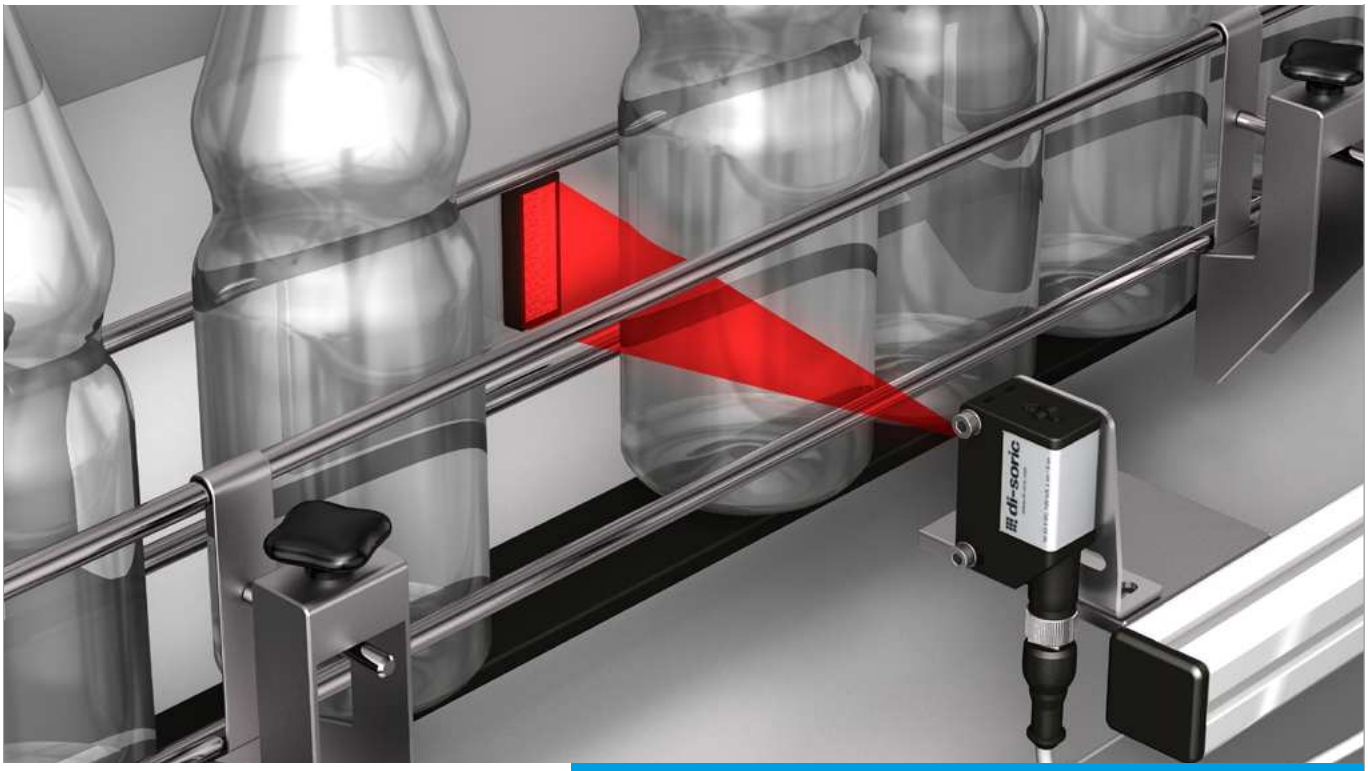
Light barriers and diffuse sensors



The light barriers and diffuse sensors from di-soric have been developed in several models and functional principles for many task areas in automation technology. The products are suited for fast, secure object detection and stand out for having extremely high functional safety. Various functional principles, sensors, reflection or through-beam sensors are available.

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O-20 MINIATURE

The very small, powerful light barriers and sensors in the O-20 series can be easily integrated. The devices, which are available as sensors, reflective or through-beam sensors, detect the smallest parts in the entire active zone.

Technical data (typ.)	+20 °C, 24 V DC
For more information, visit	www.di-soric.com

CE

	Scan width / range, setting range (mm)	Housing design Size (mm)	Sensitivity setting by means of	Transmitter (T) / Receiver (R)	Transmission light (clocked)	Laser class	Switching output	Ambient temperature (°C)	Switching frequency (Hz)	Housing material	Cable material/length, Plug connector	Connection cable (optionally available)	Product description
O-20 Miniature Retroreflective energetic diffuse sensors													
	20 to 50	22 x 13 x 8.5	Potentio-meter	–	Laser, red	1	pnp, 50 mA NO/NC	-10 to +55	1,000	Plastic	2.0 m	–	LT 21 K 50 P3
											M8	TK ... /4	LT 21 K 50 P3-K-T4
	20 to 70	22 x 13 x 8.5	Potentio-meter	–	Laser, red	1	pnp, 50 mA NO/NC	-10 to +55	1,000	Plastic	2.0 m	–	LLT 21 K 70 P3
											M8	TK ... /4	LLT 21 K 70 P3-K-T4
	45 to 300	22 x 13 x 8.5	Potentio-meter	–	Laser, red	1	pnp, 50 mA NO/NC	-10 to +55	1,000	Plastic	2.0 m	–	LT 21 K 300 P3
											M8	TK ... /4	LT 21 K 300 P3-K-T4
O-20 Miniature Retroreflective sensors													
	0 to 4,000	22 x 13 x 8.5	Potentio-meter	–	Laser, red	1	pnp, 50 mA NO/NC	-10 to +55	1,000	Plastic	2.0 m	–	LT 21 K 4000 P3
											M8	TK ... /4	LT 21 K 4000 P3-K-T4
O-20 Miniature Through-beam sensors													
	0 to 1,000	19 x 12 x 8.5	–	T/R	Laser, red	1	pnp, 50 mA NO/NC	-10 to +55	1,000	Plastic	2.0 m	–	LES 21 K 1000 P3
											M8	TK ... /4	LES 21 K 1000 P3-K-T4

O-21 MINIATURE

The very small and efficient light barriers and sensors in the O-21 miniature series with IO-Link can be easily integrated. The retroreflective sensors with background suppression are suited for detecting small and flat objects. The retroreflective sensors feature a high functional reserve.

Technical data (typ.)	+20 °C, 24 V DC
For more information, visit	www.di-soric.com

	Scan width / range, setting range (mm)	Housing design Size (mm)	Sensitivity setting by means of	Transmitter (T) / Receiver (R)	Transmission light (clocked)	Laser class	Switching output	Ambient temperature (°C)	Switching frequency (Hz)	Housing material	Cable material/length, Plug connector	Connection cable (optionally available)	Product description
O-21 Miniature Retroreflective energetic diffuse sensors													
	0 to 180	28.1 x 8.1 x 14.4	IO-Link	–	red		pnp, 100 mA NO	-25 to +60	1,000	Plastic	PVC, 2.0 m	–	OT21-PS-2C
			–				npn, 100 mA, NO						OT21-NS-2C
	0 to 180	28.1 x 8.1 x 14.4	IO-Link	–	red		pnp, 100 mA NO	-25 to +60	1,000	Plastic	–	–	OT21-PS-0.3T3
			–				npn, 100 mA, NO						OT21-NS-0.3T3
O-21 Miniature Retroreflective sensors													
	20 to 1,800	28.1 x 8.1 x 14.4	IO-Link	–	red		pnp, 100 mA NO	-25 to +60	1,000	Plastic	PVC, 2.0 m	–	OR21-PS-2C
			–				npn, 100 mA, NO						OR21-NS-2C
	20 to 1,800	28.1 x 8.1 x 14.4	IO-Link	–	red		pnp, 100 mA NO	-25 to +60	1,000	Plastic	–	–	OR21-PS-0.3T3
			–				npn, 100 mA, NO						OR21-NS-0.3T3
O-21 Miniature Through-beam sensors													
	0 to 3,000	28.1 x 8.1 x 14.4	IO-Link	S	red		pnp, 100 mA NO	-25 to +60	1,000	Plastic	PVC 2.0	–	OS21-2C
			–				npn, 100 mA, NO				–		OS21-0.3T3
	0 to 3,000	28.1 x 8.1 x 14.4	IO-Link	E	red		pnp, 100 mA NO	-25 to +60	1,000	Plastic	PVC, 2.0 m	–	OE21-PS-2C
			–				npn, 100 mA, NO						OE21-NS-2C
	0 to 3,000	28.1 x 8.1 x 14.4	IO-Link	E	red		pnp, 100 mA NO	-25 to +60	1,000	Plastic	–	–	OE21-PS-0.3T3
			–				npn, 100 mA, NO						OE21-NS-0.3T3

	Scan width / range, setting range (mm)	Housing design Size (mm)	Sensitivity setting by means of	Transmitter (T) / Receiver (R)	Transmission light (clocked)	Laser class	Switching output	Ambient temperature (°C)	Switching frequency (Hz)	Housing material	Cable material/length, Plug connector	Connection cable (optionally available)	Product description
O-21 Miniature Reflection diffuse sensors background suppression													
	15 (10 to 80)	28.1 x 8.1 x 14.4	IO-Link	–	red		pnp, 100 mA NO/NC	-25 to +60	1,000	Plastic	PVC, 2.0 m	–	OH21-15PS-2C
	15		–				npn, 100 mA, NO						OH21-15NS-2C
	15 (10 to 80)	28.1 x 8.1 x 14.4	IO-Link	–	red		pnp, 100 mA NO/NC	-25 to +60	1,000	Plastic	–	–	OH21-15PS-0.3-T3
	15		–				npn, 100 mA, NO						OH21-15NS-0.3T3
	50 (10 to 80)	28.1 x 8.1 x 14.4	IO-Link	–	red		pnp, 100 mA NO/NC	-25 to +60	1,000	Plastic	PVC, 2.0 m	–	OH21-50PS-2C
	50		–				npn, 100 mA, NO						OH21-50NS-2C
	50 (10 to 80)	28.1 x 8.1 x 14.4	IO-Link	–	red		pnp, 100 mA NO/NC	-25 to +60	1,000	Plastic	–	–	OH21-50PS-0.3T3
	50		–				npn, 100 mA, NO						OH21-50NS-0.3T3
	80 (10 to 80)	28.1 x 8.1 x 14.4	IO-Link	–	red		pnp, 100 mA NO/NC	-25 to +60	1,000	Plastic	PVC, 2.0 m	–	OH21-80PS-2C
	80		–				npn, 100 mA, NO						OH21-80NS-2C
	80 (10 to 80)	28.1 x 8.1 x 14.4	IO-Link	–	red		pnp, 100 mA NO/NC	-25 to +60	1,000	Plastic	–	–	OH21-80PS-0.3T3
	80		–				npn, 100 mA, NO						OH21-80NS-0.3T3

O-30 UNIVERSAL

The efficient light barriers and sensors in the O-30 Universal series are versatile. With their compact design and mounting hole spacing of 25.4 mm, the sensors can be integrated quickly and easily. The user-friendly and robust devices with short response times and good functional reserves are suited for many applications in packaging technology and assembly and handling technology.

Technical data (typ.)	+20 °C, 24 V DC
For more information, visit	www.di-soric.com

CE

	Scan width / range, setting range (mm)	Housing design Size (mm)	Sensitivity setting by means of	Transmitter (T) / Receiver (R)	Transmission light (clocked)	Laser class	Switching output	Ambient temperature (°C)	Switching frequency (Hz)	Housing material	Cable material/length, Plug connector	Connection cable (optionally available)	Product description
O-30 Miniature Retroreflective energetic diffuse sensors													
	10 to 100	31 x 21 x 13	Potenti-ometer	–	red		pnp, 100 mA NO/NC	-25 to +70	1,000	Plastic	M8	TK … /4	OT 31 K 100 P3-T4
											0.2 m/M8	TK …	OT 31 K 100 P3-K-T3
											2.0 m	–	OT 31 K 100 P3-3
	10 to 100	31 x 21 x 13	Potenti-ometer	–	red		npn, 100 mA NO/NC	-25 to +70	1,000	Plastic	M8	TK … /4	OT 31 K 100 N3-T4
											0.2 m/M8	TK …	OT 31 K 100 N3-K-T3
											2.0 m	–	OT 31 K 100 N3-3
	0 to 400	31 x 21 x 13	Potenti-ometer	–	red		pnp, 100 mA NO/NC	-25 to +70	2,000	Plastic	M8	TK … /4	OT 31 K 400 P3-T4
											0.2 m/M8	TK …	OT 31 K 400 P3-K-T3
											2.0 m	–	OT 31 K 400 P3-3
	0 to 400	31 x 21 x 13	Potenti-ometer	–	red		npn, 100 mA NO/NC	-25 to +70	2,000	Plastic	M8	TK … /4	OT 31 K 400 N3-T4
											0.2 m/M8	TK …	OT 31 K 400 N3-K-T3
											2.0 m	–	OT 31 K 400 N3-3
	0 to 1,000	31 x 21 x 13	Potenti-ometer	–	red		pnp, 100 mA NO/NC	-25 to +70	1,000	Plastic	M8	TK … /4	OT 31 K 1000 P3-T4
											0.2 m/M8	TK …	OT 31 K 1000 P3-K-T3
											2.0 m	–	OT 31 K 1000 P3-3
	0 to 1,000	31 x 21 x 13	Potenti-ometer	–	red		npn, 100 mA NO/NC	-25 to +70	1,000	Plastic	M8	TK … /4	OT 31 K 1000 N3-T4
											0.2 m/M8	TK …	OT 31 K 1000 N3-K-T3
											2.0 m	–	OT 31 K 1000 N3-3
O-30 Miniature Reflection diffuse sensors background suppression													
	30 to 200	31 x 21 x 13	Potenti-ometer	–	red		pnp, 100 mA NO/NC	-25 to +70	1,000	Plastic	M8	TK … /4	OH 31 K 200 P3-T4
											0.2 m/M8	TK …	OH 31 K 200 P3-K-T3
											2.0 m	–	OH 31 K 200 P3-3
	30 to 200	31 x 21 x 13	Potenti-ometer	–	red		npn, 100 mA NO/NC	-25 to +70	1,000	Plastic	M8	TK … /4	OH 31 K 200 N3-T4
											0.2 m/M8	TK …	OH 31 K 200 N3-K-T3
											2.0 m	–	OH 31 K 200 N3-3
	30 to 400	31 x 21 x 13	Potenti-ometer	–	Infrared		pnp, 100 mA NO/NC	-25 to +70	1,000	Plastic	M8	TK … /4	OH 30 K 400 P3-T4
											0.2 m/M8	TK …	OH 30 K 400 P3-K-T3
											2.0 m	–	OH 30 K 400 P3-3
	30 to 400	31 x 21 x 13	Potenti-ometer	–	Infrared		npn, 100 mA NO/NC	-25 to +70	1,000	Plastic	M8	TK … /4	OH 30 K 400 N3-T4
											0.2 m/M8	TK …	OH 30 K 400 N3-K-T3
											2.0 m	–	OH 30 K 400 N3-3

	Scan width / range, setting range (mm)	Housing design Size (mm)	Sensitivity setting by means of	Transmitter (T) / Receiver (R)	Transmission light (clocked)	Laser class	Switching output	Ambient temperature (°C)	Switching frequency (Hz)	Housing material	Cable material/length, Plug connector	Connection cable (optionally available)	Product description
O-30 Miniature Retroreflective sensors													
	50 to 1,500	31 x 21 x 13	Potenti-ometer	–	red		pnp, 100 mA NO/NC	-25 to +70	2,000	Plastic	M8	TK … /4	OR 31 K 1500 P3-T4
											0.2 m/M8	TK …	OR 31 K 1500 P3-K-T3
											2.0 m	–	OR 31 K 1500 P3-3
	50 to 1,500	31 x 21 x 13	Potenti-ometer	–	red		npn, 100 mA NO/NC	-25 to +70	2,000	Plastic	M8	TK … /4	OR 31 K 1500 N3-T4
											0.2 m/M8	TK …	OR 31 K 1500 N3-K-T3
											2.0 m	–	OR 31 K 1500 N3-3
	400 to 4,000	31 x 21 x 13	Potenti-ometer	–	red		pnp, 100 mA NO/NC	-25 to +70	2,000	Plastic	M8	TK … /4	OR 31 K 4000 P3-T4
											0.2 m/M8	TK …	OR 31 K 4000 P3-K-T3
											2.0 m	–	OR 31 K 4000 P3-3
	400 to 4,000	31 x 21 x 13	Potenti-ometer	–	red		npn, 100 mA NO/NC	-25 to +70	2,000	Plastic	M8	TK … /4	OR 31 K 4000 N3-T4
											0.2 m/M8	TK …	OR 31 K 4000 N3-K-T3
											2.0 m	–	OR 31 K 4000 N3-3
	20 to 5,000	31 x 21 x 13	Potenti-ometer	–	red		pnp, 100 mA NO/NC	-25 to +70	2,000	Plastic	M8	TK … /4	OR 31 K 5000 P3-T4
											0.2 m/M8	TK …	OR 31 K 5000 P3-K-T3
											2.0 m	–	OR 31 K 5000 P3-3
	20 to 5,000	31 x 21 x 13	Potenti-ometer	–	red		npn, 100 mA NO/NC	-25 to +70	2,000	Plastic	M8	TK … /4	OR 31 K 5000 N3-T4
											0.2 m/M8	TK …	OR 31 K 5000 N3-K-T3
											2 m	–	OR 31 K 5000 N3-3
O-30 Universal Through-beam sensors													
	0 to 20,000	31 x 21 x 13	Potenti-ometer	–	red		pnp, 100 mA NO/NC	-25 to +70	2,000	Plastic	M8	TK … /4	OES 31 K 20000 P3-T4
											0.2 m/M8	TK …	OES 31 K 20000 P3-K-T3
											2.0 m	–	OES 31 K 20000 P3-3
	0 to 20,000	31 x 21 x 13	Potenti-ometer	–	red		npn, 100 mA NO/NC	-25 to +70	2,000	Plastic	M8	TK … /4	OES 31 K 20000 N3-T4
											0.2 m/M8	TK …	OES 31 K 20000 N3-K-T3
											2.0 m	–	OES 31 K 20000 N3-3

O-40 STANDARD

The compact light barriers and sensors in the O-40 Standard series are suited for medium ranges in a broad field of application. The sensors are reliable, economic and cost-efficient. The universal slotted-hole fastening makes flexible mounting possible.

Technical data (typ.)	+20 °C, 24 V DC
For more information, visit	www.di-soric.com

CE

	Scan width / range, setting range (mm)	Housing design Size (mm)	Sensitivity setting by means of	Transmitter (T) / Receiver (R)	Transmission light (clocked)	Laser class	Switching output	Ambient temperature (°C)	Switching frequency (Hz)	Housing material	Cable material/length, Plug connector	Connection cable (optionally available)	Product description
O-40 Standard Retroreflective energetic diffuse sensors													
	10 to 600	38 x 27 x 15	Potentio-meter	–	red		pnp, 100 mA NO	-25 to +60	500	Plastic	M8	TK …	OT 6-41 K 0.6 P1-T3
							pnp, 100 mA NC						OT 6-41 K 0.6 P2-T3
	100 to 1,000	41 x 31.5 x 16	Teach	–	red		Push-pull, 200 mA NO/NC	-25 to +60	1,000	Metal	M8	TK …	OTT 41 M 1 G3-T3
			Teach Remote teach				Push-pull, 200 mA NO/NC					TK … /4	OTT 41 M 1 FG3-T4
O-40 Standard Retroreflective sensors													
	400 to 4,000	38 x 27 x 15	Potentio-meter	–	red		pnp, 100 mA NC	-25 to +60	500	Plastic	M8	TK …	OR 6-41 K 4 P1-T3
							pnp, 100 mA NO						OR 6-41 K 4 P2-T3

O-40E EXTENDED

The devices in the O-40E Extended series for medium ranges have a robust metallic housing with a metallic plug and are used in the detection of standard or small parts. These light barriers detect with LED or with laser variants (laser class 1) that are safe for the eye.

Technical data (typ.)	+20 °C, 24 V DC
For more information, visit	www.di-soric.com

CE

	Scan width / range, setting range (mm)	Housing design Size (mm)	Sensitivity setting by means of	Transmitter (T) / Receiver (R)	Transmission light (clocked)	Laser class	Switching output	Ambient temperature (°C)	Switching frequency (Hz)	Housing material	Cable material/length, Plug connector	Connection cable (optionally available)	Product description
O-40E Extended Reflection diffuse sensors background suppression													
	30 to 350	40 x 30 x 15	Potentio-meter	–	Laser, red	1	Push-pull, 200 mA NO/NC antivalent	-10 to +50	1,000	Metal	M8	TK ... /4	LH 41 M 350 G4L-T4

O-50 METAL

The robust and highly efficient light barriers in the O-50 Metal series work with visible red light LEDs or with laser light that is safe for the eye (laser class 1). They are robust and have a metallic housing and metallic plug. The sensors have maximum functional reserve and are used for long ranges.

Technical data (typ.)	+20 °C, 24 V DC
For more information, visit	www.di-soric.com

CE

	Scan width / range, setting range (mm)	Housing design Size (mm)	Sensitivity setting by means of	Transmitter (T) / Receiver (R)	Transmission light (clocked)	Laser class	Switching output	Ambient temperature (°C)	Switching frequency (Hz)	Housing material	Cable material/length, Plug connector	Connection cable (optionally available)	Product description
O-50 Metal Retroreflective energetic diffuse sensors													
	15 to 150	50 x 40 x 15	Potentio-meter	–	red		pnp, 200 mA NO/NC	-10 to +60	1,000	Metal	M12	VK …	OTV 51 M 150 P3K-IBS
	100 to 500												OTV 51 M 500 P3K-IBS
	100 to 600	50 x 40 x 15	Potentio-meter	–	Infrared		pnp, 200 mA NO/NC	-10 to +60	1,000	Metal	M12	VK …	OTV 50 M 600 P3K-IBS
	50 to 1,200												OTV 50 M 1200 P3K-IBS
	75 to 200	50 x 40 x 15	Potentio-meter	–	Laser, red	1	pnp, 200 mA NO/NC	-10 to +50	2,000	Metal	M12	VK ...	LTV 51 M 200 P3K-IBS
	100 to 600								500				LTV 51 M 600 P3K-IBS
	50 to 500	51 x 51 x 17	+/- buttons	–	Laser, red	1	Push-pull, 100 mA	0 to +50	?	Metal	M12	VK …/5	LVHT52-500G3-B4
O-50 Metal Reflection diffuse sensors background suppression													
	50 to 200	50 x 40 x 15	Potentio-meter	–	Laser, red	1	Push-pull, 200 mA NO/NC	-10 to +50	500	Metal	M12	VK ...	LHT 51 M 200 G3-B4 1)
	50 to 200	50 x 40 x 15	Potentio-meter	–	Laser, red	1	Push-pull, 200 mA NO/NC	-10 to +50	500	Metal	M12	VK ...	LLH 51 M 200 G3-B4
O-50 Metal Retroreflective sensors													
	40 to 2,000	50 x 40 x 15	Potentio-meter	–	red		pnp, 200 mA NO/NC	-10 to +60	1,000	Metal	M12	VK …	ORV 51 M 2000 P3K-IBS
	300 to 5,000	50 x 40 x 15	Potentio-meter	–	red		pnp, 200 mA NO/NC	-10 to +60	1,000	Metal	M12	VK …	ORV 51 M 5000 P3K-IBS
	100 to 1,000	50 x 40 x 15	Potentio-meter	–	Laser, red	1	pnp, 200 mA NO/NC	0 to +50	2,000	Metal	M12	VK ...	LRV 51 M 1000 P3K-IBS
	200 to 2,000												LRV 51 M 2000 P3K-IBS
	1,000 to 10,000												LRV 51 M 10000 P3K-IBS
	50 to 500	50 x 40 x 15	Potentio-meter	–	Laser, red	1	pnp, 200 mA NO/NC	5 to +50	750	Metal	M12	VK ...	LLRV 51 M 500 P3K-IBS
O-50 Metal Through-beam sensors													
	0 to 10,000	50 x 40 x 15	Potentio-meter	S	red		–	-25 to +60		Metal	M12	VK …	OSV 51 M 10000-IBS
				E	red		pnp, 200 mA NO/NC	-25 to +60	100/200	Metal	M12	VK …	OEV 51 M 10000-P3K-IBS

O-81 LASER

The laser diffuse sensors in the O-81 Laser series are used for precise detection of objects using red light lasers. The sensors can be adjusted precisely and distinguished by their high resolution and functional reserve. The robust devices with a metallic housing and metallic plug can be operated intuitively by way of potentiometers and NO-NC switches.

Technical data (typ.)	+20 °C, 24 V DC
For more information, visit	www.di-soric.com

	Scan width / range, setting range (mm)	Housing design Size (mm)	Sensitivity setting by means of	Transmitter (T) / Receiver (R)	Transmission light (clocked)	Laser class	Switching output	Ambient temperature (°C)	Switching frequency (Hz)	Housing material	Cable material/length, Plug connector	Connection cable (optionally available)	Product description
O-81 Laser Reflection diffuse sensors background suppression													
	40 to 400	76 x 30 x 18	Potentio-meter	–	Laser, red	1	Antivalent, 200 mA NO/NC	-10 to +60	1,000	Metal	M12	VK ... /4	LHT 81 M 300 G4L-IBS
							200 mA, NO switching output NC alarm output						LHT 81 M 300 G6L-IBS
	40 to 400	76 x 30 x 18	Potentio-meter	–	Laser, red	2	Push-pull, 200 mA, NO/NC, antivalent	-20 to +60	1,000	Metal	M12	VK ...	LHT 81 M 400 G4L-IBS
							Push-pull, 200 mA, NO switching output, NC alarm output						LHT 81 M 400 G6L-IBS

O-Q10 MINIATURE

The devices in O-Q10 Miniature series are the first choice for applications that require compact laser through-beam sensors for small parts detection. The robust devices with a metallic housing and metallic plug consistently satisfy the safe laser protection class 1.

Technical data (typ.)	+20 °C, 24 V DC
For more information, visit	www.di-soric.com

	Scan width / range, setting range (mm)	Housing design Size (mm)	Sensitivity setting by means of	Transmitter (T) / Receiver (R)	Transmission light (clocked)	Laser class	Switching output	Ambient temperature (°C)	Switching frequency (Hz)	Housing material	Cable material/length, Plug connector	Connection cable (optionally available)	Product description
O-Q10 Miniature Through-beam sensors													
	0 to 500	10 x 10 x 60	–	S	Laser, red	1	–	0 to +50	2,000	Metal	M8	TK ...	OLSQ 10 M 500-TSSL
				E			pnp, 200 mA NC						OLEQ 10 M 500 P1K-TSSL
				E			pnp, 200 mA NO						OLEQ 10 M 500 P2K-TSSL
	0 to 2,000	10 x 10 x 60	–	S	Laser, red	1	–	0 to +50	2,000	Metal	M8	TK ...	OLSQ 10 M 2000-TSSL
				E			pnp, 200 mA NC						OLEQ 10 M 2000 P1K-TSSL
				E			pnp, 200 mA NO						OLEQ 10 M 2000 P2K-TSSL

O-M5

The device in the O-M5 series are the smallest diffuse sensors from di-soric in a threaded model. The sensors are distinguished by their precise detection of objects and are ideal for mounting in confined space conditions.

Technical data (typ.)	+20 °C, 24 V DC
For more information, visit	www.di-soric.com

CE

	Scan width / range, setting range (mm)	Housing design Size (mm)	Sensitivity setting by means of	Transmitter (T) / Receiver (R)	Transmission light (clocked)	Laser class	Switching output	Ambient temperature (°C)	Switching frequency (Hz)	Housing material	Cable material/length, Plug connector	Connection cable (optionally available)	Product description
O-M5 Retroreflective energetic diffuse sensors													
	... 10	M5	–	–	Red light		pnp, 100 mA NO	-25 to +65	1000	Stainless steel V2A	2.0 m	–	OTM05-10PS-2R
											M8	TK ...	OTM05-10PS-T3
	... 20	M5	–	–	Red light		pnp, 100 mA NO	-25 to +65	1000	Stainless steel V2A	2.0 m	–	OTM05-20PS-2R
											M8	TK ...	OTM05-20PS-T3
	... 50	M5	–	–	Red light		pnp, 100 mA NO	-25 to +65	1000	Stainless steel V2A	2.0 m	–	OTM05-50PS-2R
											M8	TK ...	OTM05-50PS-T3

O-M8

The compact laser light sensors are used for the detection of small parts and are designed for the safe laser class 1. This avoids injuries to the human eye.

Technical data (typ.)	+20 °C, 24 V DC
For more information, visit	www.di-soric.com

CE

	Scan width / range, setting range (mm)	Housing design Size (mm)	Sensitivity setting by means of	Transmitter (T) / Receiver (R)	Transmission light (clocked)	Laser class	Switching output	Ambient temperature (°C)	Switching frequency (Hz)	Housing material	Cable material/length, Plug connector	Connection cable (optionally available)	Product description
O-M8 Through-beam sensors													
	0 to 2,000	M8 x 70	–	S	Laser, red	1	–	0 to +50	2,000	Stainless steel	M8	TK ...	OLS 08 V 2000-TSSL
				E			pnp, 200 mA NO						OLE 08 V 2000 P2K-TSSL

O-M18 STANDARD

The light barriers and diffuse sensors in the O-M18 Standard series are ideal devices for economical and cost-efficient applications. The sensors are alternatively available in a straight model or with 90° angled optics. The plastic or metallic housing is distinguished by its short construction.

Technical data (typ.)	+20 °C, 24 V DC
For more information, visit	www.di-soric.com

CE

	Scan width / range, setting range (mm)	Housing design Size (mm)	Sensitivity setting by means of	Transmitter (T) / Receiver (R)	Transmission light (clocked)	Laser class	Switching output	Ambient temperature (°C)	Switching frequency (Hz)	Housing material	Cable material/length, Plug connector	Connection cable (optionally available)	Product description
O-M18 Standard Through-beam sensors													
	8,000	M18 x 68	Potentiometer	–	Infrared		pnp, 100 mA NO/NC	-25 to +55	1,000	Plastic	M12	VK… /4	OES 18 FKR 8000 P3-B4
										Metal			OES 18 FMR 8000 P3-B4
	8,000	M18 x 68	Potentiometer	–	Infrared		npn, 100 mA NO/NC	-25 to +55	1,000	Plastic	M12	VK… /4	OES 18 FKR 8000 N3-B4
										Metal			OES 18 FMR 8000 N3-B4
	8,000	M18 x 58	Potentiometer	–	Infrared		pnp, 100 mA NO/NC	-25 to +55	1,000	Plastic	PVC, 2.0 m	–	OES 18 FKR 8000 P3
										Metal			OES 18 FMR 8000 P3
	8,000	M18 x 58	Potentiometer	–	Infrared		npn, 100 mA NO/NC	-25 to +55	1,000	Plastic	PVC, 2.0 m	–	OES 18 FKR 8000 N3
										Metal			OES 18 FMR 8000 N3
	10,000	M18 x 55	Potentiometer	–	Infrared		pnp, 100 mA NO/NC	-25 to +55	333	Plastic	M12	VK… /4	OES 18 FK 10000 P3-B4
										Metal			OES 18 FM 10000 P3-B4
	10,000	M18 x 55	Potentiometer	–	Infrared		npn, 100 mA NO/NC	-25 to +55	333	Plastic	M12	VK… /4	OES 18 FK 10000 N3-B4
										Metal			OES 18 FM 10000 N3-B4
	10,000	M18 x 45	Potentiometer	–	Infrared		pnp, 100 mA NO/NC	-25 to +55	333	Plastic	PVC, 2.0 m	–	OES 18 FK 10000 P3
										Metal			OES 18 FM 10000 P3
	10,000	M18 x 45	Potentiometer	–	Infrared		npn, 100 mA NO/NC	-25 to +55	333	Plastic	PVC, 2.0 m	–	OES 18 FK 10000 N3
										Metal			OES 18 FM 10000 N3
O-M18 Standard Retroreflective energetic diffuse sensors													
	320	M18 x 68	Potentiometer	–	Infrared		pnp, 100 mA NO/NC	-25 to +55	1,000	Plastic	M12	VK… /4	OT 18 FKR 320 P3-B4
										Metal			OT 18 FMR 320 P3-B4
	320	M18 x 68	Potentiometer	–	Infrared		npn, 100 mA NO/NC	-25 to +55	1,000	Plastic	M12	VK… /4	OT 18 FKR 320 N3-B4
										Metal			OT 18 FMR 320 N3-B4
	320	M18 x 58	Potentiometer	–	Infrared		pnp, 100 mA NO/NC	-25 to +55	1,000	Plastic	PVC, 2.0 m	–	OT 18 FKR 320 P3
										Metal			OT 18 FMR 320 P3
	320	M18 x 58	Potentiometer	–	Infrared		npn, 100 mA NO/NC	-25 to +55	1,000	Plastic	PVC, 2.0 m	–	OT 18 FKR 320 N3
										Metal			OT 18 FMR 320 N3
	400	M18 x 55	Potentiometer	–	Infrared		pnp, 100 mA NO/NC	-25 to +55	1,000	Plastic	M12	VK… /4	OT 18 FK 400 P3-B4
										Metal			OT 18 FM 400 P3-B4
	400	M18 x 55	Potentiometer	–	Infrared		npn, 100 mA NO/NC	-25 to +55	1,000	Plastic	M12	VK… /4	OT 18 FK 400 N3-B4
										Metal			OT 18 FM 400 N3-B4
	400	M18 x 45	Potentiometer	–	Infrared		pnp, 100 mA NO/NC	-25 to +55	1,000	Plastic	PVC, 2.0 m	–	OT 18 FK 400 P3
										Metal			OT 18 FM 400 P3
	400	M18 x 45	Potentiometer	–	Infrared		npn, 100 mA NO/NC	-25 to +55	1,000	Plastic	PVC, 2.0 m	–	OT 18 FK 400 N3
										Metal			OT 18 FM 400 N3

	Scan width / range, setting range (mm)	Housing design Size (mm)	Sensitivity setting by means of	Transmitter (T) / Receiver (R)	Transmission light (clocked)	Laser class	Switching output	Ambient temperature (°C)	Switching frequency (Hz)	Housing material	Cable material/length, Plug connector	Connection cable (optionally available)	Product description
O-M18 Standard Retroreflective energetic diffuse sensors													
	600	M18 x 68	Potenti-ometer	–	Infrared		pnp, 100 mA NO/NC	-25 to +55	1,000	Plastic	M12	VK… /4	OT 18 FKR 600 P3-B4
										Metal			OT 18 FMR 600 P3-B4
	600	M18 x 68	Potenti-ometer	–	Infrared		npn, 100 mA NO/NC	-25 to +55	1,000	Plastic	M12	VK… /4	OT 18 FKR 600 N3-B4
										Metal			OT 18 FMR 600 N3-B4
	600	M18 x 58	Potenti-ometer	–	Infrared		pnp, 100 mA NO/NC	-25 to +55	1,000	Plastic	PVC, 2.0 m	–	OT 18 FKR 600 P3
										Metal			OT 18 FMR 600 P3
	600	M18 x 58	Potenti-ometer	–	Infrared		npn, 100 mA NO/NC	-25 to +55	1,000	Plastic	PVC, 2.0 m	–	OT 18 FKR 600 N3
										Metal			OT 18 FMR 600 N3
	800	M18 x 55	Potenti-ometer	–	Infrared		pnp, 100 mA NO/NC	-25 to +55	1,000	Plastic	M12	VK… /4	OT 18 FK 800 P3-B4
										Metal			OT 18 FM 800 P3-B4
	800	M18 x 55	Potenti-ometer	–	Infrared		npn, 100 mA NO/NC	-25 to +55	1,000	Plastic	M12	VK… /4	OT 18 FK 800 N3-B4
										Metal			OT 18 FM 800 N3-B4
	800	M18 x 45	Potenti-ometer	–	Infrared		pnp, 100 mA NO/NC	-25 to +55	1,000	Plastic	PVC, 2.0 m	–	OT 18 FK 800 P3
										Metal			OT 18 FM 800 P3
	800	M18 x 45	Potenti-ometer	–	Infrared		npn, 100 mA NO/NC	-25 to +55	1,000	Plastic	PVC, 2.0 m	–	OT 18 FK 800 N3
										Metal			OT 18 FM 800 N3

O-M18 Standard Retroreflective sensors													
	3,000	M18 x 83	Potenti-ometer	–	red		pnp, 100 mA NO/NC npn, 100 mA NO/NC	-25 to +70	250	Metal	M12	VK… /4	OR 18-1 M 3000 P4-B4 OR 18-1 M 3000 N4-B4
	3,600	M18 x 68	Potenti-ometer	–	red		pnp, 100 mA NO/NC	-25 to +55	1,000	Plastic	M12	VK… /4	OR 18-1 FKR 3600 P3-B4
										Metal			OR 18-1 FMR 3600 P3-B4
	3,600	M18 x 68	Potenti-ometer	–	red		npn, 100 mA NO/NC	-25 to +55	1,000	Plastic	M12	VK… /4	OR 18-1 FKR 3600 N3-B4
										Metal			OR 18-1 FMR 3600 N3-B4
	3,600	M18 x 58	Potenti-ometer	–	red		pnp, 100 mA NO/NC	-25 to +55	1,000	Plastic	PVC, 2.0 m	–	OR 18-1 FKR 3600 P3
										Metal			OR 18-1 FMR 3600 P3
	3,600	M18 x 58	Potenti-ometer	–	red		npn, 100 mA NO/NC	-25 to +55	1,000	Plastic	PVC, 2.0 m	–	OR 18-1 FKR 3600 N3
										Metal			OR 18-1 FMR 3600 N3
	5,700	M18 x 55	Potenti-ometer	–	red		pnp, 100 mA NO/NC	-25 to +55	1,000	Plastic	M12	VK… /4	OR 18-1 FK 5700 P3-B4
										Metal			OR 18-1 FM 5700 P3-B4
	5,700	M18 x 55	Potenti-ometer	–	red		npn, 100 mA NO/NC	-25 to +55	1,000	Plastic	M12	VK… /4	OR 18-1 FK 5700 N3-B4
										Metal			OR 18-1 FM 5700 N3-B4
	5,700	M18 x 45	Potenti-ometer	–	red		pnp, 100 mA NO/NC	-25 to +55	1,000	Plastic	PVC, 2.0 m	–	OR 18-1 FK 5700 P3
										Metal			OR 18-1 FM 5700 P3
	5,700	M18 x 45	Potenti-ometer	–	red		npn, 100 mA NO/NC	-25 to +55	1,000	Plastic	PVC, 2.0 m	–	OR 18-1 FK 5700 N3
										Metal			OR 18-1 FM 5700 N3

O-M18E EXTENDED

The diffuse sensors in the O-M18E Extended series can be used universally and are the first choice in challenging applications. The devices have a robust metallic housing and score points with their high functional reserve and efficient background suppression.

Technical data (typ.)	+20 °C, 24 V DC
For more information, visit	www.di-soric.com

CE

	Scan width / range, setting range (mm)	Housing design Size (mm)	Sensitivity setting by means of	Transmitter (T) / Receiver (R)	Transmission light (clocked)	Laser class	Switching output	Ambient temperature (°C)	Switching frequency (Hz)	Housing material	Cable material/length, Plug connector	Connection cable (optionally available)	Product description
O-M18E Extended Reflection diffuse sensors background suppression													
	30 to 130	M18 x 80	Potenti-ometer	–	red		pnp, 100 mA NO/NC	-25 to +70	1,000	Metal	M12	VK … /4	OH 18-1 M 130 P4-B4
							npn, 100 mA NO/NC						OH 18-1 M 130 N4-B4

O-D4

The devices in the O-D4 series are the smallest diffuse sensors that di-soric offers in a cylindrical model. They guarantee the precise detection of objects and are ideal for mounting everywhere where space is scarce.

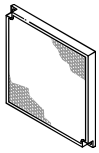
Technical data (typ.)	+20 °C, 24 V DC
For more information, visit	www.di-soric.com

CE

	Scan width / range, setting range (mm)	Housing design Size (mm)	Sensitivity setting by means of	Transmitter (T) / Receiver (R)	Transmission light (clocked)	Laser class	Switching output	Ambient temperature (°C)	Switching frequency (Hz)	Housing material	Cable material/length, Plug connector	Connection cable (optionally available)	Product description
O-D4 Retroreflective energetic diffuse sensors													
	... 10	Ø4.0	–	–	Red light		pnp, 100 mA NO	-25 to +65	1000	Stainless steel V2A	2.0 m	–	OTD04-10PS-2R
											M8	TK …	OTD04-10PS-T3
	... 20	Ø4.0	–	–	Red light		pnp, 100 mA NO	-25 to +65	1000	Stainless steel V2A	2.0 m	–	OTD04-20PS-2R
											M8	TK …	OTD04-20PS-T3
	... 50	Ø4.0	–	–	Red light		pnp, 100 mA NO	-25 to +65	1000	Stainless steel V2A	2.0 m	–	OTD04-50PS-2R
											M8	TK …	OTD04-50PS-T3

REFLECTORS AND REFLECTIVE FOILS

di-soric offers an extensive range of reflectors and reflective foils for an extensive range of application areas. Design options include reflectors for laser, red light and infrared light sensors. Different models with different fastening options and high-temperature-proof designs round out the product range.

	Housing design Size (mm)	Mounting	For sensors with red light / infrared light	For sensors with laser light	Temperature stability (°C)	Product description
Reflectors for infrared and red light						
	Ø 10x5.8	M3 x 8.4	■		-20 to 60	R 10 M3
	Ø 19x5.8	M3 x 9	■		-20 to 60	R 21 M3
	Ø 42x7	adhesive	■		-20 to 60	R 42
	Ø 50x8	adhesive	■		-20 to 60	R 50
	69 x 50 x 9	Ø5 mm (2x)	■		to 80	R 46
	Ø 84x7.4	Ø4.5 mm (1x)	■		-20 to 60	R 84
	19 x 54 x 9.4	adhesive	■		-20 to 60	R 19x54
	50 x 80 x 7.2	adhesive	■		-20 to 60	R 50x80
	51 x 95 x 8	Ø3.3 mm (2x)	■		to 500	R 51x94/500°
	100 x 100 x 9	Ø 3.8 (2x)	■		-20 to 60	R 100x100
	100 x 100 x 9	Ø3.8 mm (2x)	■		to 150	R 100x100/150°
	Width of 50	self-adhesive	■		-20 to 60	RFP 50/... m
Reflectors and reflective foil for laser light						
	12.8 x 16.8 x 4.2	adhesive		■	Up to 60	RL 13x17
	42 x 35 x 8.4	Ø 3.3 (2x)		■	Up to 60	RL 42x35
	43 x 20 x 3.5	Ø 3.3 (2x)		■	Up to 110	RL 43x20/110°
	30 x 45 x 5.5	Ø 3.3 (2x)		■	Up to 70	RL 45x30
	50 x 230	adhesive		■	Up to 60	RFPL 50x230

The specified range can be reduced by up to 50% compared to the reference reflector.