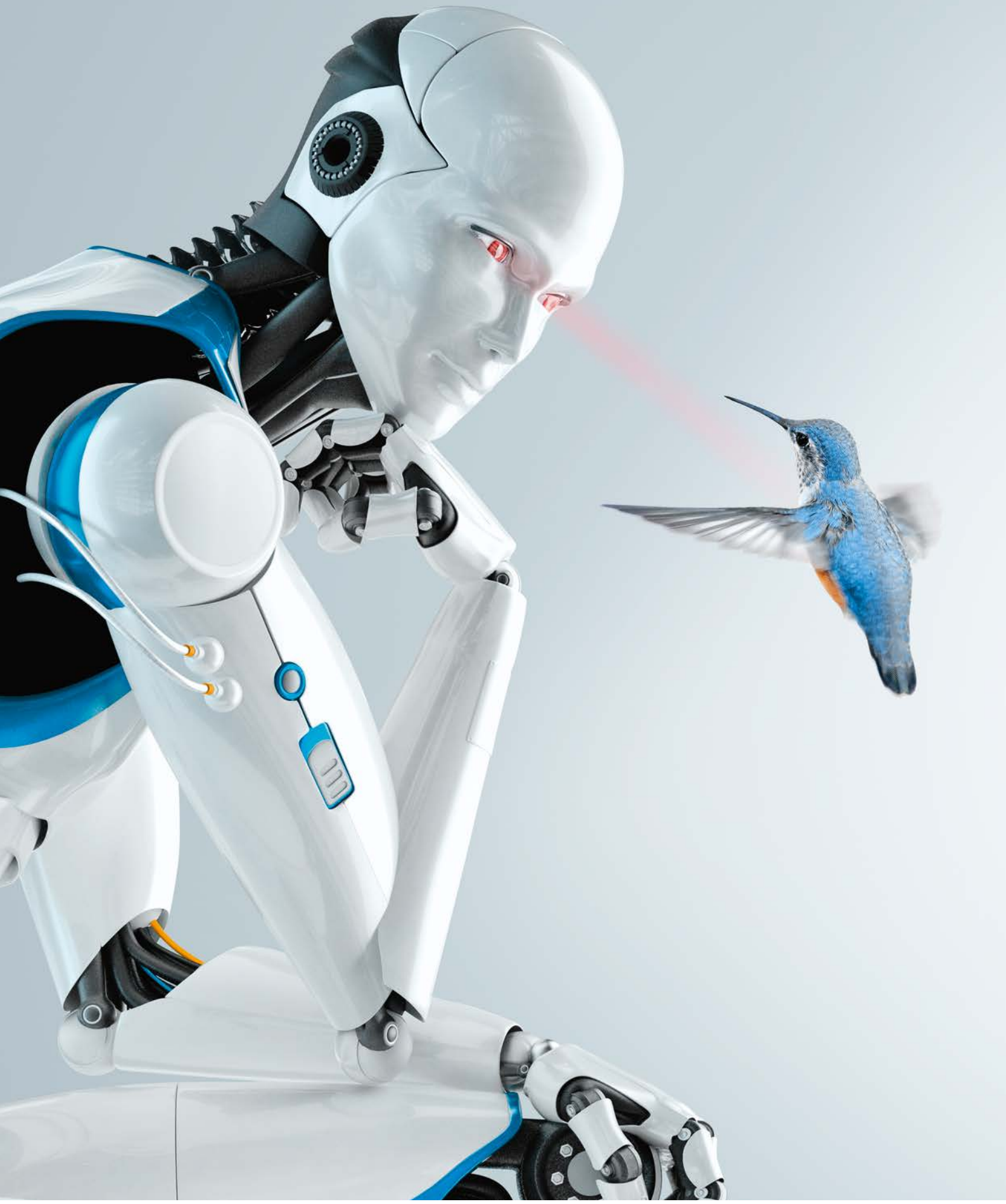
PRODUCT OVERVIEW

Photoelectric sensors

PRODUCTS AT A GLANCE

SICK
Sensor Intelligence.



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THE HIGHEST STANDARDS. PRECISE DETECTION.

High-tech automation requires intelligent object detection. No matter what challenges you are faced with, photoelectric sensors from SICK are the reliable solution for a broad and demanding range of applications. The high detection quality of sensors from SICK increases the productivity of machines along with the quality of results.

YOUR ADVANTAGES AT A GLANCE

- Comprehensive detection
- All conditions; all standards
- For every type of machine
- Intelligent communication
- Complete and customized to your needs

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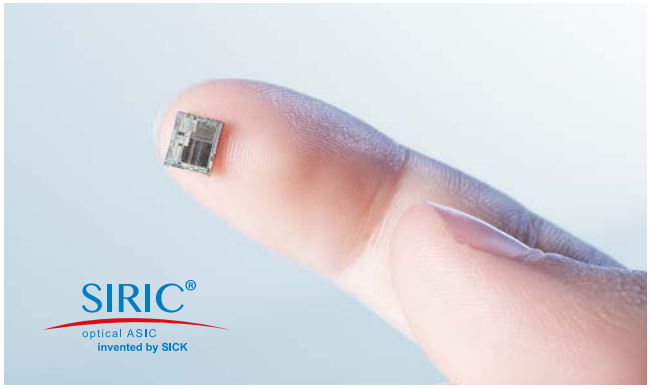
VERSATILE, RELIABLE, FIRST-CLASS

The wide selection of photoelectric sensors from SICK ensures that numerous automation engineering applications around the world can be implemented both effectively and efficiently. Photoelectric sensors from SICK are available as standard in a wide range of designs and materials. Thanks to the use of SIRIC®, SICK's very own ASIC, combined with modern optical technologies, they offer the highest in operational safety, regardless of any on-site interference. Additional sensor information via IO-Link helps to cut the complexity of modern production processes.

Because SICK handles all its own engineering, from the design of microchips to implementation in photoelectric sensors, customization for special applications or customer requirements can be achieved quickly and tailored to your needs.



COMPREHENSIVE DETECTION

Photoelectric sensors from SICK detect objects of various types and qualities thanks to SIRIC® – SICK's very own ASIC.
With SIRIC®, digital signal processing methods can be incorporated into the world of photoelectric sensors. Sensors equipped with this technology are more powerful than ever before and are highly resistant to all known optical or electromagnetic influences. Thanks to modern communication methods, they can be integrated seamlessly into automation networks.

Sensors from SICK reliably detect every type of object – whether transparent or opaque, small or fast, perforated or shiny, uneven or wrapped in film, near or far. You can rely on the very best in quality.

ALL CONDITIONS; ALL NORMS AND STANDARDS

Regardless of what the conditions are, photoelectric sensors from SICK operate reliably. They deliver safe detection results even under intense ambient light or disruptive background reflections. Thanks to their rugged design, they can withstand high mechanical stresses due to shock or vibration and are also secure against electromagnetic interference. Whether there is dust, extreme temperatures or temperature change, damp or wet conditions, or contact with chemicals such as cleaning agents, sensors from SICK can be relied on. They comply with all relevant norms and standards that are required in industry today. This includes EU conformity, UL, and also RoHS. SICK's in-house test guidelines often go much further than the statutory specifications and common industry standards.

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FOR EVERY TYPE OF MACHINE

From miniature to large: Thanks to their variety of housing and operating options, photoelectric sensors from SICK can fit in any machine type. For the housing materials you have the choice between stainless steel, VISTAL™, metal, plastic, or Teflon® coating. You also have numerous options when it comes to connecting and operating the sensors. All sensors from SICK are easy to set up and mount.

INTELLIGENT COMMUNICATION

More than just a switching signal: Photoelectric sensors from SICK offer intelligent automation functions in the sensor and enable modern integration into the automation network. On the basis of state-of-the-art sensor technology, they can be integrated into automation networks and, thanks to their innovative functions, can help boost the productivity of machines.

COMPLETE AND CUSTOMIZED

The extensive portfolio of photoelectric sensors from SICK covers the entire spectrum of industry-standard application requirements. Light sources such as PinPoint, lasers, infrared, or blue light are as much a part of this portfolio as the wide variety of available detection principles. This includes background and foreground suppression or autocollimation for avoiding blind zones. The product range is made complete with the addition of innovative functions such as ClearSense or AutoAdapt for detecting transparent objects. An extensive range of accessories is also available for all sensors.

But if this doesn't contain the perfect solution, light sources and detection principles can be customized on request with special object properties relating to material, surface, or form, for instance.

Product family		Housing			Material			Type of light		Light source			Special applications			
		Rectangular	Cylindrical threaded	Hybrid	Stainless steel	Metal	Plastic	Visible red light	Infrared light	PinPoint LED	LED	Laser	Detecting transparent objects	Hygienic and washdown zones	Detecting small objects	
Rectangular photoelectric sensors																
	W2S-2	■					■	■		■	■				■	
	W2SG-2	■					■	■		■			■			
	W4-3	■					■	■	■	■	■				■	
	W4-3 Glass	■					■	■		■			■			
	W4S-3	■					■	■	■	■	■				■	
	W4S-3 Glass	■					■	■		■			■			
	W4SL-3	■					■	■				■			■	
	W4SLG-3	■					■	■				■	■		■	
	W4S-3 Inox	■			■			■		■	■			■	■	
	W4S-3 Inox Glass	■			■			■		■			■	■		
	W4S-3 Inox Hygiene	■			■			■		■				■	■	
	W4SL-3V	■			■			■				■		■	■	
	W4SLG-3V	■			■			■				■	■	■	■	
	W4SL-3H	■			■			■				■		■	■	
	W4SLG-3H	■			■			■				■	■	■	■	
	W9-3	■					■	■	■	■	■				■	
	W9-3 Glass	■					■	■		■			■			
	W9L-3	■					■	■				■			■	
	W9LG-3	■					■	■				■	■		■	

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	Photoelectric proximity sensor	Photoelectric retro-reflective sensor	Photoelectric through-beam sensor	Page
	150 mm	1.2 m	2.5 m	→ 12
	–	1.2 m	–	→ 12
	150 mm	4.5 m	4 m	→ 12
	–	4.5 m	–	→ 13
	180 mm	5 m	5 m	→ 13
	–	5 m	–	→ 13
	300 mm	12 m	60 m	→ 13
	–	4.5 m	–	→ 14
	500 mm	5 m	5 m	→ 14
	–	5 m	–	→ 14
	500 mm	5 m	5 m	→ 15
	300 mm	–	60 m	→ 15
	–	4.5 m	–	→ 15
	300 mm	–	–	→ 15
	–	4.5 m	–	→ 16
	800 mm	5 m	10 m	→ 16
	–	5 m	–	→ 16
	400 mm	12 m	60 m	→ 17
	–	4.5 m	–	→ 17

Product family		Housing			Material			Type of light		Light source			Special applications			
		Rectangular	Cylindrical threaded	Hybrid	Stainless steel	Metal	Plastic	Visible red light	Infrared light	PinPoint LED	LED	Laser	Detecting transparent objects	Hygienic and washdown zones	Detecting small objects	
	W12-3	■				■		■	■	■	■				■	
	W12G	■				■		■	■	■	■		■		■	
	W12-2 Laser	■				■		■				■			■	
	W16	■					■	■	■	■	■		■		■	
	W26	■					■	■	■	■	■		■		■	
Cylindrical photoelectric sensors																
	V180-2		■			■	■	■	■		■					
	SureSense			■			■	■	■	■	■	■	■		■	
MultiTask photoelectric sensors																
	PowerProx	■					■	■	■			■			■	
Fiber-optic sensors and fibers																
	WLL180T	■					■	■	■		■				■	
	LL3	■	■		■	■	■	■	■				■		■	

[1] With LL3-DK06 [2] With LL3-TX01

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				Page
	Photoelectric proximity sensor	**Photoelectric retro-reflective sensor**	**Photoelectric through-beam sensor**	
	800 mm	7 m	20 m	→ 17
	–	4 m	–	→ 17
	200 mm	18 m	80 m	→ 17
	1.5 m	10 m	45 m	→ 18
	2 m	18 m	60 m	→ 18
	1.1 m	7 m	28 m	→ 18
	1 m	12 m	60 m	→ 19
	4 m	–	–	→ 19
	1.4 m [1]	–	20 m [2]	→ 19
	1.4 m [1]	–	20 m [2]	→ 19

	 **W2S-2**	 **W2SG-2**	 **W4-3**
	Incredibly small, yet powerful	Powerful clear material detection in an ultra-compact housing	Best-in-class sensing performance in a miniature housing
Technical data overview			
Dimensions (W x H x D)	7.7 mm x 27.5 mm x 13.5 mm	7.7 mm x 21.8 mm x 13.5 mm	16 mm x 39.5 mm x 12 mm
Sensing range max.			
Photoelectric proximity sensor	1 mm ... 150 mm	–	3 mm ... 150 mm
Photoelectric retro-reflective sensor,	0 m ... 1.2 m	0 m ... 1.2 m	0.01 m ... 4.5 m
Through-beam photoelectric sensor	0 m ... 2.5 m	–	0 m ... 4 m
Light source	PinPoint LED / LED	PinPoint LED	PinPoint LED / LED
Type of light	Visible red light / visible blue light	Visible red light	Visible red light / Infrared light
Enclosure rating	IP67	IP67	IP66, IP67
Housing material	Plastic	Plastic	Plastic
Adjustment	None, Cable, Potentiometer	Cable	None, Cable, Potentiometer, Teach-in button
At a glance			
	• Sensor with background suppression and without any significant black/white shift • PinPoint 2.0 LED with extended sensing distances and high operating reserves • A variety of application possibilities thanks to clearly-defined laser-like or line-shaped light spots • Detection of highly-transparent and reflective objects using sensors with V-optics • Photoelectric retro-reflective sensor with autocollimation and a clearly visible light spot	• Extremely high sensor size to sensing distance ratio • High switching point accuracy • Teach-in functions enable reliable settings • Automatic switching threshold adaption • Single-lens autocollimation for visibility through apertures and drill holes • Flexible sensor settings, monitoring, advanced diagnostics, and display thanks to IO-Link	• Best background suppression sensor in its class • Universal use of PinPoint technology in all variants • BGS proximity sensor with laser-like light spot for precise detection tasks • Reliable setting via 5-turn potentiometer, teach-in button, teach-in via cable or IO-Link • Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link
Detailed information	→ www.sick.com/W2S-2	→ www.sick.com/W2SG-2	→ www.sick.com/W4-3

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	W4-3 Glass	**W4S-3**	**W4S-3 Glass**	**W4SL-3**
	Reliable detection of transparent objects	Photoelectric sensor family with best-in-class performance	Slim photoelectric sensors reliably detect transparent objects	Laser precision for very small or transparent objects
	16 mm x 39.5 mm x 12 mm	12.2 mm x 41.8 mm x 17.3 mm	12.2 mm x 41.8 mm x 17.3 mm	12.2 mm x 41.8 mm x 17.3 mm
	–	4 mm ... 180 mm	–	25 mm ... 300 mm
	0.01 m ... 4.5 m	0 m ... 5 m	0.01 m ... 5 m	0 m ... 12 m
	–	0 m ... 5 m	–	0 m ... 60 m
	PinPoint LED	PinPoint LED	PinPoint LED	Laser
	Visible red light	Visible red light	Visible red light	Visible red light
	IP66, IP67	IP66, IP67	IP66, IP67	IP66, IP67
	Plastic	Plastic	Plastic	Plastic
	None, Cable, Teach-in button	None, Cable, Potentiometer, Teach-in button	None, Cable, Teach-in button	Cable, Potentiometer, Teach-in button
	• Fast and reliable setup via teach-in pushbutton • Continuous threshold adjustment technology to detect objects in changing conditions such as temperature, contamination and reflector wear • Versions without polarizing filters to better detect depolarizing objects such as PET bottles, CD sleeves and shrink-wrapped, glossy objects	• Best background suppression sensor in its class • Universal use of PinPoint LED technology in all models • BGS proximity sensor with laser-like light spot for precise detection tasks • Reliable setting via 5-turn potentiometer, teach-in pushbutton, teach-in via cable or IO-Link • Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link	• Continuous threshold adaption of the switching threshold compensates for environmental changes • Single-lens autocollimation optics • Simple setting either via teach-in pushbutton, cable or IO-Link • PinPoint LED technology with a small, highly visible, well-defined light spot enables high reserve levels when using small reflectors • Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link	• Precise laser light spot, laser class 1 • Teach-in pushbutton can be switched between detection of transparent and non-transparent objects • Sensing ranges between 25 mm and 60 m • Latest SICK proprietary ASIC and laser technologies with second emitter LED to provide outstanding background suppression and ambient light immunity • Choice of adjustment via teach-in button, potentiometer, cable, or IO-Link
	→ www.sick.com/W4-3_Glass	→ www.sick.com/W4S-3	→ www.sick.com/W4S-3_Glass	→ www.sick.com/W4SL-3

	 **W4SLG-3**	 **W4S-3 Inox**	 **W4S-3 Inox Glass**	
	Detect all objects with one device - Change mode via teach button	Reliable, rugged, and versatile	Reliable detection of transparent objects	
Technical data overview				
Dimensions (W x H x D)	12.2 mm x 41.8 mm x 17.3 mm	15.25 mm x 49.2 mm x 22.2 mm	15.25 mm x 49.2 mm x 22.2 mm	
Sensing range max.				
Photoelectric proximity sensor	–	4 mm ... 500 mm	–	
Photoelectric retro-reflective sensor,	0 m ... 4.5 m	0 m ... 5 m	0 m ... 5 m	
Through-beam photoelectric sensor	–	0 m ... 5 m	–	
Light source	Laser	PinPoint LED / LED	PinPoint LED	
Type of light	Visible red light	Visible red light	Visible red light	
Enclosure rating	IP66, IP67	IP66, IP67, IP68, IP69K	IP66, IP67, IP68, IP69K	
Housing material	Plastic	Stainless steel	Stainless steel	
Adjustment	Cable, Teach-in button	None, Cable, Teach-in button	Cable, Teach-in button	
At a glance				
	• Precise laser light spot, laser class 1 • Teach-in button can be switched between detection of transparent and smallest non-transparent objects • Continuous threshold adaptation provides automated adjustment to changes in light conditions • Sensing ranges up to 4.5 m • Autocollimation optics prevent blind spots • Choice of adjustment via teach-in button, potentiometer, cable, or IO-Link	• WashDown rated for fluid tightness (IP 66, IP 67, IP 68 and IP 69K) and Ecolab certified • Tough stainless steel housing (316L/1.4404) • Resistant to a variety of common cleaning and disinfection agents • Highly visible laser-like light spot due to PinPoint LED • Teach-in via stainless steel pushbutton with a metal membrane • Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link	• IP 66, IP 67, IP 68 and IP 69K enclosure rating and Ecolab certified • Tough stainless steel housing (316L/1.4404) • Resistant to a variety of common cleaning and disinfection agents • Modern electrical connection available – M12 connector with pin casting • PinPoint LED technology provides a highly visible laser-like light spot • Teach-in via stainless steel pushbutton with a metal membrane • Continuous threshold adjustment technology reliably detects objects in changing conditions	
Detailed information	➜ www.sick.com/W4SLG-3	➜ www.sick.com/W4S-3_Inox	➜ www.sick.com/W4S-3_Inox_Glass	

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	W4S-3 Inox Hygiene	**W4SL-3V**	**W4SLG-3V**	**W4SL-3H**
	Highest reliability, maximum resistance and endless possibilities	The new standard for optical and mechanical ruggedness	Detects all objects in the harshest of environments	Laser technology and stainless steel hygienically combined
	15.25 mm x 63.2 mm x 22.15 mm	15.3 mm x 55.4 mm x 22.2 mm	15.3 mm x 55.4 mm x 22.2 mm	15.3 mm x 63.2 mm x 22.2 mm
	4 mm ... 500 mm	25 mm ... 300 mm	–	25 mm ... 300 mm
	0 m ... 5 m	–	0 m ... 4.5 m	–
	0 m ... 5 m	0 m ... 60 m	–	–
	PinPoint LED	Laser	Laser	Laser
	Visible red light	Visible red light	Visible red light	Visible red light
	IP66, IP67, IP68, IP69K	IP66, IP67, IP68, IP69K	IP66, IP67, IP68, IP69K	IP66, IP67, IP68, IP69K
	Stainless steel	Stainless steel	Stainless steel	Stainless steel
	None, Cable, Teach-in button	Cable, Teach-in button	Cable, Teach-in button	Teach-in button
	• Smooth stainless steel housing (316L/1.4404) • Hygienic mounting using M12-adapter thread or D12-adapter shaft • IP 66, IP 67, IP 68 and IP 69K enclosure rating and Ecolab certified • Resistant to a variety of common cleaning and disinfection agents • Highly visible laser-like light spot due to PinPoint LED • Teach-in via stainless steel pushbutton with a metal membrane • Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link	• Precise laser light spot, laser class 1 • Stainless steel housing with washdown design • Latest SICK proprietary ASIC and laser technologies for outstanding background suppression and ambient light immunity • Teach-in pushbutton can be switched between detection of transparent and tiny non-transparent objects • ECOLAB certified, tested to IP 66, IP 67, IP 68 and IP 69K enclosure rating • IO-Link (optional)	• Precise laser light spot, laser class 1, no blind spots • Stainless steel housing with washdown design • Latest SICK proprietary ASIC and laser technologies for very good background suppression and ambient light immunity • ECOLAB certified, tested to IP66, IP67, IP68 and IP69K enclosure rating • Teach-in pushbutton can be switched between detection of transparent and tiny non-transparent objects • IO-Link (optional)	• Precise laser light spot, laser class 1 • Stainless steel housing with wash down design • Latest SICK proprietary ASIC and laser technologies for outstanding background suppression and ambient light immunity • Teach-in pushbutton can be switched between detection of transparent and tiny non-transparent objects • ECOLAB certified, tested to IP 66, IP 67, IP 68 and IP 69K enclosure rating • IO-Link (optional)
	→ www.sick.com/W4S-3_Inox_Hygiene	→ www.sick.com/W4SL-3V	→ www.sick.com/W4SLG-3V	→ www.sick.com/W4SL-3H

				
	W4SLG-3H	**W9-3**	**W9-3 Glass**	
	Detects all objects in the harshest environments	Performance inside VISTAL® housing	Performance inside VISTAL® housing	
Technical data overview				
Dimensions (W x H x D)	15.3 mm x 63.2 mm x 22.2 mm	12.2 mm x 52.5 mm x 23.6 mm	12.2 mm x 52.2 mm x 23.6 mm	
Sensing range max.				
Photoelectric proximity sensor	–	20 mm ... 800 mm	–	
Photoelectric retro-reflective sensor,	0 m ... 4.5 m	0 m ... 5 m	0 m ... 5 m	
Through-beam photoelectric sensor	–	0 m ... 10 m	–	
Light source	Laser	PinPoint LED / LED	PinPoint LED	
Type of light	Visible red light	Visible red light / Visible blue light / Infrared light	Visible red light	
Enclosure rating	IP66, IP67, IP68, IP69K	IP66, IP67, IP69K	IP66, IP67, IP69K	
Housing material	Stainless steel	Plastic	Plastic	
Adjustment	Teach-in button	None, Cable, Potentiometer, Teach-in button	Cable, Teach-in button	
At a glance				
	• Stainless-steel housing with hygienic design • Precise laser light spot, laser class 1, without blind spot • Latest SICK proprietary ASIC and laser technology to provide outstanding background suppression and ambient light immunity • IP 66, IP 67, IP 68, and IP 69K enclosure rating and Ecolab certified • Teach-in button can be switched between detection of transparent and the tiniest non-transparent objects • IO-Link (optional)	• High-performance sensor in ultra-rugged VISTAL™ housing • PinPoint LED for highly visible and precise light spot • Two emitter LEDs for best-in-class background suppression • Variable mounting with M3 or M4 hole pattern • Wide range of connection options	• High-performance sensor in ultra-rugged VISTAL™ housing • Best-in-class optical performance for transparent object detection • Continuous threshold adaption • PinPoint LED for highly visible and precise light spot • Variable mounting with M3 or M4 hole pattern • Wide range of connection options	
Detailed information	→ www.sick.com/W4SLG-3H	→ www.sick.com/W9-3	→ www.sick.com/W9-3_Glass	

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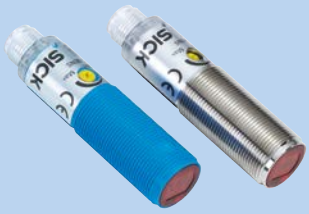
	W9L-3	W9LG-3	W12-3	W12G
				
	Spot-on laser precision inside rugged VISTAL® housing	Spot-on laser precision inside rugged VISTAL® housing	The universal product platform for demanding applications	Glass performance in a metal housing: from PET bottles to transparent foil
	12.2 mm x 52.2 mm x 23.6 mm	12.2 mm x 52.2 mm x 23.6 mm	15.6 mm x 48.5 mm x 42 mm	15.6 mm x 48.5 mm x 42 mm
	25 mm ... 400 mm	–	20 mm ... 800 mm	–
	0 m ... 12 m	0 m ... 4.5 m	0 m ... 7 m	0 m ... 4 m
	0 m ... 60 m	–	0 m ... 20 m	–
	Laser	Laser	PinPoint-LED / LED	PinPoint-LED / LED
	Visible red light	Visible red light	Visible red light/infrared	Visible red light/infrared
	IP66, IP67, IP69K	IP66, IP67, IP69K	IP 66 / P 67 / IP 69K	IP 66 / IP 67 / IP 69K
	Plastic	Plastic	Metal	Metal
	Cable, Potentiometer, Teach-in button	Cable, Teach-in button	None, Cable, Potentiometer, Teach-in button	Cable, Potentiometer, Teach-in button
	• Tough VISTAL™ housing • Precise laser light spot • Photoelectric proximity sensor in laser classes 1 and 2 • Photoelectric retro-reflective sensor with auto-collimation optics and polarizing filter; models available for clear material detection • Through-beam photoelectric sensors with sensing ranges of up to 60 m • SIRIC technology • Connections: M8 and M12 plugs, cable as well as cable with plug • M3 and M4 hole pattern	• Rugged VISTAL® housing • Precise laser light spot, laser class 1 • Continuous adjustment of switching threshold (CTA) • Autocollimation optics and polarizing filter • Teach-in • SIRIC technology by SICK • Connections: M8 and M12 male connectors, cable as well as cable with male connector • M3 and M4 hole pattern	• Best-in-class optical performance thanks to superior OES technology • Autocollimation optics on photoelectric retro-reflective sensors • Background and foreground suppression with second emitter LED on photoelectric proximity sensors • Highly visible, precise PinPoint light spot and high-energy IR senders • Rugged metal housing with optional Teflon® coating • Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link	• Rugged metal housing with optional Teflon® coating • Reliable detection of transparent objects • Precise autocollimation optics • Rugged sensors for industrial use • PinPoint technology • Versatile mounting options due to dovetail mounting – mounting holes and oblong holes • Highly visible status LEDs • Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link
	→ www.sick.com/W9L-3	→ www.sick.com/W9LG-3	→ www.sick.com/W12-3	→ www.sick.com/W12G

				
	W16	**W26**	**V180-2**	
	The highflier in object detection	Stars in object detection	Lowest-cost cylindrical photoelectric sensor on the market!	
Technical data overview)				
Dimensions (W x H x D)	20 mm x 55.7 mm x 42 mm	24.6 mm x 82.5 mm x 53.3 mm	16.2 mm x 48.5 mm x 31.9 mm	
Sensing range max.	–			
Photoelectric proximity sensor	10 mm ... 1.500 mm	10 mm ... 2,000 mm	1 mm ... 1,100 mm	
Photoelectric retro-reflective sensor,	0 m ... 10 m	0 m ... 18 m	0.05 m ... 7 m	
Through-beam photoelectric sensor	0 m ... 45 m	0 m ... 60 m	0 m ... 28 m	
Light source	PinPoint LED, LED, Laser	PinPoint LED, LED, Laser	LED	
Type of light	Visible red light / Infrared light	Visible red light / Infrared light	Visible red light / Infrared light	
Enclosure rating	IP66, IP67	IP66, IP67	IP67	
Housing material	Plastic	Plastic	Plastic / Metal	
Adjustment	Cable, Potentiometer, Teach-in button	Cable, Potentiometer, Teach-in button	Potentiometer	
At a glance				
	• Technologies: ClearSens, LineSpot, TwinEye with OptoFilter • BluePilot: Optical alignment aid, adjustment of the sensing range via Teach-Turn adjustment with optical sensing range indicator or via IO-Link • PinPoint LED: Light-intensive red sender LED • Smart Sensor: Enhanced Sensing, IO-Link, Diagnostics, Smart Tasks	• Technologies: ClearSens, LineSpot, TwinEye with OptoFilter • BluePilot: Optical alignment aid, adjustment of the sensing range via Teach-Turn adjustment with optical sensing range indicator or via IO-Link • PinPoint LED: Light-intensive red sender LED • Smart Sensor: Enhanced Sensing, IO-Link, Diagnostics, Smart Tasks	• Low-cost M18 housing sensor on the market • Long sensing distances: 100 mm, 400 mm, 800 mm (proximity sensor), 300 mm (proximity sensor with BGS), 6 m (retro-reflective sensor) and 20 m (through-beam sensor) • Bright power and signal LEDs with 360° visibility • Wide product portfolio solves a broad range of applications • High switching frequencies up to 1000 Hz • Available in a metal housing for applications in harsh environments • Optical axis selectively axial or radial (90°)	
Detailed information	→ www.sick.com/W16	→ www.sick.com/W26	→ www.sick.com/V180-2	

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				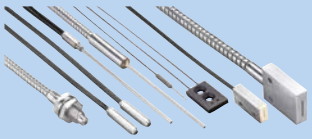
	SureSense	**PowerProx**	**WLL180T**	**LL3**
	The sure way to detect any object	The new home of sensing range	High-performance fiber-optic sensor with world's fastest response time	A wide variety of solutions to your most challenging applications: SICK's fiber-optic cables
	16.2 mm x 48.5 mm x 34.4 mm	7.7 mm x 27.5 mm x 13.5 mm ... 23.5 mm x 76 mm x 55.8 mm	10.5 mm x 34.6 mm x 71.9 mm	–
	5 mm ... 1,000 mm	50 mm ... 4,000 mm	1,400 mm (with LL3-DK06)	1,400 mm (with LL3-DK06)
	0.1 m ... 12 m	–	–	–
	0 m ... 60 m	–	20 m (with LL3-TX01)	20 m (with LL3-TX01)
	PinPoint LED, Laser, LED	Laser	LED	–
	Visible red light / Infrared light	Visible red light / Infrared light	Visible red light / Infrared light	–
	IP67, IP69K	IP67	IP50	–
	Plastic	Plastic	Plastic	Plastic / Metal / Stainless steel
	None, Potentiometer	Cable, Potentiometer, Teach-in button	Cable, Teach-in button, Menu-controlled	–
	• The most flexible and complete portfolio of hybrid sensors • New and intuitive light strip • Best background suppression in the sector • Detection of transparent objects with AutoAdapt technology • VISTAL housing	• Time-of-flight technology • Laser class 1, red and infrared light • Sensing range for object detection: 5 cm to 4 m • Switching frequencies of up to 1,000 Hz • Minimum distance between object and background: 6 mm • VISTAL™ housing • Up to 3 independently adjustable switching outputs or one analog output • IO-Link available as an option (distance value, 8 switching points, smart sensor functions)	• Selectable response time up to 16 µs • Sensing range up to 20 m (through-beam system); up to 1,400 mm (proximity system) • Bus-compatible with anti-interference • 2 x 4-digit digital display • Adjustable hysteresis • Rotatable display screen • High-resolution signal processing • Programmable time delays	• Very large selection of plastic and glass fiber-optic cables. • Fiber-optic cables resistant to chemicals and high temperature • Threaded and smooth sleeves, bands of light (array), 90° reflection versions available • Focused optics • Proximity and through-beam versions available • Plastic, protective metal or Teflon sheathing available
	→ www.sick.com/SureSense	→ www.sick.com/PowerProx	→ www.sick.com/WLL180T	→ www.sick.com/LL3

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SICK AT A GLANCE

SICK is a leading manufacturer of intelligent sensors and sensor solutions for industrial applications. With more than 8,800 employees and over 50 subsidiaries and equity investments as well as numerous agencies worldwide, SICK is always close to its customers. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents, and preventing damage to the environment.

SICK has extensive experience in various industries and understands their processes and requirements. With intelligent sensors, SICK delivers exactly what the customers need. In application centers in Europe, Asia, and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes SICK a reliable supplier and development partner.

Comprehensive services round out the offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

That is "Sensor Intelligence."

Worldwide presence:

Australia, Austria, Belgium, Brazil, Canada, Chile, China, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Hungary, Hong Kong, India, Israel, Italy, Japan, Malaysia, Mexico, Netherlands, New Zealand, Norway, Poland, Romania, Russia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, United Arab Emirates, USA, Vietnam.

Detailed addresses and further locations → www.sick.com

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