

Monsun[®] LED

for new systems or for retrofitting



office

industry

traffic

retail

public

sports

siteco

Efficient LED technology for the classic damp-proof luminaire



We can't seal it any tighter.

But we can make it more sustainable in terms of energy.

That's why Monsun® is now available with efficient LED versions.

What's special: Monsun® LED is available as a complete luminaire, but is also available for LED refurbishment concepts with the energy-efficient refurbishing and upgrading of existing lighting systems with LED. Common to both solutions is that the new LED technology and the outstandingly tried-and-true Monsun® luminaire concept are perfectly matched.

LED complete system solution

The LED tube and matching electronic LED control gear form a single system unit that is reliably defined in terms of electrical, photometric and thermal factors. This ensures a long system service life and complete exploitation of the LED tube's efficiency potential. Together with the high quality prismatic cover this results in a homogeneous, wide distribution of light with good light quality.

An efficient substitute for fluorescent lamps

With its high direct component, Monsun® LED achieves significantly more efficient illumination than systems utilising conventional lamp technology. Up to 20% of energy compared to T16 or T26 variants can be saved. Further potential for savings can also be achieved by the integration of switchable presence detectors. Thus in parking garages for example consumer-optimised lighting according to needs can be made available, meaning only when people are present in the corresponding lighting zones. An additional advantage: the long service life of the LED system with 40,000 hours and the resulting decrease in maintenance effort compared to T16 and T26 lamps.

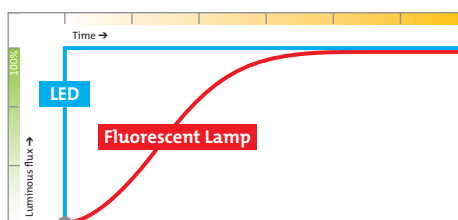
LED fits the concept perfectly

The Monsun® luminaire family has been optimised for maximum reliability, robustness, ease of installation and quality. High quality stainless steel enclosure catches, mounting brackets and suspension and a protection rating of IP65 make it the first choice for lighting tasks in challenging environments, and the LED version fits in excellently with this concept. It takes advantage of the strengths of the luminaire in storage areas, cold stores, parking garages and dispatch and packaging areas, becoming an energy-efficient and innovative alternative to conventional fluorescent lamps.



Monsun® LED single lamp

Monsun® LED twin lamp



Monsun LED advantage:
instant, complete luminous flux when switched on.

- + modern, efficient lamp technology: innovative, system-matched LED tube ECG system
- + system service life of 40,000 operating hours (at max. ambient temperature 25°C)
- + long service life with unlimited switching, e.g. to a presence detector
- + instant and complete lumen output in both low and high ambient temperatures
- + light distribution via prismatic technology for good, homogeneous illumination
- + damp-proof diffuser luminaire with high quality materials and high protection rating
- + mercury-free lamp technology
- + for use under difficult conditions with high moisture or dust loads
- + housing resistant to fire and ignition and impact-resistant according to VDE 0711
- + for ambient temperatures of -20°C to +25°C
- + luminaire easily installed via standard clips
- + prepared for rapid installation to mounting rails (mounting accessories required)

i

Maintenance factor:

We recommend setting the maintenance factor with Monsun® LED to 0.8.

A maintenance factor of 0.8 for a system with Monsun® LED offers a good relation between energy consumption and lighting levels over the defined system service life of 25,000 to 30,000 hours.

A new system can therefore be planned with a balanced photometric and energetic increase of approximately +15%.

Monsun® LED complete luminaire

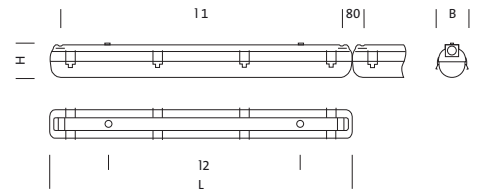
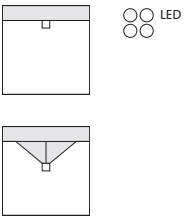


Monsun® LED | with prismatic PMMA cover | for Siteco® LED tube | insulation class I

Monsun® LED damp-proof diffuser luminaire for ceiling surface-mounting, suspended mounting or mounting to rail | direct wide distribution with ceiling illumination; with injection-moulded prismatic cover | with ECG | housing of glass-fibre reinforced polyester, grey; cover of PMMA; V₂A catches and ceiling mounting

Protection rating: IP65
 Insulation class: I
 Protection symbol: F/D
 Temperature range: -20°C..+25°C
 Service life: 40,000h (at max. ambient temp.)
 (incl. ceiling mounting element and V₂A chain suspension)
 (Luminaire optionally with light sources: Siteco® LED tube)

• Monsun LED is not suitable for through-wiring



	L	L1	L2	B	H
5LS4...1T...	1277	1194	800	84	102
5LS4...1V...	1577	1494	1100	84	102
5LS4...2T...	1277	1194	800	130	110
5LS4...2V...	1577	1494	1100	130	110



Lamps	Colour temperature	Colour rendering	L (mm)	Wt. (kg)	ECC, D / F Order No.
damp proof luminaire, enclosure, PMMA, with lamps					
1xLED-Tube 24W	5000K	CRI > 60	1277	2.5	5LS41271T65
1xLED-Tube 24W	5000K	CRI > 60	1577	2.9	5LS41271V65
2xLED-Tube 24W	5000K	CRI > 60	1277	3.4	5LS41272T65
2xLED-Tube 24W	5000K	CRI > 60	1577	4.2	5LS41272V65

Lamps	Colour temperature	Colour rendering	L (mm)	Wt. (kg)	Order No.
damp proof luminaire, enclosure, PMMA, without lamps					
1xLED-Tube 24W			1277	2.2	5LS41271T
1xLED-Tube 24W			1577	2.5	5LS41271V
2xLED-Tube 24W			1277	2.7	5LS41272T
2xLED-Tube 24W			1577	3.3	5LS41272V

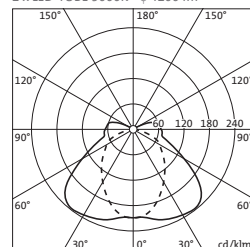
Lamps	Colour temperature	Colour rendering	L (mm)	PU	Wt. (kg)	Order No.
lamps						
1xLED-Tube 24W	5000K	CRI > 60	1200		0.4	5LS4L650T220
1xLED-Tube 24W	5000K	CRI > 60	1200	set of 20	7.2	5LS4L650T220P2
1xLED-Tube 24W	5000K	CRI > 60	1500		0.4	5LS4L650V220
1xLED-Tube 24W	5000K	CRI > 60	1500	set of 20	8.4	5LS4L650V220P2

• luminaire available optionally with light sources (complete delivery: luminaire and 1 or 2 light sources) or without light sources
 • for luminaire version without light sources: please order Siteco® LED Tube in required quantity separately (delivery quantity if not otherwise specified: 1 piece per order number)

5LS41272T

2 x LED-TUBE 5000K ϕ 4100 lm

η_{ls} 84.4% ϕ_d 89% ϕ_t 11%



Luminance values (cd/m²)

	C 0/180	C 90/270
L ₈₀	3807	1859
L ₇₀	3787	3353
L ₆₅	4185	3724

UGR 22.6 19.4
 X 4H Y 8H ρ 70/50/20 S 0.25H

No. of luminaires in room

Reflection factors 70/50/20

Em(lx)	100	200	500			
Lh(m)	2.5	3.0	2.5	3.0	2.5	3.0
20 m ²	1.0	1.2	2.0	2.4	5.1	6.0
30 m ²	1.5	1.7	3.0	3.4	7.4	8.5
40 m ²	1.9	2.1	3.8	4.3	9.5	11
50 m ²	2.3	2.5	4.5	5.0	11	13
75 m ²	3.2	3.5	6.4	7.1	16	18
100 m ²	4.2	4.5	8.3	9.0	21	22
500 m ²	18	19	37	38	92	95

Maintenance factor 0.8 Rh = Lh + 0.5 m

Upgrade energetically with the Monsun® LED refurbishment concept



Monsun® LED offers a sustainable and future-fit solution for the energetic refurbishment of obsolete lighting systems: the LED refurbishment concept.

Refurbishing with safety for the future

This consists of the gear tray with pre-assembled LED ECG. The LED tube is ordered separately. Electronics and innovative LED lighting technology are precisely matched and form a functional, optimised unit. This ensures that the LED tube achieves the performance enabled by this innovative technology. At the same time the modular design means that a later upgrade to higher-performance and more efficient LED tubes is facilitated with ease.

Efficient upgrading made easy

Thanks to the LED refurbishment concept, the efficient upgrading of existing Monsun® systems becomes child's play. No modification to the building installation is needed and neither must the luminaire be disassembled. The housing remains mounted and cabled.

Refurbishment, thanks to the Monsun® gear tray principle, is electrically safe and with the guarantee that all components optimally function together after completion of the process

Minimum effort, maximum performance

Effort for upgrading is minimal and cost-optimised,

and can be easily achieved during the course of a routine maintenance interval:

- + remove conventional fluorescent lamp
- + disconnect and remove old gear tray without tools
- + connect LED gear tray with ECG and insert
- + insert LED tube

The result is as impressive as the simplicity of the refurbishment:

Performance of the system modernised with the refurbishment concept corresponds to a completely new Monsun® LED system!

This is how quick the LED refurbishment concept is:



1. open cover



2. remove conventional lamp



3. open gear tray



4. disconnect gear tray



5. remove gear tray



6. insert LED gear tray



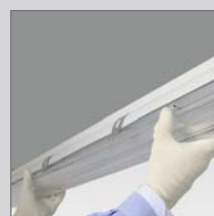
7. connect LED gear tray



8. insert gear tray



9. insert LED tube



10. close cover

Monsun® LED refurbishment concept



Monsun® LED | LED refurbishment kit for T16/T26 luminaires | insulation class I

Monsun® LED gear tray for upgrading existing Monsun luminaires to state-of-the-art, maximum economy LED technology | with ECG; for Siteco® LED tube | direct wide distribution with ceiling illumination | gear tray of sheet steel, white

Protection rating: (inserted into luminaire: IP65)

Insulation class: I

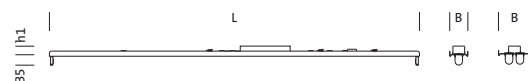
Protection symbol: (integrated in luminaire: F/D)

Temperature range (of luminaire): -20°C..+25°C

Service life: 40,000h (at max. ambient temp.)

• Monsun LED is not suitable for through-wiring

IP 20  



	L	B	h1
5LS449..1T	1225	60	29
5LS449..1V	1531	60	29
5LS449..2T	1225	106	26
5LS449..2V	1531	106	26

Lamps	L (mm)	Wt. (kg)	ECG Order No.
electrics components group, without lamps			
1xLED-Tube 24W	1225	0.9	5LS44971T
1xLED-Tube 24W	1531	1.0	5LS44971V
2xLED-Tube 24W	1225	1.1	5LS44972T
2xLED-Tube 24W	1531	1.4	5LS44972V

• please order required quantity of lamps separately (delivery quantity if not otherwise specified: 1 piece per order number)
• please order PMMA cover separately if required

Mandatory accessories

Article	PU	Wt. (kg)	Order No.
lamps, LED-Tube 24W, 5000K, CRI > 60, L= 1200mm		0.4	5LS4L650T220
lamps, LED-Tube 24W, 5000K, CRI > 60, L= 1500mm		0.4	5LS4L650V220
lamps, LED-Tube 24W, 5000K, CRI > 60, L= 1200mm	set of 20	7.2	5LS4L650T220P2
lamps, LED-Tube 24W, 5000K, CRI > 60, L= 1500mm	set of 20	8.4	5LS4L650V220P2

Accessories

Article	PU	Wt. (kg)	Order No.
enclosure, PMMA, inner prismatic structure, for 1xT16/T26 28/36/54W		0.5	5LS44901CW
enclosure, PMMA, inner prismatic structure, for 1xT16/T26 35/49/58/80W		0.6	5LS44901EW
enclosure, PMMA, inner prismatic structure, for 2xT16/T26 28/36W		0.6	5LS44902CW
enclosure, PMMA, inner prismatic structure, for 2xT16/T26 35/49/54/58W		0.9	5LS44902EW
clip for cover, stainless steel (V2A)	set of 10	0.1	5LS44004

Monsun® LED mounting accessories



Mounting set

for fixing luminaires to
DUS® mounting rail | V2A;
tool-free mounting

Type	PU	Order No.
Mounting set	set of 6	5LS44002

- 2 pieces required per luminaire
- One rail end cap required at each rail end
- Please see Siteco Indoor Lighting Tools for mounting rails and accessories
- Monsun® LED is NOT suitable for through-wiring and continuous rows



Mounting set

for fixing luminaires to
GRP mounting rail | consists of
threaded plate, V2A; screw fastening

Type		Order No.
Mounting set		5LS91120EC

- 2 pieces required per luminaire
- Please see Siteco Indoor Lighting Tools for plastic mounting rails and accessories
- Threaded plates are included in delivery of plastic mounting rail (2 pieces, 4 pieces, 6 pieces with 1-length, 2-length, 3-length rail accordingly)
- Monsun® LED is NOT suitable for through-wiring and continuous rows



Chain

Link size_{inner} 5.6 x 31mm
Load capacity: 40kg

Type		Order No.
Chain	galvanised	5LY9001
Chain	V2A	5LY9002

- Chain: per metre



Quick-release link

Link size_{inner} 5 x 16mm
Load capacity: 20kg

Type		Order No.
Quick-release link	galvanised	5LY9003
Quick-release link	V2A	5LY9004

Monsun® LED electrical accessory

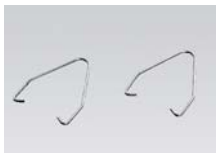


Twin entry grommet

for 2 sheathed cables Ø 8.4..12mm,
(e.g NYM 5x 1.5mm²)

Type		Order No.
Twin entry grommet		5LS32200XV

Monsun® LED spare parts



Suspension clip, V2A

for mounting close to ceiling or for
suspended mounting, e.g. for chain

Type	PU	Order No.
Suspension clip	set of 50	5LS44001

- 2 pieces included per Monsun® LED



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