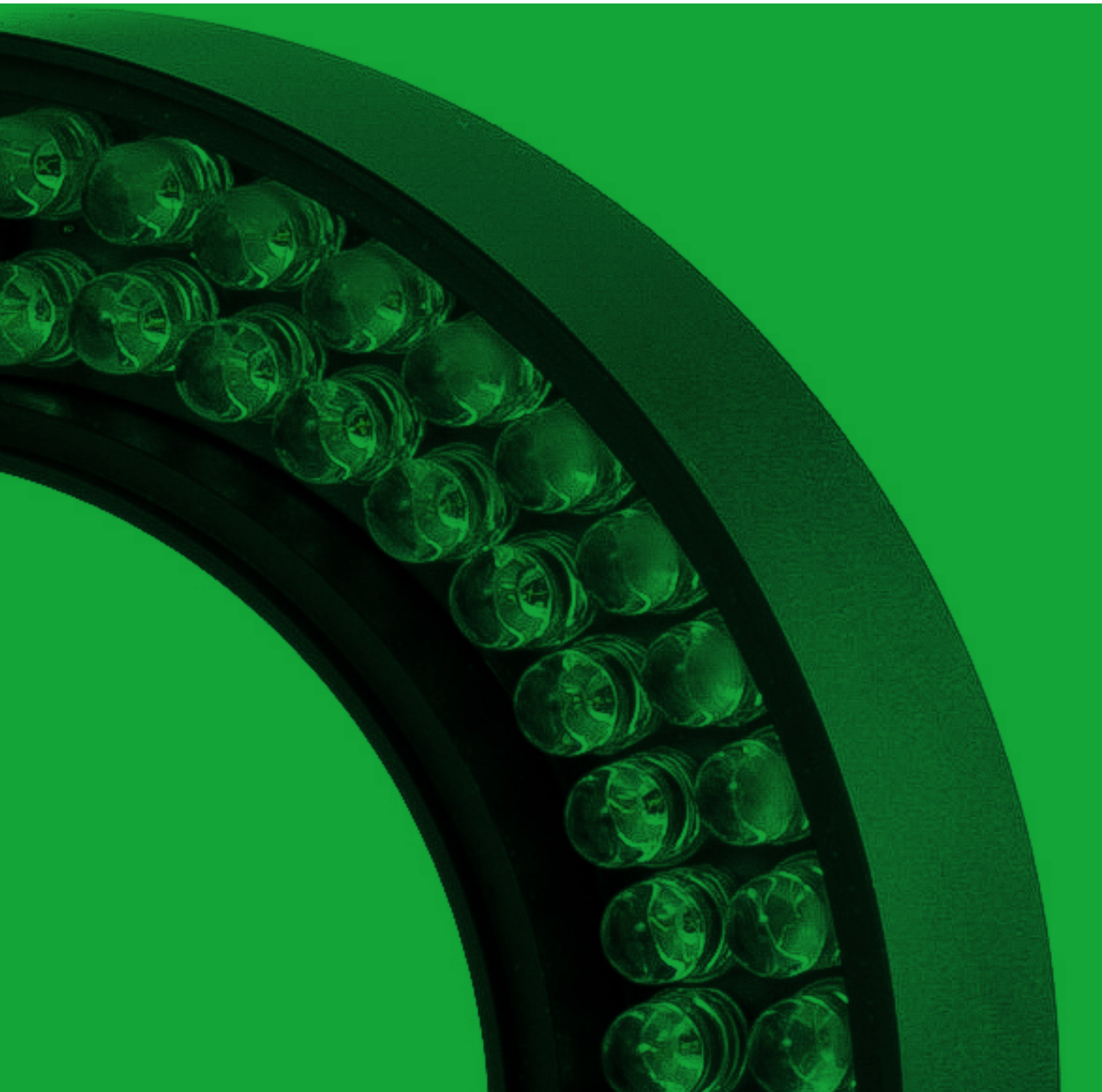
ISCON

Product catalogue



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ISCON - LED Illumination for Machine Vision

ISCON products feature high light intensity, a wide array of available models and sizes as well as excellent build quality. Thanks to many years of experience in the machine vision industry, ISCON provides consultancy in terms of selecting the best illuminator model. ISCON also ensures user safety by adhering to stringent standards concerning electrical device safety In order to guarantee high light intensity and long operation time, ISCON illuminators exclusively use the highest quality LEDs. A durable aluminium casing ensures increased resistance to mechanical damage and fire protection. Beside the highest quality and safety, ISCON also ensures express order processing. To maintain high quality of our illuminators, each product is subjected to many hours of stress tests before being delivered to the customer. ISCON products are fully manufactured within the European Union and bear the CE marking.

ISCON illuminators are designed to operate in industrial machine vision systems. Using the correct illuminator in a machine vision system allows any physical property of an object to be inspected, including size, shape or inscription. Thanks to high light intensity, ISCON illuminators perform excellently in vision systems with a short illumination time of the inspected object. A wide array of models, light colour and additional accessories ensures versatility of ISCON illuminators, which allows them to perform perfectly in all types of vision systems. At the client's request, it is possible to design and manufacture custom illuminators, tailored to specific requirements of a machine vision system.

Selecting the correct ISCON illuminator for a vision system ensures:

- maximising the contrast between the inspected object and the background
- stable operating conditions of the machine vision system
- minimising the impact of the surrounding ambient light.

Scope of services:

- consultancy in terms of selecting the correct illuminator model
- custom builds at the customer's request
- free equipment rental for testing in actual conditions
- technical documentation for products
- warranty service and technical support.

IBCL - Back Light

- Maximum illuminated surface area despite small dimensions
- Uniform light diffusion across the entire surface
- Durable, aluminium casing
- Wide range of dimensions

Product specifications

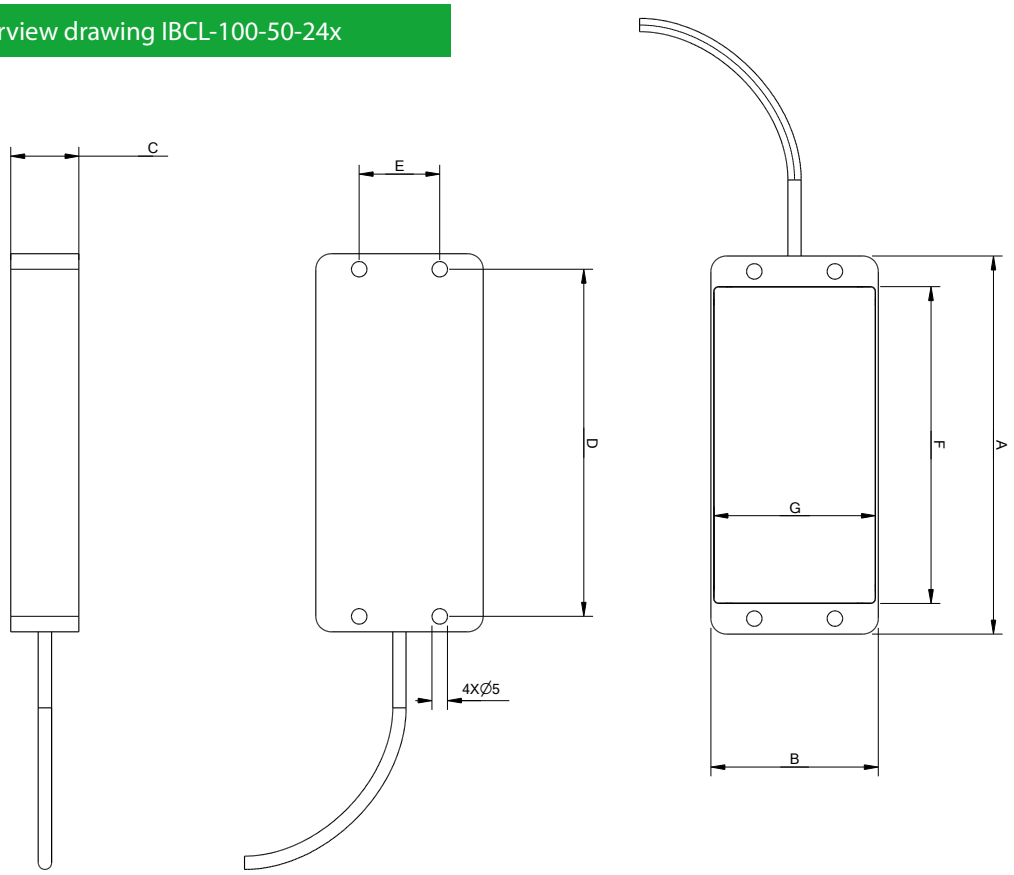
Supply voltage	24VDC
Operating temperature	0-60 ˚C
Protection rating	IP40
Cable	PUR cable up to 2m or 0.5m, M8, 3-pin
Cooling	Convection
Certificates	RoHS
Casing	Anodised aluminium
Casing colour	Black

LED wavelength

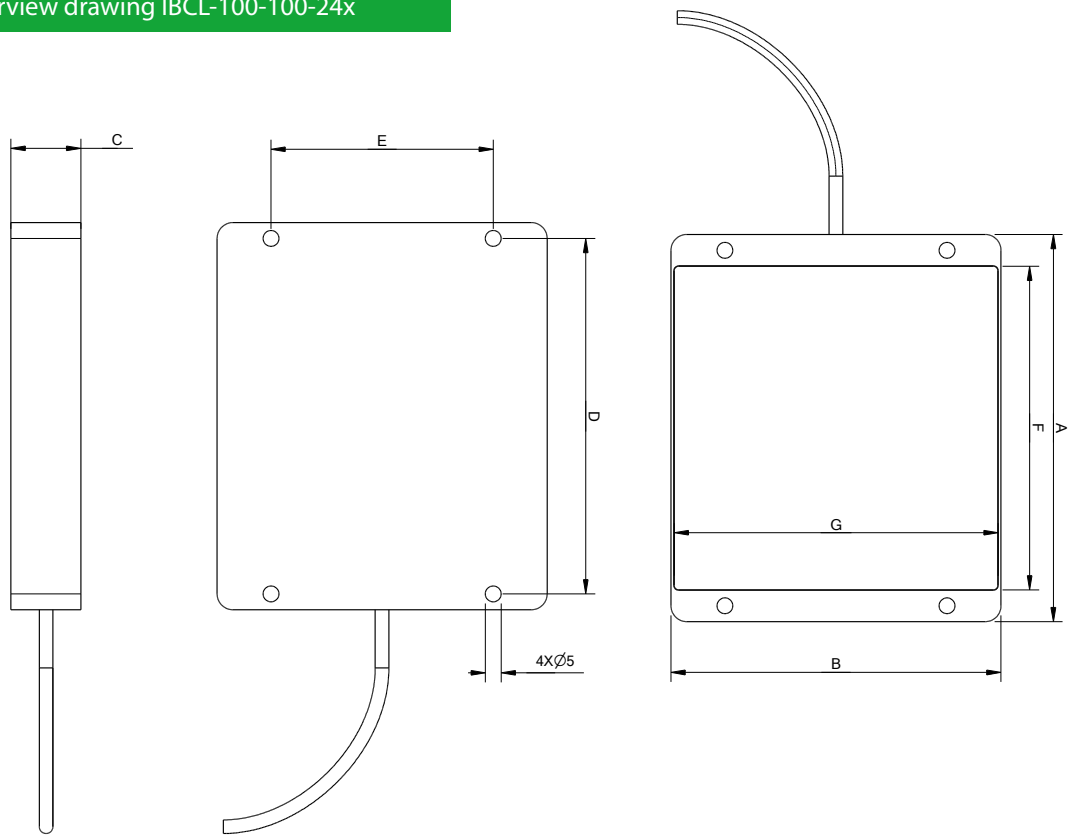
IR (infrared)
850-865nm

IBCL - Back Light

Overview drawing IBCL-100-50-24x



Overview drawing IBCL-100-100-24x



IBCL - Back Light

Basic references

*	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	Colour	Power** [W]
IBCL-50-50-24IR	72	54	22	62	26	52	52	IR	2
IBCL-100-50-24IR	122	54	22	112	26	102	52	IR	4
IBCL-100-100-24IR	122	104	22	112	70	102	102	IR	8
IBCL-150-100-24IR	172	104	22	162	70	152	102	IR	13
IBCL-150-150-24IR	172	154	22	162	90	152	152	IR	18
IBCL-200-100-24IR	222	104	25	212	70	202	102	IR	18
IBCL-200-150-24IR	222	154	25	212	90	202	152	IR	24
IBCL-200-200-24IR	222	204	25	212	140	202	202	IR	30
IBCL-250-200-24IR	272	204	25	262	140	252	202	IR	35
IBCL-250-250-24IR	274	260	24	264	160	250	250	IR	40
IBCL-300-100-24IR	322	104	22	312	70	302	102	IR	30
IBCL-300-200-24IR	380	214	25	367	114	354	210	IR	40

* At the customer's request, illuminators can also be manufactured with custom dimensions.
In case of further questions please contact us at: iscon@iscon.pl.
** The specified power supply is required to power the device.

F, G - the illumination surface area

Reference coding

Model	Approximate length	Approximate width	Power supply	Colour code	Integrated strobe module	Connector
	[mm]	[mm]	VDC	IR	S	3 pin
IBCL - xxx - xxx – 24IRM8						
Colour code: IR - infrared						

IBCL - Back Light

Example 1

IBCL-50-50-24IRM8

An illuminator with a length of A – 72mm, width of B – 54mm, infrared light colour, powered by 24VDC, with a cable up to 0.5m and an M8 connector (3-pin).

Example 2

IBCL-150-150-24IR

An illuminator with a length of A – 172mm, width of B – 154mm, infrared light colour, powered by 24VDC, with a cable up to 2m and no connector – loose wires.

Example 3

IBCL-250-200-24IRSM8

An illuminator with a length of A – 272mm, width of B – 204mm, infrared light colour, powered by 24VDC, with an integrated strobe module, a cable up to 0.5m and an M8 connector (3-pin).

Operation modes

The device allows for both continuous operation and operation in strobe mode. The next page contains connection diagrams for illuminators fitted with a strobe module or illuminators without a strobe module.

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IBCL - Back Light

Connection Diagrams

An illuminator without a strobe module, e.g. **IBCL-100-100-24IR**

- Continuous operation

- The illuminator can also operate in strobe mode, for example by using a relay or another external device to trigger the illuminator.

An illuminator with a strobe module, e.g. **IBCL-100-100-24IRS**

- Continuous operation

- Strobe mode operation

Strobe signal (black wire) between +5VDC and +24VDC. Minimum triggering current of 0.01A.

Connector Type

No connector (loose wires). Cable length up to 2m. For an illuminator without a strobe module.

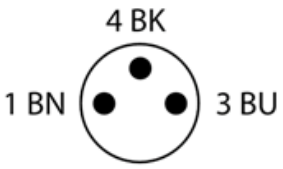
For an illuminator without a strobe module, e.g. IBCL-100-100-24IR	
Brown	+24VDC
Blue	GND

No connector (loose wires). Cable length up to 2m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IBCL-100-100-24IRS	
Brown	+24VDC
Black	Strobe signal
Blue	GND

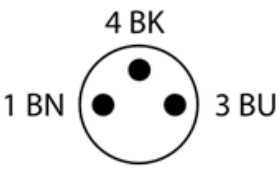
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator without a strobe module.

For an illuminator without a strobe module, e.g. IBCL-100-100-24IRM8	
Brown (BN)	+24VDC
Black (BK)	NA
Blue (BU)	GND



With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IBCL-100-100-24IRSM8	
Brown (BN)	+24VDC
Black (BK)	Strobe signal
Blue (BU)	GND



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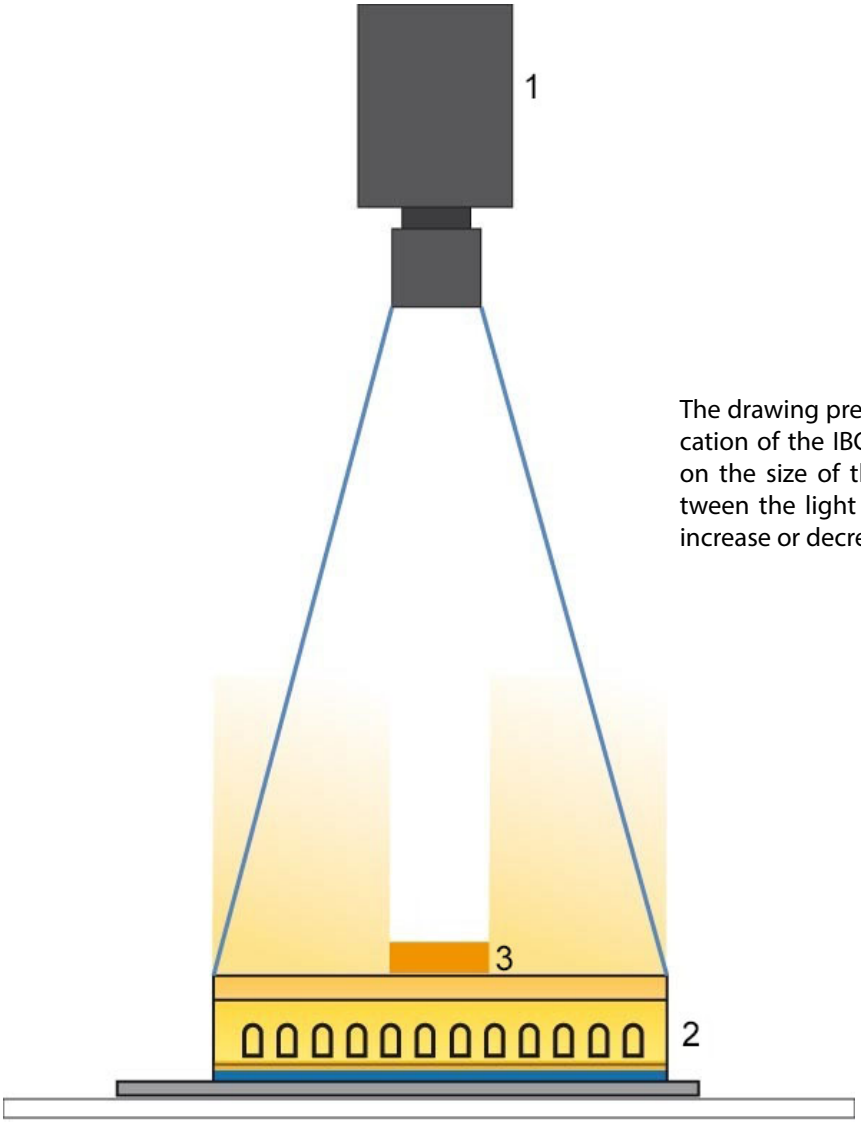
IBCL - Back Light

Installation and Application

The illuminator is installed using four Φ5 holes. The spacing between holes (D, E) is shown on the overview drawing. It is recommended to mount the illuminator on the machine's metal structure, so that its largest surface is aligned with the structure in order to dissipate the most heat.



1 - Machine vision 2 - Illuminator 3 - Object

The drawing presents an exemplary application of the IBCL illuminator. Depending on the size of the IBCL, the distance between the light source and the part may increase or decrease.

IBCLF - Back Light Flat

- Maximum illuminated surface area despite small dimensions
- Uniform light diffusion across the entire surface
- Durable, aluminium casing
- Wide range of dimensions

Product specifications

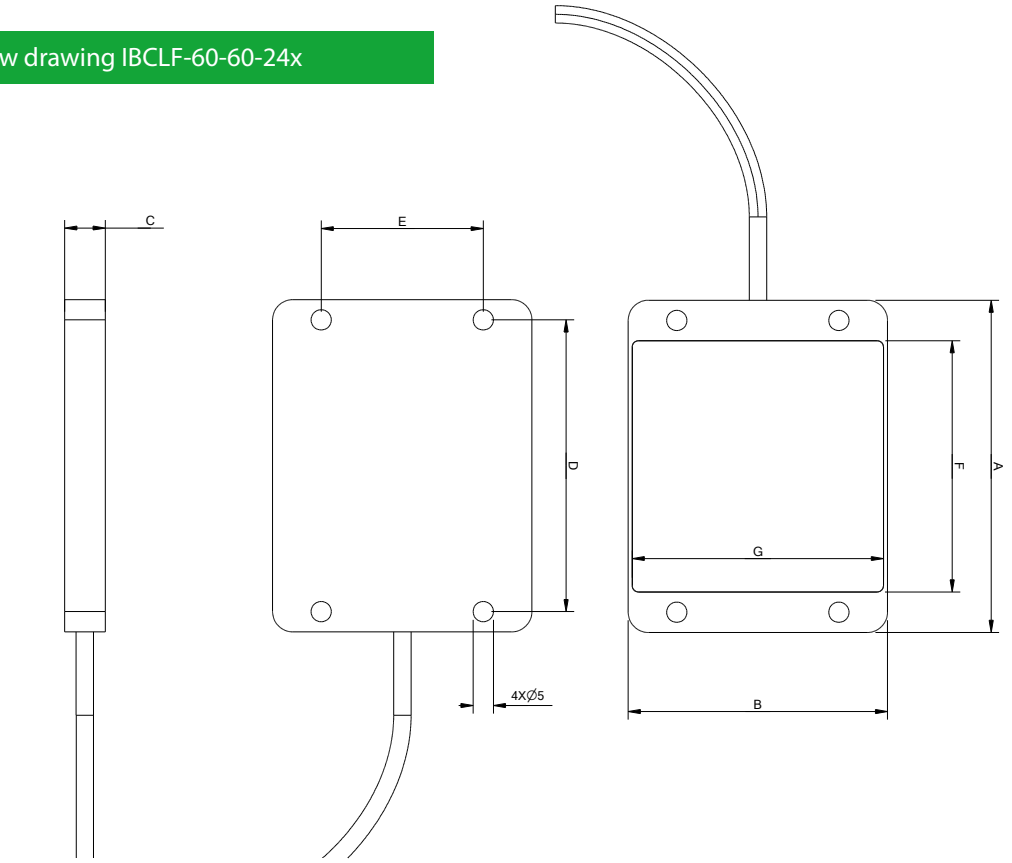
Supply voltage	24VDC
Operating temperature	0-60 ˚C
Protection rating	IP40
Cable	PUR cable up to 2m or 0.5m, M8, 3-pin
Cooling	Convection
Certificates	RoHS
Casing	Anodised aluminium
Casing colour	Black

LED wavelength

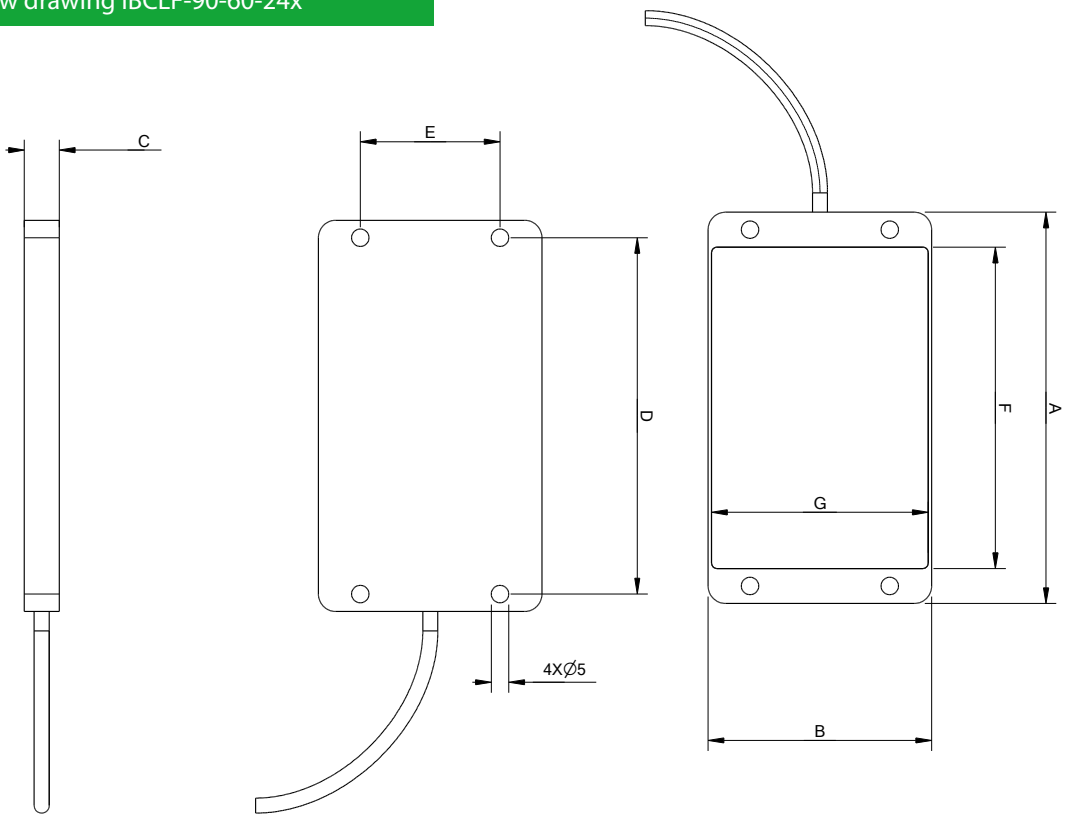
W (white)	R (red)	G (green)	B (blue)
CRI=75	620-650nm	520-540nm	460-480nm

IBCLF - Back Light Flat

Overview drawing IBCLF-60-60-24x



Overview drawing IBCLF-90-60-24x



IBCLF - Back Light Flat

Basic references

*	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	Colour	Power** [W]
IBCLF-30-30-24RWBG	52	34	10	42	14	32	32	● ○ ● ●	1
IBCLF-60-60-24RWBG	82	64	10	72	40	62	62	● ○ ● ●	4
IBCLF-90-60-24RWBG	112	64	10	102	40	92	62	● ○ ● ●	6
IBCLF-90-90-24RWBG	112	94	10	102	70	92	92	● ○ ● ●	8
IBCLF-120-60-24RWBG	142	64	10	132	40	122	62	● ○ ● ●	7
IBCLF-120-90-24RWBG	142	94	10	132	70	122	92	● ○ ● ●	9
IBCLF-120-120-24RWBG	142	124	10	132	85	122	122	● ○ ● ●	12
IBCLF-150-90-24RWBG	172	94	10	162	70	152	92	● ○ ● ●	10
IBCLF-150-120-24RWBG	172	124	10	162	85	152	122	● ○ ● ●	12
IBCLF-150-150-24RWBG	174	156	12	164	100	154	154	● ○ ● ●	14
IBCLF-180-60-24RWBG	202	64	10	192	40	182	62	● ○ ● ●	10
IBCLF-180-120-24RWBG	204	126	12	194	85	184	124	● ○ ● ●	13
IBCLF-180-180-24RWBG	204	186	12	194	140	184	184	● ○ ● ●	16
IBCLF-210-120-24RWBG	234	126	12	222	85	212	122	● ○ ● ●	18
IBCLF-240-120-24RWBG	264	126	12	252	85	242	122	● ○ ● ●	20
IBCLF-240-150-24RWBG	264	156	12	252	100	242	152	● ○ ● ●	22
IBCLF-300-180-24RWBG	324	186	12	312	140	302	182	● ○ ● ●	30

* At the customer's request, illuminators can also be manufactured with custom dimensions.
In case of further questions please contact us at: iscon@iscon.pl.
** The specified power supply is required to power the device.

F, G - the illumination surface area

Reference coding

Model	Approximate length	Approximate width	Power supply	Colour code	Integrated strobe module	Connector
	[mm]	[mm]	VDC	RBWG	S	3 pin
IBCLF - xxx - xxx – 24xxM8						
Colour code: W - white, R- red, B - blue, G - green						

IBCLF - Back Light Flat

Example 1

IBCLF-60-60-24WM8

IBCLF-60-60-24WM8 An illuminator with a length of A – 82mm, width of B – 64mm, white light colour, powered by 24VDC, with a cable up to 0.5m and an M8 connector (3-pin).

Example 2

IBCLF-90-60-24R

IBCLF-90-60-24R An illuminator with a length of A – 112mm, width of B – 64mm, red light colour, powered by 24VDC, with a cable up to 2m and no connector – loose wires.

Example 3

IBCLF-150-90-24RSM8

IBCLF-150-90-24RSM8 An illuminator with a length of A – 172mm, width of B – 94mm, red light colour, powered by 24VDC, with an integrated strobe module, a cable up to 0.5m and an M8 connector (3-pin).

Example 4

IBCLF-180-60-24BS

IBCLF-180-60-24BS An illuminator with a length of A – 202mm, width of B – 64mm, blue light colour, powered by 24VDC, with a cable up to 2m and no connector – loose wires.

Operation modes

The device allows for both continuous operation and operation in strobe mode. The next page contains connection diagrams for illuminators fitted with a strobe module or illuminators without a strobe module.

Connection Diagrams

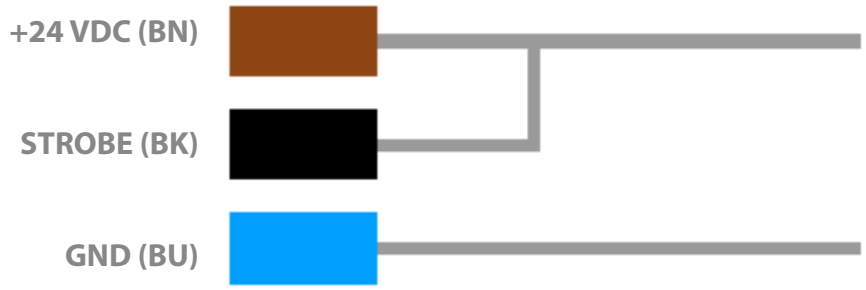
An illuminator without a strobe module, e.g. **IBCLF-90-90-24R**

- Continuous operation

The illuminator can also operate in strobe mode, for example by using a relay or another external device to trigger the illuminator.

An illuminator with a strobe module, e.g. **IBCLF-90-90-24RS**

- Continuous operation



- Strobe mode operation

Strobe signal (black wire) between +5VDC and +24VDC. Minimum triggering current of 0.01A.

Connector Type

No connector (loose wires). Cable length up to 2m. For an illuminator without a strobe module.

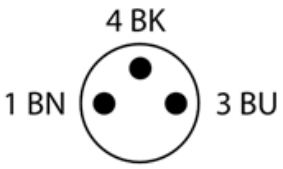
For an illuminator without a strobe module, e.g. IBCLF-90-90-24R	
Brown	+24VDC
Blue	GND

No connector (loose wires). Cable length up to 2m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IBCLF-90-90-24RS	
Brown	+24VDC
Black	Strobe signal
Blue	GND

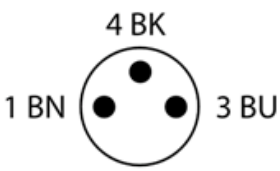
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator without a strobe module.

For an illuminator without a strobe module, e.g. IBCLF-90-90-24RM8	
Brown (BN)	+24VDC
Black (BK)	NA
Blue (BU)	GND



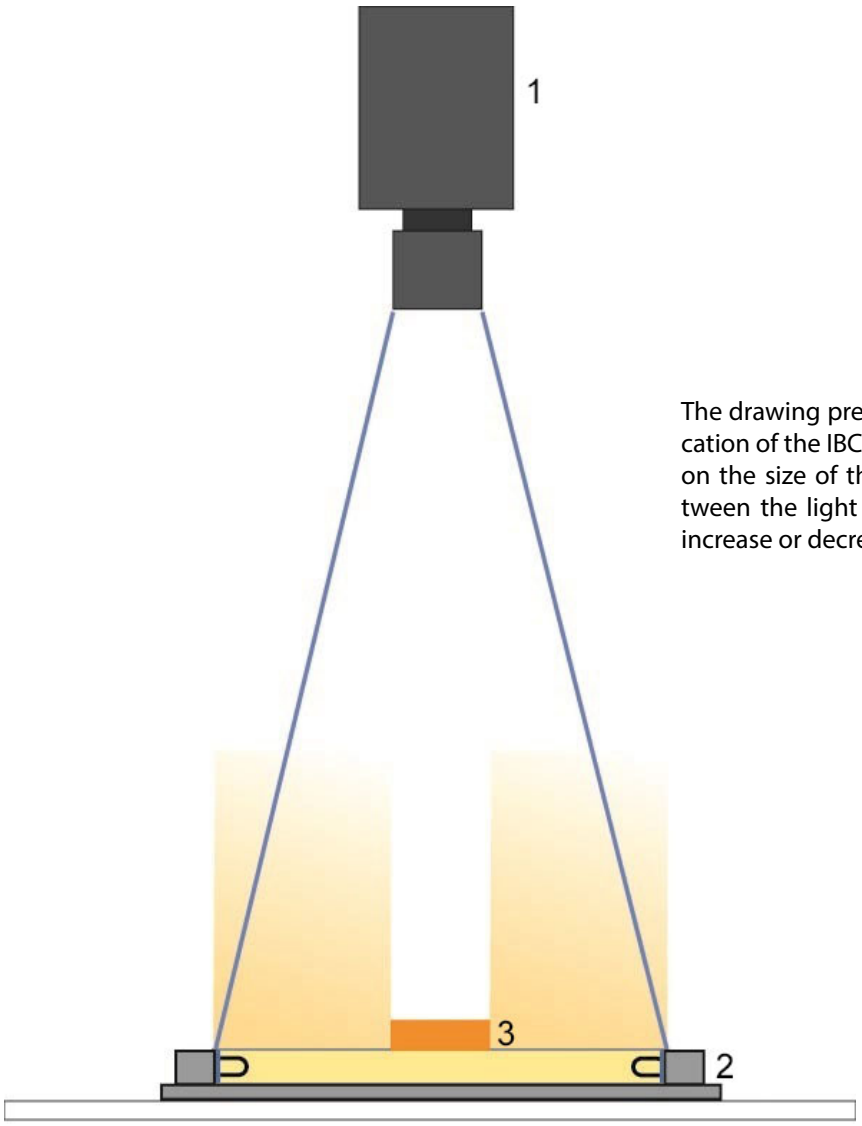
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IBCLF-90-90-24RSM8	
Brown (BN)	+24VDC
Black (BK)	Strobe signal
Blue (BU)	GND



Installation and Application

The illuminator is installed using four Φ5 holes. The spacing between holes (D, E) is shown on the overview drawing. It is recommended to mount the illuminator on the machine's metal structure, so that its largest surface is aligned with the structure in order to dissipate the most heat.



1 - Machine vision 2 - Illuminator 3 - Object

The drawing presents an exemplary application of the IBCLF illuminator. Depending on the size of the IBCLF, the distance between the light source and the part may increase or decrease.

IBL Reflector - Bar Light

- Maximum illuminated surface area despite small dimensions
- Durable, aluminium casing
- High illumination efficiency
- Option of installing auxiliary filters

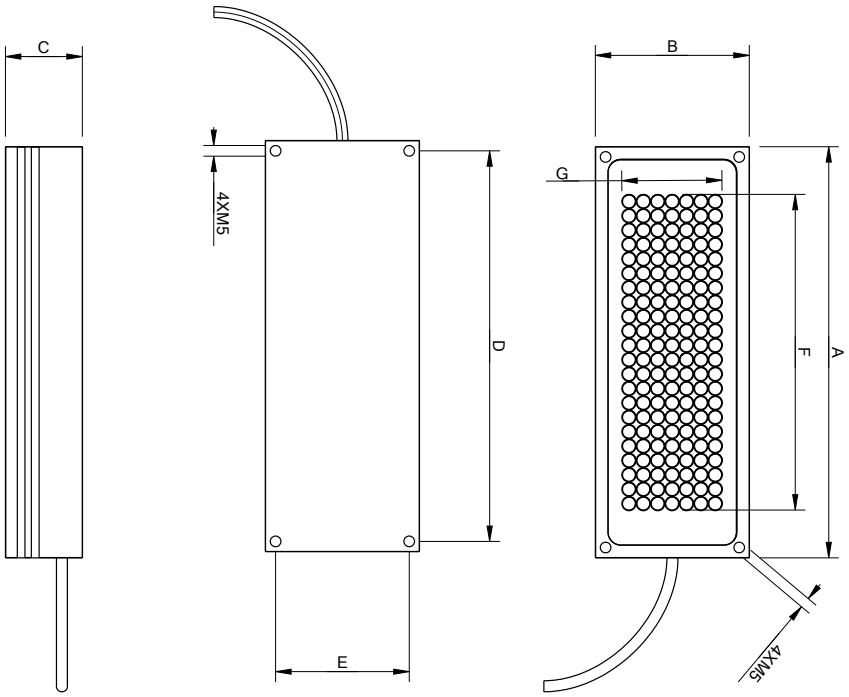
Product specifications

Supply voltage	24VDC
Operating temperature	0-60 ˚C
Protection rating	IP40
Cable	PUR cable up to 2m or 0.5m, M8, 3-pin
Cooling	Convection
Certificates	RoHS
Casing	Anodised aluminium
Casing colour	Black

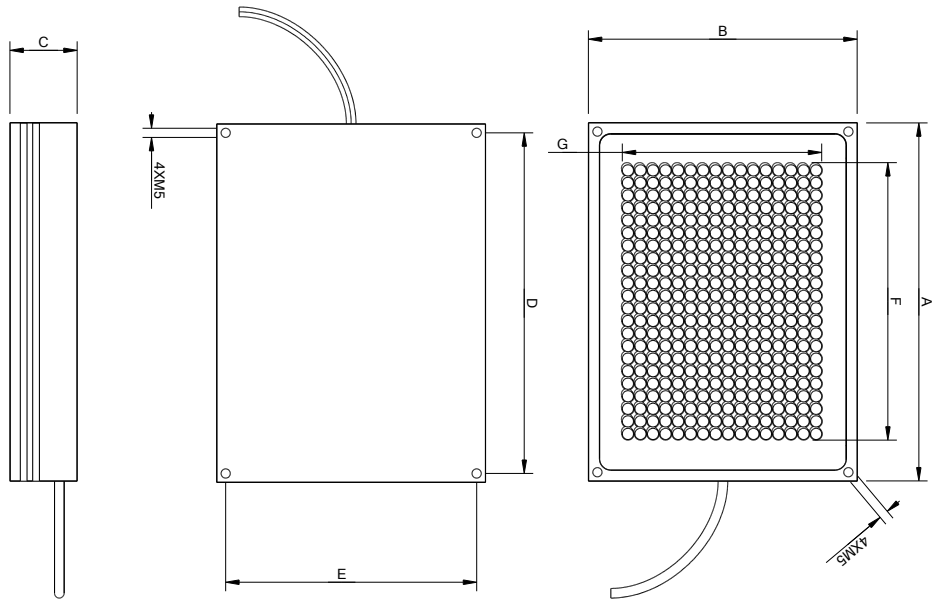
LED wavelength

W (white)	R (red)	G (green)	B (blue)	IR (infrared)
CRI=75	620-650nm	520-540nm	460-480nm	850-865nm

Overview drawing IBL-160-60-24x



Overview drawing IBL-160-120-24x



IBL Reflector - Bar Light

Basic references

*	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	Colour	Power** [W]
IBL-160-60-24RWBG	160	60	30	152	52	118	34	●○●●	14
IBL-160-60-24IR	160	60	30	152	52	118	34	IR	14
IBL-160-120-24RWBG	160	120	30	152	112	118	84	●○●●	30
IBL-160-120-24IR	160	120	30	152	112	118	84	IR	30

* At the customer's request, illuminators can also be manufactured with custom dimensions.
In case of further questions please contact us at: iscon@iscon.pl.
** The specified power supply is required to power the device.

F, G - the illumination surface area

Reference coding

Model	Approximate length	Approximate width	Power supply	Colour code	Integrated strobe module	Connector
	[mm]	[mm]	VDC	RBGWIR	S	3 pin
IBL - xxx - xxx - 24xxM8						
Colour code: W - white, R- red, B - blue, G - green, IR - infrared						

IBL Reflector - Bar Light

Example 1

IBL-160-60-24WM8

An illuminator with a length of A – 160mm, width of B – 60mm, white light colour, powered by 24VDC, with a cable up to 0.5m and an M8 connector (3-pin).

Example 2

IBL-160-120-24IR

An illuminator with a length of A – 160mm, width of B – 120mm, infrared light colour, powered by 24VDC, with a cable up to 2m and no connector – loose wires.

Example 3

IBL-160-120-24RSM8

An illuminator with a length of A – 160mm, width of B – 120mm, red light colour, powered by 24VDC, with an integrated strobe module, a cable up to 0.5m and an M8 connector (3-pin).

Operation modes

The device allows for both continuous operation and operation in strobe mode. The next page contains connection diagrams for illuminators fitted with a strobe module or illuminators without a strobe module.

Connection Diagrams

An illuminator without a strobe module, e.g. **IBL-160-60-24R**

- Continuous operation

- The illuminator can also operate in strobe mode, for example by using a relay or another external device to trigger the illuminator.

An illuminator with a strobe module, e.g. **IBL-160-60-24RS**

- Continuous operation

- Strobe mode operation

Strobe signal (black wire) between +5VDC and +24VDC. Minimum triggering current of 0.01A.

Connector Type

No connector (loose wires). Cable length up to 2m. For an illuminator without a strobe module.

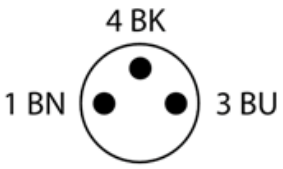
For an illuminator without a strobe module, e.g. IBL-160-60-24R	
Brown	+24VDC
Blue	GND

No connector (loose wires). Cable length up to 2m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IBL-160-60-24RS	
Brown	+24VDC
Black	Strobe signal
Blue	GND

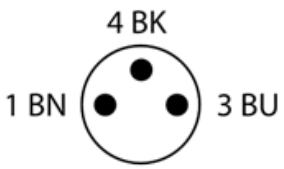
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator without a strobe module.

For an illuminator without a strobe module, e.g. IBL-160-60-24RM8	
Brown (BN)	+24VDC
Black (BK)	NA
Blue (BU)	GND



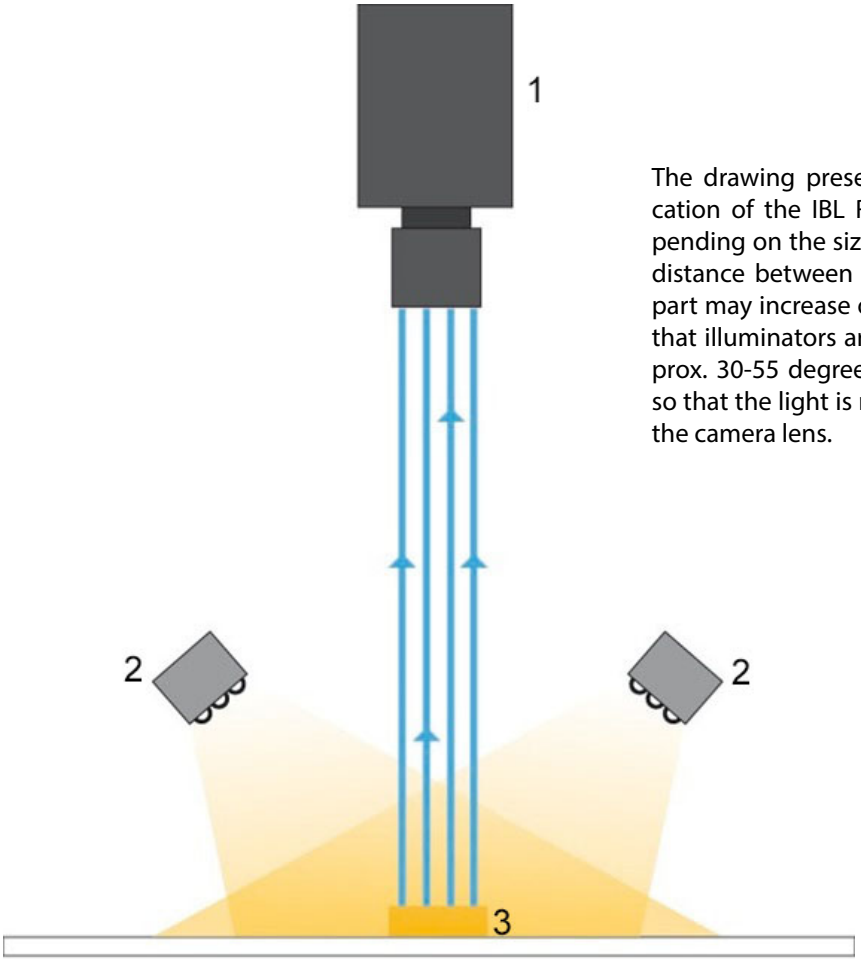
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IBL-160-60-24RSM8	
Brown (BN)	+24VDC
Black (BK)	Strobe signal
Blue (BU)	GND



Installation and Application

The illuminator is installed using 4 M5x5 or M5x8 screws (not included with illuminators). The spacing between holes (D, E) is shown on the overview drawing. It is recommended to mount the illuminator on the machine's metal structure, so that its largest surface is aligned with the structure in order to dissipate the most heat. It is possible to mount a variety of filters or diffusers to the front part of the illuminator. Their designation is included in the 'Accessories' chart.



1 - Machine vision 2 - Illuminator 3 - Object

The drawing presents an exemplary application of the IBL Reflector illuminator. Depending on the size of the IBL Reflector, the distance between the light source and the part may increase or decrease. It is essential that illuminators are set up at an angle (approx. 30-55 degrees) to the inspected part, so that the light is not reflected directly into the camera lens.

It is also possible to polarise the illuminator's light by using additional filters. Polarising filters are also included in a separate 'Accessories' chart.

IBL - Bar Light

- Maximum illuminated surface area despite small dimensions
- Durable, aluminium casing
- Wide range of dimensions
- Option of installing auxiliary filters

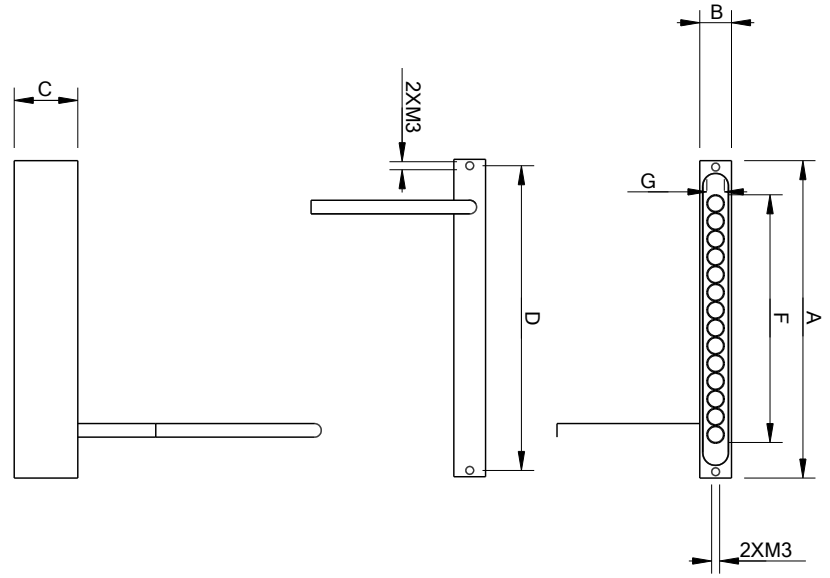
Product specifications

Supply voltage	24VDC
Operating temperature	0-60 ˚C
Protection rating	IP40
Cable	PUR cable up to 2m or 0.5m, M8, 3-pin
Cooling	Convection
Certificates	RoHS
Casing	Anodised aluminium
Casing colour	Black

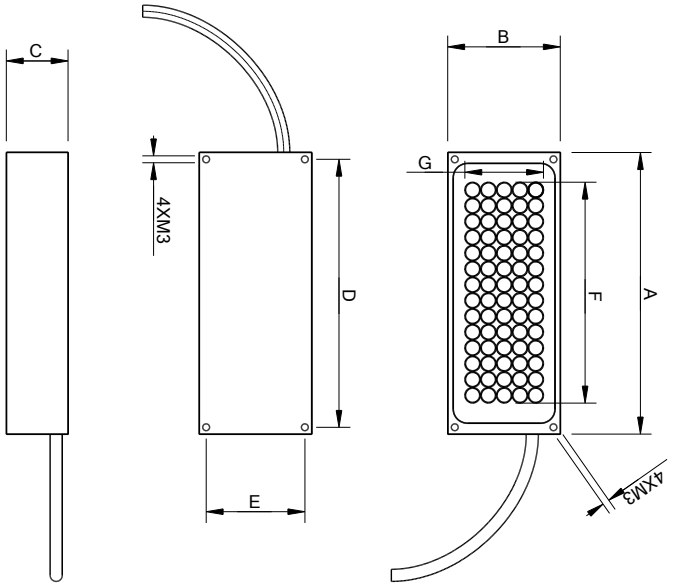
LED wavelength

W (white)	R (red)	G (green)	B (blue)	IR (infrared)
CRI=75	620-650nm	520-540nm	460-480nm	850-865nm

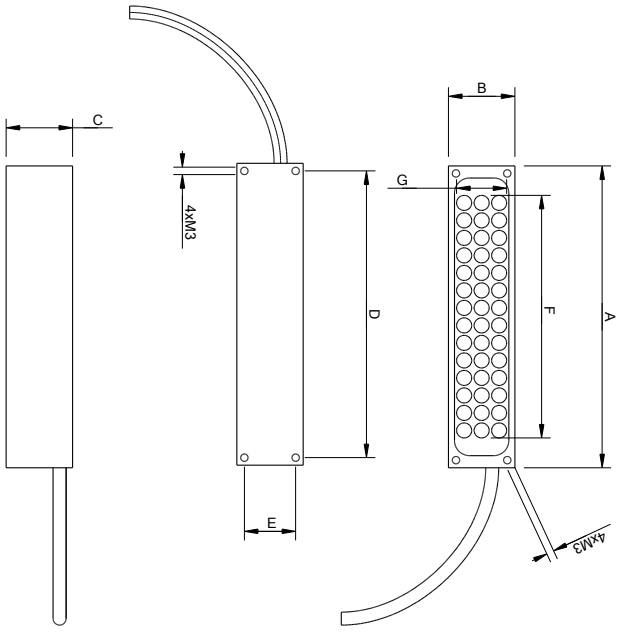
Overview drawing IBL-100-10-24x



Overview drawing IBL-100-40-24x



Overview drawing IBL-100-20-24x



Basic references

*	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	Colour	Power** [W]
IBL-70-10-24RWBG	60	10	20	56	-	39	6	● ○ ● ●	1
IBL-70-10-24IR	60	10	20	56	-	39	6	IR	1
IBL-100-10-24RWBG	100	10	20	96	-	78	6	● ○ ● ●	1
IBL-100-10-24IR	100	10	20	96	-	78	6	IR	1
IBL-180-10-24RWBG	180	10	20	176	-	158	6	● ○ ● ●	1
IBL-180-10-24IR	180	10	20	176	-	158	6	IR	1
IBL-70-20-24RWBG	60	20	20	55	15	39	16	● ○ ● ●	1
IBL-70-20-24IR	60	20	20	55	15	39	16	IR	1
IBL-100-20-24RWBG	100	22	20	95	17	79	16	● ○ ● ●	4
IBL-100-20-24IR	100	22	20	95	17	79	16	IR	4
IBL-140-20-24RWBG	139	22	20	134	17	118	16	● ○ ● ●	5
IBL-140-20-24IR	139	22	20	134	17	118	16	IR	5
IBL-260-20-24RWBG	258	22	20	253	17	237	16	● ○ ● ●	9
IBL-260-20-24IR	258	22	20	253	17	237	16	IR	9
IBL-340-20-24RWBG	339	24	22	334	19	317	17	● ○ ● ●	9
IBL-340-20-24IR	339	24	22	334	19	317	17	IR	9
IBL-420-20-24RWBG	418	24	22	413	19	397	16	● ○ ● ●	12
IBL-420-20-24IR	418	24	22	413	19	397	16	IR	12
IBL-100-40-24RWBG	100	40	20	95	35	79	28	● ○ ● ●	6
IBL-100-40-24IR	100	40	20	95	35	79	28	IR	6
IBL-180-40-24RWBG	180	40	20	175	35	159	28	● ○ ● ●	12
IBL-180-40-24IR	180	40	20	175	35	159	28	IR	12
IBL-260-40-24RWBG	258	40	20	253	35	237	28	● ○ ● ●	18
IBL-260-40-24IR	258	40	20	253	35	237	28	IR	18

* At the customer's request, illuminators can also be manufactured with custom dimensions.
In case of further questions please contact us at: iscon@iscon.pl.

** The specified power supply is required to power the device.

F, G - the illumination surface area

Reference coding

Model	Approximate length	Approximate width	Power supply	Colour code	Integrated strobe module	Connector
	[mm]	[mm]	VDC	RBGWIR	S	3 pin
IBL - xxx - xx - 24xxM8						
Colour code: W - white, R- red, B - blue, G - green, IR - infrared						

Example 1

IBL-100-20-24WM8

An illuminator with a length of A – 100mm, width of B – 22mm, white light colour, powered by 24VDC, with a cable up to 0.5m and an M8 connector (3-pin).

Example 2

IBL-140-20-24IR

An illuminator with a length of A – 139mm, width of B – 22mm, infrared light colour, powered by 24VDC, with a cable up to 2m and no connector – loose wires.

Example 3

IBL-100-40-24RSM8

An illuminator with a length of A – 100mm, width of B – 40mm, red light colour, powered by 24VDC, with an integrated strobe module, a cable up to 0.5m and an M8 connector (3-pin).

Example 4

IBL-180-10-24BS

An illuminator with a length of A – 180mm, width of B – 10mm, blue light colour, powered by 24VDC, with a strobe module, a cable up to 2m and no connector – loose wires.

Operation modes

The device allows for both continuous operation and operation in strobe mode. The next page contains connection diagrams for illuminators fitted with a strobe module or illuminators without a strobe module.

Connection Diagrams

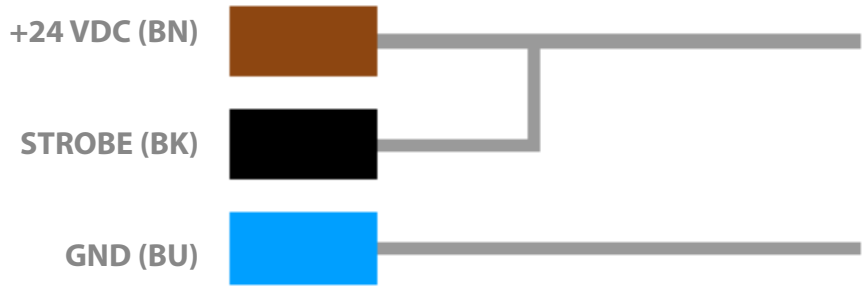
An illuminator without a strobe module, e.g. **IBL-100-20-24R**

- Continuous operation

The illuminator can also operate in strobe mode, for example by using a relay or another external device to trigger the illuminator.

An illuminator with a strobe module, e.g. **IBL-100-20-24RS**

- Continuous operation



- Strobe mode operation

Strobe signal (black wire) between +5VDC and +24VDC. Minimum triggering current of 0.01A.

Connector Type

No connector (loose wires). Cable length up to 2m. For an illuminator without a strobe module.

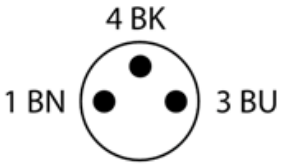
For an illuminator without a strobe module, e.g. IBL-100-20-24R	
Brown	+24VDC
Blue	GND

No connector (loose wires). Cable length up to 2m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IBL-100-20-24RS	
Brown	+24VDC
Black	Strobe signal
Blue	GND

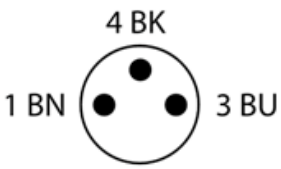
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator without a strobe module.

For an illuminator without a strobe module, e.g. IBL-100-20-24RM8	
Brown (BN)	+24VDC
Black (BK)	NA
Blue (BU)	GND



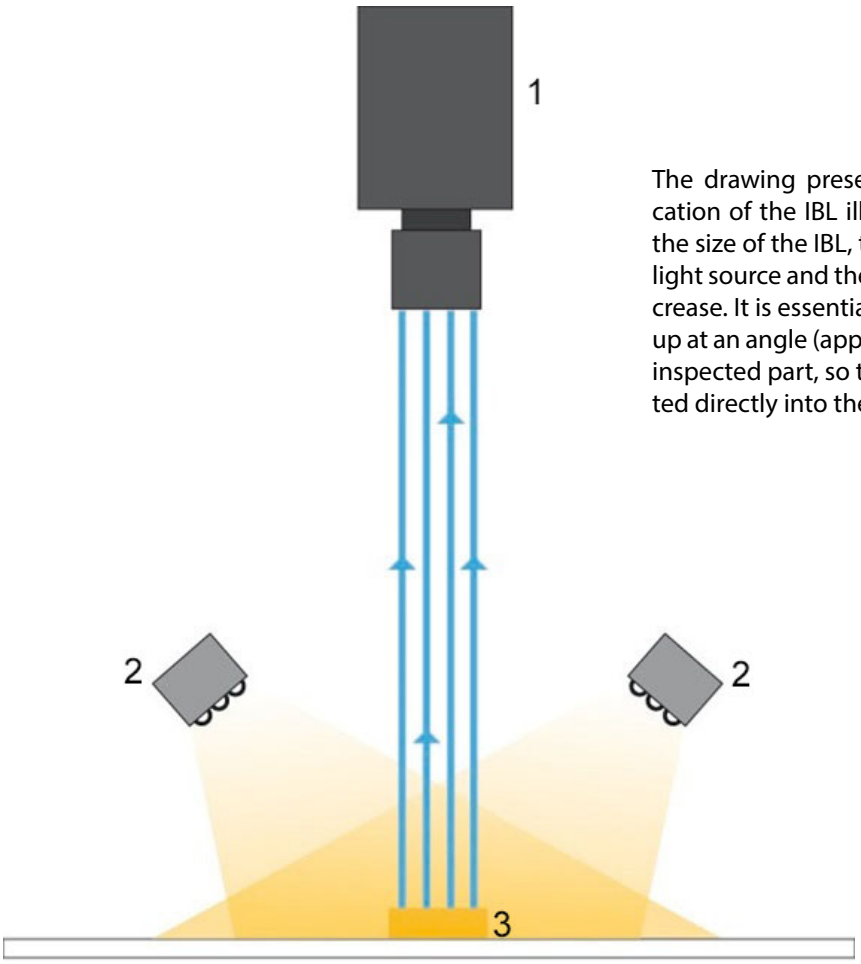
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IBL-100-20-24RSM8	
Brown (BN)	+24VDC
Black (BK)	Strobe signal
Blue (BU)	GND



Installation and Application

The illuminator is installed using 4 (2 for IBL-70-10-24x, IBL-100-10-24x and IBL-180-10-24x) M3x5 or M3x8 screws (not included with illuminators). The spacing between holes (D, E) is shown on the overview drawing. It is recommended to mount the illuminator on the machine's metal structure, so that its largest surface is aligned with the structure in order to dissipate the most heat. It is possible to mount a variety of filters or diffusers to the front part of the illuminator. Their designation is included in the 'Accessories' chart.



1 - Machine vision 2 - Illuminator 3 - Object

The drawing presents an exemplary application of the IBL illuminator. Depending on the size of the IBL, the distance between the light source and the part may increase or decrease. It is essential that illuminators are set up at an angle (approx. 30-55 degrees) to the inspected part, so that the light is not reflected directly into the camera lens.

It is also possible to polarise the illuminator's light by using additional filters. Polarising filters are also included in a separate 'Accessories' chart.

ICL - Coaxial Light

- Durable, aluminium casing
- Ensures uniform light diffusion
- Suitable for inspecting uneven and glossy surfaces

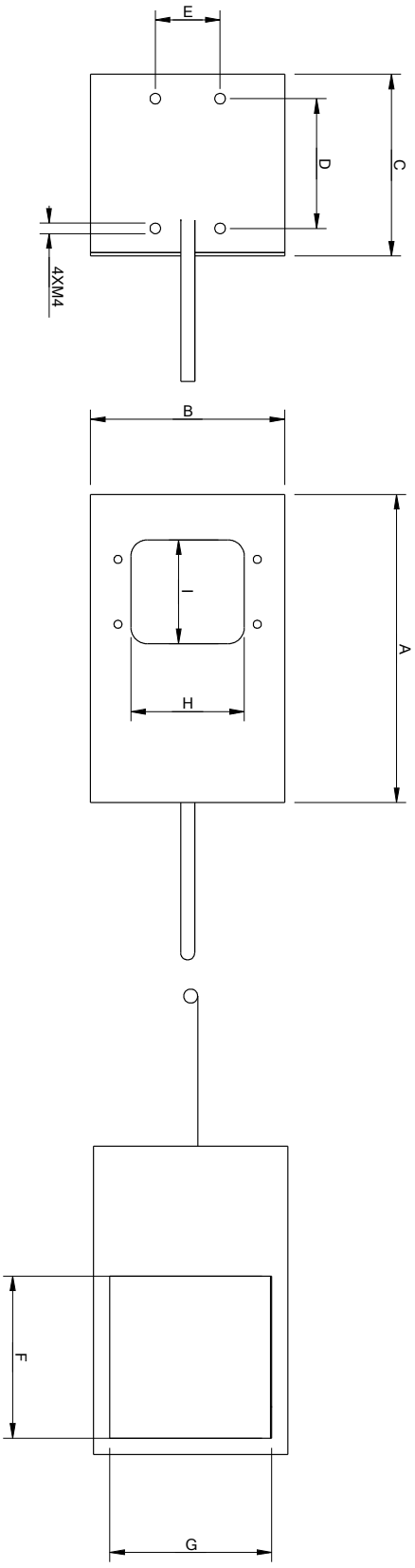
Product specifications

Supply voltage	24VDC
Operating temperature	0-60 ˚C
Protection rating	IP40
Cable	PUR cable up to 2m or 0.5m, M8, 3-pin
Cooling	Convection
Certificates	RoHS
Casing	Anodised aluminium
Casing colour	Black

LED wavelength

W (white)	R (red)	G (green)	B (blue)
CRI=75	620-650nm	520-540nm	460-480nm

Overview drawing ICL-50-50-24x



Basic references

*	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	Colour	Power** [W]
ICL-50-50-24RWBG	95	60	56	40	20	50	50	35	32	●○●●	9
ICL-75-75-24RWBG	120	85	80	60	45	75	75	50	50	●○●●	12
ICL-100-100-24RWBG	150	110	105	65	70	100	103	75	75	●○●●	18

* At the customer's request, illuminators can also be manufactured with custom dimensions.
In case of further questions please contact us at: iscon@iscon.pl.
** The specified power supply is required to power the device.

F, G - the illumination surface area

Reference coding

Model	Approximate length	Approximate width	Power supply	Colour code	Integrated strobe module	Connector
	[mm]	[mm]	VDC	RBGW	S	3 pin
ICL - xxx - xx - 24xxM8						
Colour code: W - white, R- red, B - blue, G - green						

Example 1

ICL-50-50-24WM8

An illuminator with a length of A – 95mm, width of B – 60mm, white light colour, powered by 24VDC, with a cable up to 0.5m and an M8 connector (3-pin).

Example 2

ICL-75-75-24R

An illuminator with a length of A – 120mm, width of B – 85mm, red light colour, powered by 24VDC, with a cable up to 2m and no connector – loose wires.

Example 3

ICL-100-100-24BSM8

An illuminator with a length of A – 150mm, width of B – 110mm, red light colour, powered by 24VDC, with an integrated strobe module, a cable up to 0.5m and an M8 connector (3-pin).

Operation modes

The device allows for both continuous operation and operation in strobe mode. The next page contains connection diagrams for illuminators fitted with a strobe module or illuminators without a strobe module.

Connection Diagrams

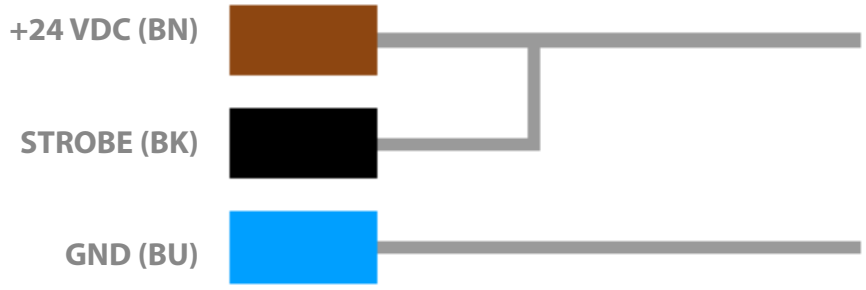
An illuminator without a strobe module, e.g. **ICL-50-50-24R**

- Continuous operation

- The illuminator can also operate in strobe mode, for example by using a relay or another external device to trigger the illuminator.

An illuminator with a strobe module, e.g. **ICL-50-50-24RS**

- Continuous operation



- Strobe mode operation

Strobe signal (black wire) between +5VDC and +24VDC. Minimum triggering current of 0.01A.

Connector Type

No connector (loose wires). Cable length up to 2m. For an illuminator without a strobe module.

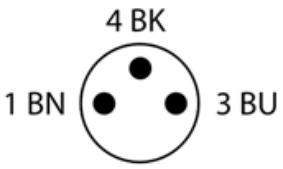
For an illuminator without a strobe module, e.g. ICL-50-50-24R	
Brown	+24VDC
Blue	GND

No connector (loose wires). Cable length up to 2m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. ICL-50-50-24RS	
Brown	+24VDC
Black	Strobe signal
Blue	GND

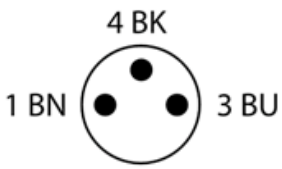
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator without a strobe module.

For an illuminator without a strobe module, e.g. ICL-50-50-24RM8	
Brown (BN)	+24VDC
Black (BK)	NA
Blue (BU)	GND



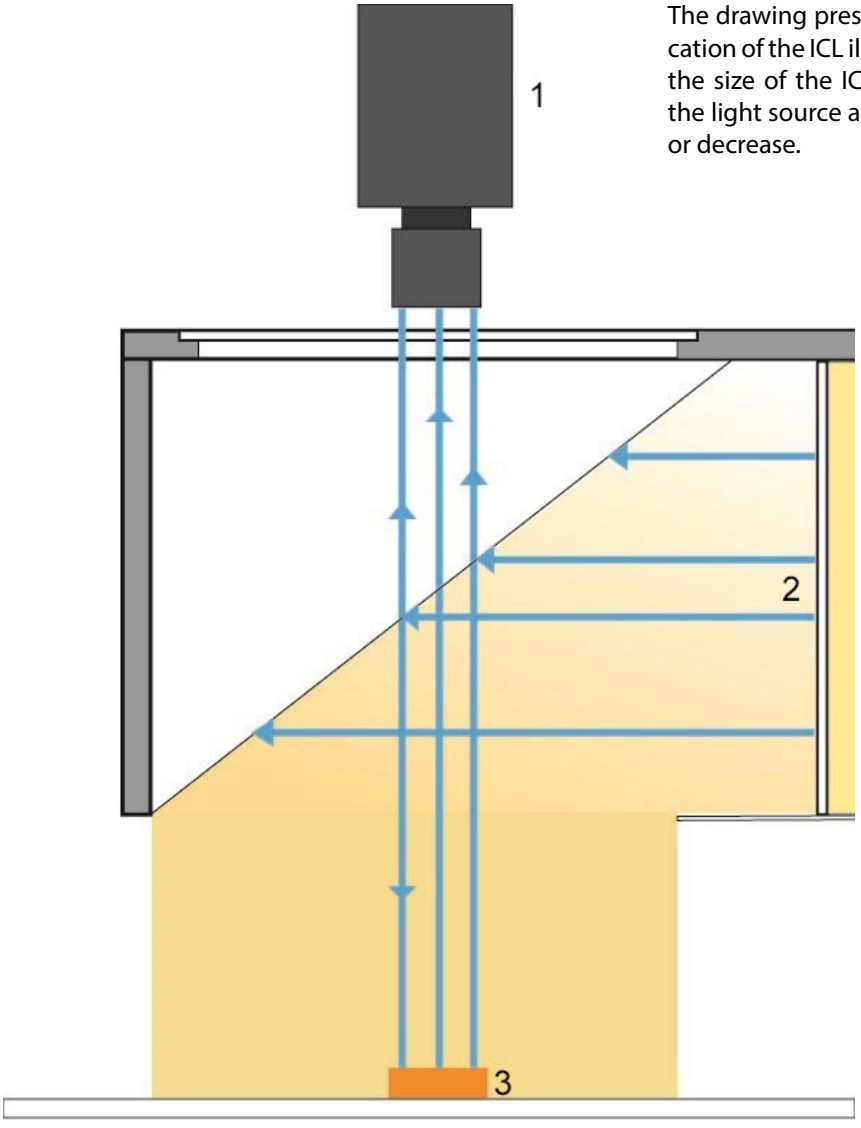
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. ICL-50-50-24RSM8	
Brown (BN)	+24VDC
Black (BK)	Strobe signal
Blue (BU)	GND



Installation and Application

The illuminator is installed using 4 M4x5 or M4x8 screws (not included with illuminators). The spacing between holes (D, E) is shown on the overview drawing. It is recommended to mount the illuminator on the machine's metal structure, so that its largest surface is aligned with the structure in order to dissipate the most heat. The drawing presents an exemplary application of the ICL illuminator. Depending on the size of the ICL, the distance between the light source and the part may increase or decrease.



The drawing presents an exemplary application of the ICL illuminator. Depending on the size of the ICL, the distance between the light source and the part may increase or decrease.

1 - Machine vision 2 - Illuminator 3 - Object

IDL - Dome Light

- Uniform diffusion of reflected light
- Durable, metal casing
- Suitable for inspecting uneven and glossy surfaces

Product specifications

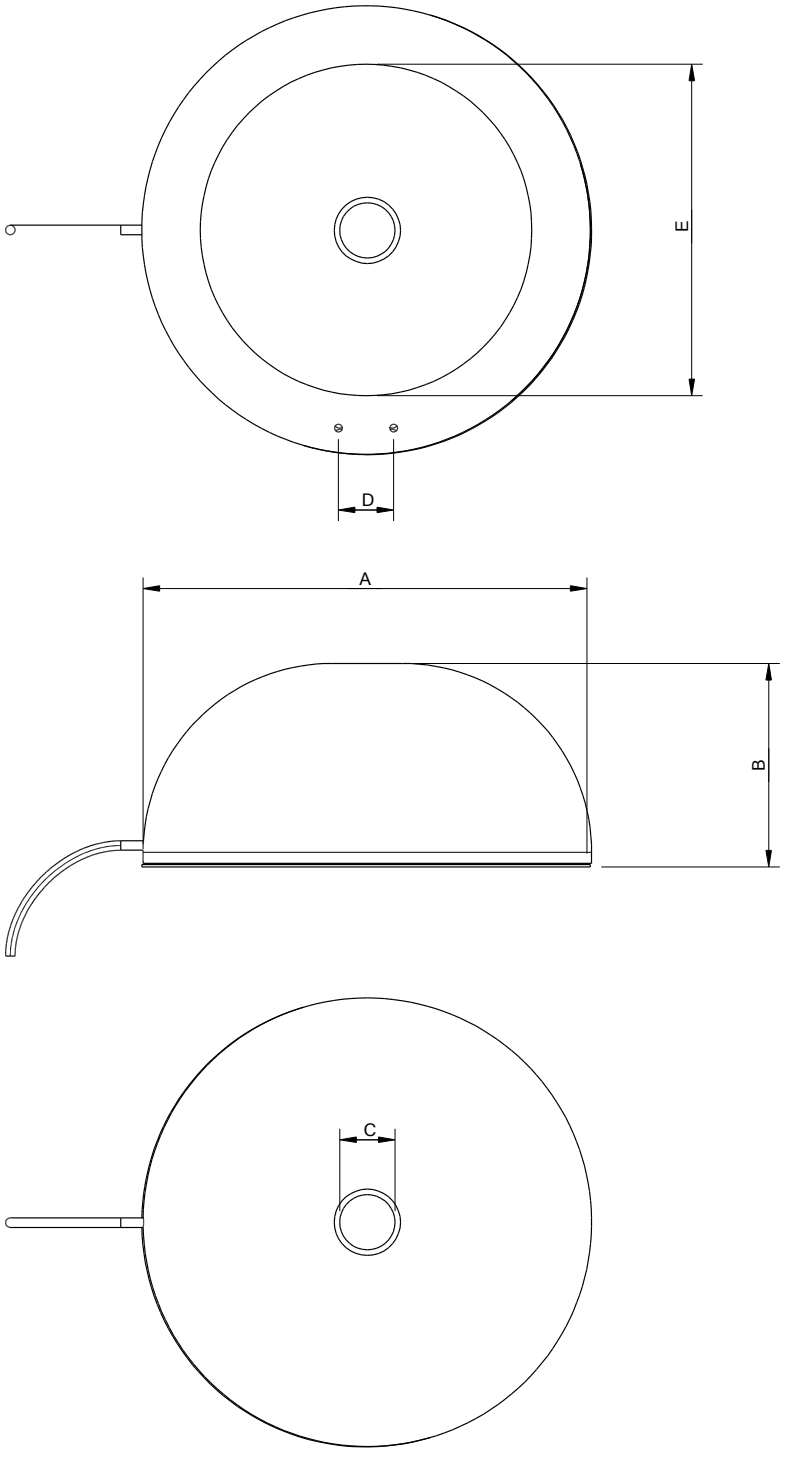
Supply voltage	24VDC
Operating temperature	0-60 ˚C
Protection rating	IP40
Cable	PUR cable up to 2m or 0.5m, M8, 3-pin
Cooling	Convection
Certificates	RoHS
Casing	Anodised aluminium
Casing colour	White

LED wavelength

W (white)	R (red)	G (green)	B (blue)	IR (infrared)
CRI=75	620-650nm	520-540nm	460-480nm	850-865nm

IDL - Dome Light

Overview drawing IDL-200-100-24x



Basic references

*	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Colour	Power** [W]
IDL-120-60-24RWBG	123	61	23	20	82	●○●●	20
IDL-120-60-24IR	123	61	23	20	82	IR	20
IDL-200-100-24RWBG	203	101	25	25	150	●○●●	35
IDL-200-100-24IR	203	101	25	25	150	IR	35

* At the customer's request, illuminators can also be manufactured with custom dimensions.
In case of further questions please contact us at: iscon@iscon.pl.
** The specified power supply is required to power the device.

E - the diameter of the illuminator's emitting surface

Reference coding

Model	Approximate diameter	Approximate height	Power supply	Colour code	Integrated strobe module	Connector
	[mm]	[mm]	VDC	RBGWIR	S	3 pin
IDL - xxx - xxx - 24xxM8						
Colour code: W - white, R- red, B - blue, G - green, IR - infrared						

Example 1

IDL-120-60-24WM8

An illuminator with an outer diameter of A – 123mm, height of B – 61mm, white light colour, powered by 24VDC, with a cable up to 0.5m and an M8 connector (3-pin).

Example 2

IDL-120-60-24IR

An illuminator with an outer diameter of A – 123mm, height of B – 61mm, infrared light colour, powered by 24VDC, with a cable up to 2m and no connector – loose wires.

Example 3

IDL-200-100-24RSM8

An illuminator with an outer diameter of A – 203mm, height of B – 101mm, red light colour, powered by 24VDC, with an integrated strobe module, a cable up to 0.5m and an M8 connector (3-pin).

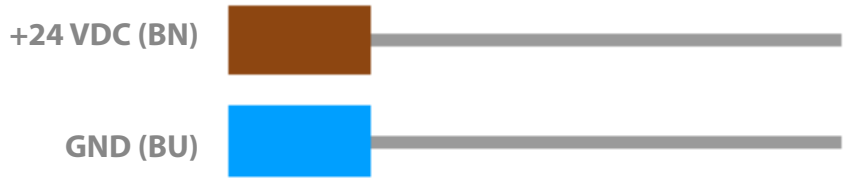
Operation modes

The device allows for both continuous operation and operation in strobe mode. The next page contains connection diagrams for illuminators fitted with a strobe module or illuminators without a strobe module.

Connection Diagrams

An illuminator without a strobe module, e.g. **IDL-120-60-24R**

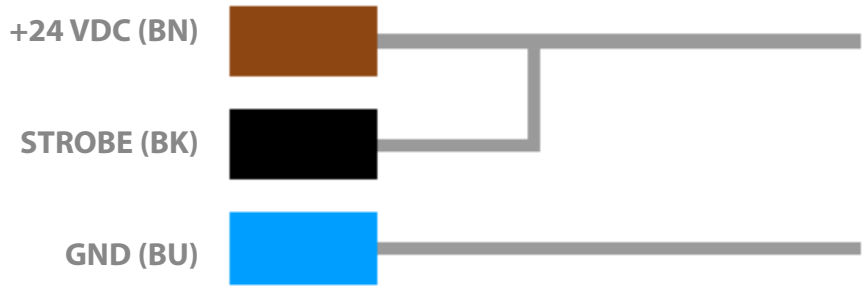
- Continuous operation



- The illuminator can also operate in strobe mode, for example by using a relay or another external device to trigger the illuminator.

An illuminator with a strobe module, e.g. **IDL-120-60-24RS**

- Continuous operation



- Strobe mode operation

Strobe signal (black wire) between +5VDC and +24VDC. Minimum triggering current of 0.01A.

Connector Type

No connector (loose wires). Cable length up to 2m. For an illuminator without a strobe module.

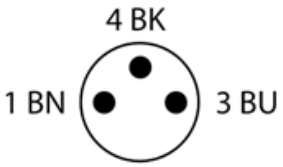
For an illuminator without a strobe module, e.g. IDL-120-60-24R	
Brown	+24VDC
Blue	GND

No connector (loose wires). Cable length up to 2m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IDL-120-60-24RS	
Brown	+24VDC
Black	Strobe signal
Blue	GND

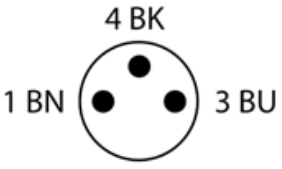
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator without a strobe module.

For an illuminator without a strobe module, e.g. IDL-120-60-24RM8	
Brown (BN)	+24VDC
Black (BK)	NA
Blue (BU)	GND



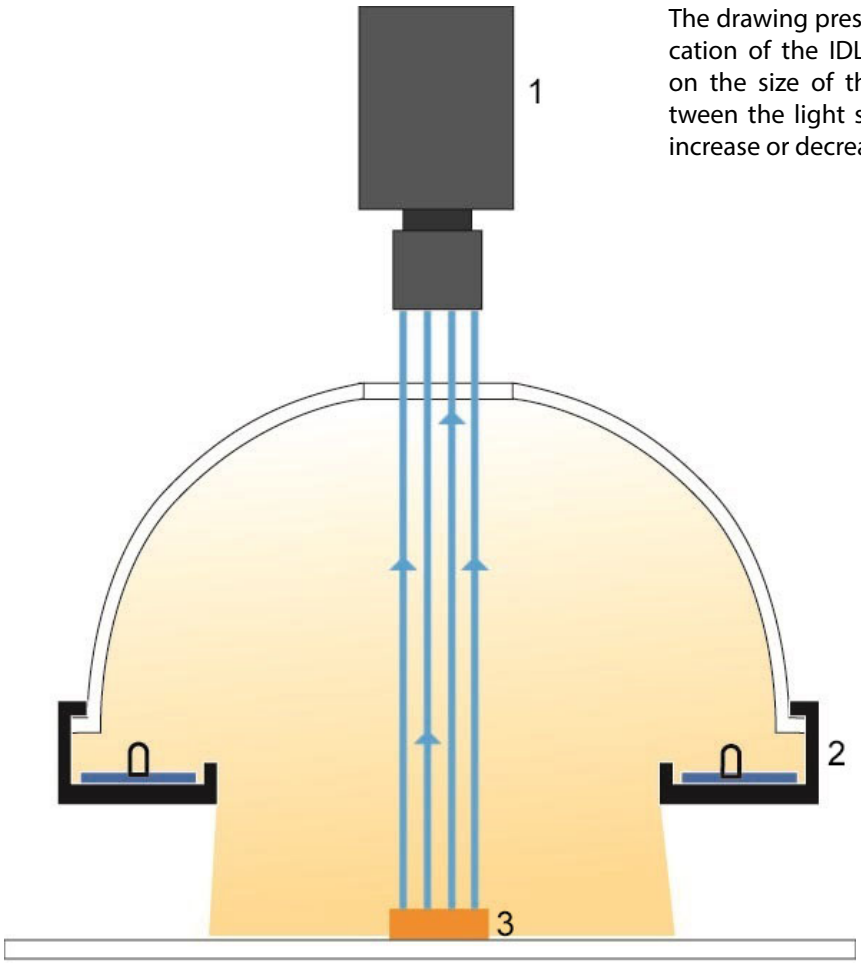
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IDL-120-60-24RSM8	
Brown (BN)	+24VDC
Black (BK)	Strobe signal
Blue (BU)	GND



Installation and Application

The illuminator is installed using 2 M3x5 or M3x8 screws (not included with illuminators). The spacing between holes (D) is shown on the overview drawing. It is recommended to mount the illuminator on the machine's metal structure, so that its largest surface is aligned with the structure in order to dissipate the most heat.



1 - Machine vision 2 - Illuminator 3 - Object

The drawing presents an exemplary application of the IDL illuminator. Depending on the size of the IDL, the distance between the light source and the part may increase or decrease.

IRL - Ring Light

- Maximum illuminated surface area despite small dimensions
- Durable, aluminium casing
- Wide range of dimensions
- Option of installing auxiliary filters

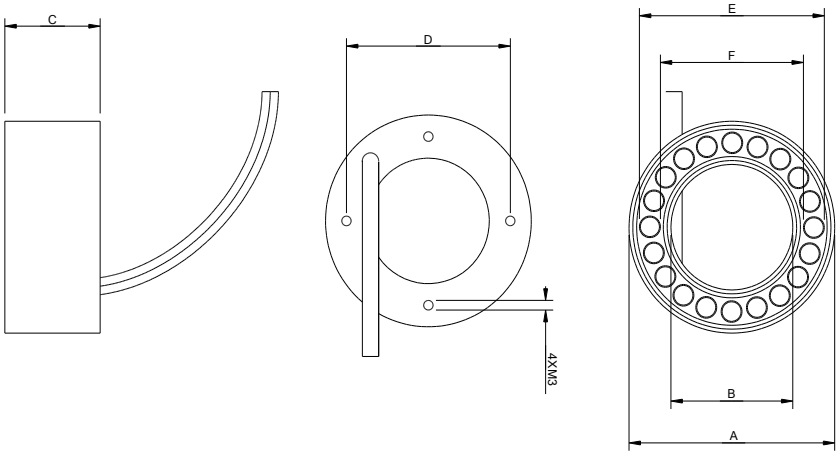
Product specifications

Supply voltage	24VDC
Operating temperature	0-60 ˚C
Protection rating	IP40
Cable	PUR cable up to 2m or 0.5m, M8, 3-pin
Cooling	Convection
Certificates	RoHS
Casing	Anodised aluminium
Casing colour	Black

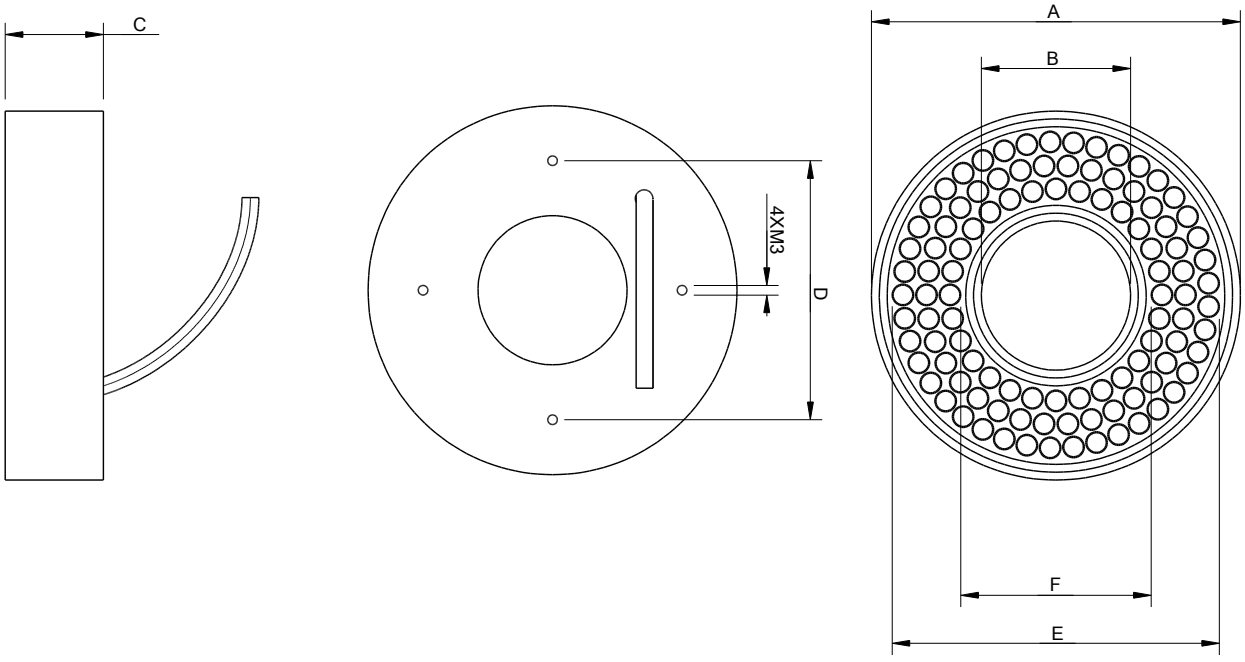
LED wavelength

W (white)	R (red)	G (green)	B (blue)	IR (infrared)
CRI=75	620-650nm	520-540nm	460-480nm	850-865nm

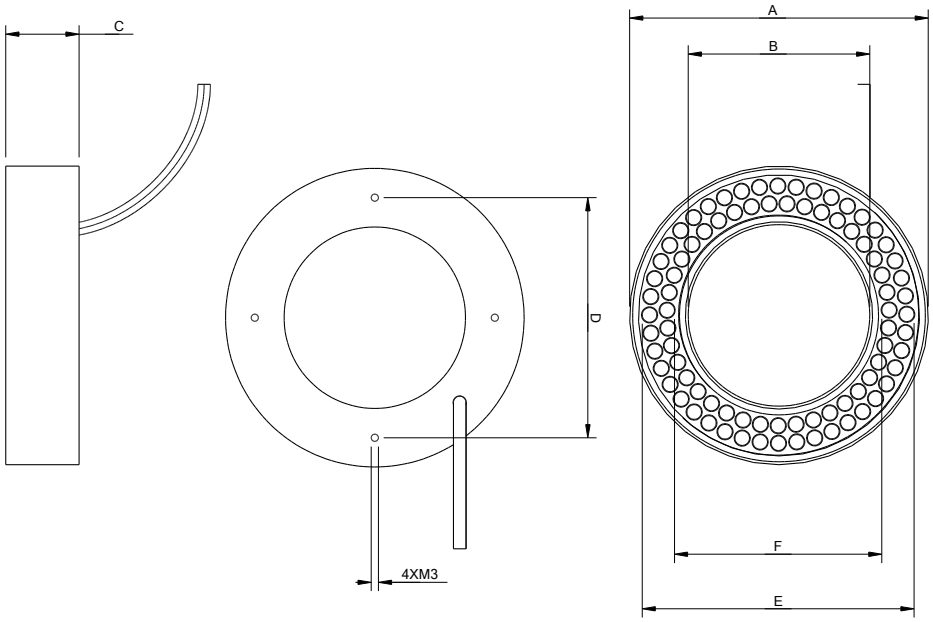
Overview drawing IRL-50-30-24x



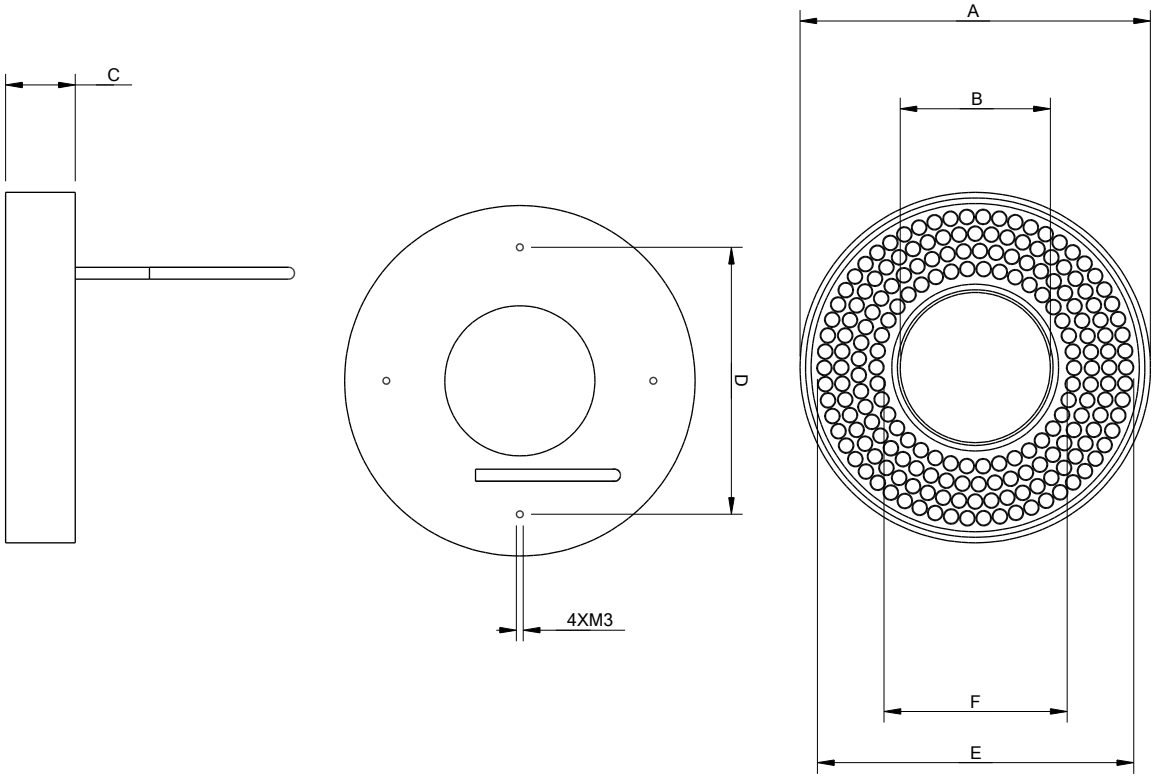
Overview drawing IRL-90-40-24x



Overview drawing IRL-100-60-24x



Overview drawing IRL-120-55-24x



Basic references

*	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	Colour	Power** [W]
IRL-50-30-24RWBG	54	32	25	43	43	38	●○●●	1
IRL-50-30-24IR	54	32	23	43	43	38	IR	1
IRL-90-40-24RWBG	94	38	25	66	78	49	●○●●	8
IRL-90-40-24IR	94	38	25	66	78	49	IR	8
IRL-100-60-24RWBG	102	62	25	82	88	71	●○●●	6
IRL-100-60-24IR	102	62	25	82	88	71	IR	6
IRL-120-55-24RWBG	126	54	25	96	108	66	●○●●	15
IRL-120-55-24IR	126	54	25	96	108	66	IR	15
IRL-160-90-24RWBG	155	79	25	124	151	83	●○●●	20
IRL-160-90-24IR	155	79	25	124	151	83	IR	20

* At the customer's request, illuminators can also be manufactured with custom dimensions. In case of further questions please contact us at: iscon@iscon.pl.

** The specified power supply is required to power the device.

E, F - the diameter of the illuminator's emitting surface

Reference coding

Model	Approximate outer diameter	Approximate inner diameter	Power supply	Colour code	Integrated strobe module	Connector
	[mm]	[mm]	VDC	RBGWIR	S	3 pin
IRL - xxx - xx - 24xxM8						
Colour code: W - white, R- red, B - blue, G - green, IR - infrared						

Example 1

IRL-90-40-24WM8

An illuminator with an outer diameter of A – 94mm, inner diameter of B – 38mm, white light colour, powered by 24VDC, with a cable up to 0.5m and an M8 connector (3-pin).

Example 2

IRL-90-40-24IR

An illuminator with an outer diameter of A – 94mm, inner diameter of B – 38mm, infrared light colour, powered by 24VDC, with a cable up to 2m and no connector – loose wires.

Example 3

IRL-100-60-24RSM8

An illuminator with an outer diameter of A – 102mm, inner diameter of B – 62mm, red light colour, powered by 24VDC, with an integrated strobe module, a cable up to 0.5m and an M8 connector (3-pin).

Example 4

IRL-120-55-24BS

An illuminator with an outer diameter of A – 126mm, inner diameter of B – 54mm, blue light colour, powered by 24VDC, with a strobe module, a cable up to 2m and no connector – loose wires.

Operation modes

The device allows for both continuous operation and operation in strobe mode. The next page contains connection diagrams for illuminators fitted with a strobe module or illuminators without a strobe module.

Connection Diagrams

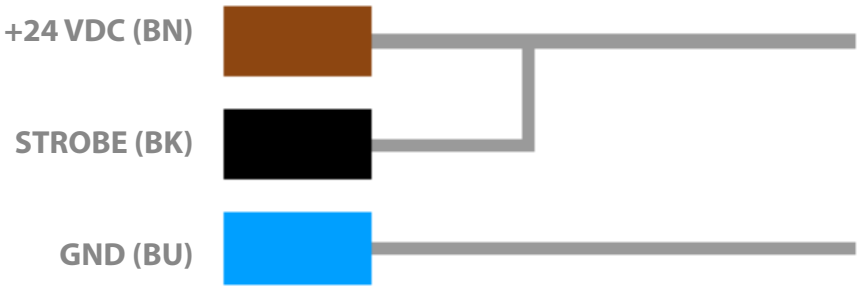
An illuminator without a strobe module, e.g. **IRL-90-40-24R**

- Continuous operation

- The illuminator can also operate in strobe mode, for example by using a relay or another external device to trigger the illuminator.

An illuminator with a strobe module, e.g. **IRL-90-40-24RS**

- Continuous operation



- Strobe mode operation

Strobe signal (black wire) between +5VDC and +24VDC. Minimum triggering current of 0.01A.

Connector Type

No connector (loose wires). Cable length up to 2m. For an illuminator without a strobe module.

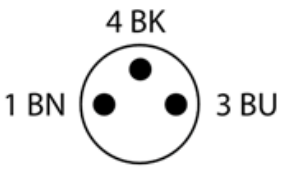
For an illuminator without a strobe module, e.g. IRL-90-40-24R	
Brown	+24VDC
Blue	GND

No connector (loose wires). Cable length up to 2m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IRL-90-40-24RS	
Brown	+24VDC
Black	Strobe signal
Blue	GND

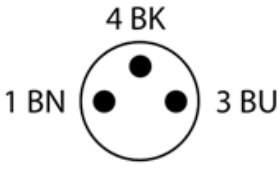
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator without a strobe module.

For an illuminator without a strobe module, e.g. IRL-90-40-24RM8	
Brown (BN)	+24VDC
Black (BK)	NA
Blue (BU)	GND



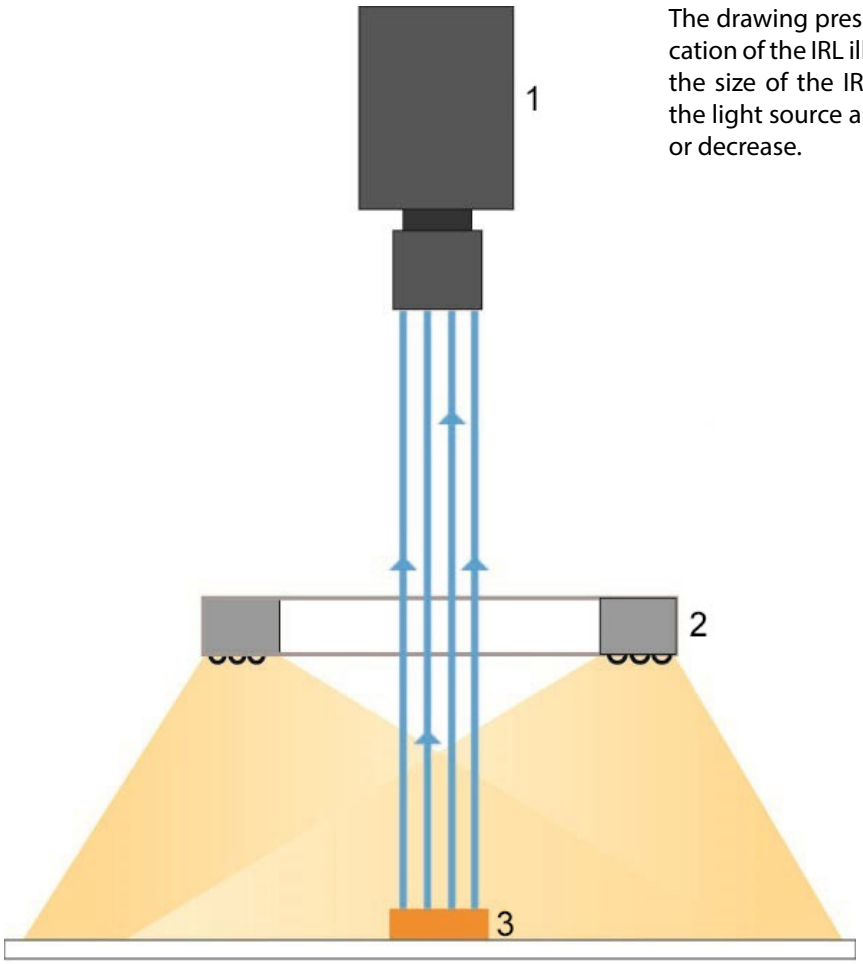
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IRL-90-40-24RSM8	
Brown (BN)	+24VDC
Black (BK)	Strobe signal
Blue (BU)	GND



Installation and Application

The illuminator is installed using 4 M3x5 or M3x8 screws (not included with illuminators). The spacing between holes (D) is shown on the overview drawing. It is recommended to mount the illuminator on the machine's metal structure, so that its largest surface is aligned with the structure in order to dissipate the most heat. It is possible to mount a variety of filters or diffusers to the front part of the illuminator. Their designation is included in the 'Accessories' chart.



1 - Machine vision 2 - Illuminator 3 - Object

The drawing presents an exemplary application of the IRL illuminator. Depending on the size of the IRL, the distance between the light source and the part may increase or decrease.

It is also possible to polarise the illuminator's light by using additional filters. Polarising filters are also included in a separate 'Accessories' chart.

IRLA - Ring Light Low Angle

- Maximum illuminated surface area despite small dimensions
- Durable, aluminium casing
- Suitable for inspecting surface flaws and defects

Product specifications

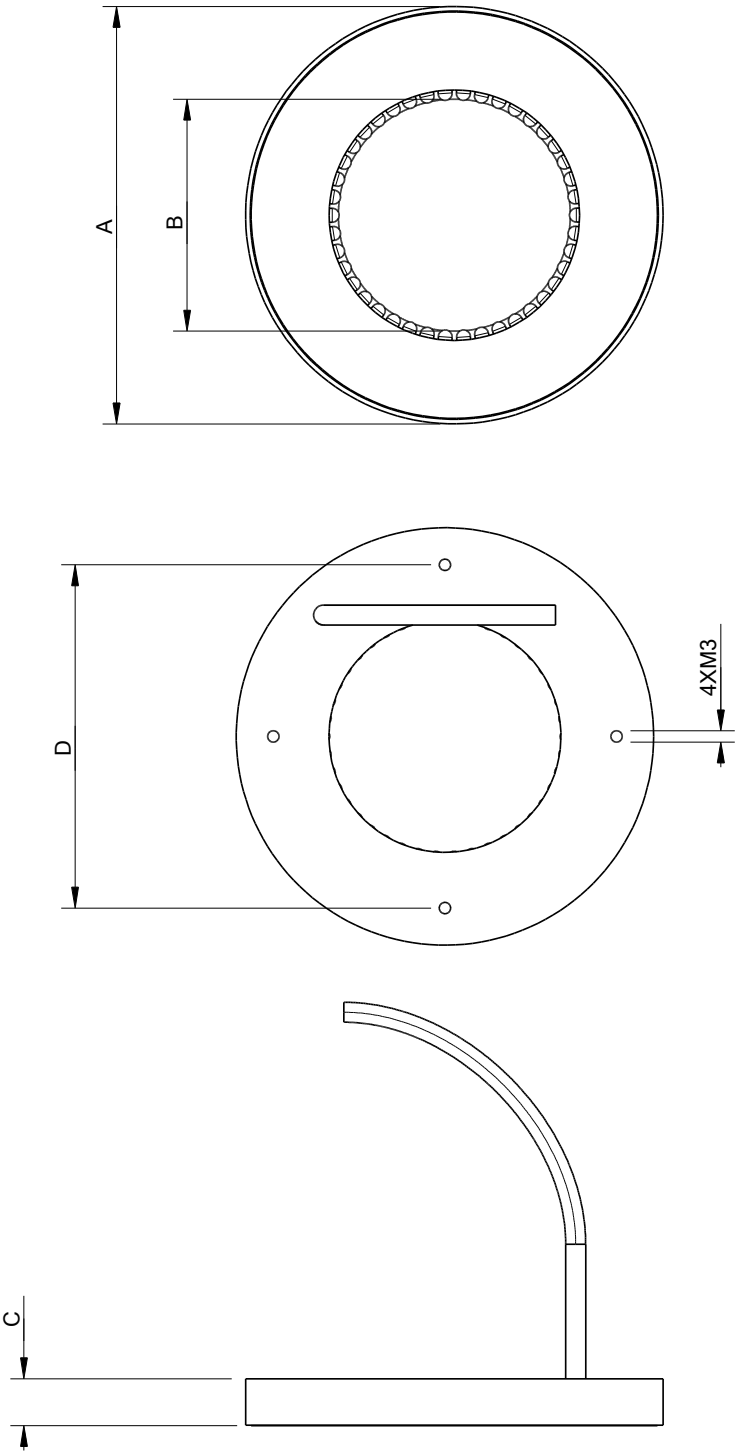
Supply voltage	24VDC
Operating temperature	0-60 ˚C
Protection rating	IP40
Cable	PUR cable up to 2m or 0.5m, M8, 3-pin
Cooling	Convection
Certificates	RoHS
Casing	Anodised aluminium
Casing colour	Black

LED wavelength

W (white)	R (red)	G (green)	B (blue)	IR (infrared)
CRI=75	620-650nm	520-540nm	460-480nm	850-865nm

IRLA - Ring Light Low Angle

Overview drawing IRLA-90-50-24x



IRLA - Ring Light Low Angle

Basic references

*	A [mm]	B [mm]	C [mm]	D [mm]	Colour	Power** [W]
IRLA-45-25-24RWBG	45	25	8	34	●○●●	2
IRLA-45-25-24IR	45	25	8	34	IR	2
IRLA-90-50-24RWBG	90	50	10	74	●○●●	3
IRLA-90-50-24IR	90	50	10	74	IR	3
IRLA-150-110-24RWBG	150	110	10	134	●○●●	5
IRLA-150-110-24IR	150	110	10	134	IR	5

* At the customer's request, illuminators can also be manufactured with custom dimensions.
In case of further questions please contact us at: iscon@iscon.pl.
** The specified power supply is required to power the device.

Reference coding

Model	Outer diameter	Inner diameter	Power supply	Colour code	Integrated strobe module	Connector
	[mm]	[mm]	VDC	RBGWIR	S	3 pin
IRLA - xxx - xxx - 24xxM8						
Colour code: W - white, R- red, B - blue, G - green, IR - infrared						

IRLA - Ring Light Low Angle

Example 1

IRLA-45-25-24WM8

An illuminator with an outer diameter of A – 45mm, inner diameter of B – 25mm, white light colour, powered by 24VDC, with a cable up to 0.5m and an M8 connector (3-pin).

Example 2

IRLA-90-50-24IR

An illuminator with an outer diameter of A – 90mm, inner diameter of B – 50mm, infrared light colour, powered by 24 VDC, with a cable up to 2m and no connector – loose wires.

Example 3

IRLA-90-50-24RSM8

An illuminator with an outer diameter of A – 90mm, inner diameter of B – 50mm, red light colour, powered by 24 VDC, with an integrated strobe module, a cable up to 0.5 and an M8 connector (3-pin).

Example 4

IRLA-150-110-24BS

An illuminator with an outer diameter of A – 150mm, inner diameter of B – 110mm, blue light colour, powered by 24 VDC, with a strobe module, a cable up to 2m and no connector – loose wires.

Operation modes

The device allows for both continuous operation and operation in strobe mode. The next page contains connection diagrams for illuminators fitted with a strobe module or illuminators without a strobe module.

Connection Diagrams

An illuminator without a strobe module, e.g. **IRLA-90-50-24R**

- Continuous operation

- The illuminator can also operate in strobe mode, for example by using a relay or another external device to trigger the illuminator.

An illuminator with a strobe module, e.g. **IRLA-90-50-24RS**

- Continuous operation

- Strobe mode operation

Strobe signal (black wire) between +5VDC and +24VDC. Minimum triggering current of 0.01A.

Connector Type

No connector (loose wires). Cable length up to 2m. For an illuminator without a strobe module.

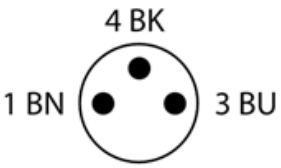
For an illuminator without a strobe module, e.g. IRLA-90-50-24R	
Brown	+24VDC
Blue	GND

No connector (loose wires). Cable length up to 2m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IRLA-90-50-24RS	
Brown	+24VDC
Black	Strobe signal
Blue	GND

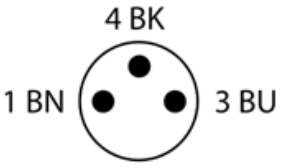
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator without a strobe module.

For an illuminator without a strobe module, e.g. IRLA-90-50-24RM8	
Brown (BN)	+24VDC
Black (BK)	NA
Blue (BU)	GND



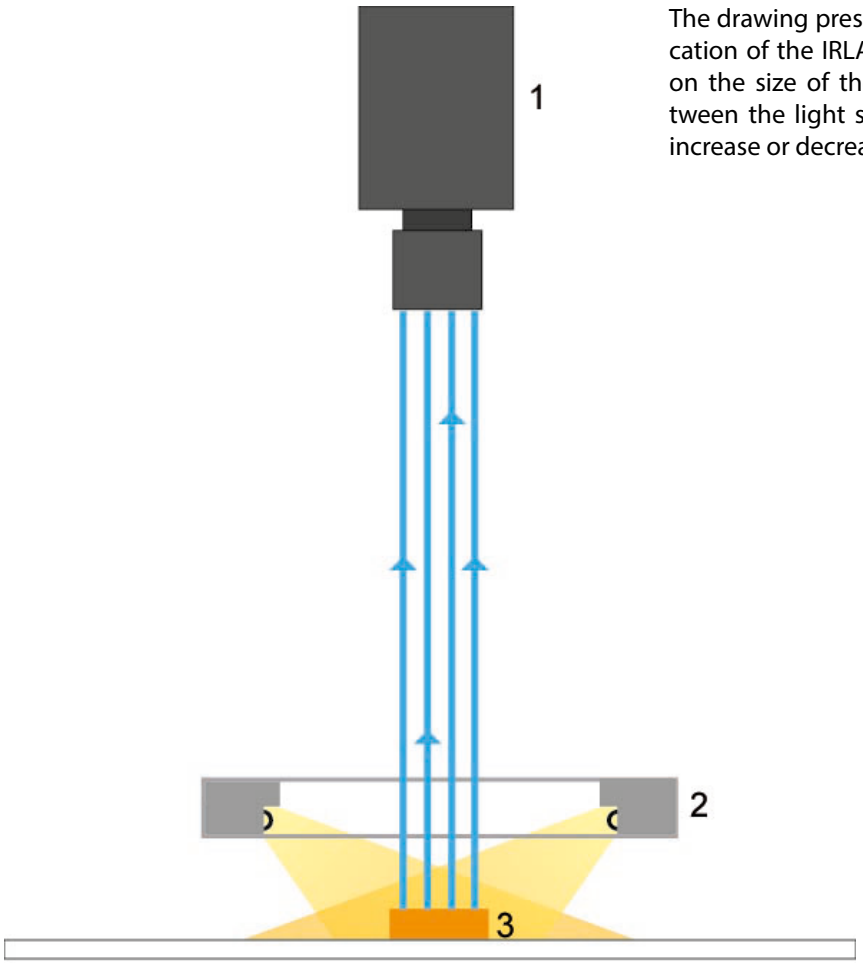
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IRLA-90-50-24RSM8	
Brown (BN)	+24VDC
Black (BK)	Strobe signal
Blue (BU)	GND



Installation and Application

The illuminator is installed using 4 M3x5 or M3x8 screws (not included with illuminators). The spacing between holes (D) is shown on the overview drawing. It is recommended to mount the illuminator on the machine's metal structure, so that its largest surface is aligned with the structure in order to dissipate the most heat.



1 - Machine vision 2 - Illuminator 3 - Object

The drawing presents an exemplary application of the IRLA illuminator. Depending on the size of the IRLA, the distance between the light source and the part may increase or decrease.

IRLD - Ring Light Diffuse

- Maximum illuminated surface area despite small dimensions
- Uniform light diffusion across the entire surface
- Durable, aluminium casing
- Wide range of dimensions

Product specifications

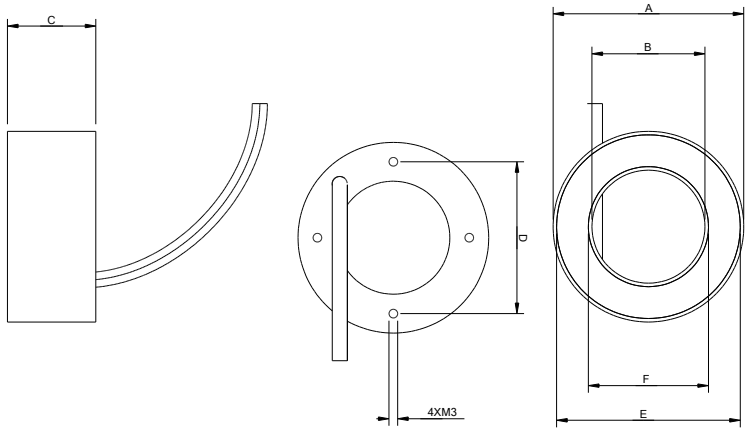
Supply voltage	24VDC
Operating temperature	0-60 ˚C
Protection rating	IP40
Cable	PUR cable up to 2m or 0.5m, M8, 3-pin
Cooling	Convection
Certificates	RoHS
Casing	Anodised aluminium
Casing colour	Black

LED wavelength

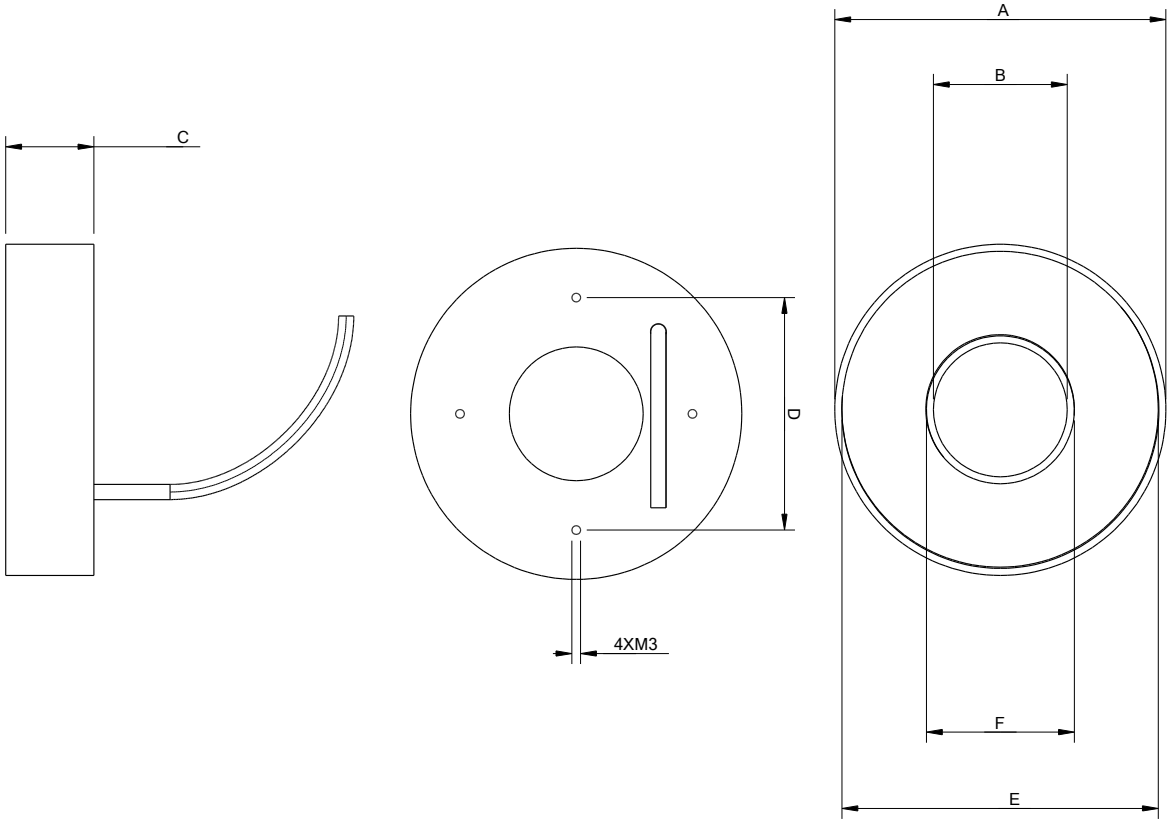
W (white)	R (red)	G (green)	B (blue)	IR (infrared)
CRI=75	620-650nm	520-540nm	460-480nm	850-865nm

IRLD - Ring Light Diffuse

Overview drawing IRLD-50-30-24x

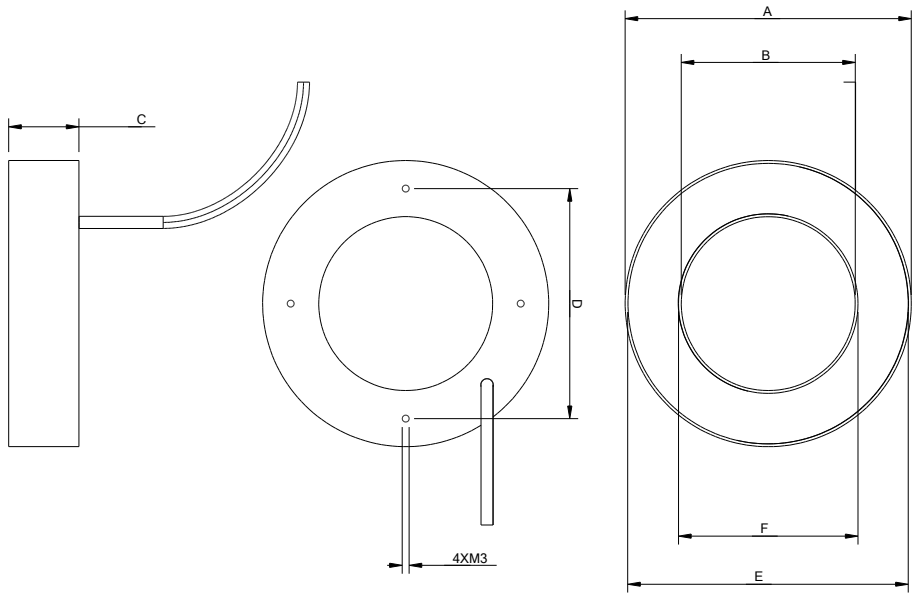


Overview drawing IRLD-90-40-24x

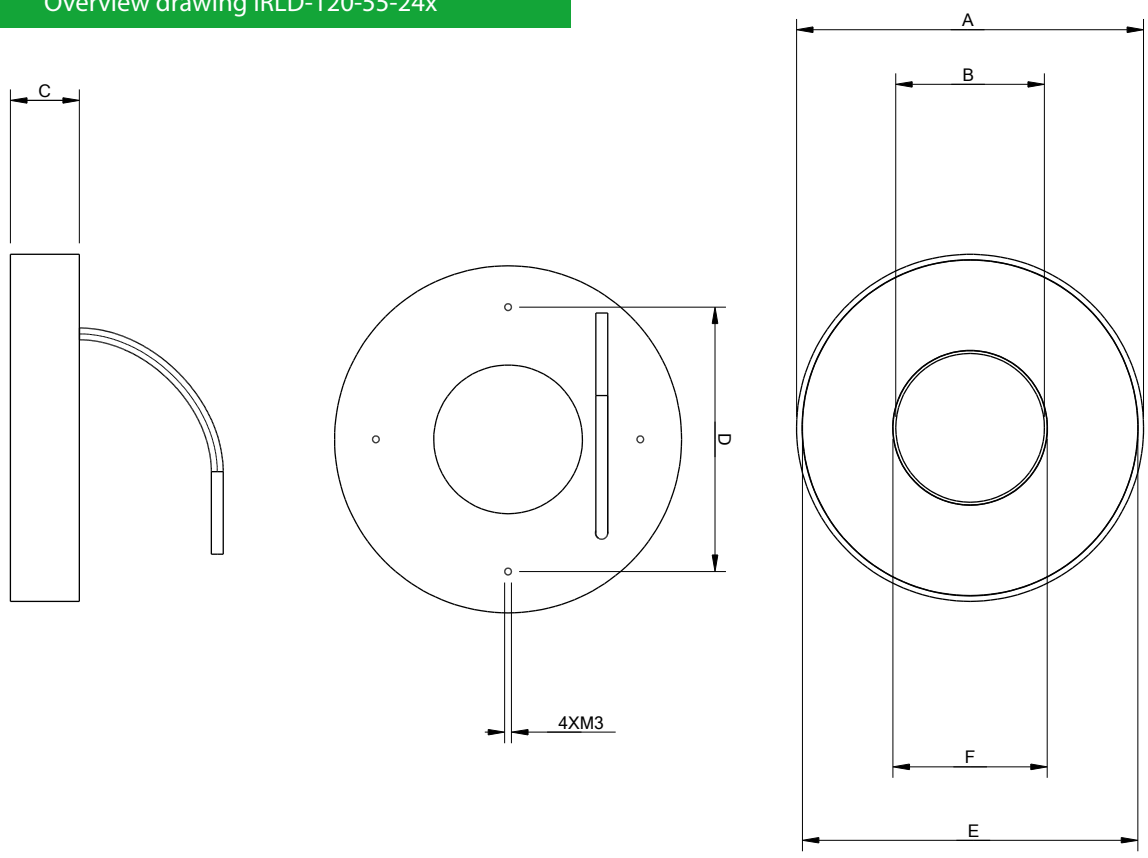


IRLD - Ring Light Diffuse

Overview drawing IRLD-100-60-24x



Overview drawing IRLD-120-55-24x



IRLD - Ring Light Diffuse

Basic references

*	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	Colour	Power** [W]
IRLD-50-30-24RWBG	54	32	25	43	43	38	● ○ ● ●	1
IRLD-50-30-24IR	54	32	25	43	43	38	IR	1
IRLD-90-40-24RWBG	94	38	25	66	78	49	● ○ ● ●	8
IRLD-90-40-24IR	94	38	25	66	78	49	IR	8
IRLD-100-60-24RWBG	102	62	25	82	88	71	● ○ ● ●	6
IRLD-100-60-24IR	102	62	25	82	88	71	IR	6
IRLD-120-55-24RWBG	126	54	25	96	108	66	● ○ ● ●	15
IRLD-120-55-24IR	126	54	25	96	108	66	IR	15
IRLD-160-90-24RWBG	155	79	25	124	151	83	● ○ ● ●	20
IRLD-160-90-24IR	155	79	25	124	151	83	IR	20

* At the customer's request, illuminators can also be manufactured with custom dimensions. In case of further questions please contact us at: iscon@iscon.pl.

** The specified power supply is required to power the device.

E, F - the diameter of the illuminator's emitting surface

Reference coding

Model	Approximate outer diameter	Approximate inner diameter	Power supply	Colour code	Integrated strobe module	Connector
	[mm]	[mm]	VDC	RBGWIR	S	3 pin
IRLD - xxx - xx - 24xxM8						
Colour code: W - white, R- red, B - blue, G - green, IR - infrared						

IRLD - Ring Light Diffuse

Example 1

IRLD-90-40-24WM8

An illuminator with an outer diameter of A – 94mm, inner diameter of B – 38mm, white light colour, powered by 24VDC, with a cable up to 0.5m and an M8 connector (3-pin).

Example 2

IRLD-90-40-24IR

An illuminator with an outer diameter of A – 94mm, inner diameter of B – 38mm, infrared light colour, powered by 24 VDC, with a cable up to 2m and no connector – loose wires.

Example 3

IRLD-100-60-24RSM8

An illuminator with an outer diameter of A – 102mm, inner diameter of B – 62mm, red light colour, powered by 24 VDC, with an integrated strobe module, a cable up to 0.5 and an M8 connector (3-pin).

Example 4

IRLD-120-55-24BS

An illuminator with an outer diameter of A – 126mm, inner diameter of B – 54mm, blue light colour, powered by 24 VDC, with a strobe module, a cable up to 2m and no connector – loose wires.

Operation modes

The device allows for both continuous operation and operation in strobe mode. The next page contains connection diagrams for illuminators fitted with a strobe module or illuminators without a strobe module.

Connection Diagrams

An illuminator without a strobe module, e.g. **IRLD-90-40-24R**

- Continuous operation

- The illuminator can also operate in strobe mode, for example by using a relay or another external device to trigger the illuminator.

An illuminator with a strobe module, e.g. **IRLD-90-40-24RS**

- Continuous operation

- Strobe mode operation

Strobe signal (black wire) between +5VDC and +24VDC. Minimum triggering current of 0.01A.

Connector Type

No connector (loose wires). Cable length up to 2m. For an illuminator without a strobe module.

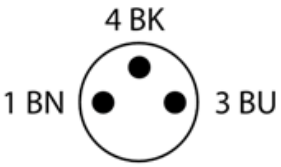
For an illuminator without a strobe module, e.g. IRLD-90-40-24R	
Brown	+24VDC
Blue	GND

No connector (loose wires). Cable length up to 2m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IRLD-90-40-24RS	
Brown	+24VDC
Black	Strobe signal
Blue	GND

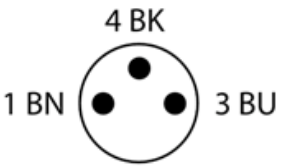
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator without a strobe module.

For an illuminator without a strobe module, e.g. IRLD-90-40-24RM8	
Brown (BN)	+24VDC
Black (BK)	NA
Blue (BU)	GND



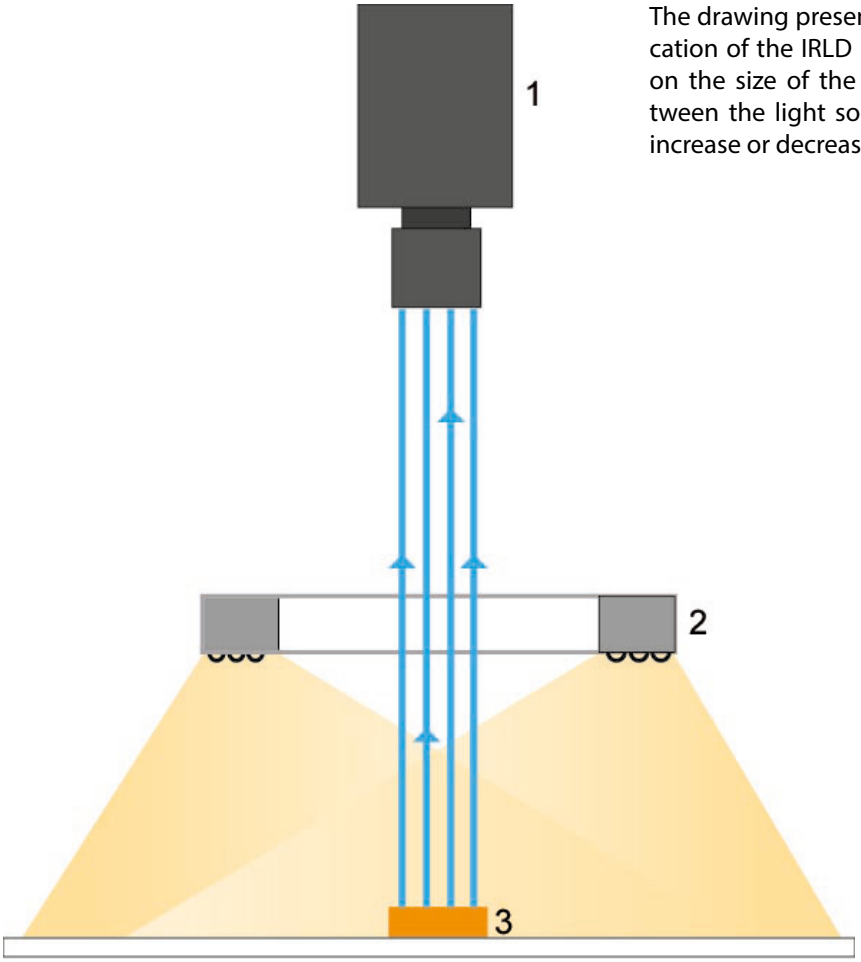
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IRLD-90-40-24RSM8	
Brown (BN)	+24VDC
Black (BK)	Strobe signal
Blue (BU)	GND



Installation and Application

The illuminator is installed using 4 M3x5 or M3x8 screws (not included with illuminators). The spacing between holes (D) is shown on the overview drawing. It is recommended to mount the illuminator on the machine's metal structure, so that its largest surface is aligned with the structure in order to dissipate the most heat.



The drawing presents an exemplary application of the IRLD illuminator. Depending on the size of the IRLD, the distance between the light source and the part may increase or decrease.

1 - Machine vision 2 - Illuminator 3 - Object

IRLM - Ring Light Multi Angle

- Maximum illuminated surface area despite small dimensions
- Suitable for inspecting surface flaws and defects.
- Durable, aluminium casing

Product specifications

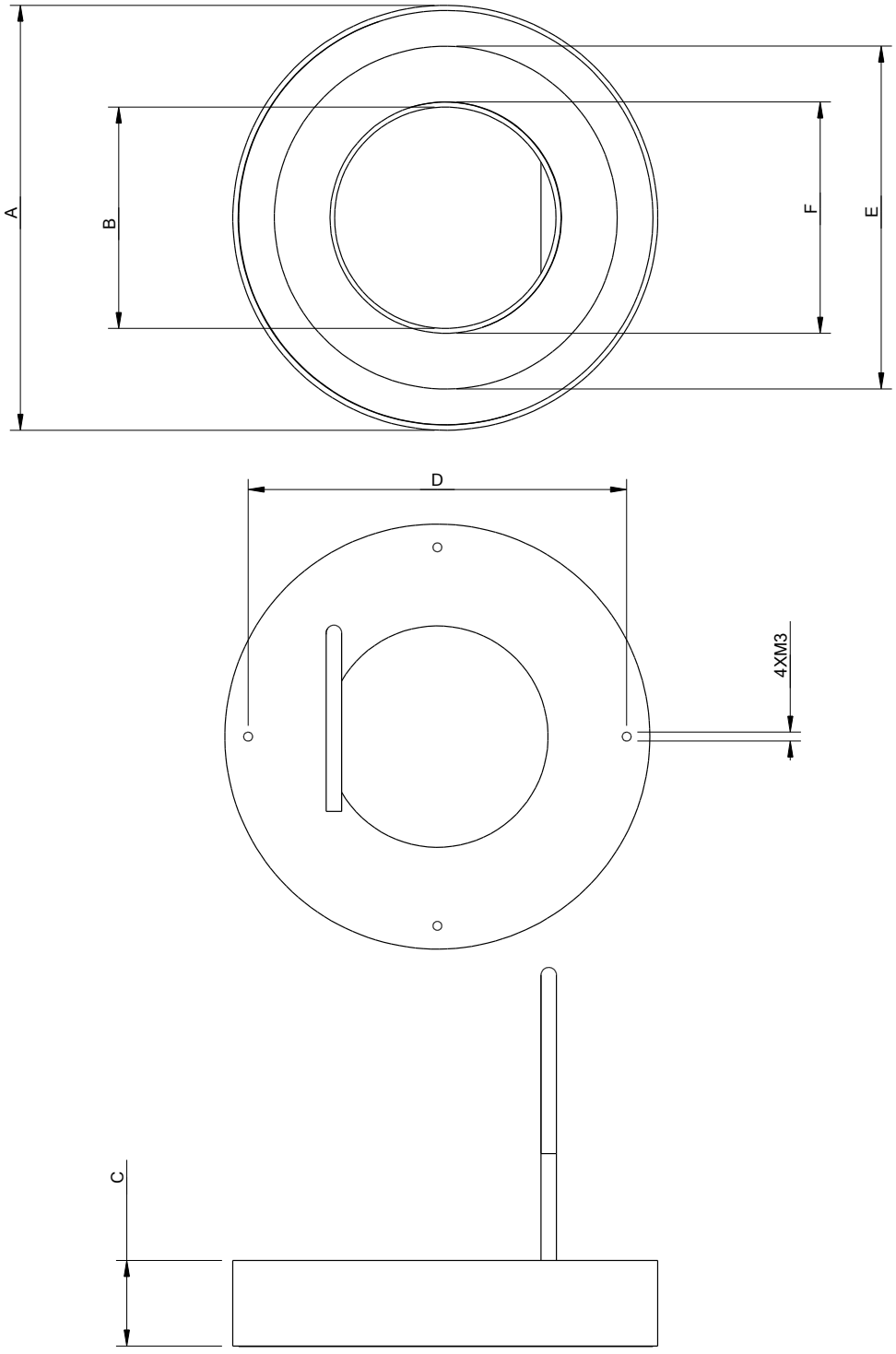
Supply voltage	24VDC
Operating temperature	0-60 ˚C
Protection rating	IP40
Cable	PUR cable up to 2m or 0.5m, M8, 3-pin
Cooling	Convection
Certificates	RoHS
Casing	Anodised aluminium
Casing colour	Black

LED wavelength

W (white)	R (red)	G (green)	B (blue)
CRI=75	620-650nm	520-540nm	460-480nm

IRLM - Ring Light Multi Angle

Overview drawing IRLM-100-60-24x



IRLM - Ring Light Multi Angle

Basic references

*	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	Colour	Power** [W]
IRLM-100-60-24RWBG	119	62	24	106	96	65	● ○ ● ●	6
IRLM-150-105-24RWBG	158	103	24	145	135	105	● ○ ● ●	12

* At the customer's request, illuminators can also be manufactured with custom dimensions.
In case of further questions please contact us at: iscon@iscon.pl.
** The specified power supply is required to power the device.

E, F - the diameter of the illuminator's emitting surface

Reference coding

Model	Approximate outer diameter	Approximate inner diameter	Power supply	Colour code	Integrated strobe module	Connector
	[mm]	[mm]	VDC	RBGW	S	3 pin
IRLM - xxx - xxx - 24xxM8						
Colour code: W - white, R- red, B - blue, G - green						

IRLM - Ring Light Multi Angle

Example 1

IRLM-100-60-24WM8

An illuminator with an outer diameter of A – 119mm, inner diameter of B – 62mm, white light colour, powered by 24VDC, with a cable up to 0.5m and an M8 connector (3-pin).

Example 2

IRLM-100-60-24R

An illuminator with an outer diameter of A – 119mm, inner diameter of B – 62mm, red light colour, powered by 24VDC, with a cable up to 2m and no connector – loose wires.

Example 3

IRLM-150-105-24RSM8

An illuminator with an outer diameter of A – 158mm, inner diameter of B – 103mm, red light colour, powered by 24VDC, with an integrated strobe module, a cable up to 0.5m and an M8 connector (3-pin).

Operation modes

The device allows for both continuous operation and operation in strobe mode. The next page contains connection diagrams for illuminators fitted with a strobe module or illuminators without a strobe module.

Connection Diagrams

An illuminator without a strobe module, e.g. **IRLM-100-60-24R**

- Continuous operation

- The illuminator can also operate in strobe mode, for example by using a relay or another external device to trigger the illuminator.

An illuminator with a strobe module, e.g. **IRLM-100-60-24RS**

- Continuous operation

- Strobe mode operation

Strobe signal (black wire) between +5VDC and +24VDC. Minimum triggering current of 0.01A.

Connector Type

No connector (loose wires). Cable length up to 2m. For an illuminator without a strobe module.

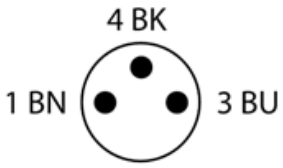
For an illuminator without a strobe module, e.g. IRLM-100-60-24R	
Brown	+24VDC
Blue	GND

No connector (loose wires). Cable length up to 2m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IRLM-100-60-24RS	
Brown	+24VDC
Black	Strobe signal
Blue	GND

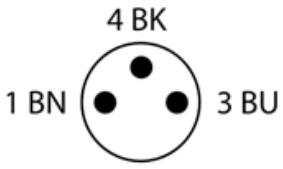
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator without a strobe module.

For an illuminator without a strobe module, e.g. IRLM-100-60-24RM8	
Brown (BN)	+24VDC
Black (BK)	NA
Blue (BU)	GND



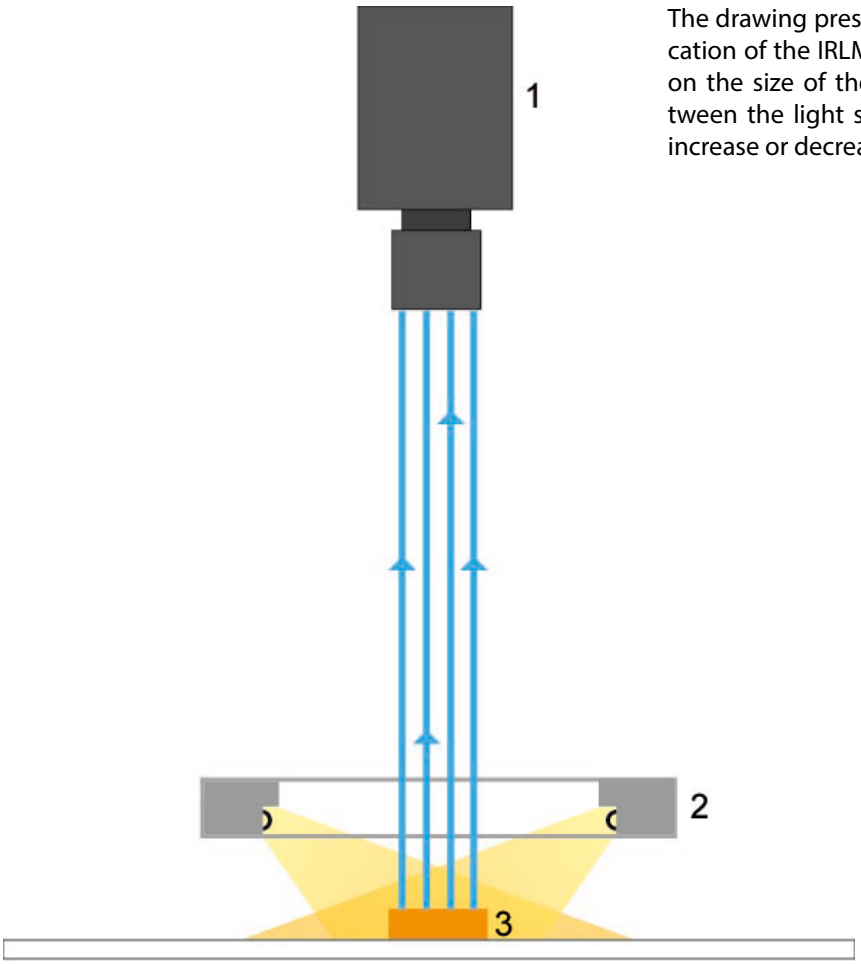
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IRLM-100-60-24RSM8	
Brown (BN)	+24VDC
Black (BK)	Strobe signal
Blue (BU)	GND



Installation and Application

The illuminator is installed using 4 M3x5 or M3x8 screws (not included with illuminators). The spacing between holes (D) is shown on the overview drawing. It is recommended to mount the illuminator on the machine's metal structure, so that its largest surface is aligned with the structure in order to dissipate the most heat.



1 - Machine vision 2 - Illuminator 3 - Object

The drawing presents an exemplary application of the IRLM illuminator. Depending on the size of the IRLM, the distance between the light source and the part may increase or decrease.

IRLMH - Ring Light Multi Angle Half

- Maximum illuminated surface area despite small dimensions
- Suitable for inspecting surface flaws and defects.
- Durable, aluminium casing
- Structural innovation

Product specifications

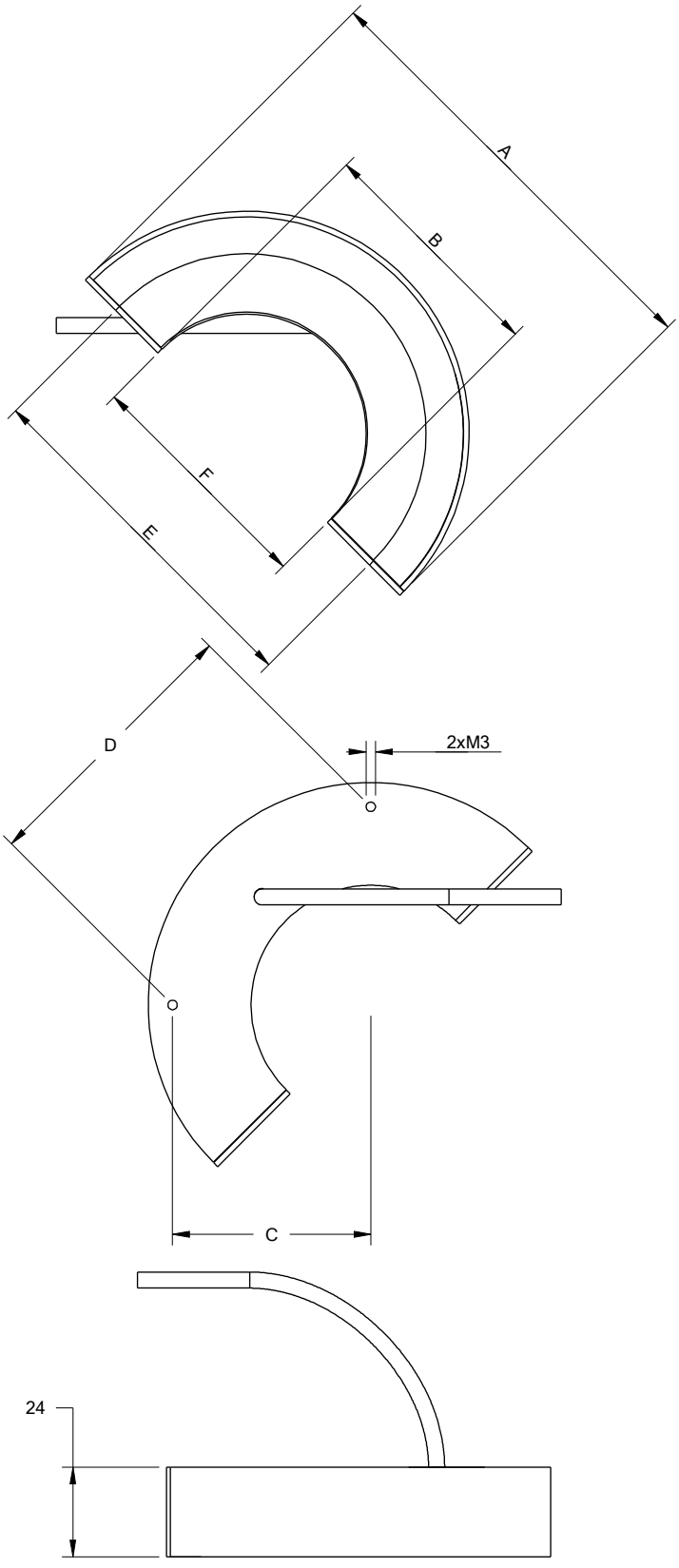
Supply voltage	24VDC
Operating temperature	0-60 ˚C
Protection rating	IP40
Cable	PUR cable up to 2m or 0.5m, M8, 3-pin
Cooling	Convection
Certificates	RoHS
Casing	Anodised aluminium
Casing colour	Black

LED wavelength

W (white)	R (red)	G (green)	B (blue)
CRI=75	620-650nm	520-540nm	460-480nm

IRLMH - Ring Light Multi Angle Half

Overview drawing IRLMH-100-60-24x



IRLMH - Ring Light Multi Angle Half

Basic references

*	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	Colour	Power** [W]
IRLMH-100-60-24RWBG	119	64	53	75	96	65	●○●●	4
IRLMH-150-105-24 RWBG	158	103	73	103	135	105	●○●●	8

* At the customer's request, illuminators can also be manufactured with custom dimensions.
In case of further questions please contact us at: iscon@iscon.pl.
** The specified power supply is required to power the device.

E, F - the diameter of the illuminator's emitting surface

Reference coding

Model	Approximate outer diameter	Approximate inner diameter	Power supply	Colour code	Integrated strobe module	Connector
	[mm]	[mm]	VDC	RBGW	S	3 pin
IRLMH - xxx - xxx - 24xxM8						
Colour code: W - white, R- red, B - blue, G - green						

Example 1

IRLMH-100-60-24WM8

An illuminator with an outer diameter of A – 119mm, inner diameter of B – 64mm, white light colour, powered by 24VDC, with a cable up to 0.5m and an M8 connector (3-pin).

Example 2

IRLMH-100-60-24R

An illuminator with an outer diameter of A – 119mm, inner diameter of B – 64mm, red light colour, powered by 24 VDC, with a cable up to 2m and no connector – loose wires.

Example 3

IRLMH-150-105-24RSM8

An illuminator with an outer diameter of A – 158mm, inner diameter of B – 103mm, red light colour, powered by 24 VDC, with an integrated strobe module, a cable up to 0.5 and an M8 connector (3-pin).

Operation modes

The device allows for both continuous operation and operation in strobe mode. The next page contains connection diagrams for illuminators fitted with a strobe module or illuminators without a strobe module.

Connection Diagrams

An illuminator without a strobe module, e.g. **IRLMH-100-60-24R**

- Continuous operation

- The illuminator can also operate in strobe mode, for example by using a relay or another external device to trigger the illuminator.

An illuminator with a strobe module, e.g. **IRLMH-100-60-24RS**

- Continuous operation

- Strobe mode operation

Strobe signal (black wire) between +5VDC and +24VDC. Minimum triggering current of 0.01A.

Connector Type

No connector (loose wires). Cable length up to 2m. For an illuminator without a strobe module.

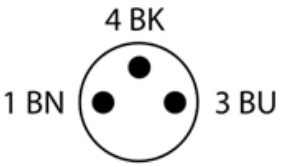
For an illuminator without a strobe module, e.g. IRLMH-100-60-24R	
Brown	+24VDC
Blue	GND

No connector (loose wires). Cable length up to 2m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IRLMH-100-60-24RS	
Brown	+24VDC
Black	Strobe signal
Blue	GND

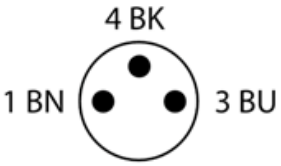
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator without a strobe module.

For an illuminator without a strobe module, e.g. IRLMH-100-60-24RM8	
Brown (BN)	+24VDC
Black (BK)	NA
Blue (BU)	GND



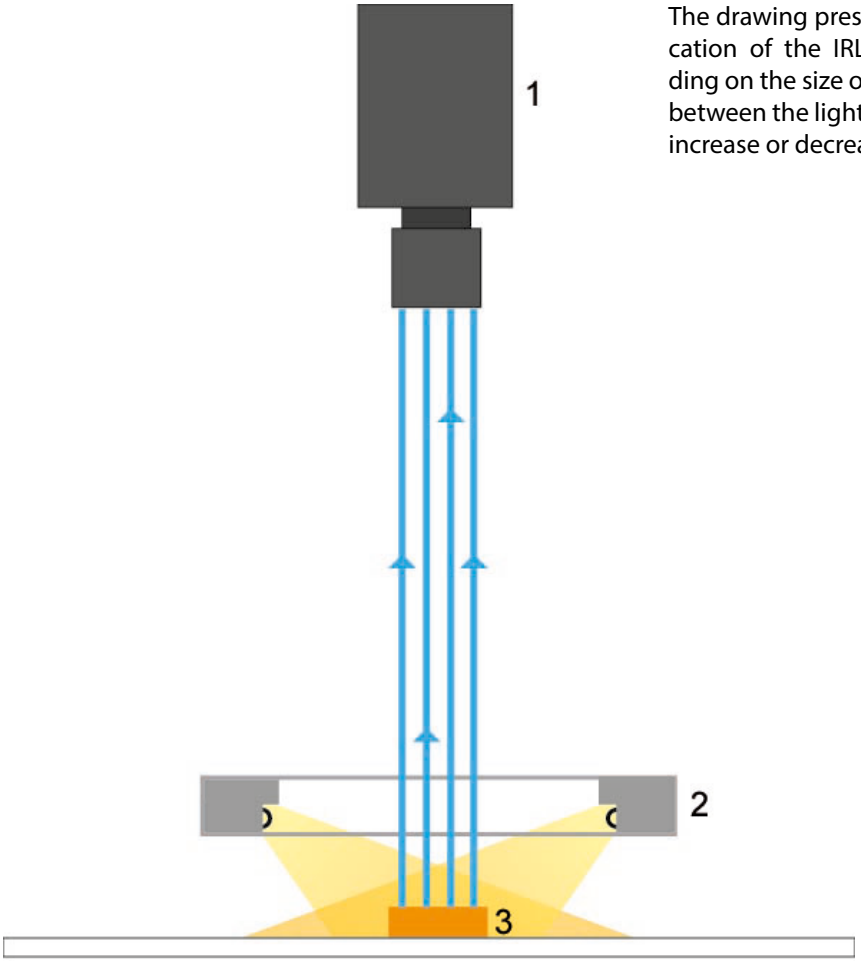
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IRLMH-100-60-24RSM8	
Brown (BN)	+24VDC
Black (BK)	Strobe signal
Blue (BU)	GND



Installation and Application

The illuminator is installed using 2 M3x5 or M3x8 screws (not included with illuminators). The spacing between holes (D) is shown on the overview drawing. It is recommended to mount the illuminator on the machine's metal structure, so that its largest surface is aligned with the structure in order to dissipate the most heat.



1 - Machine vision 2 - Illuminator 3 - Object

The drawing presents an exemplary application of the IRLMH illuminator. Depending on the size of the IRLMH, the distance between the light source and the part may increase or decrease.

ISL – Spot Light

- Maximum illuminated surface area despite small dimensions
- Suitable for inspecting surface flaws and defects.
- Durable, aluminium casing

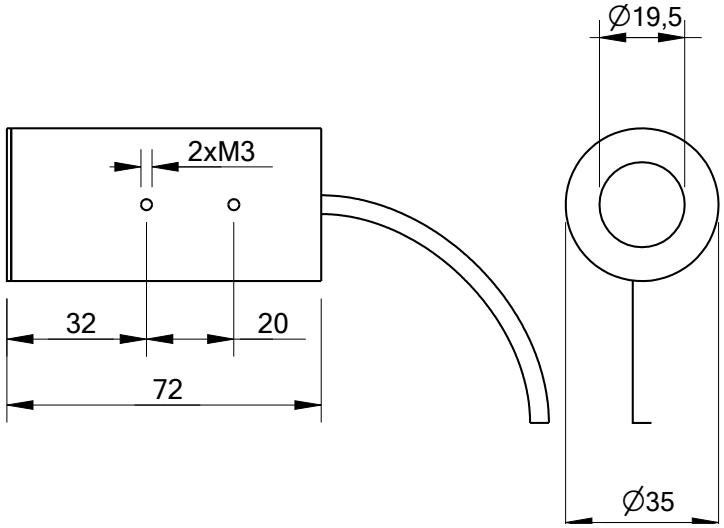
Product specifications

Supply voltage	24VDC
Operating temperature	0-60 ˚C
Protection rating	IP40
Cable	PUR cable up to 2m or 0.5m, M8, 3-pin
Cooling	Convection
Certificates	RoHS
Casing	Anodised aluminium
Casing colour	Black

LED wavelength

W (white)	R (red)	G (green)	B (blue)	IR (infrared)	UV (ultraviolet)
CRI=75	620-650nm	520-540nm	460-480nm	850-865nm	390-410nm

Overview drawing ISL-30-70-24x



Reference coding

Model	Approximate diameter	Approximate length	Power supply	Colour code	Integrated strobe module	Connector
	[mm]	[mm]	VDC	RBGWIRUV	S	3 pin
ISL - 30 - 70 - 24xxM8						
Colour code: W - white, R- red, B - blue, G - green, IR - infrared, UV - ultraviolet						

Power supply required to power the device - 1 W.

Example 1

ISL-30-70-24WM8

An illuminator with a length of A – 72mm, diameter of B – 35mm, white light colour, powered by 24VDC, with a cable up to 0.5m and an M8 connector (3-pin).

Example 2

ISL-30-70-24IR

An illuminator with a length of A – 72mm, diameter of B – 35mm, infrared light colour, powered by 24VDC with a cable up to 2m and no connector – loose wires.

Operation modes

The device allows for both continuous operation and operation in strobe mode. The next page contains connection diagrams for illuminators fitted with a strobe module or illuminators without a strobe module.

Connection Diagrams

An illuminator without a strobe module, e.g. **ISL-30-70-24R**

- Continuous operation

- The illuminator can also operate in strobe mode, for example by using a relay or another external device to trigger the illuminator.

An illuminator with a strobe module, e.g. **ISL-30-70-24RS**

- Continuous operation

- Strobe mode operation

Strobe signal (black wire) between +5VDC and +24VDC. Minimum triggering current of 0.01A.

Connector Type

No connector (loose wires). Cable length up to 2m. For an illuminator without a strobe module.

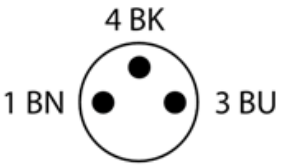
For an illuminator without a strobe module, e.g. ISL-30-70-24R	
Brown	+24VDC
Blue	GND

No connector (loose wires). Cable length up to 2m. For an illuminator with a strobe module.

For an illuminator without a strobe module, e.g. ISL-30-70-24RS	
Brown	+24VDC
Black	Strobe signal
Blue	GND

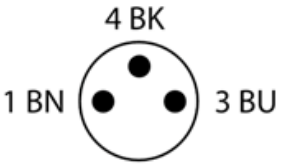
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator without a strobe module.

Dla oświetlacza bez modułu strobującego, np. ISL-30-70-24RM8	
Brown (BN)	+24VDC
Black (BK)	NA
Blue (BU)	GND



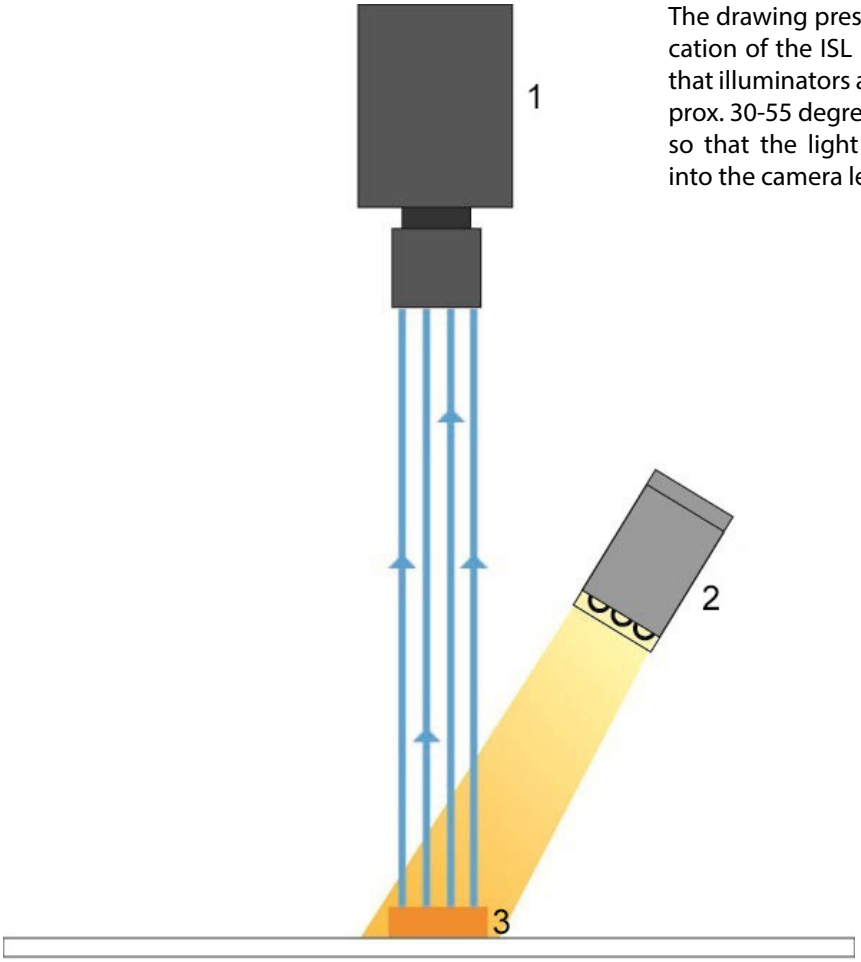
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. ISL-30-70-24RSM8	
Brown (BN)	+24VDC
Black (BK)	Strobe signal
Blue (BU)	GND



Installation and Application

The illuminator is installed using 2 M3x5 or M3x8 screws (not included with illuminators). The spacing between holes is shown on the overview drawing. It is recommended to mount the illuminator on the machine's metal structure, so that its largest surface is aligned with the structure in order to dissipate the most heat.



The drawing presents an exemplary application of the ISL illuminator. It is essential that illuminators are set up at an angle (approx. 30-55 degrees) to the inspected part, so that the light is not reflected directly into the camera lens.

1 - Machine vision 2 - Illuminator 3 - Object

IDLH - Dome Light Half

- Uniform diffusion of reflected light
- Durable, metal casing
- Suitable for inspecting uneven and glossy surfaces

Product specifications

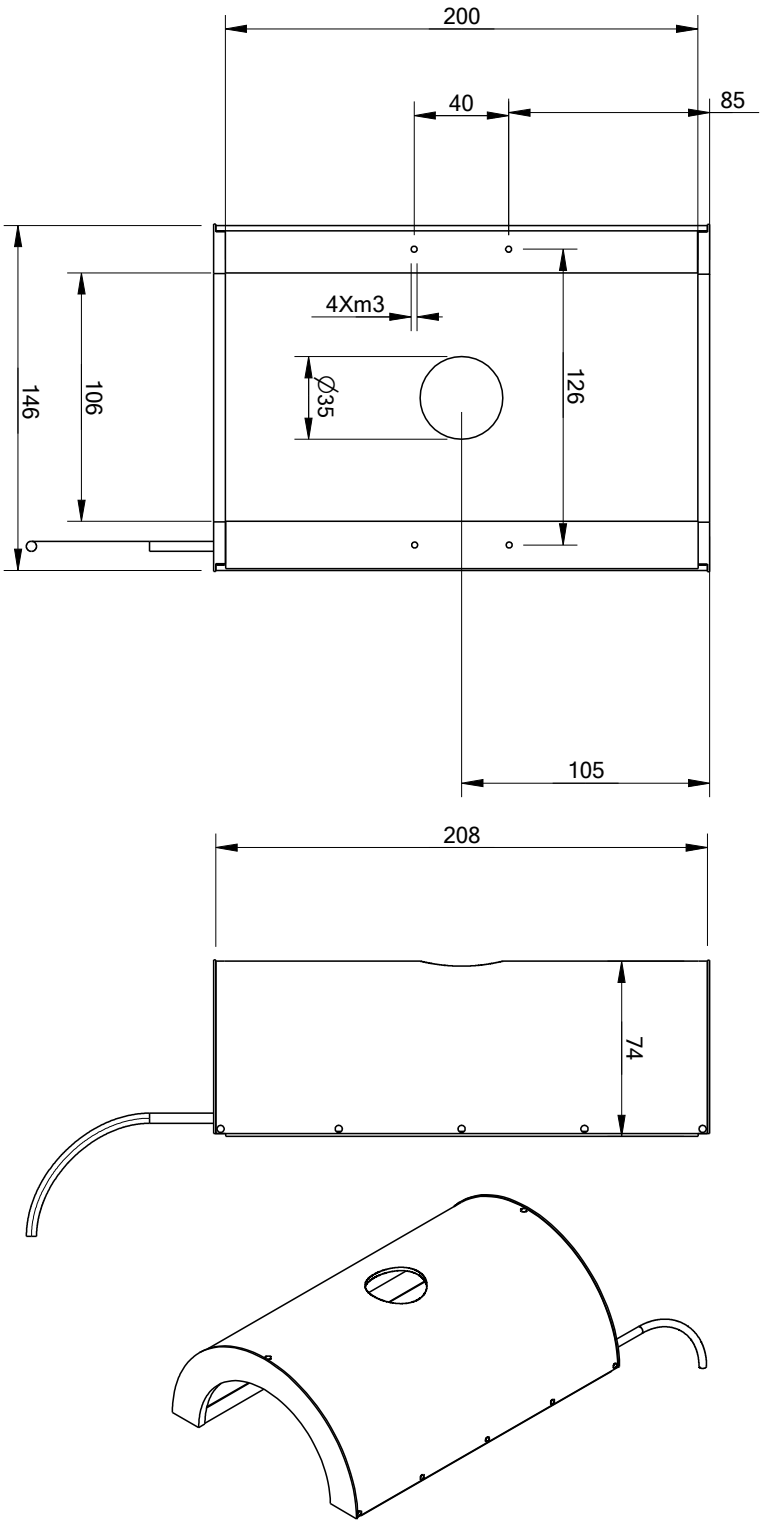
Supply voltage	24VDC
Operating temperature	0-60 ˚C
Protection rating	IP40
Cable	PUR cable up to 2m or 0.5m, M8, 3-pin
Cooling	Convection
Certificates	RoHS
Casing	Anodised aluminium
Casing colour	White

LED wavelength

W (white)	R (red)	G (green)	B (blue)
CRI=75	620-650nm	520-540nm	460-480nm

IDLH - Dome Light Half

Overview drawing IDLH-150-75-24x



Power supply required to power the device - 28 W.

Connection Diagrams

An illuminator without a strobe module, e.g. **IDLH-150-75-24R**

- Continuous operation

- The illuminator can also operate in strobe mode, for example by using a relay or another external device to trigger the illuminator.

An illuminator with a strobe module, e.g. **IDLH-150-75-24RS**

- Continuous operation

- Strobe mode operation

Strobe signal (black wire) between +5VDC and +24VDC. Minimum triggering current of 0.01A.

Connector Type

No connector (loose wires). Cable length up to 2m. For an illuminator without a strobe module.

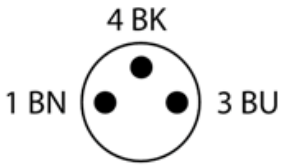
For an illuminator without a strobe module, e.g. IDLH-150-75-24R	
Brown	+24VDC
Blue	GND

No connector (loose wires). Cable length up to 2m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IDLH-150-75-24RS	
Brown	+24VDC
Black	Strobe signal
Blue	GND

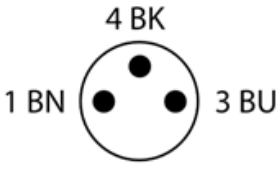
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator without a strobe module.

For an illuminator without a strobe module, e.g. IDLH-150-75-24RM8	
Brown (BN)	+24VDC
Black (BK)	NA
Blue (BU)	GND



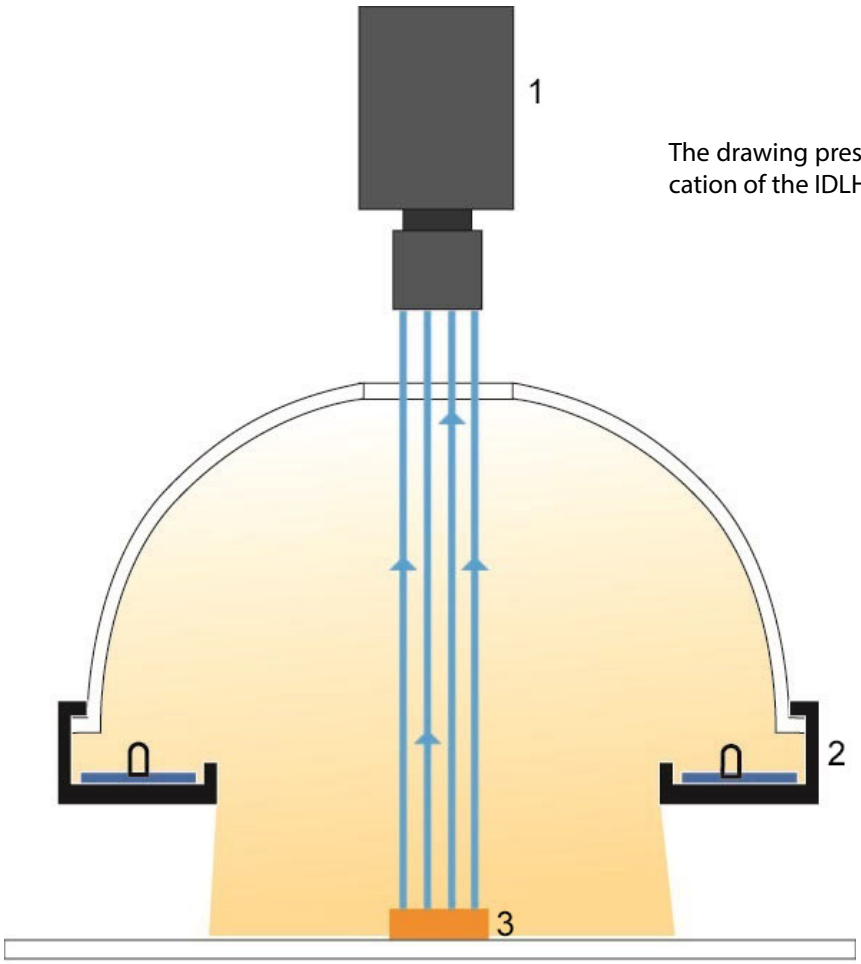
With an M8 connector (3-pin, male). Cable length up to 0.5m. For an illuminator with a strobe module.

For an illuminator with a strobe module, e.g. IDLH-150-75-24RSM8	
Brown (BN)	+24VDC
Black (BK)	Strobe signal
Blue (BU)	GND



Installation and Application

The illuminator is installed using 4 M3x5 or M3x8 screws (not included with illuminators). The spacing between holes is shown on the overview drawing. It is recommended to mount the illuminator on the machine's metal structure, so that its largest surface is aligned with the structure in order to dissipate the most heat.



The drawing presents an exemplary application of the IDLH illuminator.

1 - Machine vision 2 - Illuminator 3 - Object

Accessories

ISCON's offer includes additional accessories for ISCON illuminators and other machine vision system components:

- 4xIBL-70-20-24XX - Verification Kit (Red, Blue, White, Green, Infrared). A frame for mounting 4 units of IBL-70-20-24XX type illuminators, with an adjustable tilt angle
- 4xIBL-100-20-24XX - Verification Kit (Red, Blue, White, Green, Infrared). A frame for mounting 4 units IBL-100-20-24XX type illuminators, with an adjustable tilt angle

- bandpass filters installed on the camera lens
- diffusers installed on the illuminator
- polarising filters installed on the illuminator or the camera lens
- protective screens installed on the illuminator
- lenses
- additional cables.

In case of questions concerning available accessories for machine vision systems please contact using the form found at www.iscon.pl or e-mail us at iscon@iscon.pl.

ISCON

Notes

Warnings

	The surface of the illuminator may be hot.	**Do not touch during operation. HOT.**
	Do not look directly into the light source.	**Caution, LED radiation.**
	Keep away from fire and high temperatures (above 40°C).	**Keep away from fire.**
	Do not touch the device with wet hands.	**Risk of electric shock or short circuit.**
	Do not wet clean the device or use a pressure washer.	**Risk of electric shock or short circuit.**
	Connecting incorrectly may cause damage to the device.	**Connect according to the information on the device's casing.**
	The device is designed for operation in a dry room environment.	**Do not touch during operation. HOT.**
	Do not alter, cut or connect additional cables.	**Exclusively use the original cable.**
	Incorrect usage may lead to device damage.	**Installation and application exclusively in accordance with technical documentation.**
		**Connect the device only with the power source cut off.**
	Do not dismantle the device or remove original factory--made components.	**Disassembly and technical modifications are prohibited.**
		**Protect from fall damage, strong shocks or impact to the device casing.**

WARRANTY TERMS AND CONDITIONS

All ISCON products are subject to a 12-month warranty starting from the purchase date.

The warranty is honoured under the following conditions:

- Presenting the purchase invoice as well as the device's serial number or sending the device to the ISCON company address.
- The device must not have been disassembled, modified or otherwise customised to the user's needs. Incorrect installation (drilling through the casing or installing using different screws and holes than the ones anticipated by the manufacturer) voids the warranty.
- The manufacturer allows for the cable to be shortened or loose wires to be fitted with a connector tailored to the customer's needs and compliant with generally accepted standards.
- The device is powered with a direct current voltage of 24V. Providing a higher or lower voltage or an alternate current may damage the illuminator and is not covered by the warranty.
- The device is designed for operation inside a dry room environment. Using it outside of a closed room may lead to exposure to moisture followed by damage and is not covered by the warranty.
- The device should not be cleaned using: water, pressure washers, hot steam, mechanical components and chemical agents.
- The room in which the illuminator operates must not be air tight without any air exchange or ventilation.
- The ambient temperature must be within 5-40˚C.

Contact

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