

Mini Recessed Downlight DL 105

Scale 1:1



PERFORMANCE
LIGHTING

 **SPITTLER®**



(Compact Design)² x Efficiency + Application = DL 105

Mini Recessed-Downlight DL 105

The developments of innovative luminaires reducing CO₂ emissions and contribution to save energy are the targets and motivation of SPITTLER.

The solution of the formula for an efficient compact downlight for basic lighting is the mini downlight DL 105!

With smallest dimensions and giant in possibilities of use and implementation: shops, traffic zones, hotels, receptions and entry areas and much more. The unique DL 105 shows its „true size“ in a new compact dimension.

Its ceiling cut-out of only 98 mm and the low ceiling recess depth of only 100 mm make it a flexibly applicable „multi-talent“.

Shortage of space at suspended ceilings is no problem for the DL 105. Wherever low voltage luminaires have been implemented up to now due to their small dimensions, the Mini Downlight offers you an excellent alternative.

Due to its IP44 rating the DL 105 is also very well suitable for the protected outdoor areas. You have the choice: to operate DL105 by 12 high-power LED's with a nominal power of 14 W or with a compact fluorescent lamp TC-TEL 13W. Both light sources offer a compact wide-beaming homogenous light distribution for basic illumination. The decent luminaire design of DL 105 provides a clear even uniform ceiling image. It is thus confidently fitting into architecture.



In the proven form and quality of the round downlight-classic, but much smaller and more economic the DL 105 offers a wide variety of applications. Especially in offices, conference rooms, bars and restaurants the Mini Downlight provides a variable, animating and pleasant light atmosphere through innovative LED-technology. By a colour rendering of Ra > 80 the small compact DL 105 is moreover ideal for the installation in shops, galleries and museums. Colours are reflected lifelike in their environment. Goods and items on display can be put in perspective without any ultraviolet and infrared-radiation. Thanks to IP44 the DL 105 even finds its place in fitness and spa as well as in roofed entries. For an individual atmosphere of room, with the LED-version there are 2 colour temperatures available for you: neutral white and warm white.





DL 105 LED

Round Mini recessed downlight with LED technology

Mini recessed downlight with high-power LED 14 W. Bezel made of die-cast aluminium and housing made of galvanised sheet steel, powder-coated in white (RAL9016 structure). Ceiling installation by mounting springs for ceilings from 1-25 mm. Two-part reflector made of high-brilliant metalised pure aluminium (AL 99.98) for maximum efficiency and colour-neutral light reflection. Ceiling installation and electrical connection without tools possible. High-power LED with passive cooling in colour warm white (3000 K) and neutral white (4200 K) available. Colour rendering index Ra > 80. C/w constant current converter 350 mA. IP 44, if mounted in closed ceiling systems.



with inlaid micro prism diffuser

Version	LED 14 W	€
warm white (3000 K)	105.61.14.123	209,00
neutral white (4200 K)	105.61.14.124	209,00



with inlaid frosted safety glass

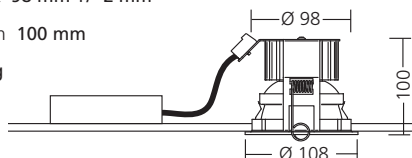
Version	LED 14 W	€
warm white (3000 K)	105.91.14.123	209,00
neutral white (4200 K)	105.91.14.124	209,00

Special Advantages:

- low recessed depth and small ceiling cut-out
- high light output ratio
- homogeneous wide beam light distribution
- extremely cost efficient by energy saving and freedom of maintenance
- colour rendering index Ra > 80
- high colour stability during the life time of 50,000 hours
- exchangeable LED board
- assured and stable heat transmission due to additional mechanical connection
- long life time by passive cooling via metal core board, thermal conductive adhesion and aluminium heat sink
- colour temperature of 3000 K or 4200 K according to ambience requirements

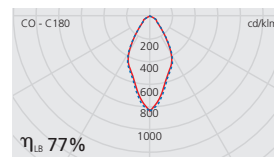
Dimensions

Diameter 108 mm
 Ceiling cut-out 98 mm +/- 2 mm
 Recessed depth 100 mm
 Weight 0,5 kg



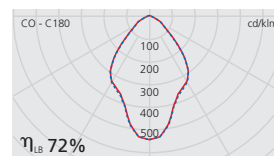
Photometric Data

with inlaid micro prism diffuser



LED 14 W
 Half-value angle 2 x 28 °
 Shielding angle 20 °
 Critical radiation angle/1000 cd/m² 70°

with inlaid frosted safety glass



LED 14 W
 Half-value angle 2 x 36 °
 Shielding angle 21 °
 Critical radiation angle/1000 cd/m² 70°



DL 105 TC-TEL

Round Mini recessed downlight with compact fluorescent lamps TC-TEL

Mini recessed downlight for TC-TEL 1x13 Watt with electronic ballast. Bezel made of die-cast aluminium and housing made of sheet steel, both powder-coated in white (RAL9016 structure). Ceiling installation by mounting springs for ceilings from 1-25 mm.

Lamp and reflector change without tools possible. Two-part reflector made of high-brilliant metalised pure aluminium (AL 99.98) for maximum efficiency and colour-neutral light reflection. Offsite with three-pole terminal block.

IP 44 version for closed ceiling systems if the downlight is ordered with safety glass.



with bare reflector

Version	TC-TEL 13 W	€
HF ballast	105.51.13.63	99,00

Special Advantages:

- low recessed depth and small ceiling cut-out
- homogeneous wide beam light distribution
- cost efficient compared to low voltage luminaires in equivalent sizes
- life time: 15,000 hours
- long maintenance cycles



with inlaid frosted safety glass

Version	TC-TEL 13 W	€
HF ballast	105.91.13.63	109,00

Dimensions

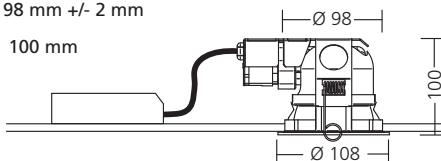
Socket GX24q

Diameter 108 mm

Ceiling cut-out 98 mm +/- 2 mm

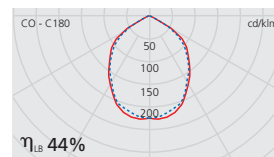
Recessed depth 100 mm

Weight 0,5 kg



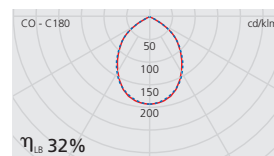
Photometric Data

with bare reflector



TC-TEL 1 x 13 W
 Half-value angle 2 x 46 °
 Shielding angle 30 °
 Critical radiation angle/1000 cd/m² 70°

with inlaid frosted safety glass



TC-TEL 1 x 13 W
 Halbstreuwinkel 2 x 42 °
 Abschirmwinkel 21 °
 Grenzausstrahlwinkel/1000 cd/m² 70°



DL 105 – Planning Example

Wherever minimised product dimensions are an important layout requirement the Mini Downlight DL 105 is a perfect choice. If the downlight is combined with our LED technology it offers also high energy efficiency and freedom from maintenance. Therefore it meets all conditions to replace low voltage halogen lamps or being a more efficient alternative for compact fluorescent downlights. Whether you choose LED technology or compact fluorescent lamps it will create a repayment situation. Our planning example demonstrates the potential savings. It is basing on the European Standards EN 12464 for floors with an average illuminance of 100 lx at a height of 0,2 m.



Floor Dimensions

Length: 10 m

Width: 2 m

Height: 2,85 m

Standard Reflection Values

Maintenance Factor: 0,67

Workplane: Floor

If there are operating times from 10 hours per day, 365 days a year and energy costs of 0.20 EUR per kWh you will come to following results:

10 x Mini recessed downlights
DL 105, 14 W LED
Illuminance: $E_m = 123$ lx
Energy Costs p.a.: 102 Euro

10 x Low voltage recessed luminaires
NV 100, 50 W QT 12
Illuminance: $E_m = 116$ lx
Energy Costs p.a.: 365 Euro

10 x Recessed downlights
DL 125, 18 W TC-DEL
Illuminance: $E_m = 127$ lx
Energy Costs p.a.: 131 Euro

If you choose the Mini Downlight with LED technology:

■ up to 72% compared to 50 W QT 12

■ up to 22% compared 18 W TC-DEL

DL 105 offers an excellent economical alternative to low voltage halogen downlights. No matter if you make a decision for long-lasting compact fluorescent lamp 13 W or the innovative 14 W high-power LED. With both options you will reduce your energy and maintenance costs. DL105 is the perfect product for any building refurbishments as well as new buildings.

SPITTLER - We light up your ideas

Office and administration lighting



Pendant luminaires



Free-standing luminaires



Surface mounted luminaires



Recessed luminaires



Luminaire systems

Retail lighting



Recessed lights



Track lights



Shelf luminaires



Gimbal luminaires



Pendant luminaires

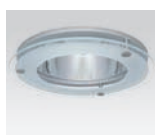


Wall luminaires

General Lighting



Square recessed downlights



Round recessed downlights



Square surface mounted downlights



Round surface mounted downlights

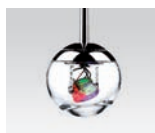


Wall luminaires



Rescue sign luminaires

Light and design



Pendant luminaires



Wall luminaires

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