5 mm	1 … 5 ms	Connector, M12, metal, 5-pin
50110231	ODS 96B M/V6-1400-S12	120 … 1,400 mm	LED, infrared	15 mm × 15 mm	1x, voltage	1x	0.1 … 2.0 mm	1 … 5 ms	Connector, M12, metal, 5-pin
50106730	ODSR 96B M/C6-600-S12	100 … 600 mm	LED, red	15 mm × 15 mm	1x, current	1x	0.1 … 0.5 mm	1 … 5 ms	Connector, M12, metal, 5-pin
50106731	ODSR 96B M/V6-600-S12	100 … 600 mm	LED, red	15 mm × 15 mm	1x, voltage	1x	0.1 … 0.5 mm	1 … 5 ms	Connector, M12, metal, 5-pin
50106720	ODS 96B M/C6-600-S12	100 … 600 mm	LED, infrared	15 mm × 15 mm	1x, current	1x	0.1 … 0.5 mm	1 … 5 ms	Connector, M12, metal, 5-pin
50106721	ODS 96B M/V6-600-S12	100 … 600 mm	LED, infrared	15 mm × 15 mm	1x, voltage	1x	0.1 … 0.5 mm	1 … 5 ms	Connector, M12, metal, 5-pin

ODSL 96B-S

Small laser light spot for the precise measurement of small objects, objects with color structures or for glossy surfaces.

Benefits:

■ Small laser light spot
■ Precise measurement on small objects and objects with colored structure
■ For measurement on metallic surfaces

Part no.	Part description	Measurement range	Light source Safety class	Light spot dimensions	Analog outputs	Digital switching outputs	Resolution	Measurement time	Description
50123687	ODSL 96B M/C6.C1S-1500-S12	150…1,500 mm	Laser, red, 1	1 mm	1x, current	1x	0.1…2.0 mm	12…60 ms	Small light spot (S), connector, M12, metal, 5-pin
50123686	ODSL 96B M/V6.C1S-1500-S12	150…1,500 mm	Laser, red, 1	1 mm	1x, voltage	1x	0.1…2.0 mm	12…60 ms	Small light spot (S), connector, M12, metal, 5-pin
50106728	ODSL 96B M/C6.S-800-S12	150…800 mm	Laser, red, 2	1 mm	1x, current	1x	0.1…0.8 mm	1…5 ms	Small light spot (S), connector, M12, metal, 5-pin
50111035	ODSL 96B M/D26.S-800-S12	150…800 mm	Laser, red, 2	1 mm		1x	0.1…0.8 mm	1…5 ms	Type of interface: RS 232, small light spot (S), connector, M12, metal, 5-pin
50112065	ODSL 96B M/D36.S-800-S12	150…800 mm	Laser, red, 2	1 mm		1x	0.1…0.8 mm	1…5 ms	Type of interface: RS 485, small light spot (S), connector, M12, metal, 5-pin
50106729	ODSL 96B M/V6.S-800-S12	150…800 mm	Laser, red, 2	1 mm	1x, voltage	1x	0.1…0.8 mm	1…5 ms	Small light spot (S), connector, M12, metal, 5-pin

ODSL 96B-XL

Elongated light spot for precise measurements on porous objects and objects with openings (e.g. corrugated cardboard) as well as on objects that are not aligned precisely.

Benefits:

■ Elongated light spot for precise measurement

Part no.	Part description	Measurement range	Light source Safety class	Light spot dimensions	Analog outputs	Digital switching outputs	Resolution	Measurement time	Description
50106736	ODSL 96B M/C6.XL-1200-S12	150…1,200 mm	Laser, red, 2	15 mm × 4 mm	1x, current	1x	0.1…1.5 mm (XL)	1…5 ms	Extra long light spot (XL), connector, M12, metal, 5-pin
50106737	ODSL 96B M/V6.XL-1200-S12	150…1,200 mm	Laser, red, 2	15 mm × 4 mm	1x, voltage	1x	0.1…1.5 mm (XL)	1…5 ms	Extra long light spot (XL), connector, M12, metal, 5-pin

ODSL(R) 96B

Even over large ranges of up to 2 m, this sensor measures in the ms range with millimeter precision. High resolving power in compact, robust design.

Benefits:

■ For measurements in ms cycle at large ranges
■ Stable and precise measurement values, even at varying temperatures and objects
■ Robust: IP 67, IP 69K

Part no.	Part description	Measurement range	Light source Safety class	Light spot dimensions	Analog outputs	Digital switching outputs	Resolution	Measurement time	Description
50106732	ODSLR 96B M/C6-2000-S12	60…2,000 mm	Laser, red, 2, LED, red	2 mm × 6 mm	1x, current	1x	1.0…5.0 mm	1…5 ms	Connector, M12, metal, 5-pin
50106733	ODSLR 96B M/V6-2000-S12	60…2,000 mm	Laser, red, 2, LED, red	2 mm × 6 mm	1x, voltage	1x	1.0…5.0 mm	1…5 ms	Connector, M12, metal, 5-pin
50106599	ODSL 96B M/66-2000-S12	150…2,000 mm	Laser, red, 2	2 mm × 6 mm		2x	1.0…3.0 mm	1…5 ms	Connector, M12, metal, 5-pin
50106735	ODSL 96B M/C6-2000 Ex d	150…2,000 mm	Laser, red, 2	2 mm × 6 mm	1x, current	1x	1.0…3.0 mm	1…5 ms	Ex-protected, cable, 15,000 mm, 5-wire
50106593	ODSL 96B M/C6-2000-S12	150…2,000 mm	Laser, red, 2	2 mm × 6 mm	1x, current	1x	1.0…3.0 mm	1…5 ms	Connector, M12, metal, 5-pin
50106597	ODSL 96B M/D26-2000-S12	150…2,000 mm	Laser, red, 2	2 mm × 6 mm		1x	1.0…3.0 mm	1…5 ms	Type of interface: RS 232, connector, M12, metal, 5-pin
50106598	ODSL 96B M/D36-2000-S12	150…2,000 mm	Laser, red, 2	2 mm × 6 mm		1x	1.0…3.0 mm	1…5 ms	Type of interface: RS 485, connector, M12, metal, 5-pin
50111164	ODSL 96B M/L-2000-S12	150…2,000 mm	Laser, red, 2	2 mm × 6 mm			1.0…3.0 mm	1…5 ms	Type of interface: IO-Link, connector, M12, metal, 5-pin
50106594	ODSL 96B M/V6-2000-S12	150…2,000 mm	Laser, red, 2	2 mm × 6 mm	1x, voltage	1x	1.0…3.0 mm	1…5 ms	Connector, M12, metal, 5-pin

Switching sensors

Measuring sensors

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ODSL 96-Teach

For simple applications, these sensors with plastic housing offer a large measurement range. The sensor can be quickly commissioned through teach-in.

Benefits:

- Reflection-independent distance information
- 2 teachable switching outputs (push-pull)
- Easy alignment through visible red light
- Degree of protection IP 67
- Measurement range / operating range up to 2,300 mm

Part no.	Part description	Measurement range	Light source Safety class	Light spot dimensions	Analog outputs	Digital switching outputs	Resolution	Measure- ment time	Description
50101882	ODSL 96K/66-2300-S12	150 … 2,300 mm	Laser, red, 2	3 mm × 8 mm		2x	1.0 … 5.0 mm	2 … 7 ms	Connector, M12, plastic, 5-pin
50101881	ODSL 96K/V66-2300-S12	150 … 2,300 mm	Laser, red, 2	3 mm × 8 mm	1x, voltage	2x	1.0 … 5.0 mm	2 … 7 ms	Connector, M12, plastic, 5-pin

ODSL 96B-TOF

Large range also with dark objects. Measurement according to the "time of flight" principle.

Benefits:

- Large range even with dark objects
- Various operating modes for fast or precise measurement
- Robust measurement procedure
- Very high immunity to ambient light
- Display for measured value display and configuration

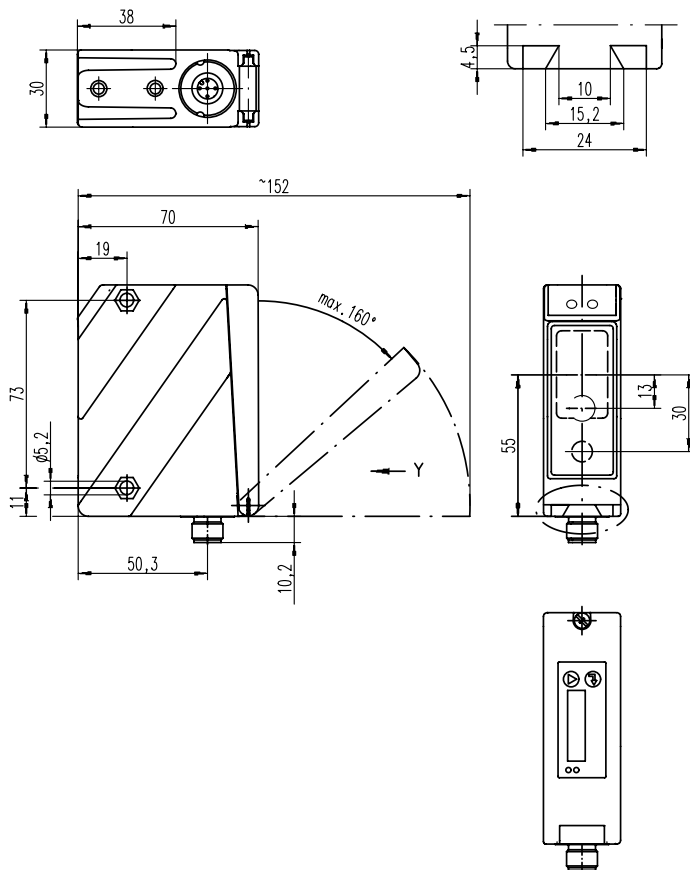| Part no.	Part description	Measurement range	Light source Safety class	Light spot dimensions	Analog outputs	Digital switching outputs	Resolution	Measure- ment time	Description
50109290	ODSL 96B M/C6-S12	300 … 10,000 mm	Laser, red, 2	7 mm × 7 mm	1x, current	1x	3.0 mm	1.4 … 50 ms	Connector, M12, metal, 5-pin
50109295	ODSL 96B M/C66-S12	300 … 10,000 mm	Laser, red, 2	7 mm × 7 mm	1x, current	2x	3.0 mm	1.4 … 50 ms	Connector, M12, metal, 5-pin
50109292	ODSL 96B M/D26-S12	300 … 10,000 mm	Laser, red, 2	7 mm × 7 mm		1x	3.0 mm	1.4 … 50 ms	Type of interface: RS 232, connector, M12, metal, 5-pin
50109293	ODSL 96B M/D36-S12	300 … 10,000 mm	Laser, red, 2	7 mm × 7 mm		1x	3.0 mm	1.4 … 50 ms	Type of interface: RS 485, connector, M12, metal, 5-pin
50109294	ODSL 96B M/L-S12	300 … 10,000 mm	Laser, red, 2	7 mm × 7 mm			3.0 mm	1.4 … 50 ms	Type of interface: IO-Link, connector, M12, metal, 5-pin
50109291	ODSL 96B M/V6-S12	300 … 10,000 mm	Laser, red, 2	7 mm × 7 mm	1x, voltage	1x	3.0 mm	1.4 … 50 ms	Connector, M12, metal, 5-pin
50109302	ODSIL 96B M/C6-S12	300 … 10,000 mm	Laser, infrared, 1	7 mm × 7 mm	1x, current	1x	3.0 mm	2.8 … 100 ms	Connector, M12, metal, 5-pin
50127488	ODSIL 96B M/L-S12	300 … 10,000 mm	Laser, infrared, 1	7 mm × 7 mm			3.0 mm	2.8 … 100 ms	Type of interface: IO-Link, connector, M12, metal, 5-pin
50109303	ODSIL 96B M/V6-S12	300 … 10,000 mm	Laser, infrared, 1	7 mm × 7 mm	1x, voltage	1x	3.0 mm	2.8 … 100 ms	Connector, M12, metal, 5-pin

ODKL 96B

A visible light spot ensures easy alignment. By measuring on reflectors, ranges of up to 25 m are no problem.

Benefits:

- Fast and easy alignment due to highly visible laser light spot
- Very high range by measuring on reflective tape
- Compact design

Part no.	Part description	Measurement range	Light source Safety class	Light spot dimensions	Analog outputs	Digital switching outputs	Resolution	Measure- ment time	Description
50109297	ODKL 96B M/C6-S12	300 … 25,000 mm	Laser, red, 2	7 mm × 7 mm	1x, current	1x	3.0 mm	1.4 … 50 ms	Connector, M12, metal, 5-pin
50109299	ODKL 96B M/D26-S12	300 … 25,000 mm	Laser, red, 2	7 mm × 7 mm		1x	3.0 mm	1.4 … 50 ms	Type of interface: RS 232, connector, M12, metal, 5-pin
50109300	ODKL 96B M/D36-S12	300 … 25,000 mm	Laser, red, 2	7 mm × 7 mm		1x	3.0 mm	1.4 … 50 ms	Type of interface: RS 485, connector, M12, metal, 5-pin
50109301	ODKL 96B M/L-S12	300 … 25,000 mm	Laser, red, 2	7 mm × 7 mm			3.0 mm	1.4 … 50 ms	Type of interface: IO-Link, connector, M12, metal, 5-pin
50109298	ODKL 96B M/V6-S12	300 … 25,000 mm	Laser, red, 2	7 mm × 7 mm	1x, voltage	1x	3.0 mm	1.4 … 50 ms	Connector, M12, metal, 5-pin

Dimensioned drawings: ODS 96B

ODS 96B optical distance sensor

ACCESSORIES: ODS 96B

Connection technology

Connection cables

Part no.	Part description	Connection 1	No. of pins	Cable length	Sheathing material
50104556	K-D M12W-5P-2m-PVC	Connector, M12, angled, female	5-pin	2,000 mm	PVC
50104558	K-D M12W-5P-5m-PVC	Connector, M12, angled, female	5-pin	5,000 mm	PVC
50104555	K-D M12A-5P-2m-PVC	Connector, M12, axial, female	5-pin	2,000 mm	PVC
50104557	K-D M12A-5P-5m-PVC	Connector, M12, axial, female	5-pin	5,000 mm	PVC

Further connection cables can be found on our website

Mounting systems

Mounting brackets

Part no.	Part description	Design	Fastening at device	Fastening at system	Material
50025570	BT 96	Angle, L-shape	Screw type	Through-hole mounting	Metal

Further mounting brackets can be found on our website

Rod mounts

Part no.	Part description	Design	Fastening at device	Fastening at system	Material
50082084	BT 450.1-96	Mounting system	Screw type	For 10 mm rod	Metal
50026204	UMS 96	Mounting system	Clampable	For 10 mm rod, for 12 mm rod, for 14 mm rod, for 16 mm rod	Metal

Further rod mounts can be found on our website

Reflective tapes

Reflective tapes for distance sensors

Part no.	Part description	Design	Reflective surface	Fastening	Material
50111527	REF 7-A-100x100	Rectangular	100 mm × 100 mm	Self-adhesive	Plastic

Further reflective tapes can be found on our website

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/// ODSL 30

The ODSL 30 measures distances on black objects up to 30 m away and on bright objects as far as 65 m away. The sensor resolution of 1 mm enables highly accurate measurements over the complete measurement range. The integrated display shows the measurement values and allows the sensor to be easily adapted to the measurement task. Apart from analog current/voltage interfaces and binary switching outputs, digital interfaces are also available. The distance sensors reveal their enormous potential for precision when used in combination with digital interfaces.
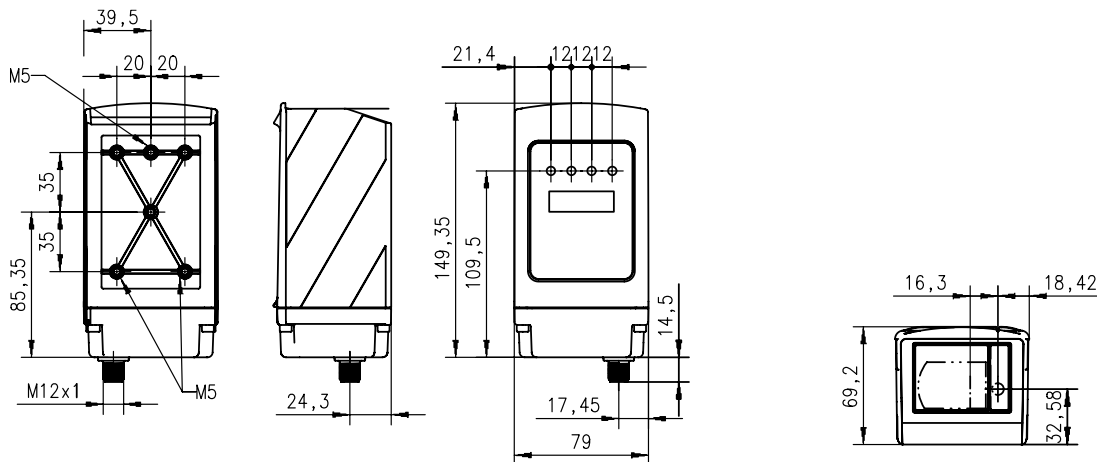
Benefits:

- Absolute measurement accuracy ± 2 mm over the entire measuring range
- Distances of 0.2–30 m on bright and black objects
- Referencing function for preventing fluctuations in measurement values
- Display for measured value display and configuration
- Ex model available

Direct access to the online product selector at **www.leuze.com/en/odsl30**

Part no.	Part description	Measurement range	Light source Safety class	Light spot dimensions	Analog outputs	Digital switching outputs	Resolution	Measure-ment time	Description
50041203	ODSL 30/D232-30M-S12	0…65,000 mm	Laser, red, 2	6 mm		2x	1.0 mm	30…100 ms	Type of interface: RS 232, connector, M12, plastic, 8-pin
50041204	ODSL 30/D485-30M-S12	0…65,000 mm	Laser, red, 2	6 mm		2x	1.0 mm	30…100 ms	Type of interface: RS 485, connector, M12, plastic, 8-pin
50040720	ODSL 30/24-30M-S12	0…30,000 mm	Laser, red, 2	6 mm		3x	1.0 mm	30…100 ms	Connector, M12, plastic, 8-pin
50039447	ODSL 30/V-30M-S12	0…30,000 mm	Laser, red, 2	6 mm	2x, current, voltage	1x	1.0 mm	30…100 ms	Connector, M12, plastic, 8-pin
50122319	ODSL 30/V-30M Ex d	0…30,000 mm	Laser, red, 2	6 mm	2x, current, voltage	1x	1.0 mm	30…100 ms	Ex-protected, cable, 15,000 mm, 8-wire

Dimensioned drawings: ODSL 30

ODSL 30 optical distance sensor

ACCESSORIES: ODSL 30

Connection technology

Connection cables

Part no.	Part description	Connection 1	No. of pins	Cable length	Sheathing material
50104591	K-D M12A-8P-2m-PUR	Connector, M12, axial, female	8-pin	2,000 mm	PUR
50104590	K-D M12A-8P-5m-PUR	Connector, M12, axial, female	8-pin	5,000 mm	PUR
50106882	K-D M12A-8P-10m-PUR	Connector, M12, axial, female	8-pin	10,000 mm	PUR

Further connection cables can be found on our website

Interconnection cables

Part no.	Part description	Connection 1	Connection 1, no. of pins	Connection 2	Cable length	Sheathing material
50115050	K-DS M12A-MA-8P-3m-S-PUR	Connector, M12, axial, female	8-pin	JST ZHR	3,000 mm	PUR

Further interconnection cables can be found on our website

//ULTRASONIC DISTANCE SENSORS

WHEN LIGHT ISN'T ENOUGH

With ultrasonic technology, it is possible to reliably detect even partially or completely transparent objects and to perform reliable distance measurements. In addition, measurements can be performed in dusty, hazy or humid environments.

/// 418 series

With its small, cylindrical design, this ultrasonic distance sensor can be integrated problem-free. The full-metal housing and temperature compensation make use possible under adverse conditions.
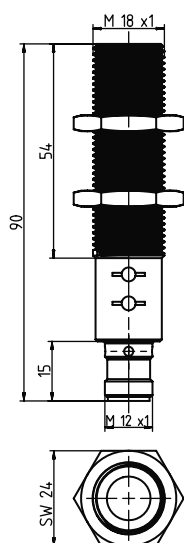
CE **IO**-Link

Benefits:
- Color and transmission independent detection of objects
- Current or voltage output configurable via PC software
- To avoid mutual interference, max. 10 sensors may be synchronized via one cable
- Sensitivity, average value calculation, reduction of the response time and outputs configurable via IO-Link
- Teach button

Direct access to the online product selector at **www.leuze.com/en/br418mu**

Part no.	Part description	Measurement range	Digital switching output	Analog output	Interface	Switching frequency	Resolution	Connection
50124260	DMU418B-400.X3/LTC-M12	25 … 400 mm	Transistor, push-pull, break-contact/make-contact	Current	IO-Link	7 Hz	1.0 mm	Connector, M12, 5-pin
50124261	DMU418B-400.X3/LTV-M12	25 … 400 mm	Transistor, push-pull, break-contact/make-contact	Voltage	IO-Link	7 Hz	1.0 mm	Connector, M12, 5-pin
50124263	DMU418B-1300.X3/LTC-M12	150 … 1,300 mm	Transistor, push-pull, break-contact/make-contact	Current	IO-Link	8 Hz	1.0 mm	Connector, M12, 5-pin
50124264	DMU418B-1300.X3/LTV-M12	150 … 1,300 mm	Transistor, push-pull, break-contact/make-contact	Voltage	IO-Link	8 Hz	1.0 mm	Connector, M12, 5-pin

Dimensioned drawings: 418 series

DMU 418B ultrasonic distance sensor

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Industrial image processing

Accessories

ACCESSORIES: 418 SERIES

Connection technology

Connection cables

Part no.	Part description	Connection 1	No. of pins	Cable length	Sheathing material
50104556	K-D M12W-5P-2m-PVC	Connector, M12, angled, female	5-pin	2,000 mm	PVC
50104558	K-D M12W-5P-5m-PVC	Connector, M12, angled, female	5-pin	5,000 mm	PVC
50104555	K-D M12A-5P-2m-PVC	Connector, M12, axial, female	5-pin	2,000 mm	PVC
50104557	K-D M12A-5P-5m-PVC	Connector, M12, axial, female	5-pin	5,000 mm	PVC

Further connection cables can be found on our website

Mounting systems

Mounting brackets

Part no.	Part description	Design	Fastening at device	Fastening at system	Material
50113548	BT D18M.5	Angle, L-shape	Screw type	Through-hole mounting	Stainless steel

Further mounting brackets can be found on our website

Rod mounts

Part no.	Part description	Design	Fastening at device	Fastening at system	Material
50117490	BTU D18M-D12	Mounting system, clampable, adjustable, turning, 360 °	Screw type	Through-hole mounting	Metal

Further rod mounts can be found on our website

/// 430 series

The new M30 models in metal housing are much more compact and ideal for detecting levels of liquids and bulk material. High accuracy through temperature compensation.
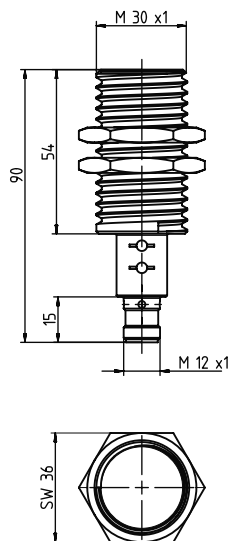
CE c UL us LISTED ◇ IO-Link

Benefits:

- Ideal for detection of levels of liquids, bulk material, transparent media and highly reflective objects
- Distance information largely independent of surface properties
- Current or voltage output and a switching output configurable via PC software
- To avoid mutual interference, max. 10 sensors may be synchronized via one cable
- Sensitivity, average value calculation, reduction of the response time and outputs configurable via IO-Link
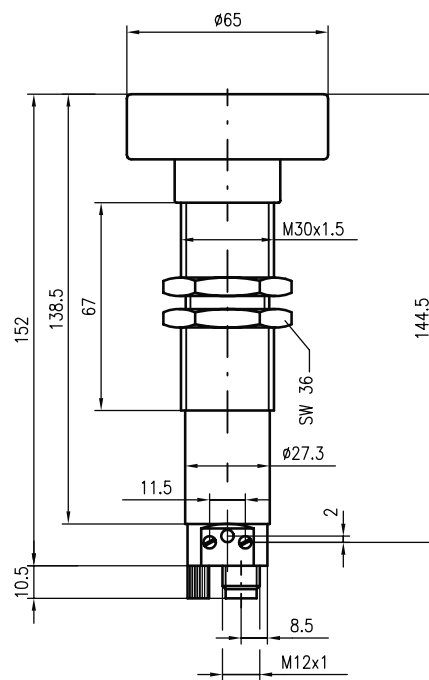- Teach button

Direct access to the online product selector at **www.leuze.com/en/br430mu**

Part no.	Part description	Measurement range	Digital switching output	Analog output	Interface	Switching frequency	Resolution	Connection
50124265	DMU430B-3000.X3/LTC-M12	300 … 3,000 mm	Transistor, push-pull, break-contact/make-contact	Current	IO-Link	4 Hz	1.0 mm	Connector, M12, 5-pin
50124266	DMU430B-3000.X3/LTV-M12	300 … 3,000 mm	Transistor, push-pull, break-contact/make-contact	Voltage	IO-Link	4 Hz	1.0 mm	Connector, M12, 5-pin
50036269	VRTU 430M/V-1710-6000-S12	600 … 6,000 mm	Transistor	Current		1 Hz	1.0 mm	Connector, M12, 5-pin

Dimensioned drawings: 430 series

DMU 430B ultrasonic distance sensor

VRTU 430 ultrasonic distance sensor

ACCESSORIES: 430 SERIES

Connection technology

Connection cables

Part no.	Part description	Connection 1	No. of pins	Cable length	Sheathing material
50104556	**K-D M12W-5P-2m-PVC**	Connector, M12, angled, female	5-pin	2,000 mm	PVC
50104558	**K-D M12W-5P-5m-PVC**	Connector, M12, angled, female	5-pin	5,000 mm	PVC
50104555	**K-D M12A-5P-2m-PVC**	Connector, M12, axial, female	5-pin	2,000 mm	PVC
50104557	**K-D M12A-5P-5m-PVC**	Connector, M12, axial, female	5-pin	5,000 mm	PVC

Further connection cables can be found on our website

Mounting systems

Mounting brackets

Part no.	Part description	Design	Fastening at device	Fastening at system	Material
50113510	**BT D30M.5**	Angle, L-shape	Screw type	Through-hole mounting	Stainless steel

Further mounting brackets can be found on our website

Switching sensors

Measuring sensors

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> PRODUCT //

Our product selector will help you find the right sensor quickly and easily: **www.leuze.com**