

Dustproof/Waterproof LED Light Fitting with Diffuser Series 163/164 ... Generation 2



Applications:

In humid, wet and dusty indoor areas of industrial and agricultural premises, for workshops and car parks, cold stores, low temperature stores, cooling chambers and walkable low temperature cabins in hotels, hard to reach areas with high downtime and maintenance costs when replacing the lamps. Aggressive atmospheres: Please consult us.

Design:

Housing: Glass fibre reinforced polyester resin, foamed gasket.

Diffuser: PMMA, modified for higher impact resistance, frosted for glare

limitation.

Closure: External plastic clips (KK) incl. 2 safety clips (KKS) to ensure protection against contact.

Reflector: Painted, removable complete with electronic components.

Electrical connection: 3-pole terminal block.

Cable entries: Variable, closed knock-outs on the short and long sides, and on the top, 2 blanking plugs M20.

Mounting system: 2 holes for ceiling mounting. Sealing and pressure disks for sealing are supplied inside the fitting.

Technical data:

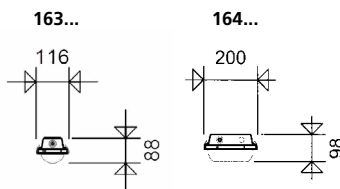
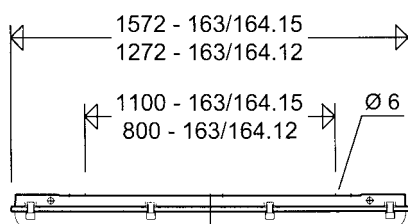
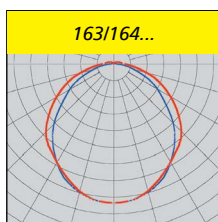
ECG: 220-240V, 50/60Hz, overload and short circuit protection

LED: line modules 4,000K, CRI > 80, life time L_{30} > 50,000h at max. ambient temperature (see notes)

Ambient temperature: -20°C (-40°C for types ...T40) up to ..°C see product table

Options:

- polycarbonate diffuser stippled clear
- 6.500 K
- stainless steel clips (KE)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- with through wiring system



Product highlights:

- highest efficiency due to use of top-quality ECG and LED modules
- homogeneous illumination by using frosted diffusers, comfortable perception of light and brilliant glare limitation
- high colour reproduction $R_a > 80$, according to the guide lines for workplaces, suitable for nearly all plant locations
- with "D"-symbol, suitable for rooms with increased fire risk due to deposits of combustible dust and fibrous materials
- no throw-away light fitting, ECG and reflector with LED-modules may be replaced by qualified personnel on site
- future proof by using LED-modules according to Zhaga standard

Article no.	Type	Quantity of ECG	Power consumption [W] **	Luminous flux [lm] **	Luminous efficacy [lm/W] **	Ambient temperature max.[°C]	Energy efficiency class	Substitute for ca. *	Weight [kg] without packing material
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163/164... G2



optimized for energy consumption (1 : 1 substitute fo fluorescent types)

16302 0016	163 12L22G2	1	17	2.470	145	40	A++	1 x 36W	2,2
16302 0017	163 15L34G2	1	22	3.370	153	40	A++	1 x 58W	2,4
16302 0018	163 12L42G2	1	28	4.160	149	40	A++	2 x 36W	2,2
16302 0019	163 15L60G2	1	40	6.090	152	40	A++	2 x 58W	2,4

with high luminous flux

16415 0016	164 12L90G2	2	58	8.990	155	40	A++	2 x 80W	3,1
16415 0017	164 15L120G2	2	80	12.030	150	40	A++	4 x 58W	3,8

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

** see notes

Notes:

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All technical data is relevant at the time of print. Actual technical data can be found in the internet under www.schuch.de.

Article no.	Type	Quantity of ECG	Power consumption [W] **	Luminous flux [lm] **	Luminous efficacy [lm/W] **	Ambient temperature max. [°C]	Energy efficiency class	Substitute for ca. *	Weight [kg] without packing material
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163/164... G2 DIMD



dimmable via DALI interface

Design:

Same as standard version, but with DALI-ECG and 2 additional clamping points, marked with DA, Dimming level 1 -100%.

Note:

The conducting wires to the control input must be mains voltage stable and can be integrated in the connection cable.

16302 0020	163 12L22G2 DIMD	1	15	2.320	155	40	A++	1 x 36W	2,3
16302 0021	163 15L34G2 DIMD	1	21	3.330	159	40	A++	1 x 58W	2,8
16302 0022	163 12L42G2 DIMD	1	27	4.110	152	40	A++	2 x 36W	2,3
16302 0023	163 15L60G2 DIMD	1	39	5.970	153	40	A++	2 x 58W	2,8
16415 0018	164 12L90G2 DIMD	2	58	8.990	155	40	A++	2 x 80W	3,5
16415 0019	164 15L120G2 DIMD	2	80	12.030	150	40	A++	4 x 58W	4,1

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** see notes, power consumption in dimming mode depends on the dimming adjustment!

163/164 ... G2 DIMC



dimmable via „Corridor Mode“

Applications:

Areas where light fittings are controlled via motion detector or door contact, e.g. storage areas, shelf aisles. Areas with high energy-saving potential at times without presence of persons, e.g. car parks, warehouses, aisles etc.

Design:

Same as standard version, but with dimmable ECG and additional clamping point, marked with L'.

Note:

Such light fitting can be controlled by a light fitting of type 163 ... SENS.

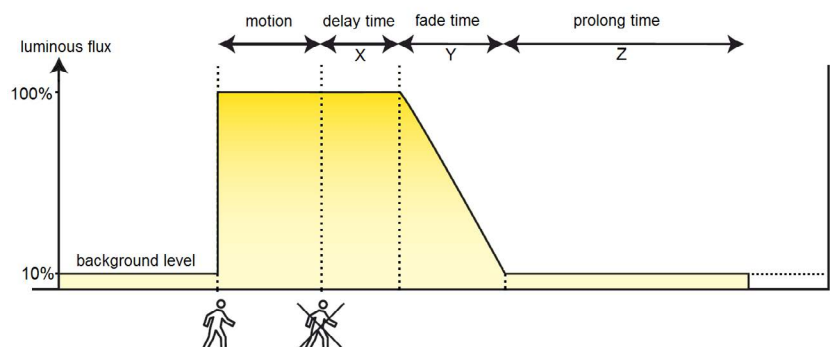


Technical data:

The corridor function allows easy power reduction at a fixed value by means of an ordinary 230V control voltage.

Default settings:

- The Corridor Mode must be enabled during the installation of the light fittings. (s. mounting Instructions)
- 100% luminous flux as long as the control phase is active.
- Holding time of 100% luminous flux after switching off the control phase = 0 seconds. By setting the switch-off delay of the motion detector the customer can select an individual holding time
- Dimming ramp 30 seconds
- 10% luminous flux when no movement is detected (reduced operation).
- Automatic cutoff deactivated (light fitting never switches off and provides a background illumination of 10%, but can be switched off by user at any time).



16302 0024	163 12L22G2 DIMC	1	15	2.320	155	40	A++	1 x 36W	2,2
16302 0025	163 15L34G2 DIMC	1	21	3.330	159	40	A++	1 x 58W	2,8
16302 0026	163 12L42G2 DIMC	1	27	4.110	152	40	A++	2 x 36W	2,2
16302 0027	163 15L60G2 DIMC	1	39	5.970	153	40	A++	2 x 58W	2,8
16415 0020	164 12L90G2 DIMC	2	58	8.990	155	40	A++	2 x 80W	3,5
16415 0021	164 15L120G2 DIMC	2	80	12.030	150	40	A++	4 x 58W	4,4

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

** see notes, power consumption in dimming mode depends on the dimming adjustment!

Article no.	Type	Quantity of ECG	Power consumption [W] **	Luminous flux [lm] **	Luminous efficacy [lm/W] **	Ambient temperature max. [°C]	Energy efficiency class	Substitute for ca. *	Weight [kg] without packing material
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163... G2 SENS



DIMC version with integrated motion detector

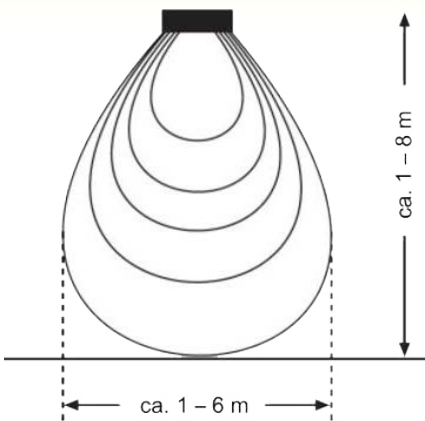
Applications:

Areas with high energy-saving potential in times without public access. Areas with high energy-saving potential at times without presence of persons, e.g. car parks, warehouses, aisles.

Design:

Same as standard version, but with dimmable ECG, integrated motion detector and additional clamping point, marked with 'L'. This light fitting (Master) controls all fittings of type 163... DIMC (Slaves), which are connected to the same circuit.

Detection range of sensor



Technical data:

Detection range of sensor: Adjustable from 1 m - 6 m (depending on the environment); Default: Maximum
 - Objects (partition walls made from steel, concrete beams, etc.) which absorb or reflect the radar waves affect the detection range of the sensor. This must be checked and taken into account in the planning
 - In general, the detection of radial movements (towards the HF sensor) is more reliable than the detection of tangential movements.
 - Tangential movements in a circular path are partially not detected.
 - Detection range max. 4m at light point heights of about 2.30m
 - Detection range max. 6m at light point heights up to max. 8m.
Delay time: Adjustable from 10 sec to 30 min with Infrared remote control to 60 min; Default: 5 min
Daylight control: Adjustable from 2 Lux; Default: Maximum
Factory settings:
 - Dimming ramp 30 seconds
 - 10% luminous flux when no movement is detected (reduced operation).
 - Automatic cutoff deactivated (light fitting never switches off and provides a background illumination of 10%, but can be switched off by user at any time).
Parameter setting:
 - Potentiometer on the HF sensor
 - Infrared remote control (optional)

16302 0030	163 12L22G2 SENS	1	15	2.320	155	40	A++	1 x 36W	2,3
16302 0031	163 12L42G2 SENS	1	21	3.330	159	40	A++	2 x 36W	2,3
16302 0028	163 15L34G2 SENS	1	27	4.110	152	40	A++	1 x 58W	2,5
16302 0029	163 15L60G2 SENS	1	39	5.970	153	40	A++	2 x 58W	2,5

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NEW

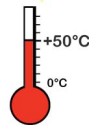
163... G2 H50



for high ambient temperatures up to +50°C

Applications:

Machine-oriented areas, areas with high process waste heat, areas close to the ceiling with accumulating heat etc.



16302 0040	163 12L22G2 H50	1	17	2.470	145	50	A++	1 x 36W	2,2
16302 0041	163 15L34G2 H50	1	22	3.370	153	50	A++	1 x 58W	2,4
16302 0042	163 12L42G2 H50	1	28	4.160	149	50	A++	2 x 36W	2,2
16302 0043	163 15L60G2 H50	1	40	6.090	152	50	A++	2 x 58W	2,4

NEW

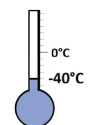
163... G2 T40



for ambient temperatures down to -40°C

Applications:

Cooling chambers, frozen food stock etc.



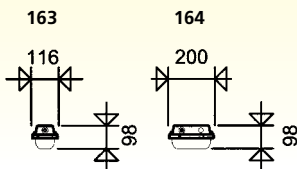
16302 0080	163 12L22G2 T40	1	15	2.320	155	40	A++	1 x 36W	2,2
16302 0081	163 15L34G2 T40	1	21	3.330	159	40	A++	1 x 58W	2,4
16302 0082	163 12L42G2 T40	1	27	4.110	152	40	A++	2 x 36W	2,2
16302 0083	163 15L60G2 T40	1	39	5.970	153	40	A++	2 x 58W	2,4

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 ** see notes, power consumption in dimming mode depends on the dimming adjustment!

Article no.	Type	Quantity of ECG	Power consumption [W] **	Luminous flux [lm] **	Luminous efficacy [lm/W] **	Ambient temperature max. [°C]	Energy efficiency class	Substitute for ca. *	Weight [kg] without packing material
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Notes:

The light fittings are not suitable for cleaning with cleaning agents or disinfectants as well as the cleaning with water-jet units.



163/164... IFS



for application in food industry areas

Applications:

Food industry or food processing factories, suppliers to the food industry who are falling in the International Featured Standard Food, BRC, HACCP or who are subject to comparably strict requirements.

Design:

Same as type 163/164 .. L.but:

Diffuser: cover Polycarbonate stippled clear.

Closure clips: Stainless steel (KE), incl. 2 safety clips (KES) to ensure protection against contact.

optimized for energy consumption (1 : 1 substitute fo fluorescent types)

16319 0001	163 12L22 IFS	1	17	2.620	154	40	A++	1 x 36W	2,2
16319 0002	163 15L34 IFS	1	22	3.570	162	40	A++	1 x 58W	2,4
16319 0003	163 12L42 IFS	1	28	4.410	158	40	A++	2 x 36W	2,2
16319 0004	163 15L60 IFS	1	40	6.460	162	40	A++	2 x 58W	2,4

with high luminous flux

16419 0001	164 12L90 IFS	2	58	9.530	164	40	A++	2 x 80W	3,5
16419 0002	164 15L120 IFS	2	80	12.750	159	40	A++	4 x 58W	4,4

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IFS/BRC/VDMA/HACCP

SCHUCH Light Fittings designed for food and beverage industry applications are in accordance with IFS/BRC/VDMA standards. They can be operated without restrictions in operations that must fulfill the HACCP Concept.

Dustproof/Waterproof Light Fittings

Accessories / Spare Parts

Article no.	Type		Article no.	Type	
Spare glasses, PMMA, frosted			Spare glasses, PC, stippled clear		
16711 9001	167 036	for 163 12 L.. G2	16311 9004	163 036 PC	for 163 12L.. IFS
16711 9002	167 058	for 163 15 L.. G2	16311 9005	163 058 PC	for 163 15L.. IFS
16411 9008	164 036 F G2	for 164 12 L.. G2	16411 9004	164 036 PC	for 164 12L.. IFS
16411 9009	164 058 F G2	for 164 15L.. G2	16411 9005	164 058 PC	for 164 15L.. IFS
16311 9006	163 036 F	for 163 12L...			
16311 9007	163 058 F	for 163 15L...			
16411 9006	164 036 F	for 164 12L...			
16411 9007	164 058 F	for 164 15L...			
Fasteners					
90123 9007	163 KK/KKS V08	plastic, incl. 2 safety clips (packing unit 8 pcs.)			
90123 9006	163 KE/KES V08	stainless steel, incl. 2 safety clips (packing unit 8 pcs.)			
90123 9004	163 KKS P	1 pair of safety clips (for LED version), plastic			
90123 9005	163 KES P	1 pair of safety clips (for LED version), stainless steel			
Cable entries					
90063 9000	2511	blinking plug M20			
25610 9000	2561	plastic cable gland M20 x 1,5			
25600 9000	2560	plastic cable gland M25 x 1,5			
Protective guard, powder coated					
90004 0002	SK 140	for 163 12...			
90004 0003	SK 165	for 163 15...			
90004 0005	SK 240	for 164 12...			
90004 0006	SK 265	for 164 15...			
Pipe clamps					
90245 0003	163 RO 112A P	1 1/2", stainless steel, with support (pair) for 163...			
90245 0004	163 RO 2A P	2", stainless steel, with support (pair) for 163...			
90245 0005	164 RO 112A P	1 1/2", stainless steel, with support (pair) for 164...			
90245 0006	164 RO 2A P	2", stainless steel, with support (pair) for 164...			
Attention: Observe the fixing distance when mounting on boom with pipe clamps (boom length!)					
Accessories for ceiling mounting					
90049 0002	183 S	swing hook for chain suspension			
90095 0001	183 DS	stainless steel bracket, with screw M5			
Infrared remote control for SENS-light fittings					
90295 9000	FB SENSOTEC-Mini	Infrared remote control for 163 .. SENS			