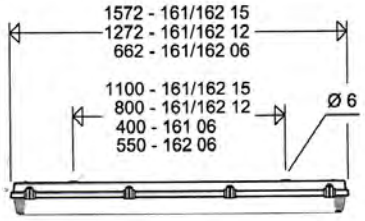
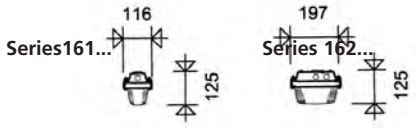
series 161/162

SCHUCH

GARRABRIDGE

Dustproof/Waterproof LED Light Fitting with Diffuser Series 161/162.. L..





Note:
Maximum energy saving by using types which are optimized for energy consumption.

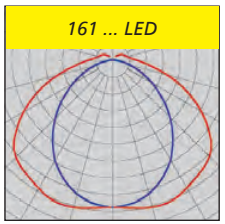
DESIGN
Housing: Glass fibre reinforced polyester resin, silicone gasket.
Diffuser: Injected, acrylic glass, frosted for glare limitation.
Closure: Three-part captive plastic clips (KK), incl. 2 safety clips (KKS) to ensure protection against contact.
Reflector: Aluminium, painted, can be suspended or removed and carries the electrical components.
Connection: 3-pole or 5-pole terminal (DIMD).
Cable entries: 2 plugs M20.
Mounting: Closed knock-outs for direct ceiling mounting (to be opened at site). Sealing and pressure disks inside each fitting.

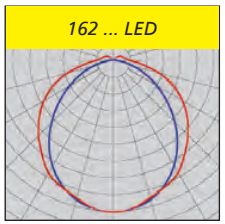
FEATURES AND BENEFITS:
- highest efficiency with luminous efficacy up to 145lm/W
- homogeneous illumination by using frosted diffusers, no particular light points visible, comfortable perception of light, brilliant glare limitation
- high colour rendering Ra > 80, according to the workplace guide lines suitable for nearly all plant locations
- with “D”-sign, suitable for rooms with increased fire risk due to deposits of combustible dust and fibrous materials
- special versions for high ambient temperatures up to +50°C, low temperatures down to -40°C and wide temperature range from -40°C up to +65°C, for outdoor installations and for applications in the food industry.
- lower maintenance and downtime costs due to long maintenance intervals
- ECG and reflector with LED-modules can be replaced by qualified personnel on-site
- future proof by using standardized LED-modules (Zhaga)

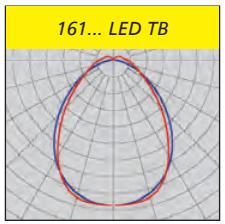
APPLICATIONS:
In humid, wet and dusty indoor areas of industrial and agricultural premises, for workshops and car parks, cold stores, low temperature stores, cooling and freezing chambers and walkable low temperature cabins in hotels, climate chambers, hard to reach areas with high downtime and maintenance costs when replacing the lamps. (In case of aggressive atmosphere please consult us).

TECHNICAL DATA:
LED: Linear modules 4,000K, Ra > 80, L70B10 > 50,000h at max. ambient temperature
ECG: 220-240V, 50/60HZ, overload and short-circuit protection
Ambient temperature: -20°C (-40°C for types ...T40) up to ..°C see product table

OPTIONS:
– 6 500K
– high colour rendering index Ra>90 (light colour 940)
– according to „International-Food-Standard“ (IFS)
– for connection to central power supply unit (ZB)
– PC-diffuser, frosted (PC)
– stainless steel clips (KE)







SCHUCH

GARRABRIDGE

Article no.	Type	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

161/162.. L..

LED IP65

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

16117 0309	**161 06L12**	11	1.320	120	40	A++	1 x 18W	1,8
16117 0301	**161 12L22**	16	2.320	145	40	A++	1 x 36W	2,7
16117 0303	**161 15L34**	25	3.630	145	40	A++	1 x 58W	3,0
16117 0310	**161 06L20**	18	2.240	124	40	A++	2 x 18W	1,8
16117 0302	**161 12L42**	34	4.470	131	40	A++	2 x 36W	2,7
16117 0304	**161 15L60**	46	6.150	134	40	A++	2 x 58W	3,0

with high luminous flux

16117 0305	**161 12L60**	47	6.260	133	30	A++	2 x 58W	2,7
16117 0306	**161 15L75**	59	7.930	134	30	A++	> 2 x 58W	3,0
16215 0302	**162 12L120**	94	12.250	130	35	A++	2 x 80 bzw. 3 x 58W	4,3
16215 0303	**162 15L150**	116	15.510	134	35	A++	4 x 58W	4,8

161/162.. L.. DIMD

LED IP65

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.

16117 0319	**161 06L12 DIMD**	12	1.320	110	40	A++	1 x 18W	1,9
16117 0311	**161 12L22 DIMD**	18	2.320	129	40	A++	1 x 36W	2,8
16117 0313	**161 15L34 DIMD**	27	3.630	134	40	A++	1 x 58W	3,1
16117 0320	**161 06L20 DIMD**	19	2.240	118	40	A++	2 x 18W	1,9
16117 0312	**161 12L42 DIMD**	36	4.470	124	40	A++	2 x 36W	2,8
16117 0314	**161 15L60 DIMD**	48	6.150	128	40	A++	2 x 58W	3,1
16117 0315	**161 12L60 DIMD**	49	6.260	128	30	A++	2 x 58W	2,8
16117 0316	**161 15L75 DIMD**	61	7.930	130	30	A++	> 2 x 58W	3,1
16215 0312	**162 12L120 DIMD**	96	12.250	128	35	A++	2 x 80 bzw. 3 x 58W	4,5
16215 0313	**162 15L150 DIMD**	118	15.510	131	35	A++	4 x 58W	5,0

NEW

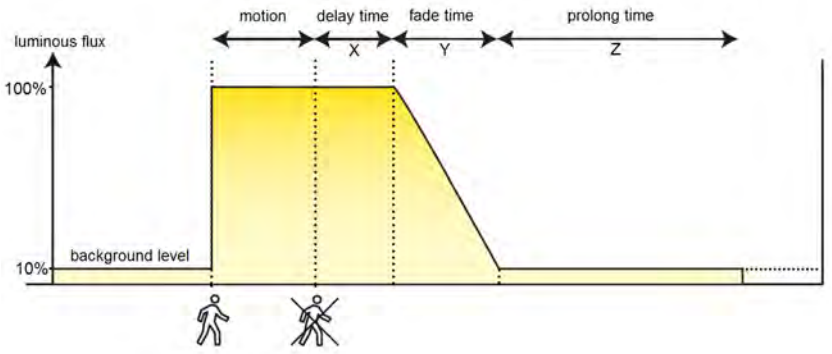
161.. L.. DIMC

LED IP65

dimmable via „Corridor Mode"

Application:
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 public access, e.g. car parks. Areas in which a 24-hour illumination is required.
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 161 .. L ..SENS.

Technical data:
The corridor function allows easy power reduction at a fixed value by means of an ordinary 230V control voltage.
Default settings:
- 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). For some versions the minimum dimming level may be higher due to technical limitations.
- Automatic cutoff deactivated (light fitting never switches off, but can be switched off by user at any time) Automatic cutoff is not available for some types



16117 0420	**161 12L22 DIMC**	18	2.320	129	40	A++	1 x 36W	2,8
16117 0422	**161 15L34 DIMC**	27	3.630	134	40	A++	1 x 58W	3,1
16117 0421	**161 12L42 DIMC**	36	4.470	124	40	A++	2 x 36W	2,8
16117 0423	**161 15L60 DIMC**	48	6.150	128	40	A++	2 x 58W	3,1

Note:
Since the switching capabilities of LED modules and control devices are limited, dimming without switching of the light fitting completely will result in a much longer life of the light fitting.

SCHUCH GARRABRIDGE

LED IP65

Article no.	Type	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

NEW

161.. L.. SENS

LED IP65

DIMC version with integrated motion detector

Applications:
Areas with high energy-saving potential in times without public access. Areas in which a 24-hour illumination is required.

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 161... DIMC (Slaves), which are connected to the same circuit.

Technical data:
Detection range of sensor: Adjustable from 1 m - 5 m (depending on the environment); Default: Maximum
Delay time: Adjustable from 5 sec to 5 min; Default: 5 min
Daylight control: Adjustable from 5 Lux; Default: Maximum
Ambient temperature: -10 ° C to see table
Factory settings:
- Dimming ramp 30 seconds
- 10% luminous flux when no movement is detected (reduced operation). For some versions the minimum dimming level may be higher due to technical limitations.
- Automatic cutoff deactivated (light fitting never switches off, but can be switched off by user at any time) Automatic cutoff is not available for some types

16117 0697	**161 12L22 SENS**	20	2.320	116	40	A++	1 x 36W	2,9
16117 0699	**161 15L34 SENS**	29	3.630	125	40	A++	1 x 58W	3,2
16117 0698	**161 12L42 SENS**	38	4.470	118	40	A++	2 x 36W	2,9
16117 0700	**161 15L60 SENS**	50	6.150	123	40	A++	2 x 58W	3,2

NEW

161.. L.. TB

LED IP65

narrow-wide beam, optics with 60° angle

Application:
Illumination for workplaces, aisles, etc.

Design:
Same as standard versions 161/162... LED, but with narrow-wide beam optics with 60° beam angle.

16117 0604	**161 15L60TB**	49	6.520	133	45	A++	2 x 58W	3,2
16215 0601	**162 15L120TB**	98	12.960	132	40	A++	2 x 80 bzw. 3 x 58W	5,3

Article no.	Type	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

161/162.. L.. H50

LED IP65

for high ambient temperatures up to +50°C

+50°C 0°C

16117 0324	**161 06L12 H50**	11	1.320	120	50	A++	1 x 18W	1,8
16117 0334	**161 06L12 H50 DIMD**	12	1.320	110	50	A++	1 x 18W	1,9
16117 0321	**161 12L22 H50**	16	2.320	145	50	A++	1 x 36W	2,7
16117 0331	**161 12L22 H50 DIMD**	18	2.320	129	50	A++	1 x 36W	2,8
16117 0322	**161 15L34 H50**	25	3.630	145	50	A++	1 x 58W	3,0
16117 0332	**161 15L34 H50 DIMD**	27	3.630	134	50	A++	1 x 58W	3,1
16215 0324	**162 06L20 H50**	16	2.270	142	50	A++	2 x 18W	2,5
16215 0334	**162 06L20 H50 DIMD**	18	2.270	126	50	A++	2 x 18W	2,6
16215 0321	**162 12L42 H50**	30	4.360	145	50	A++	2 x 36W	4,3
16215 0331	**162 12L42 H50 DIMD**	32	4.360	136	50	A++	2 x 36W	4,4
16215 0322	**162 15L60 H50**	45	6.520	145	50	A++	2 x 58W	4,8
16215 0332	**162 15L60 H50 DIMD**	47	6.520	139	50	A++	2 x 58W	4,9

NEW

161.. L.. T40

LED IP65

or ambient temperatures down to -40°C

0°C -40°C

16117 0409	**161 06L12 T40**	11	1.430	130	40	A++	1 x 18W	1,8
16117 0401	**161 12L22 T40**	20	2.870	144	40	A++	1 x 36W	2,7
16117 0403	**161 15L34 T40**	25	3.600	144	40	A++	1 x 58W	3,0
16117 0410	**161 06L20 T40**	18	2.280	127	40	A++	2 x 18W	1,8
16117 0402	**161 12L42 T40**	34	4.530	133	40	A++	2 x 36W	2,7
16117 0404	**161 15L60 T40**	42	5.660	135	40	A++	2 x 58W	3,0

* 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!

NEW

161.. L.. T40 / H...

LED IP65

for wide temperature ranges from -40° to see product table

+ 55/65°C 0°C

16117 0509	**161 06L12 T40 H65**	11	1.430	130	65	A++	1 x 18W	1,8
16117 0501	**161 12L22 T40 H65**	20	2.870	144	65	A++	1 x 36W	2,7
16117 0503	**161 15L34 T40 H65**	25	3.600	144	65	A++	1 x 58W	3,0
16117 0510	**161 06L20 T40 H55**	18	2.280	127	55	A++	2 x 18W	1,8
16117 0502	**161 12L42 T40 H55**	34	4.530	133	55	A++	2 x 36W	2,7
16117 0504	**161 15L60 T40 H55**	42	5.660	135	55	A++	2 x 58W	3,0

Article no.	Type	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

161/162.. L.. AUS

LED IP64

for applications in unprotected outdoor areas

Application:
In protected and unprotected outdoor areas and industrial plants, mounted to walls, ceilings, catwalks and steel structures, pipe brackets, grating, under canopies, bus stops, train stations, subways, construction sites, etc.

Design:
As type 161/162... LED, but:
Diffuser: UV proof
Breather: M25
Entries: 1 gland M20 at one small side, breathing gland M25 at the other small side.

Mounting:
Ceiling and horizontal wall mount or mounting to outreaches, poles, steel structures, catwalks, etc. by means of pipe clamps. For vertical mounting please consult us.

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

16117 0351	**161 12L22 AUS**	16	2.320	145	40	A++	1 x 36W	2,7
16117 0353	**161 15L34 AUS**	25	3.630	145	40	A++	1 x 58W	3,0
16117 0352	**161 12L42 AUS**	34	4.470	131	40	A++	2 x 36W	2,7
16117 0354	**161 15L60 AUS**	46	6.150	134	40	A++	2 x 58W	3,0

with high luminous flux

16117 0355	**161 12L60 AUS**	47	6.260	133	30	A++	2 x 58W	2,7
16117 0356	**161 15L75 AUS**	59	7.930	134	30	A++	> 2 x 58W	3,0
16215 0352	**162 12L120 AUS**	94	12.250	130	35	A++	2 x 80 bzw. 3 x 58W	4,3
16215 0353	**162 15L150 AUS**	116	15.510	134	35	A++	4 x 58W	4,8

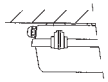
* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.
** see notes, power consumption in dimming mode depends on the dimming adjustment!

Notes:

The light fitting is not to be used in areas with high mechanical stress (wind) or seldom usage (i.e. maintenace and inspection only). We recommend our **series 144...** in **AUS**-version or a weather roof within very critical environmental conditions. When mounting the light fittings on bracket poles or tubular beams/pipes always use original SCHUCH pipe clamps with support (see accessories).

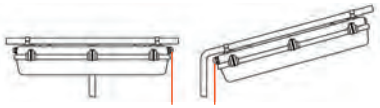
Mounting

ceiling mount
1- and 2-lamps (IP 64)



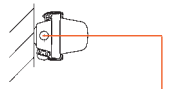
breathing gland

pole mount with pipe clamps
1 and 2 lamps (IP 64)

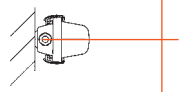


breathing gland

wall mount, horizontally
1-lamp (IP 65/Special version on demand)

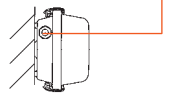


1-lamp (IP 64)

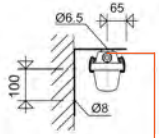


breathing gland

2-lamps (IP 64)

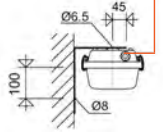


... in critical environments
1-lamp (IP 64)



breathing gland

2-lamps (IP 64)



SCHUCH GARRABRIDGE

Article no.	Type	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

161/162.. L.. LM

LED IP65

for applications in food areas

Application:
Food industry or food processing factories especially in risky areas of the food production or processing, suppliers to the food industry who are falling in the IFS standards or who are subject to comparably strict requirements (e.g. production of food packaging).

Design:
Same as type 161/162... LED but:
Diffuser: Shatterproof, high chemical resistance, elements for glare limitation mounted to the reflector.

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

fulfills the IFS

Advantages of the LM version:

- shatterproof diffuser with very high impact resistance (16Nm!) even at a high continuous operating temperature
- resistant to grease and aggressive cleaning agents, disinfectants and solvents (we recommend the respective cleaning agents and disinfectants to be tested on their resistance (resistance index on request.)

These light fittings do comply in all respects with the requirements of the IFS (International Food Standard), the BRC (British Retail Consortium) and the hygienic requirements for machines and equipment in the sweets industry (VDMA).

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

16119 0005	**161 06L12 LM**	11	1.220	111	35	A++	1 x 18W	1,8
16119 0001	**161 12L22 LM**	21	2.670	127	35	A++	1 x 36W	2,7
16119 0002	**161 15L34 LM**	26	3.300	127	35	A++	1 x 58W	3,0
16119 0006	**161 06L20 LM**	19	2.030	106	35	A++	2 x 18W	1,8
16119 0003	**161 12L42 LM**	40	4.480	112	35	A++	2 x 36W	2,7
16119 0004	**161 15L60 LM**	51	5.870	115	30	A++	2 x 58W	3,0

with high luminous flux

16219 0001	**162 12L85 LM**	79	8.760	111	30	A++	2 x 54W	4,3
16219 0002	**162 15L100 LM**	88	9.880	112	30	A++	2 x 80W	4,8

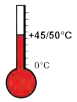
* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.
** see notes, power consumption in dimming mode depends on the dimming adjustment!

Article no.	Type	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

161/162.. L.. LM H..

LED IP65

.for high ambient temperatures up to +45/50°C



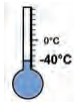
16119 0051	**161 12L22 LM H50**	21	2.670	127	50	A++	1 x 36W	2,7
16119 0052	**161 15L34 LM H50**	26	3.300	127	50	A++	1 x 58W	3,0
16219 0051	**162 12L42 LM H50**	34	4.360	128	50	A++	2 x 36W	4,3
16219 0052	**162 15L60 LM H45**	46	5.910	128	45	A++	2 x 58W	4,8

NEW

161/162.. L.. LM T40

LED IP65

for ambient temperatures down to -40°C



16119 0101	**161 12L22 LM T40**	20	2.770	139	35	A++	1 x 36W	2,7
16119 0102	**161 15L34 LM T40**	25	3.430	137	35	A++	1 x 58W	3,0
16119 0103	**161 12L42 LM T40**	34	4.430	130	35	A++	2 x 36W	2,7
16119 0104	**161 15L60 LM T40**	42	5.480	130	30	A++	2 x 58W	3,0

* 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!

Note:
The colour rendering index Ra does not incorporate the remaining part (R9) in the light spectrum. The standard light colour 840 has only a minor R9 value.
For meat processing factories, we recommend the use of our light fittings with light colour 940 (special version), which emits a bigger amount of red light.