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Silux2 LED signal heads

Brilliant. Energy-efficient. Safe. Durable.

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The Silux2 family of signal heads: Latest LED technology, low power consumption and high availability.



The Silux symbol inserts can be fitted in the detachable front lens. They are easy to exchange or rotate right at the roadside.

When the first LED signal heads from Siemens were launched on the market, municipal authorities were delighted with this opportunity to save up to 90% in electricity costs compared to conventional signal heads. The latest family of LED signal heads – Silux2 – is now equipped with the second generation of LED light sources, which significantly out-perform their predecessors.

Silux2 VLP – 1Watt technology, SIL3-certified

The innovative Silux2 Very Low Power (VLP) is the world's first signal head to have a power consumption of only 1 to 2 Watts – while offering full and reliable signal monitoring functionality. That's a further reduction by up to 80% over the previous 230-V LED signal head generation. In addition, two integrated microprocessors allow the collection of large volumes of data for data analytics as the basis for new, future functions such as prediction of LED failures. Silux2 VLP is the first ever signal head with certified SIL3 safety level, thanks to the combination of a unique function for optical monitoring of the VLP signal head with traditional electronic monitoring.

Dimmable versions allow additional power savings and prevent glare effects at night

The Silux2.230LPD and Silux2.230D signal heads can be dimmed for night-time operation. Besides further increasing energy savings, this has an added advantage: The reduced light intensity prevents blooming effects on the symbols as well as glare effects that would affect drivers' vision. The use of dimmable Silux signal head versions requires the controllers to be equipped with specially designed LED dimming modules. The dimmable Silux signal heads are ideal for use all over the world, except where the requirements of the VDE 0832 series apply. All non-dimmable Silux2 versions are TÜV-certified in accordance with the VDE 0832 series of standards.

Brilliant optical performance – even at high ambient light levels

The new Silux2 signal heads boast truly brilliant optical properties. The luminous intensity distribution is even better than with the predecessor models and the signal heads' luminance uniformity has also been further enhanced. This makes the signal head easier to recognize – for more safety at the intersection. Like their predecessors, the new signal heads almost totally eliminate the dangerous phantom light effect and are perfectly perceptible even against the low sun. Virtually all Silux2 signal head versions achieve the highest phantom class rating of 5.

Reliability and durability are key

The new family of signal heads is equipped with especially reliable and efficient driver boards. Durable and robust components, exceptionally reliable and stable operation of the LED technology as well as improved heat management ensure high operational availability and an extended service life.

Easy exchange of symbol inserts

All Silux2 LED signal heads can be equipped with various removable symbol inserts, which are designed as masks that can be easily fitted on the inside of the detachable front lens. Upon request, non-standard symbols are available at short notice. Exchanging or rotating the symbol inserts can be done on site and requires little time, as the integrated door is available as 200 mm and as 300 mm variant, whose easy-to-open bayonet lock is a real time-saver.

Electronic monitoring function for maximum safety

Every Silux2 LED light source is equipped with an electronic monitoring circuit designed for optimum interaction with controller technology from Siemens Mobility. This circuit permanently monitors and checks the power and voltage values of the LEDs. In the event a measured value exceeds or falls below the applicable threshold, the input current is cut immediately to switch off the signal head safely and communicate the malfunction to the controller's monitoring module.



Silux2 signal heads shine with minimum power consumption, brilliant optical characteristics and maximum reliability. Durable and robust components and the exceptionally reliable and stable operation of the LED modules ensure an extended service life and low maintenance costs.



Small device – big safety gain for cyclists. The reduced-size signal heads from Siemens Mobility

Installed as dedicated signal heads for cyclists, reduced-size signal heads from Siemens Mobility are an excellent means of enhancing traffic safety at intersections since separate green and red phases provide added safety for cyclists. Small signal heads are also very useful as subsidiary or supplementary signaling devices for special traffic situations.

Perfect compatibility with the Sitraffic family of controllers

Silux2 LED signal heads are designed for optimum compatibility with the Sitraffic® family of controllers from Siemens Mobility. The exact matches can be found in the tables on the following pages.

Excellence reflected in every detail. The Silux2 family of signal heads.

Technical data	Silux2.40		Silux2.40D		Silux2.230LPD		Silux2.230LP		Silux2.230		Silux2.230D		Silux2 VLP	
	200 mm	300 mm	200 mm	300 mm	200 mm	300 mm	200 mm	300 mm	200 mm	300 mm	200 mm	300 mm	200 mm	300 mm
Optical properties acc. to DIN EN 12368														
Light intensity distribution	A3/1, B2/2	A3/1, B3/2	A3/1, B2/2	A3/1, B3/2	A3/1, B2/2	A3/1, B3/2	A3/1, B2/2	A3/1, B3/2	A3/1, B2/2	A3/1, B3/2	A3/1, B2/2	A3/1, B3/2	B2/2	B3/2
Axial luminous intensity – typical value red, amber, green	> 400 cd	> 400 cd	> 400 cd	> 400 cd	> 400 cd	> 400 cd	> 400 cd	> 400 cd	> 400 cd	> 400 cd	> 400 cd	> 400 cd	> 200 cd	> 400 cd
Relative intensity in dimmed mode (typical value)			50 %	50 %	50 %	50 %					50 %	50 %		
Radiation characteristics	W	N	W	N	W	N	W	N	W	N	W	N	W	N
Uniformity of luminance	> 1:10	> 1:15	> 1:10	> 1:15	> 1:10	> 1:15	> 1:10	> 1:15	> 1:10	> 1:15	> 1:10	> 1:15	> 1:10	> 1:15
Color coordinates acc. to DIN EN 12368 red amber green	613–631 nm 585–597 nm 489–508 nm	613–631 nm 585–597 nm 489–508 nm	613–631 nm 585–597 nm 489–508 nm	613–631 nm 585–597 nm 489–508 nm	613–631 nm 585–597 nm 489–508 nm	613–631 nm 585–597 nm 489–508 nm	613–631 nm 585–597 nm 489–508 nm	613–631 nm 585–597 nm 489–508 nm	613–631 nm 585–597 nm 489–508 nm	613–631 nm 585–597 nm 489–508 nm	613–631 nm 585–597 nm 489–508 nm	613–631 nm 585–597 nm 489–508 nm	613–631 nm 585–597 nm 489–508 nm	613–631 nm 585–597 nm 489–508 nm
Symbol class	S1	S1	S1	S1	S1	S1	S1	S1	S1	S1	S1	S1	S1	S1
Electrical and mechanical properties														
Operational voltage	40 V/50 Hz		40 V/50 Hz		230 V/50 Hz		230 V/50 Hz		230 V/50 Hz		230 V/50 Hz		24 V DC	
Power consumption red amber green	7 W 7 W 7 W		not dimmed 7 W, dimmed 3 W not dimmed 7 W, dimmed 3 W not dimmed 7 W, dimmed 3 W		not dimmed 5 W, dimmed 3.5 W not dimmed 5 W, dimmed 3.5 W not dimmed 5 W, dimmed 3.5 W		5 W 5 W 5 W		14 W 13 W 13 W		not dimmed 17 W, dimmed 12 W not dimmed 14 W, dimmed 11 W not dimmed 14 W, dimmed 11 W		1–2 W 1–2 W 1–2 W	
Power factor	> 0.9		> 0.9		> 0.9		> 0.9		> 0.9		> 0.9		> 0.9	
EMC	acc. to EN 50293		acc. to EN 50293		acc. to EN 50293		acc. to EN 50293		acc. to EN 50293		acc. to EN 50293		acc. to EN 50293	
Lenses	system-specific colored or neutral lenses		system-specific colored or neutral lenses		system-specific colored or neutral lenses		system-specific colored or neutral lenses		system-specific colored or neutral lenses		system-specific colored or neutral lenses		system-specific colored or neutral lenses	
Standard symbols	symbol masks		symbol masks		symbol masks		symbol masks		symbol masks		symbol masks		symbol masks	
Protection class of the LED insert	IP65		IP65		IP65		IP65		IP65		IP65		IP65	
Resistance to mechanical impact	IR3		IR3		IR3		IR3		IR3		IR3		IR3	
Operating temperature	–40 °C to +60 °C		–40 °C to +60 °C		–40 °C to +60 °C		–40 °C to +60 °C		–40 °C to +60 °C		–40 °C to +60 °C		–40 °C to +60 °C	
Relative humidity	20 % to 95 %		20 % to 95 %		20 % to 95 %		20 % to 95 %		20 % to 95 %		20 % to 95 %		20 % to 95 %	
Housing colors	black RAL 9005, fir green RAL 6009, pebble grey RAL 7032		black RAL 9005, fir green RAL 6009, pebble grey RAL 7032		black RAL 9005, fir green RAL 6009, pebble grey RAL 7032		black RAL 9005, fir green RAL 6009, pebble grey RAL 7032		black RAL 9005, fir green RAL 6009, pebble grey RAL 7032		black RAL 9005, fir green RAL 6009, pebble grey RAL 7032		black RAL 9005, fir green RAL 6009, pebble grey RAL 7032	
Compatibility with controllers														
	Sitraffic sX-L, sX-LC, C940V/IP, C940ES		Sitraffic sX-L, C940ES, each with LED dimming module		Sitraffic sX-H, sX-HC, each with LED dimming module		Sitraffic sX-H, sX-HC		Sitraffic sX-H, sX-HC, C900V		Sitraffic sX-H, sX-HC, C900V, each with LED dimming module		Sitraffic sX-V, sX-VC, C920ES, SIL3-certified acc. to EN 61508	

Reduced size – perfect fit. Overview of the small signal heads from Siemens Mobility.

	LED 6K 40V	LED 6K 230V	Silux Mini 24V
Technical data	100 mm	100 mm	100 mm
Optical properties acc. to DIN EN 12368			
Light intensity distribution	B1/2 (typ.)	B1/2 (typ.)	B1/2 (typ.)
Axial luminous intensity – typical value red, amber, green	> 100 cd (typ.)	> 100 cd (typ.)	> 100 cd (typ.)
Relative intensity in dimmed mode (typical value)	not dimmable	not dimmable	not dimmable
Radiation characteristics	W	W	W
Color coordinates acc. to DIN EN 12368	red amber green	613–631 nm 585–597 nm 489–508 nm	613–631 nm 585–597 nm 489–508 nm
Electrical and mechanical properties			
Operational voltage	40 V/50 Hz	230 V/50 Hz	24 V DC
Power consumption	red amber green	7 W (typ.) 7 W (typ.) 7 W (typ.)	2–3 W (typ.) 2–3 W (typ.) 2–3 W (typ.)
Power factor	> 0.9	> 0.9	> 0.9
EMC	acc. to EN 50293	acc. to EN 50293	acc. to EN 50293
Lenses	grey or colored lenses, choice for LED version	grey or colored lenses, choice for LED version	grey or colored lenses, choice for LED version
Standard symbols	symbol masks	symbol masks	symbol masks
Protection class of the LED insert	IP54	IP54	IP55
Resistance to mechanical impact			IR3
Operating temperature	–40 °C to +60 °C	–40 °C to +60 °C	–40 °C to +60 °C
Relative humidity	20 % to 95 %	20 % to 95 %	20 % to 95 %
Housing colors	black RAL 9005, fir green RAL 6009, pebble grey RAL 7032	black RAL 9005, fir green RAL 6009, pebble grey RAL 7032	black RAL 9005, fir green RAL 6009, pebble grey RAL 7032
Compatibility with controllers			
	Sitraffic sX-L, sX-LC, C940V, C940ES	Sitraffic sX-H, sX-HC, C900V	Sitraffic sX-V, sX-VC, C920ES

Sitraffic Ecolight signal head housings. Modern design, high safety, impressive life cycle assessment.



The signal heads also score with their slim, elegant design and secure fixation to the pole using very sturdy support mounts. The quick-release latch of the LED signal head and the availability of two different housing sizes provide for maximum flexibility, effortless installation and easy extension.

High-quality housings to match the optical system

The new Silux2 signal heads are available as retrofit kits or as complete signal heads installed in Ecolight or Classic housings. Sitraffic Ecolight is an especially slim, highly functional and environmentally friendly type of signal head housing. Ecolight housings have been designed specifically to accommodate the innovative LED optical systems used as standard in the new Silux2 signal heads. The affordable Sitraffic Ecolight housings are compatible with all LED signal head inserts from Siemens Mobility. What is more, smart details such as the clever door design, large cable feed-throughs and easy-to-fit contrast-color background screens make installation and service fast and cost-efficient.

High compatibility and wide range of uses

The signal heads are designed for installation in a housing from Siemens Mobility with a Siemens-type door. Hence they are compatible with all signal head housings from Siemens Mobility, enabling fast and easy upgrading of existing installations to LED technology. For retrofitting third-party housings, the product range includes an LED signal head unit with OCIT dimensions. Of course, Sitraffic Ecolight housings are also a perfect fit for all other LED signal head units from Siemens Mobility. This helps keep the number of versions low and simplifies spare parts management.

Certified safety, long service life

Sitraffic Ecolight housings are especially robust and have been thoroughly tested for their resistance to vibrations and impact. They can even withstand major storms, as proven in wind tunnel tests with wind speeds of up to 200 km/h. The use of especially durable, extensively tested materials and proven design features keep the price of the housings surprisingly low while ensuring a particularly long service life.

The seven Silux2 signal head versions

Silux2.40	LED signal head for 40-V systems
Silux2.40D	LED signal head for 40-V systems, with dimming function
Silux2.230LPD	LED signal head for 230-V systems with dimming function and a low power consumption of only 3.5 to 5 Watts; for connection to the new Sitraffic sX-H and sX-HC controllers
Silux2.230LP	LED signal head for 230-V systems with a low power consumption of only 5 Watts; for connection to the new Sitraffic sX-H und sX-HC controllers
Silux2.230	LED signal head for 230-V systems; for connection to the new Sitraffic sX-H und sX-HC as well as all controllers of the Sitraffic C900 series
Silux2.230D	LED signal head for 230-V systems, with dimming function
Silux2 VLP	LED signal head with a very low power consumption of only 1–2 Watts per signal head aspect, compatible with Sitraffic sX-V, sX-VC and C920ES controllers

The three reduced-size signal head versions

LED 6K 40V	Small signal head for 40-V systems with a power consumption of 7 Watts, compatible with Sitraffic sX-L, sX-LC, C940V and C940ES controllers
LED 6K 230V	Small signal head for 230-V systems with a power consumption of 7–17 Watts, compatible with Sitraffic sX-H, sX-HC and C900V controllers
Silux Mini 24V	Small signal head for 24-V systems with a power consumption of 2–3 Watts, compatible with Sitraffic sX-V, sX-VC and C920ES controllers

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