



# Illuminations

**SICK**  
Sensor Intelligence.



## Product description

Illumination units from SICK ensure precise and uniform illumination in industrial applications to create optimized conditions for image processing.

## Ordering information

Other models and accessories → [www.sick.com/illuminations](http://www.sick.com/illuminations)

Description	Light source	LED class	Connection types	Ambient operating temperature	Type	Part no.
Accessories for PLR3200-01, PLR3200-02	–	–	–	–	LED illumination spare parts set	2106895
Backlight	LED, red 635 nm	Risk group 1 (low risk, IEC62471 : 2006)	Connector M12, 4-pin, L = 0.5 m	0 °C ... +40 °C <sup>1)</sup>	VLR-264BL1611	2118250
					VLR-264BL4911	2118251
		Risk group 1 (low risk, IEC 62471 (2006-07) / EN 62471 (2008-09))	Connector M12, 4-pin, L = 0.5 m	0 °C ... +40 °C <sup>1)</sup>	VLR-264BL0511	2118249
Bar Light	LED, blue 470 nm	Risk group 1 (low risk, IEC62471 : 2008)	Connector M12, 4-pin, L = 0.5 m	0 °C ... +40 °C <sup>1)</sup>	VLR-247BR4411	2118252
	LED, infrared 940 nm	Risk group 1 (low risk, IEC62471 : 2008)	Connector M12, 4-pin, L = 0.5 m	0 °C ... +40 °C <sup>1)</sup>	VLR-294BR4411	2134623
	LED, red 630 nm	Risk group 1 (low risk, IEC62471 : 2006)	Connector M12, 4-pin, L = 0.5 m	0 °C ... +40 °C <sup>1)</sup>	VLR-263BR0711	2118271
		Risk group 1 (low risk, IEC62471 : 2008)	Connector M12, 4-pin, L = 0.5 m	0 °C ... +40 °C <sup>1)</sup>	VLR-263BR4411	2118253
	LED, white 5,500 K	Risk group 1 (low risk, IEC62471 : 2008)	Connector M12, 4-pin, L = 0.5 m	0 °C ... +40 °C <sup>1)</sup>	VLR-210BR0711	2118272
					VLR-210BR4411	2118254
					VLR-210BR5111	2118255
Coaxial Light	LED, red 630 nm	Risk group 1 (low risk, IEC62471 : 2008)	Connector M12, 4-pin, L = 0.5 m	0 °C ... +40 °C <sup>1)</sup>	VLR-263CA0811	2118256
External illumination, illumi-	–	Risk group 1 (low risk)	–	0 °C ... +40 °C <sup>2)</sup>	VI228U-WH5031F3	2139457

<sup>1)</sup> Light intensity may vary depending on the ambient temperature.

<sup>2)</sup> Ensure adequate heat dissipation when mounting the device.

<sup>3)</sup> Relative humidity: 93 %.

<sup>4)</sup> Relative humidity: 85 %.

Description	Light source	LED class	Connection types	Ambient operating temperature	Type	Part no.
nation color white, medium 31°, for use with basic 12 and 9 and 5 megapixel devices and lens with focal length of 25 mm (part no. 5345438) or basic 5 megapixel device and lens with focal length of 25 mm (part no. 5342135) and 16 mm (part no. 5342134)		according to EC 62471-1: 2006-07 / EN 62471 2008-09				
External illumination, illumination color white, wide (47°), for use with basic 12 and 9 megapixel devices and lenses with focal lengths of 16 mm (part no. 5345437) or 12 mm (part no. 5345436) or basic 5 megapixel devices and lens with focal length of 12 mm (part no. 5342133) and 8 mm (part no. 5349682)	–	Risk group 1 (low risk) according to EC 62471-1: 2006-07 / EN 62471 2008-09	–	0 °C ... +40 °C <sup>2)</sup>	VI228U-WH5047F3	2139458
Flat illumination unit with central opening	LED, white 5,500 K	Risk group 1 (low risk, IEC62471 : 2008)	Male connector M12, 4-pin	0 °C ... +40 °C <sup>1)</sup>	VLR-211FC2611	2118266
ICL280-F202S01 ring lighting set, bright field for ICR84x-2L, red lighting color, lighting distance: 200 mm to 1.1 m, incl. mounting	–	Risk group 1 (low risk, IEC62471 : 2006)	–	0 °C ... +40 °C <sup>3)</sup>	ICL280-F202S01-Set01-(infrared)	1058677

<sup>1)</sup> Light intensity may vary depending on the ambient temperature.

<sup>2)</sup> Ensure adequate heat dissipation when mounting the device.

<sup>3)</sup> Relative humidity: 93 %.

<sup>4)</sup> Relative humidity: 85 %.

Description	Light source	LED class	Conne- ction types	Ambient op- erating tem- perature	Type	Part no.
bracket, screws and connection cable (2 m) for ring lighting						
ICL280-F222 ring lighting set, bright field for ICR84x-2L, red lighting color, lighting distance: 200 mm to 1.1 m, incl. mounting bracket, screws and connection cable (2 m) for ring lighting	–	Risk group 1 (low risk, IEC62471 : 2006)	–	0 °C ... +40 °C <sup>3)</sup>	ICL280-F222-Set01-(red)	1053194
Illumination for ICD89x, length 1,150 mm	Visible white light 400 nm ... 750 nm	Risk group 2	M12	0 °C ... +50 °C	ICI890-33010	1098821
	Visible blue light 449 nm	Risk group 2	M12	0 °C ... +50 °C	ICI890-43010	1108617
	Visible red light 630 nm	Risk group 1	M12	0 °C ... +50 °C	ICI890-23010	1098818
Illumination for ICD89x, length 750 mm	Visible white light 400 nm ... 750 nm	Risk group 2	M12	0 °C ... +50 °C	ICI890-35110	1098823
	Visible red light 630 nm	Risk group 1	M12	0 °C ... +50 °C	ICI890-25110	1098820
Illumination for ICD89x, length 900 mm	Visible white light 400 nm ... 750 nm	Risk group 2	M12	0 °C ... +50 °C	ICI890-34110	1098822
					ICI890-36110	1137000
	Visible blue light 449 nm	Risk group 2	M12	0 °C ... +50 °C	ICI890-44110	1108618
	Visible red light 630 nm	Risk group 1	M12	0 °C ... +50 °C	ICI890-24110	1098819
Integratable illumination, illumination color red, medium 31°, for use with 12, 9 and 5 megapixel base units and lens with focal length of 25 mm (part no. 5345438) or 5 megapixel base unit and lens with focal length of	–	–	–	–	VI83I-RD3031H0	2132927

<sup>1)</sup> Light intensity may vary depending on the ambient temperature.

<sup>2)</sup> Ensure adequate heat dissipation when mounting the device.

<sup>3)</sup> Relative humidity: 93 %.

<sup>4)</sup> Relative humidity: 85 %.

Description	Light source	LED class	Connection types	Ambient operating temperature	Type	Part no.
16 mm (part no. 5342134)						
Integratable illumination, illumination color red, wide (47°), for use with basic 12 and 9 megapixel devices and lenses with focal lengths of 12 mm (part no. 5345436) or 16 mm (part no. 5345437) or basic 5 megapixel device and lens with focal length of 12 mm (part no. 5342133) and 8 mm (part no. 5349682)	–	–	–	–	VI83I-RD3047H0	2132928
Integratable illumination, illumination color white (T: 6,500 ± 1,000 K), medium 31°, for use with 12, 9 and 5 megapixel base units and lens with focal length of 25 mm (part no. 5345438) or 5 megapixel base unit and lens with focal length of 16 mm (part no. 5342134)	–	–	–	–	VI83I-WH3031H0	2125084
Integratable illumination, illumination color white (T: 6,500 ± 1,000 K), wide (47°), for use with basic 12 and 9 megapixel devices and lenses with focal lengths of 12 mm (part	–	–	–	–	VI83I-WH3047H0	2125085

<sup>1)</sup> Light intensity may vary depending on the ambient temperature.

<sup>2)</sup> Ensure adequate heat dissipation when mounting the device.

<sup>3)</sup> Relative humidity: 93 %.

<sup>4)</sup> Relative humidity: 85 %.

Description	Light source	LED class	Connection types	Ambient operating temperature	Type	Part no.
no. 5345436) or 16 mm (part no. 5345437) or basic 5 megapixel device and lens with focal length of 12 mm (part no. 5342133) and 8 mm (part no. 5349682)						
Integratable lighting, blue lighting color, wide, suitable for S-mount and compact C-mount lenses with a focal length of 9.6 mm	–	–	–	–	VI55I-BU0766M0	2083813
Integratable lighting, lighting color blue, medium, suitable for S-mount and compact C-mount lenses with a focal length of 12 mm, 16 mm and 17.5 mm	–	–	–	–	VI55I-BU1441M0	2083814
Integratable lighting, lighting color blue, medium, suitable for lenses with a focal length of 25 mm	–	–	–	–	VI83I-BU1441M0	2074012
Integratable lighting, lighting color blue, narrow, suitable for S-mount and compact C-mount lenses with a focal length of 25 mm and 35 mm	–	–	–	–	VI55I-BU2023M0	2083812
Integratable lighting, lighting color blue, narrow, suitable	–	–	–	–	VI83I-BU2023M0	2074007

<sup>1)</sup> Light intensity may vary depending on the ambient temperature.

<sup>2)</sup> Ensure adequate heat dissipation when mounting the device.

<sup>3)</sup> Relative humidity: 93 %.

<sup>4)</sup> Relative humidity: 85 %.

Description	Light source	LED class	Connection types	Ambient operating temperature	Type	Part no.
for lenses with a focal length of 35 mm, 50 mm and 75 mm						
Integratable lighting, lighting color blue, wide, suitable for lenses with a focal length of 12.5 mm and 16 mm	–	–	–	–	VI83I-BU0766M0	2074009
Integratable lighting, lighting color red, medium, suitable for lenses with a focal length of 25 mm	–	–	–	–	VI83I-RD1441M0	2074005
Integratable lighting, lighting color red, narrow, suitable for lenses with a focal length of 35 mm, 50 mm and 75 mm	–	–	–	–	VI83I-RD2023M0	2066563
Integratable lighting, lighting color red, wide, suitable for lenses with a focal length of 12.5 mm and 16 mm	–	–	–	–	VI83I-RD0766M0	2074003
Integratable lighting, lighting color white, medium, suitable for S-mount and compact C-mount lenses with a focal length of 12 mm, 16 mm and 17.5 mm	–	–	–	–	VI55I-WH1441M0	2078430
Integratable lighting, lighting color white, medium, suitable for lenses with a focal length of 25 mm	–	–	–	–	VI83I-WH1441M0	2074001

<sup>1)</sup> Light intensity may vary depending on the ambient temperature.

<sup>2)</sup> Ensure adequate heat dissipation when mounting the device.

<sup>3)</sup> Relative humidity: 93 %.

<sup>4)</sup> Relative humidity: 85 %.

Description	Light source	LED class	Connection types	Ambient operating temperature	Type	Part no.
Integratable lighting, lighting color white, narrow, suitable for S-mount and compact C-mount lenses with a focal length of 25 mm and 35 mm	–	–	–	–	VI55I-WH2023M0	2078431
Integratable lighting, lighting color white, narrow, suitable for lenses with a focal length of 35 mm, 50 mm and 75 mm	–	–	–	–	VI83I-WH2023M0	2069099
Integratable lighting, lighting color white, wide, suitable for lenses with a focal length of 12.5 mm and 16 mm	–	–	–	–	VI83I-WH0766M0	2069006
Integratable lighting, white lighting color, wide, suitable for S-mount and compact C-mount lenses with a focal length of 9.6 mm	–	–	–	–	VI55I-WH0766M0	2078428
Integrated illumination, infrared illumination color, medium, can be used for S-mount and compact C-mount lens with focal lengths of 16 mm, 17.5 mm and S-mount 25 mm. This illumination type requires an optics protective hood with a glass front screen.	–	–	–	–	VI55I-HR1435M0	2098834

- 1) Light intensity may vary depending on the ambient temperature.
- 2) Ensure adequate heat dissipation when mounting the device.
- 3) Relative humidity: 93 %.
- 4) Relative humidity: 85 %.



Description	Light source	LED class	Connection types	Ambient operating temperature	Type	Part no.
Integrated illumination, infrared illumination color, wide, can be used for S-mount and compact C-mount lens with focal lengths of 9.6 mm and 12 mm. This illumination type requires an optics protective hood with a glass front screen.	–	–	–	–	VI55I-IR0756M0	2101371
Integrated illumination, lighting color infrared, medium (31°). For use with protection hood with glass pane (part no. 2149117). For 3 MP for use with lenses with a focal length of 12 mm (part no. 5342133). For 1 MP, 3 MP and 5 MP for use with lenses with a focal length of 16 mm (part no. 5342134) or 25 mm (5342135)	–	–	–	–	VI55I-IR2031H0	2147982
Integrated illumination, lighting color infrared, wide (47°). For use with protection hood with glass pane (part no. 2149117). For 1 MP, 3 MP and 5 MP for use with lenses with a focal length of 8 mm (part no. 5349682). For 1 MP and 5 MP for use with a lens with	–	–	–	–	VI55I-IR2047H0	2147983

1) Light intensity may vary depending on the ambient temperature.

2) Ensure adequate heat dissipation when mounting the device.

3) Relative humidity: 93 %.

4) Relative humidity: 85 %.

Description	Light source	LED class	Connection types	Ambient operating temperature	Type	Part no.
a focal length of 12 mm (part no. 5342133)						
Integrated illumination, lighting color red, medium (31°). For use with protection hood with plastic lens (PMMA; part no. 2141197). For 3 MP for use with lenses with a focal length of 12 mm (part no. 5342133). For 1 MP, 3 MP and 5 MP for use with lenses with a focal length of 16 mm (part no. 5342134) or 25 mm (5342135))	–	–	–	–	VI55I-RD2031H0	2137879
Integrated illumination, lighting color red, wide (47°). For use with protection hood with plastic lens (PMMA; part no. 2141197). For 1 MP, 3 MP and 5 MP for use with lenses with a focal length of 8 mm (part no. 5349682). For 1 MP and 5 MP for use with a lens with a focal length of 12 mm (part no. 5342133)	–	–	–	–	VI55I-RD2047H0	2150576
Integrated illumination, red illumination color, medium, can be used for S-mount and compact C-mount lens with focal lengths of	–	–	–	–	VI55I-RD1441M0	2098650

1) Light intensity may vary depending on the ambient temperature.

2) Ensure adequate heat dissipation when mounting the device.

3) Relative humidity: 93 %.

4) Relative humidity: 85 %.

Description	Light source	LED class	Connection types	Ambient operating temperature	Type	Part no.
12 mm, 16 mm and 17.5 mm						
Integrated illumination, red illumination color, narrow, can be used for S-mount and compact C-mount lens with focal lengths of 25 mm and 35 mm	–	–	–	–	VI55I-RD2023M0	2084247
Integrated illumination, red illumination color, wide, can be used for S-mount and compact C-mount lens with focal lengths of 9.6 mm	–	–	–	–	VI55I-RD0766M0	2098649
Integrated lighting, lighting color white, medium (31°). For use with protection hood with plastic lens (PMMA; part no. 2141197). For 3 MP for use with lenses with a focal length of 12 mm (part no. 5342133). For 1 MP, 3 MP and 5 MP for use with lenses with a focal length of 16 mm (part no. 5342134) or 25 mm (5342135))	–	–	–	–	VI55I-WH2031H0	2140184
Integrated lighting, lighting color white, wide (47°). For use with protection hood with plastic lens (PMMA; part no. 2141197). For 1 MP, 3 MP and	–	–	–	–	VI55I-WH2047H0	2140185

1) Light intensity may vary depending on the ambient temperature.

2) Ensure adequate heat dissipation when mounting the device.

3) Relative humidity: 93 %.

4) Relative humidity: 85 %.

Description	Light source	LED class	Conne- ction types	Ambient op- erating tem- perature	Type	Part no.
5 MP for use with lenses with a focal length of 8 mm (part no. 5349682). For 1 MP and 5 MP for use with a lens with a focal length of 12 mm (part no. 5342133)						
Laser module, blue, M12 male connector, 4-pin, focusable	Laser line with uniform output distribution (thin line)	–	Pin 1: +VDC, Pin 2: Digital modulation (5 ... 24 V DC), Pin 3: GND	0 °C ... +50 °C	Laser module, blue	6071179
Laser module, red, M12 male connector, 4-pin, focusable	Laser line with uniform output distribution (standard option)	–	Pin 1: +VDC, Pin 2: Digital modulation (5 ... 24 V DC), Pin 3: GND	0 °C ... +50 °C	Laser module, red	6071180
Ring Light	LED, blue 470 nm	Risk group 1 (low risk, IEC62471 : 2008)	Connector M12, 4-pin, L = 0.5 m	0 °C ... +40 °C <sup>1)</sup>	VLR-247RL0411	2118258
					VLR-247RL3911	2134620
	LED, red 630 nm	Risk group 1 (low risk, IEC62471 : 2008)	Connector M12, 4-pin, L = 0.5 m	0 °C ... +40 °C <sup>1)</sup>	VLR-263RL0111	2118257
					VLR-263RL0411	2118259
					VLR-263RL3911	2118267
	LED, white 5,500 K	Risk group 1 (low risk, IEC62471 : 2008)	Connector M12, 4-pin, L = 0.5 m	0 °C ... +40 °C <sup>1)</sup>	VLR-210RL0111	2118265
					VLR-210RL0411	2134621
					VLR-210RL3911	2118268
Ring illumination set ICL260-F222, bright field for ICR84x-2L, red illumination, distance 200 mm to 1.5 m incl. mounting bracket, screws and connection cable (2 m) for ring illumination	–	Risk group 1 (low risk, IEC62471 : 2006)	–	0 °C ... +40 °C <sup>3)</sup>	ICL260-F222-Set01-(red)	1053193

<sup>1)</sup> Light intensity may vary depending on the ambient temperature.

<sup>2)</sup> Ensure adequate heat dissipation when mounting the device.

<sup>3)</sup> Relative humidity: 93 %.

<sup>4)</sup> Relative humidity: 85 %.

Description	Light source	LED class	Conne- ction types	Ambient op- erating tem- perature	Type	Part no.
Ring illumina- tion unit with shallow illumi- nation angle	LED, blue 470 nm	Risk group 1 (low risk, IEC62471 : 2008)	Connector M12, 4-pin, L = 0.5 m	0 °C ... +40 °C <sup>1)</sup>	VLR-247RA4011	2134616
	LED, infrared 940 nm	Risk group 1 (low risk, IEC62471 : 2008)	Connector M12, 4-pin, L = 0.5 m	0 °C ... +40 °C <sup>1)</sup>	VLR-294RA4511	2134617
	LED, red 630 nm	Risk group 1 (low risk, IEC62471 : 2008)	Connector M12, 4-pin, L = 0.5 m	0 °C ... +40 °C <sup>1)</sup>	VLR-263RA2111	2118263
					VLR-263RA4011	2118269
					VLR-263RA4811	2118264
					VLR-263RD1311	2118261
	LED, white 5,500 K	Risk group 1 (low risk, IEC62471 : 2008)	Connector M12, 4-pin, L = 0.5 m	0 °C ... +40 °C <sup>1)</sup>	VLR-210RA2111	2134619
					VLR-210RA4011	2118270
					VLR-210RA4511	2134618
					VLR-210RD1311	2118262
Ring light, square	LED, white 5,500 K	Risk group 1 (low risk, IEC62471 : 2008)	Connector M12, 4-pin, L = 0.5 m	0 °C ... +40 °C <sup>1)</sup>	VLR-210RK0611	2118260
Ring lighting set, bright field lighting for ICR845-2L0020S0: infrared light- ing color, light- ing distance 0.2 m ... 2 m, incl. mounting bracket, screws and connection cable (2 m)	–	Risk group 1 (low risk, IEC62471 : 2006)	–	0 °C ... +40 °C <sup>3)</sup>	ICL300-F202S01-Set01-(infrared)	1047994
Ring lighting set, bright field lighting for ICR84x-2L, red lighting color, light- ing distance 0.2 m ... 1 m, incl. mount- ing bracket, screws, and connecting cable (2 m)	–	Risk group 1 (low risk, IEC62471 : 2006)	–	0 °C ... +40 °C <sup>3)</sup>	ICL170-F222-Set01-(red)	1048476
Ring lighting, bright field lighting for ICR84x-2L, red lighting color, light-	–	Risk group 1 (low risk, IEC62471 : 2006)	–	0 °C ... +40 °C <sup>3)</sup>	ICL300-F222-Set01-(red)	1047879

<sup>1)</sup> Light intensity may vary depending on the ambient temperature.

<sup>2)</sup> Ensure adequate heat dissipation when mounting the device.

<sup>3)</sup> Relative humidity: 93 %.

<sup>4)</sup> Relative humidity: 85 %.

Description	Light source	LED class	Conne- ction types	Ambient op- erating tem- perature	Type	Part no.
ing distance 0.2 m ... 2 m, incl. mounting bracket, screws and connection cable (2 m)						
Ring light- ing, bright field spot, in- frared light- ing color, light- ing distance 0.2 m ... 1.1 m	–	Risk group 1 (low risk, IEC62471 : 2006)	–	0 °C ... +40 °C <sup>3)</sup>	ICL280-F202S01	1057645
Ring light- ing, bright field spot, in- frared light- ing color, light- ing distance 0.2 m ... 2 m, temperature 0 °C ... +40 °C	–	Risk group 0	–	0 °C ... +40 °C <sup>3)</sup>	ICL300-F202S01	1047957
Ring lighting, bright field spot, red light- ing color, light- ing distance 0.2 m ... 2 m, temperature 0 °C ... +40 °C	–	Risk group 1 (low risk, IEC62471 : 2006)	–	0 °C ... +40 °C <sup>3)</sup>	ICL300-F222	1046820
Ring lighting, bright field, red lighting color, light- ing distance 0.2 m ... 1 m	–	Risk group 1 (low risk, IEC62471 : 2006)	–	0 °C ... +40 °C <sup>3)</sup>	ICL170-F222	1048371
Ring lighting, bright field, red lighting color, light- ing distance 200 mm ... 1.1 m	–	Risk group 1 (low risk, IEC62471 : 2006)	–	0 °C ... +40 °C <sup>3)</sup>	ICL280-F222	1052472
Ring lighting, bright field, red lighting color, light- ing distance 200 mm ... 1.5 m	–	Risk group 1 (low risk, IEC62471 : 2006)	–	0 °C ... +40 °C <sup>3)</sup>	ICL260-F222	1052495
Ring lighting, bright field, white lighting color, light- ing distance	LED, white	Risk group 1 (low risk, IEC62471 : 2006)	M12 male connector, 8- pin, L = 0.8 m	0 °C ... +50 °C <sup>4)</sup>	ICL110-F142	1027286

<sup>1)</sup> Light intensity may vary depending on the ambient temperature.

<sup>2)</sup> Ensure adequate heat dissipation when mounting the device.

<sup>3)</sup> Relative humidity: 93 %.

<sup>4)</sup> Relative humidity: 85 %.

Description	Light source	LED class	Connection types	Ambient operating temperature	Type	Part no.
100 mm ... 350 mm						

- 1) Light intensity may vary depending on the ambient temperature.  
 2) Ensure adequate heat dissipation when mounting the device.  
 3) Relative humidity: 93 %.  
 4) Relative humidity: 85 %.

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. 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.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our 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 us a reliable supplier and development partner.

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

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

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