

Lighting Tools Interior

Chapter 7
Damp-proof luminaires



LED Damp-proof Diffuser Luminaires



Monsun® LED
complete
luminaire
Page 7.4



Monsun® LED
refurbishment
kit
Page 7.4

Damp-proof Diffuser Luminaires



FR500
Page 7.10



FR200
Page 7.20



FR100
Page 7.30



Monsun®
Page 7.40



Panel Luminaire
Page 7.52



EKU
see section 4



Europlex® TC
see section 4



Europlex® TC
see section 4

Open Distribution Damp-proof Diffuser Luminaires



SiPLAST®
Page 7.54

Luminaires for Special Requirements

for low ambient temperatures

for high ambient temperatures

with vibration testing
for earthquake resistance

for Ex zone 2 or 22



FR100
Page 7.60



NJ600
see section 8



FR100
Page 7.62



NJ600
see section 8



FR200
Page 7.20



FR100
Page 7.30



FR-Ex
Page 7.64

Mounting Rails

Steel, galvanised

Plastic



DUS®
mounting rail
Page 7.68



GRP
mounting rail
Page 7.68

For further versions see www.siteco.com

Damp-proof diffuser luminaires

○○○LED

Monsun® LED
Page 7.4FR500
Page 7.10FR200
Page 7.20FR100
Page 7.30/64/66Monsun®
Page 7.40

		IP65	IP65	IP65	IP65	IP65
Protection rating		IP65	IP65	IP65	IP65	IP65
Insulation class		⊕	⊕	⊕ □	⊕ □	⊕ □
Impact resistance					IK07	IK07
Protection symbol		▽ ▽	▽ ▽	▽ ▽	▽ ▽ ▽▽*	▽ ▽ ▽▽*
Ballast	ECG Multiwatt ECG LLCG	- / ■ / -	- / ■ / -	- / ■ / □	- / ■ / □	■ / ■ / □
	dimmable (ECG DALI ECG (1...10V))	- / -	■ / ■	■ / ■	- / ■	■ / ■
Lamp type	T16 T26 TC TC-R	LED	- / ■ / - / -	- / ■ / - / -	- / ■ / - / -	■ / ■ / ■ / -
Optical enclosure	PC PMMA silicate glass	- / ■ / -	- / ■ / -	- / ■ / -	■ / ■ / -	■ / ■ / -
Light distribution	CAT 2		■			
	narrow distribution					
	wide distribution	■	■			(■)
	extremely wide distribution		■	■	■	■
	diffuse distribution					
	direct distribution with ceiling illumination open distribution		■ / - / -	(■) / ■ / -	(■) / ■ / -	
	open distribution					
	asymmetric distribution					(■)
Through-wiring	with TW/TW as accessory	- / -	- / ■	- / ■	- / ■	■ / ■
	TW installed on-site				■ (with ins. cl. II)	■ (with ins. cl. II)
Emergency light	single battery, E14			■ / -	■ / ■	■ / ■
Selected versions for special ambient conditions						
Vibration test for earthquake resistance				⌒	⌒	
Ex zone 2/Ex zone 22						
Special ambient temperature, UT_{min} / UT_{max}		-20°/+25°C	/+40°C	/+50°C	-40°C/+70°C	/+50°C

() with accessories

□ see www.siteco.com for luminaire with this feature

* Previous FF designation according to VDE 0710, Section 5. This standard is invalid since 01.08.2005, the requirements are however further adhered to with appropriately labelled luminaires

Panel Luminaire		Open distribution damp-proof luminaires		Diffuser luminaires		
Panel Luminaire Page 7.56	FR-Ex Page 7.68	SiPLAST® T16 Page 7.58	SiPLAST® T26 Page 7.58	Europlex® see section 4	EKU see section 4	Europlex® TC see section 4
IP54	IP65	IP65	IP65	IP40 IP50	IP54	IP40 IP44 IP54 IP65
	IK07					
- / ■ / □	- / ■ / -	■ / - / -	- / ■ / □	- / ■ / □	- / ■ / □	■ / ■ / □
■ / ■ / - / -	- / ■ / - / -	■ / - / - / -	- / ■ / - / -	- / ■ / - / -	- / ■ / - / -	■ / - / ■ / ■
- / ■ / -	■ / - / -	(■) / (■) / -	(■) / (■) / (■)	- / ■ / -	- / ■ / -	
			(■)			
			(■)	■		
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		■	■			
			(■)	■		
		- / ■	- / ■			
	■ / -			- / ■		- / □
	■ / ■					
	0°C / +40°C					



Monsun[®] LED

The damp-proof diffuser luminaires of the Monsun[®] family have been designed for the special ambient conditions presented by industrial manufacturing. A robust housing of glass-fibre reinforced, high quality plastic, an impact-resistant cover of PMMA with high quality prismatic technology and a special sealing system provide protection against temperature fluctuations, critical humidity conditions and challenging ambient conditions. High quality diffuser catches and mounting elements of stainless steel make the luminaire highly reliable.



The Monsun luminaire versions for Siteco[®] LED tubes feature IP65 protection. Efficient lighting technology ensures homogeneously wide and glare-restricted light distribution on the working plane. With wide-ranging and installation-friendly accessories the Monsun[®] luminaires are suitable for ceiling surface-mounting, suspended mounting and single arrangements to mounting rails.

Housing

Glass-fibre reinforced polyester resin housing, resistant to corrosion, fire and ignition and largely unaffected by aggressive influences | PMMA enclosure | catches and mounting elements of V2A | inner reflector functions as gear tray for all electrical parts and is secured within housing by snap-fit mechanisms | housing and enclosure are completely recyclable

Electrics

Luminaires wired ready for connection with 3-pole terminal, max. 2.5mm² | cable entry for cables D= 8.5...13.5mm | with electronic ballast for Siteco[®] LED tube

Lighting technology

Injection-moulded prismatic cover with inner prisms for direct wide light distribution with ceiling illumination





- + damp-proof diffuser luminaire with high quality materials and high protection rating
- + suitable for use under difficult ambient conditions with moisture or dust in interior and semi-exterior applications
- + housing resistant to fire and ignition
- + housing impact-resistant according to VDE 0711
- + for ambient temperatures of -20°C to +25°C
- + service life of 40,000 operating hours (with maximum permissible ambient temperature)
- + service life independent of switching frequency
- + light distribution via prismatic for good, homogeneous illumination
- + for innovative, Siteco-specific LED tube
- + universal mounting system with use of individual fixing or mounting elements
- + luminaire easily installed via standard clips
- + prepared for rapid installation to mounting rails
- + LED tube replaced without tools
- + mercury-free technology



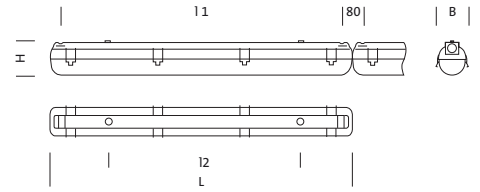
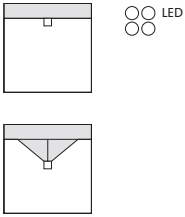


Monsun® LED - complete luminaire for Siteco® LED tube | with prismatic PMMA cover | insulation class I

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 electronic ballast for Siteco® LED tube | 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 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

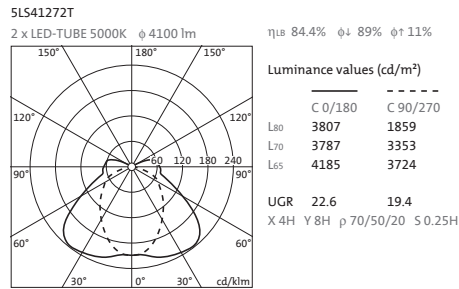


Lamps	Colour temperature	Colour rendering	L (mm)	Wt. (kg)	ECG, D / F Order No.
damp proof luminaire, enclosure, PMMA, with lamps					
1x LED-Tube 24W	5000K	CRI > 60	1277	2.5	5LS41271T65
1x LED-Tube 24W	5000K	CRI > 60	1577	2.9	5LS41271V65
2x LED-Tube 24W	5000K	CRI > 60	1277	3.4	5LS41272T65
2x LED-Tube 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					
1x LED-Tube 24W			1277	2.2	5LS41271T
1x LED-Tube 24W			1577	2.5	5LS41271V
2x LED-Tube 24W			1277	2.7	5LS41272T
2x LED-Tube 24W			1577	3.3	5LS41272V

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



No. of luminaires in room

Reflection factors 70/50/20

Em(lx)	100	200	500
Lh(m)	2.5	3.0	2.5
20 m²	1.0	1.2	2.4
30 m²	1.5	1.7	3.4
40 m²	1.9	2.1	3.8
50 m²	2.3	2.5	4.5
75 m²	3.2	3.5	6.4
100 m²	4.2	4.5	8.3
500 m²	18	19	37

Maintenance factor 0.8 $R_h = L_h + 0.5 m$



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 electronic ballast 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

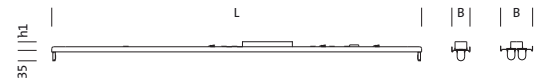
Protection symbol: (integrated in luminaire: F/D)

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

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

- Monsun® LED 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			
1x LED-Tube 24W	1225	0.9	5LS44971T
1x LED-Tube 24W	1531	1.0	5LS44971V
2x LED-Tube 24W	1225	1.1	5LS44972T
2x LED-Tube 24W	1531	1.4	5LS44972V

- please order light sources (Siteco® LED tube) in required quantity 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 (for details see page 7.9)

Article	PU	Wt. (kg)	Order No.
enclosure, PMMA, for 1x T16/T26 28/36/54W		0.5	5LS44901CW
enclosure, PMMA, for 1x T16/T26 35/49/58/80W		0.6	5LS44901EW
enclosure, PMMA, for 2x T16/T26 28/36W		0.6	5LS44902CW
enclosure, PMMA, for 2x T16/T26 35/49/54/58W		0.9	5LS44902EW
enclosure, PC, UV-stabilised, for 1x T16/T26 28/36/54W		0.9	5LS44911CW
enclosure, PC, UV-stabilised, for 1x T16/T26 35/49/58/80W		0.5	5LS44911EW
enclosure, PC, UV-stabilised, for 2x T16/T26 28/36W		0.7	5LS44912CW
enclosure, PC, UV-stabilised, for 2x T16/T26 35/49/54/58W		0.9	5LS44912EW
clip for cover, stainless steel (V2A)	set of 10	0.1	5LS44004



Monsun® LED Housing Accessories



Wire guard*
steel mesh, galvanised | $\varnothing = 4\text{mm}$ |
incl. mounting bracket
*only for ceiling mounting

Type	for luminaire	Order No.
Wire guard	5LS4 1T...	5LS31301CD
Wire guard	5LS4 1V...	5LS31301ED
Wire guard	5LS4 2T...	5LS31302CD
Wire guard	5LS4 2V...	5LS31302ED



Vandal-proof straps
prevents tool-free opening of
luminaire | steel strap of V2A with
safety screw

Type	PU	Order No.
Vandal-proof straps for housing width W= 84mm	set of 2	5LS44101
Vandal-proof straps for housing width W= 130mm	set of 2	5LS44102

– 2 pieces required per luminaire

Monsun® LED Electrical Accessories



Twin entry grommet
for 2 sheathed cables $\varnothing 8.4\text{...}12\text{mm}$,
(e.g. NYM 5x 1.5mm²)

Type	Order No.
Twin entry grommet	5LS32200XV

Monsun® LED Mounting Accessories



Chain
inner link size 5.6 x 31mm
load capacity: 40kg

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

– chain: per metre



Quick-release link
inner link size 5 x 16mm
load capacity: 20kg

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



Mounting set
for luminaire mounting to
DUS trunking 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
– See Page 6.67 for mounting rails and accessories



Mounting set
for luminaire mounting to
GRP mounting rail | consists of
threaded plate, V2A; screw fastening

Type	Order No.
Mounting set	5LS91120EC

– 2 pieces required per luminaire
– See Page 6.67 for plastic mounting rails and accessories
– threaded plates are included within delivery of plastic mounting rail
(2 pieces, 4 pieces, 6 pieces with 1-length, 2-length, 3-length rail accordingly)

Monsun® LED spare parts

**Optical enclosure, prismatic**

PMMA or UV-stabilised PC

Type	for lamps	Order No.
Opt. enclosure, PC	5LS4 . . . 1T...	5LS44911CW
Opt. enclosure, PC	5LS4 . . . 1V...	5LS44911EW
Opt. enclosure, PC	5LS4 . . . 2T...	5LS44912CW
Opt. enclosure, PC	5LS4 . . . 2V...	5LS44912EW
Opt. enclosure, PMMA	5LS4 . . . 1T...	5LS44901CW
Opt. enclosure, PMMA	5LS4 . . . 1V...	5LS44901EW
Opt. enclosure, PMMA	5LS4 . . . 2T...	5LS44902CW
Opt. enclosure, PMMA	5LS4 . . . 2V...	5LS44902EW

**Catch for optical enclosure
(not shown)**

V2A

Type	for lamps	Order No.
Catch	set of 10	5LS44004

– for housing length L= 667mm: 6 pieces required
 L= 1277mm: 8 pieces required
 L= 1577mm: 10 pieces required

**Suspension bracket, V2A**

for mounting close to ceiling or for
 suspended mounting, e.g. with chain |
 for hooking into Monsun® mounting
 elements

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

– 2 pieces required per luminaire



FR500

The damp-proof diffuser luminaires of the FR500 family have been designed for the special ambient conditions presented by industrial manufacturing. A robust housing of glass-fibre reinforced plastic, an impact-resistant cover of PMMA and a special sealing system provide protection against extreme temperature fluctuations, critical humidity conditions and ingress of dust.



The precise workmanship and high quality materials qualify the luminaire for an IP65 protection rating with insulation class 1. Various louvre inserts are available for the FR500 luminaires, even enabling use with computer screens and other electronic displays (CAT2). The direct distribution luminaires have been optimised for use with T26 fluorescent sources. With wide-ranging and installation-friendly accessories the luminaires are suitable for ceiling surface-mounting, suspended mounting and continuous rows with rails.

Housing

Glass-fibre reinforced polyester resin housing, resistant to corrosion, fire and ignition and largely unaffected by aggressive influences | PMMA diffuser | inner reflector functions as gear tray for all electrical parts and is secured within housing by rotary catches | housing and diffuser are completely recyclable

Electrics

Luminaire wired ready for connection | with 3-pole terminal (ECG DALI or ECG dimmable: 3-pole + 2-pole for control signal), max. 2.5mm² | cable gland for cables or conduits with D= 8.5 to 13.5mm | suitable for through-wiring (with special wiring sets) within luminaire

Dimming operation

Safe and trouble-free dimming of T26 fluorescent lamps is guaranteed with ambient temperatures to -20° C

Lighting technology

- louvre, highly specular anodised, CAT2 (L_s 1000cd/m²)
- parabolic highly specular anodised louvre
- aluminium ribbed crossblade louvre, matt anodised
- white louvre
- highly specular anodised aluminium louvre, wide or extremely wide distribution





- + damp proof diffuser luminaires with high-grade materials and high protection class
- + suitable for use under difficult ambient conditions with moisture or dust in interior and semi-exterior applications
- + robust, trapezoid, glass-fibre reinforced plastic housing
- + high quality optics due to CAT2 specular louvre or reflector optics for use in industrial environments with VDU workstations
- + inner specular reflector and specular louvre, protected from soiling and damage via cover of PMMA
- + housing impact-resistant according to VDE 0711
- + housing resistant to fire and ignition
- + simple mounting





FR500 with transparent cover of PMMA | with CAT 2 highly specular louvre

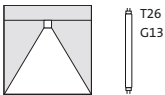
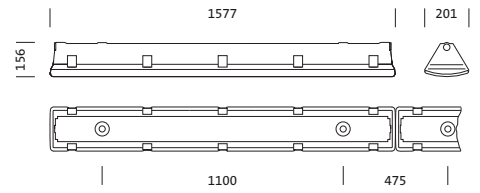
FR500 damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | with highly specular louvre, direct wide distribution, CAT2(L≤ 1000cd/m²); with transparent cover | with ECG | housing of glass-fibre reinforced polyester, grey; cover of PMMA

Protection rating: IP65

Insulation class: I

Protection symbol: D*/F

* D designation according to current EN60598-2-24 approval



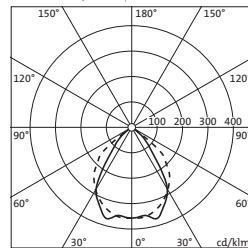
Lamps	Socket	Wt. (kg)	ECG, D / F Order No.	ECG DALI, D / F Order No.	ECG(1..10V), D / F Order No.
1x T26 58W	G13	6.1	5LS32871E	5LS328D1E	5LS32861E

Accessories see page 7.17 f.

5LS32871E

1 x T26 58W/840 φ 5000 lm

η_{lm} 59.8%



Luminaire values (cd/m²)

	C 0/180	C 90/270
L ₈₀	122	122
L ₇₀	123	123
L ₆₅	150	150
UGR	12.8	15.2

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	0.9	0.9	1.7	1.8	4.3	4.5
30 m ²	1.2	1.4	2.4	2.8	6.1	6.9
40 m ²	1.7	1.8	3.3	3.5	8.3	8.9
50 m ²	2.0	2.2	4.0	4.3	10	11
75 m ²	2.9	3.1	5.8	6.2	14	16
100 m ²	3.9	4.1	7.8	8.2	20	20
500 m ²	19	19	38	38	94	95

Maintenance factor 0.8

R_h = L_h





FR500 with transparent cover of PMMA | with parabolic louvre, highly specular

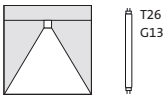
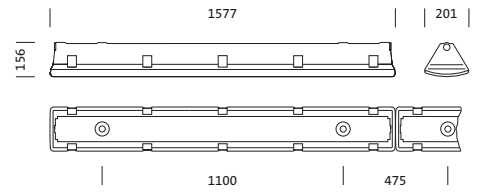
FR500 damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | with highly specular parabolic louvre, direct wide distribution; with transparent cover | with ECG | housing of glass-fibre reinforced polyester, grey; cover of PMMA

Protection rating: IP65

Insulation class: I

Protection symbol: D*/F

* D designation according to current EN60598-2-24 approval



Lamps	Socket	Wt. (kg)	ECG, D / F Order No.	ECG DALI, D / F Order No.	ECG(1..10V), D / F Order No.
2x T26 58W	G13	6.2	5LS32872E	5LS328D2E	5LS32862E

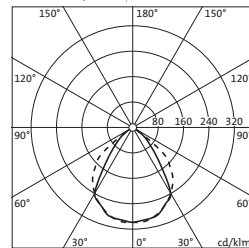
specular louvre, highly specular

Accessories see page 7.17 f.

5LS32872E

2 x T26 58W/840 ϕ 10000 lm

η_{lm} 49.4%



Luminance values (cd/m²)

	C 0/180	C 90/270
L ₈₀	238	238
L ₇₀	121	241
L ₆₅	293	195

UGR 15.1 17
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)	3.0	5.0	3.0	5.0	3.0	5.0
20 m ²	0.5	0.9	1.1	1.8	2.7	4.5
30 m ²	0.9	1.2	1.7	2.5	4.3	6.1
40 m ²	1.1	1.5	2.2	3.0	5.4	7.4
50 m ²	1.3	1.7	2.6	3.5	6.6	8.7
75 m ²	1.9	2.4	3.8	4.8	9.6	12
100 m ²	2.5	3.0	5.0	6.1	12	15
500 m ²	12	13	23	25	58	63

Maintenance factor 0.8

R_h = L_h





FR500 with transparent cover of PMMA | with ribbed aluminium louvre, matt

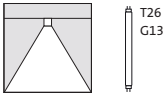
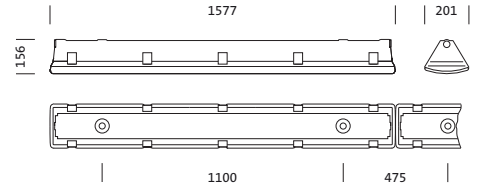
FR500 damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | with ribbed matt aluminium louvre, direct wide distribution; with transparent cover | with ECG | housing of glass-fibre reinforced polyester, grey; cover of PMMA

Protection rating: IP65

Insulation class: I

Protection symbol: D*/F

* D designation according to current EN60598-2-24 approval



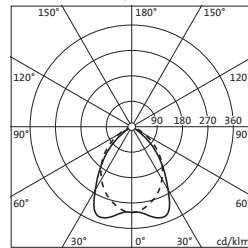
Lamps	Socket	Wt. (kg)	ECG, D / F Order No.
1x T26 58W	G13	6.0	5LS32771E
2x T26 58W	G13	6.1	5LS32772E

Accessories see page 7.17 f.

5LS32771E

1 x T26 58W/840 ϕ 5000 lm

η_{L8} 56.6%



Luminance values (cd/m²)

	C 0/180	C 90/270
L ₈₀	175	436
L ₇₀	177	886
L ₆₅	215	1147
UGR	12.8	15.3

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	1.0	1.9	2.0	4.8	5.1
30 m ²	1.3	1.5	2.7	3.1	6.7	7.6
40 m ²	1.8	2.0	3.6	3.9	9.0	9.8
50 m ²	2.2	2.4	4.4	4.7	11	12
75 m ²	3.1	3.4	6.2	6.8	16	17
100 m ²	4.2	4.5	8.5	8.9	21	22
500 m ²	20	21	40	41	101	103

Factors of other lamp configurations

2x58W 0.6

Maintenance factor 0.8

Rh = Lh





FR500 with transparent cover of PMMA | with white louvre

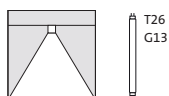
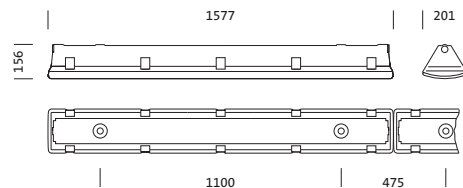
FR500 damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | with white louvre, direct extremely wide distribution; with transparent cover | with ECG | housing of glass-fibre reinforced polyester, grey; cover of PMMA

Protection rating: IP65

Insulation class: I

Protection symbol: D*/F

* D designation according to current EN60598-2-24 approval



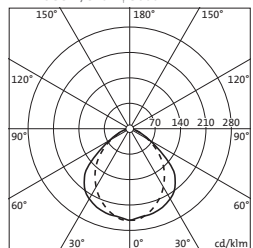
Lamps	Socket	Wt. (kg)	ECG, D / F Order No.
1x T26 58W	G13	7.1	5LS32671E
2x T26 58W	G13	7.2	5LS32672E

Accessories see page 7.17 f.

5LS32671E

1 x T26 58W/840 ϕ 5000 lm

η_{ls} 57%



Luminance values (cd/m²)

	C 0/180	C 90/270
L ₈₀	931	677
L ₇₀	1418	1246
L ₆₅	1669	1461
UGR	17.4	16.6

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	1.1	1.9	2.2	4.8	5.6
30 m ²	1.5	1.7	3.0	3.3	7.4	8.3
40 m ²	1.9	2.1	3.8	4.2	9.5	11
50 m ²	2.3	2.5	4.6	5.0	12	13
75 m ²	3.4	3.6	6.7	7.2	17	18
100 m ²	4.4	4.7	8.7	9.3	22	23
500 m ²	20	21	41	42	101	104

Factors of other lamp configurations

2x58W 0.6

Maintenance factor 0.8

Rh = Lh





FR500 with transparent cover of PMMA | with specular aluminium reflector, wide or narrow distribution

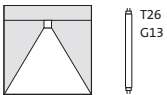
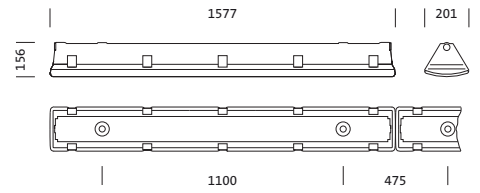
FR500 damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | with specular aluminium reflector, direct wide or direct narrow distribution; with transparent cover | with ECG | housing of glass-fibre reinforced polyester, grey; cover of PMMA

Protection rating: IP65

Insulation class: I

Protection symbol: D*/F

* D designation according to current EN60598-2-24 approval



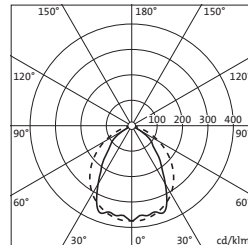
Lamps	Socket	Wt. (kg)	ECG, D / F Order No.
specular reflector, narrow distribution			
1x T26 58W	G13	5.2	5LS32471E
2x T26 58W	G13	5.3	5LS32472E
specular reflector, wide distribution			
1x T26 58W	G13	5.2	5LS32571E
2x T26 58W	G13	5.3	5LS32572E

Accessories see page 7.17 f.

5LS32471E

1 x T26 58W/840 ϕ 5000 lm

η_{LB} 75.4%



Luminance values (cd/m²)

	C 0/180	C 90/270
L ₈₀	87	874
L ₇₀	133	2529
L ₆₅	215	3267
UGR	14.1	19.2

X 4H Y 8H ρ 70/50/20 S 0.25H

No. of luminaires in room

Reflection factors	70/50/20					
	100		200		500	
Em(lx)	2.5	3.0	2.5	3.0	2.5	3.0
Lh(m)	0.7	0.8	1.4	1.6	3.6	4.0
20 m ²	1.0	1.2	2.1	2.4	5.2	6.0
30 m ²	1.4	1.5	2.7	3.0	6.9	7.5
40 m ²	1.7	1.8	3.4	3.6	8.4	9.0
50 m ²	2.4	2.6	4.8	5.3	12	13
75 m ²	3.2	3.4	6.4	6.7	16	17
100 m ²	15	15	30	31	76	77

Factors of other lamp configurations

2x58W 0.6
Maintenance factor 0.8 Rh = Lh

FR500 Electrical Accessories


Through-wiring set for interrupted continuous rows

for connecting through inside a luminaire | through-wiring set consists of heat-resistant single-core cable, terminals and mounting hardware | wiring from one luminaire to the next with standard cable

Type		Order No.
Through-wiring	3x 1.5mm ²	5LS31301EK
Through-wiring	5x 1.5mm ²	5LS31311EK
Through-wiring	5x 2.5mm ²	5LS31321EK

- 1 set required per luminaire
- through-wiring with PE, for insulation class I


Through-wiring set for seamless continuous row arrangements

(luminaires mounted end to end) | for connecting through from the terminal of one luminaire to the terminal of the next | comprises PC conduit for connecting adjacent luminaires, heat-resistant single-core cable, terminals and mounting hardware

Type		Order No.
Through-wiring	5x 1.5mm ²	5LS32211EK

- 1 set required per luminaire
- through-wiring with PE, for insulation class I


5-pole supplementary terminal

for last luminaire in a seamless continuous row (luminaires mounted end to end)

Type		Order No.
5x max. 2.5mm ²		5LS32200EK

- 1) 1 piece required per continuous row (within last luminaire)


Twin entry grommet

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

Type		Order No.
Twin entry grommet		5LS32200XV

FR500 Mounting Accessories


Anti-vibration element

for vibration cushioning

Type		Order No.
Anti-vibration element		5LY9084

- 2 pieces required per luminaire
- with M6 female thread


Universal luminaire suspension



for wire ($\varnothing \leq 4.5\text{mm}$) or chain (inner $\varnothing \geq 7\text{mm}$)
load capacity: 25kg

Type		Order No.
Suspension	galvanised, partly V2A	5LY9086
Suspension	V2A	5LY90861


- 2 pieces required per luminaire



FR500 Mounting Accessories

	<p>Chain inner link size 7 x 40mm load capacity: 56kg</p>	Type		Order No.
		Chain	galvanised	5LY9005
		Chain	V2A	5LY9111
- Chain: per metre				
	<p>Quick-release link, galvanised inner link size 8 x 20mm load capacity: 50kg</p>	Type		Order No.
		Quick-release link	galvanised	5LY9113
	<p>Mounting set for luminaire mounting to unwired DUS® trunking rail consists of mounting element, galvanised steel; plastic plate, screw mounting; cable retainer</p>	Type	PU	Order No.
		Mounting set	set of 2	5LS90900XC1
- 2 pieces required per luminaire. - DUS mounting rails: see Page 7.67				
	<p>Mounting set for luminaire mounting to GRP mounting rail consists of threaded plate, V2A; screw fastening</p>	Type		Order No.
		Mounting set		5LS91120EC
- 2 pieces required per luminaire. - See Page 7.67 for plastic mounting rails and accessories - threaded plates are included within delivery of plastic mounting rail (2 pieces, 4 pieces, 6 pieces with 1-length, 2-length, 3-length rail accordingly)				

FR500 Spare parts

	<p>Optical enclosure, transparent PMMA</p>	Type	for lamps	Order No.
		Opt. enclosure	for 1/2x T26 58W	5LS32000EW





FR200

The damp-proof diffuser luminaires of the FR200 family have been designed for the special ambient conditions presented by industrial manufacturing. A robust housing of glass-fibre reinforced plastic, impact-resistant diffusers of PMMA with high quality prismatic structures and a special sealing system provide protection against extreme temperature fluctuations, critical humidity conditions and aggressive ingress of dust. The precise workmanship and high quality materials qualify the luminaire for IP65 protection. The luminaires have been optimised for use with T26 fluorescent lamps.



Their optics featuring inner prismatic structures reduces luminance of the horizontal direct light component. At the same time, the indirect component illuminates the ceiling to create pleasant lit conditions. With wide-ranging and installation-friendly accessories the FR200 luminaires are suitable for ceiling surface-mounting, suspended mounting and continuous rows on rails.

Housing

Glass-fibre reinforced polyester resin housing, resistant to corrosion, fire and ignition and largely unaffected by aggressive influences | PMMA diffuser | inner reflector functions as gear tray for all electrical parts and is secured within housing by rotary or snap catches | housing and diffuser are completely recyclable

Electrics

Luminaires wired ready for connection | insulation class I with 3-pole terminal, insulation class II with 2-pole terminal (ECG-DALI or ECG-dimmable: + 2-pole for control signal), max. 2,5mm² | cable entry for cables or conduits with D= 8.5..13.5mm | suitable for through-wiring (with special wiring sets) within luminaires (insulation class I) or incl. through-wiring 4x 1.5mm² (with insulation class II)

Versions with emergency light function **with single battery emergency light element** for operation on normal mains or on integral self-contained supply

Dimming operation

Safe and trouble-free dimming of T26 fluorescent lamps is guaranteed with ambient temperatures to -20°C.

Lighting technology

- prismatic cover with inner prism optics for direct/indirect light distribution with reduced luminance in horizontal beam direction (70° to 95°) for reduction of direct glare
- direct distribution via supplementary reflector (accessory)





- + damp-proof diffuser luminaire with high quality materials and high protection rating
- + suitable for use under difficult ambient conditions with moisture or dust in interior and semi-exterior applications
- + selected versions with certification for earthquake resistance, therefore suitable for e.g. nuclear power plants and civil defence buildings
- + high quality prismatic technology for optimal room illumination
- + reduced luminance in horizontal beam direction (70° to 95°) for reduction of direct glare
- + very good lighting conditions for CCTV surveillance
- + cavern effect in low rooms is reduced by the high indirect light distribution component
- + high luminaire light output ratio
- + housing impact-resistant according to VDE 0711
- + housing resistant to fire and ignition
- + emergency light function can be implemented





FR200 with prismatic cover of PMMA | insulation class I

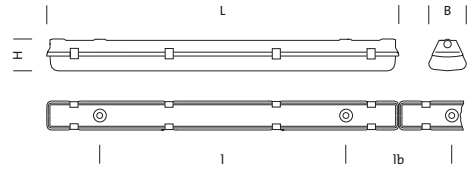
FR200 damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | direct extremely wide distribution with ceiling illumination**; with prismatic cover | with ECG | housing of glass-fibre reinforced polyester, grey; cover of PMMA

Protection rating: IP65

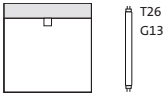
Insulation class: I

Protection symbol: D*/F

** direct distribution via supplementary reflector
* D designation according to current EN60598-2-24 approval



	L	l	lb	B	H
1xT26 18W	667	330	335	127	108
1xT26 36W	1277	800	475	127	108
1xT26 58W	1577	1100	475	127	108
2xT26 36W	1277	800	475	160	125
2xT26 58W	1577	1100	475	160	125



Lamps	Socket	Wt. (kg)	ECG, D / F Order No.	ECG DALI, D / F Order No.	ECG(1..10V), D / F Order No.
enclosure, PMMA					
1x T26 18W	G13	1.9	5LS32271A		
1x T26 36W	G13	2.8	5LS32271C		
1x T26 58W	G13	3.5	5LS32271E	5LS322D1E	5LS32261E
2x T26 36W	G13	3.7	5LS32272C		
2x T26 58W	G13	4.4	5LS32272E	5LS322D2E	5LS32262E

- please order specular reflector for direct distribution separately

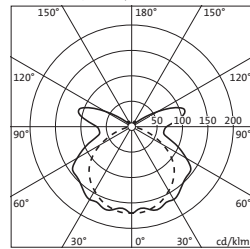
Accessories (for details see page 7.27)

Article	Wt. (kg)	Order No.
specular reflector, aluminium, highly specular, direct symmetric distribution, for 1x T26 36W	0.2	5LS32201CS
specular reflector, aluminium, highly specular, direct symmetric distribution, for 1x T26 58W	0.2	5LS32201ES
specular reflector, aluminium, highly specular, direct symmetric distribution, for 2x T26 36W	0.7	5LS32202CS
specular reflector, aluminium, highly specular, direct symmetric distribution, for 2x T26 58W	0.2	5LS32202ES

5LS32271E

1 x T26 58W/840 ϕ 5000 lm

η_{lm} 79.6% ϕ 76% ϕ 24%



Luminance values (cd/m²)

	C 0/180	C 90/270
L ₈₀	2664	1243
L ₇₀	2857	2383
L ₅₀	3231	2898

UGR 20.8 17.6
X4H Y8H 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
20 m ²	1.0	1.1	1.9
30 m ²	1.4	1.6	2.8
40 m ²	1.8	2.0	3.5
50 m ²	2.1	2.3	4.2
75 m ²	3.0	3.3	6.0
100 m ²	3.8	4.1	7.7
500 m ²	17	17	33

Factors of other lamp configurations

1x18W	3.7	1x36W	1.5
2x36W	0.8	2x58W	0.6
Maintenance factor 0.8 Rh = Lh + 0.5 m			



FR200 with prismatic cover of PMMA | insulation class II

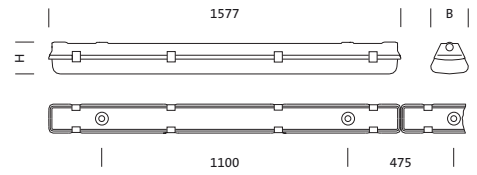
FR200 damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | direct extremely wide distribution with ceiling illumination**; with prismatic cover | with ECG | housing of glass-fibre reinforced polyester, grey; cover of PMMA

Protection rating: IP65

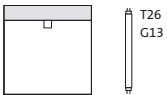
Insulation class: II

Protection symbol: D*/F

** direct distribution via supplementary reflector
* D designation according to current EN60598-2-24 approval



	B	H
1xT26 58W	127	108
2xT26 58W	160	125



Lamps	Socket	Wt. (kg)	ECG, D / F Order No.	ECG(1..10V), D / F Order No.
enclosure, PMMA				
1x T26 58W	G13	4.0	5LS32371E	5LS32361E
2x T26 58W	G13	4.7	5LS32372E	5LS32362E
enclosure, PMMA, with thr. wiring 4 x 1.5mm²				
1x T26 58W	G13	4.0	5LS32171E	
2x T26 58W	G13	5.9	5LS32172E	

- please order specular reflector for direct distribution separately

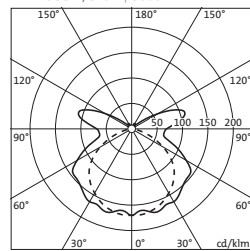
Accessories (for details see page 7.27)

Article	Wt. (kg)	Order No.
specular reflector, aluminium, highly specular, direct symmetric distribution, for 1x T26 58W	0.2	5LS32201ES
specular reflector, aluminium, highly specular, direct symmetric distribution, for 2x T26 58W	0.2	5LS32202ES

5LS32171E

1 x T26 58W/840 φ 5000 lm

η_{lm} 79.6% φ 76% φ_r 24%



Luminance values (cd/m²)

	C 0/180	C 90/270
L ₈₀	2664	1243
L ₇₀	2857	2383
L ₆₅	3231	2898

UGR 20.8 17.6
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	1.1	1.9	2.2	4.8	5.6
30 m ²	1.4	1.6	2.8	3.2	7.0	8.0
40 m ²	1.8	2.0	3.5	3.9	8.8	9.8
50 m ²	2.1	2.3	4.2	4.7	11	12
75 m ²	3.0	3.3	6.0	6.5	15	16
100 m ²	3.8	4.1	7.7	8.3	19	21
500 m ²	17	17	33	35	84	87

Factors of other lamp configurations

2x58W 0.6

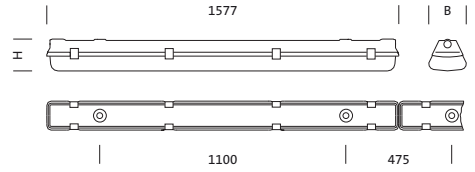
Maintenance factor 0.8 Rh = Lh + 0.5 m



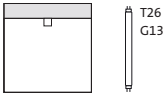


FR200 with prismatic cover of PMMA | with single battery emergency light element | insulation class I

FR200 damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | direct extremely wide distribution with ceiling illumination**; with prismatic cover | with ECG, additionally with single battery emergency light element | housing of glass-fibre reinforced polyester, grey; cover of PMMA



	B	H
1xT26 58W	127	108
2xT26 58W	160	125



Protection rating: IP65

Insulation class: I

Protection symbol: F

** direct distribution via supplementary reflector

Electrical

Luminaire for operation on 'normal mains' or via the integral self-contained supply | wired ready for connection, with 4-pole connection terminal (3-pole for normal mains with switched phase + single pole for additional unswitched phase for emergency light element | single battery emergency light element for 1h operation; with LED (for optical self-test functioning control of battery)

Detail information: see appendix or www.Siteco.com (navigation: Products | Indoor luminaires | damp-proof luminaires | damp-proof diffuser luminaires | FR200 with prismatic cover of PMMA | version with single battery emergency light element)



Lamps	Socket	Wt. (kg)	ECG, F Order No.
with emergency element, nominal service life 1h			
1x T26 58W	G13	4.2	5LS32271EA04
2x T26 58W	G13	6.5	5LS32272EA04

- please order specular reflector for direct distribution separately

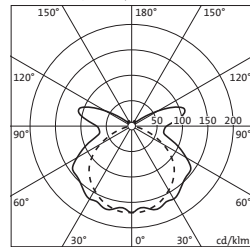
Accessories (for details see page 7.27)

Article	Wt. (kg)	Order No.
specular reflector, aluminium, highly specular, direct symmetric distribution, for 1x T26 58W	0.2	5LS32201ES
specular reflector, aluminium, highly specular, direct symmetric distribution, for 2x T26 58W	0.2	5LS32202ES

5LS32271EA04

1 x T26 58W/840 ϕ 5000 lm

η_{lm} 79.6% ϕ 76% ϕ 24%



Luminance values (cd/m²)

	C 0/180	C 90/270
L ₈₀	2664	1243
L ₇₀	2857	2383
L ₅₀	3231	2898

UGR 20.8 17.6
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	1.1	1.9	2.2	4.8	5.6
30 m ²	1.4	1.6	2.8	3.2	7.0	8.0
40 m ²	1.8	2.0	3.5	3.9	8.8	9.8
50 m ²	2.1	2.3	4.2	4.7	11	12
75 m ²	3.0	3.3	6.0	6.5	15	16
100 m ²	3.8	4.1	7.7	8.3	19	21
500 m ²	17	17	33	35	84	87

Factors of other lamp configurations

2x58W 0.6

Maintenance factor 0.8 Rh = Lh + 0.5 m



FR200 with prismatic cover of PMMA | with vibration testing for earthquake resistance | insulation class I

FR200 damp proof diffuser luminaire for ceiling surface-mounting | direct extremely wide distribution with ceiling illumination; with prismatic cover | with ECG | housing of glass-fibre reinforced polyester, grey; cover of PMMA

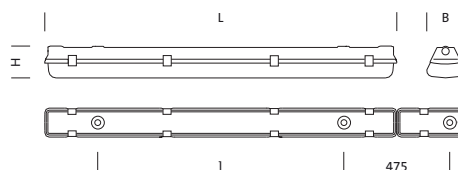
Protection rating: IP65

Insulation class: I

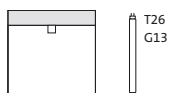
Protection symbol: D*/F

Vibration testing: with test certificate for earthquake resistance (with ceiling surface-mounting; with mounted supplementary bracket); inspected according to KTA 2201.4

* D designation according to current EN60598-2-24 approval



	L	I	B	H
1xT26 58W	1577	1100	127	108
2xT26 36W	1277	800	160	125



Lamps	Socket	Wt. (kg)	ECG, D / F Order No.
enclosure, PMMA			
1x T26 58W	G13	3.5	5LS32271EY
2x T26 36W	G13	4.1	5LS32272CY

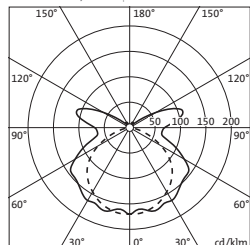
- incl. supplementary brackets (set of 2)

Accessories see page 7.27 f.

5LS32271EY

1 x T26 58W/840 ϕ 5000 lm

η_{LB} 79.6% ϕ_{\downarrow} 76% ϕ_{\uparrow} 24%



Luminaire values (cd/m²)

	C 0/180	C 90/270
L ₈₀	2664	1243
L ₇₀	2857	2383
L ₆₅	3231	2898

UGR 20.8 17.6
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
20 m ²	1.0	1.1	1.9
30 m ²	1.4	1.6	2.8
40 m ²	1.8	2.0	3.5
50 m ²	2.1	2.3	4.2
75 m ²	3.0	3.3	6.0
100 m ²	3.8	4.1	7.7
500 m ²	17	17	33

Factors of other lamp configurations

2x36W 0.8

Maintenance factor 0.8 Rh = Lh + 0.5 m





FR200 with prismatic cover of PMMA | with vibration testing for earthquake resistance | insulation class II

FR200 damp proof diffuser luminaire for ceiling surface-mounting | direct extremely wide distribution with ceiling illumination; with prismatic cover | with ECG | housing of glass-fibre reinforced polyester, grey; cover of PMMA

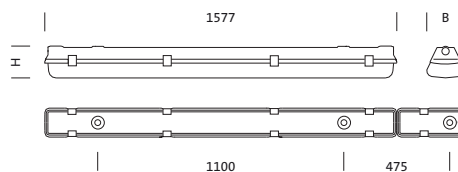
Protection rating: IP65

Insulation class: II

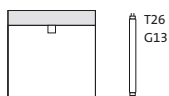
Protection symbol: D*/F

Vibration testing: with test certificate for earthquake resistance (with ceiling surface-mounting; with mounted supplementary bracket); inspected according to KTA 2201.4

* D designation according to current EN60598-2-24 approval



	B	H
1xT26 58W	127	108
2xT26 58W	160	125



Lamps	Socket	Wt. (kg)	ECG, D / F Order No.
enclosure, PMMA			
1x T26 58W	G13	4.4	5LS32371EY
2x T26 58W	G13	3.8	5LS32372EY
enclosure, PMMA, with thr. wiring 4 x 1.5mm²			
1x T26 58W	G13	4.4	5LS32171EY
2x T26 58W	G13	4.3	5LS32172EY

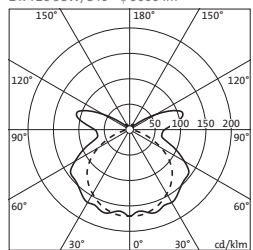
- incl. supplementary brackets (set of 2)

Accessories see page 7.27 f.

5LS32171EY

1 x T26 58W/840 ϕ 5000 lm

η_{lm} 79.6% ϕ 76% ϕ 24%



Luminescence values (cd/m²)

	C 0/180	C 90/270
L ₈₀	2664	1243
L ₇₀	2857	2383
L ₆₅	3231	2898

UGR 20.8 17.6
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	1.1	1.9	2.2	4.8	5.6
30 m ²	1.4	1.6	2.8	3.2	7.0	8.0
40 m ²	1.8	2.0	3.5	3.9	8.8	9.8
50 m ²	2.1	2.3	4.2	4.7	11	12
75 m ²	3.0	3.3	6.0	6.5	15	16
100 m ²	3.8	4.1	7.7	8.3	19	21
500 m ²	17	17	33	35	84	87

Factors of other lamp configurations

2x58W 0.6
Maintenance factor 0.8 Rh = Lh + 0.5 m

FR200 Optical Accessories

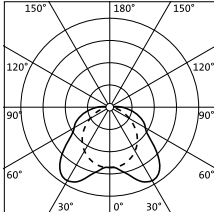


Supplementary specular reflector
Direct symmetric extremely wide distribution

aluminium, highly specular |
 (incl. fixing screws)

Type	for lamps	Order No.
Reflector	1x T26 36W	5LS32201CS
Reflector	1x T26 58W	5LS32201ES
Reflector	2x T26 36W	5LS32202CS
Reflector	2x T26 58W	5LS32202ES

5LS32271E + 5LS32201ES



FR200 Housing Accessories



Wire guard

steel mesh, $\varnothing = 4\text{mm}$,
 galvanised | incl. mounting bracket

Type	for lamps	Order No.
Wire guard	1x T26 18W	5LS32201AD
Wire guard	1x T26 36W	5LS32201CD
Wire guard	1x T26 58W	5LS32201ED
Wire guard	2x T26 36W	5LS32202CD
Wire guard	2x T26 58W	5LS32202ED

– only for ceiling mounting

FR200 Electrical Accessories



Through-wiring set for interrupted continuous rows

for through-wiring within a luminaire |
 comprises heat-resistant single-core
 cable, terminals and mounting
 hardware | wiring from one luminaire
 to the next with standard cable, e.g.
 NYM

Type		Order No.
Through-wiring	3x 1.5mm ²	5LS31301EK
Through-wiring	5x 1.5mm ²	5LS31311EK
Through-wiring	5x 2.5mm ²	5LS31321EK

- 1 set required per luminaire
- through-wiring with PE, for insulation class I
- suitable for 58 W (with 36 W: loop cable)



Through-wiring set for seamless continuous row arrangements

(luminaires mounted end to end)
 for connecting through from the
 terminal of one luminaire to the
 terminal of the next | comprises PC
 conduit for connecting adjacent
 luminaires, heat-resistant single-core
 cable, terminals and mounting
 hardware

Type		Order No.
Through-wiring	5x 1.5mm ²	5LS32211EK

- 1 set required per luminaire
- through-wiring with PE, for insulation class I
- suitable for 58 W (with 36 W: loop cable)



5-pole supplementary terminal

for last luminaire in a seamless
 continuous row (luminaires mounted
 end to end)

Type		Order No.
5x max. 2.5mm ²		5LS32200EK

- 1 piece required per continuous row (within last luminaire)



FR200 Electrical Accessories



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

Type	Twin entry grommet	Order No.	5LS32200XV
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FR200 Mounting Accessories



Anti-vibration element
for vibration cushioning

Type	Anti-vibration element	Order No.	5LY9084
------	------------------------	-----------	---------

- 2 pieces required per luminaire
- with M6 female thread



Universal luminaire suspension
for wire (Ø ≤ 4.5mm)
or chain (inner Ø ≥ 7mm)
load capacity: 25kg

Type	Suspension	galvanised, partly V2A	Order No.	5LY9086
	Suspension	V2A	Order No.	5LY90861

- 2 pieces required per luminaire



Chain
inner link size 7 x 40mm
load capacity: 56kg

Type	chain	galvanised	Order No.	5LY9005
	chain	V2A	Order No.	5LY9111

- Chain: per metre



Quick-release link, galvanised
inner link size 8 x 20mm
load capacity: 50kg

Type	Quick-release link	galvanised	Order No.	5LY9113
------	--------------------	------------	-----------	---------



Mounting set
for luminaire mounting to un-wired
DUS® trunking rail | consists of
mounting element, galvanised steel;
plastic plate, screw mounting; cable
retainer

Type	Mounting set	PU	Order No.	5LS90900XC1
------	--------------	----	-----------	-------------

- 2 pieces required per luminaire.
- DUS mounting rails: see Page 7.67



Mounting set
for luminaire mounting to GRP
mounting rail | consists of threaded
plate, V2A; screw fastening

Type	Mounting set	Order No.	5LS91120EC
------	--------------	-----------	------------

- 2 pieces required per luminaire.
- See Page 7.67 for plastic mounting rails and accessories
- threaded plates are included within delivery of plastic mounting rail (2 pieces, 4 pieces, 6 pieces with 1-length, 2-length, 3-length rail accordingly)

FR200 Spare Parts



Optical enclosure, prismatic
PMMA

Type	Optical enclosure	for lamps	Order No.	5LS32201AW
	Optical enclosure	1x T26 18W	Order No.	5LS32201CW
	Optical enclosure	1x T26 36W	Order No.	5LS32201EW
	Optical enclosure	1x T26 58W	Order No.	5LS32202CW
	Optical enclosure	2x T26 36W	Order No.	5LS32202EW
	Optical enclosure	2x T26 58W	Order No.	5LS32202EW



FR100

The damp-proof diffuser luminaires of the FR100 family have been designed for the special ambient conditions presented by industrial manufacturing. A robust housing of glass-fibre reinforced plastic, an impact-resistant pearl diffuser of PMMA or impact-resistant cover of PC and a special sealing system provide protection against temperature fluctuations, critical humidity conditions and aggressive ambient conditions. The precise workmanship and high-grade materials qualify the luminaire for IP65 protection and in combination with the PC enclosure, impact resistance of IK07. The extremely wide distribution luminaires have been optimised for use with T26 fluorescent lamps. With wide-ranging and installation-friendly accessories the luminaires are suitable for ceiling surface-mounting, suspended mounting and continuous rows with rails.

- + wide choice of damp-proof luminaires for special ambient conditions
- + robust damp-proof diffuser luminaire for challenging industrial applications, for interior and semi-exterior use
- + for good, even illumination of working plane
- + housing resistant to fire and ignition
- + housing impact-resistant according to VDE 0711
- + robust, trapezoid, glass-fibre reinforced plastic housing
- + for use under difficult conditions with high moisture, temperature or dust loads
- + emergency light functionality possible
- + simple mounting



Housing

Glass-fibre reinforced polyester resin housing, resistant to corrosion, fire and ignition and largely unaffected by aggressive influences | PMMA or UV-stable PC diffuser for increased impact resistance (IK07) | inner reflector functions as gear tray for all electrical parts and is secured within housing by rotary catches | housing and diffuser are completely recyclable

Electrics

Luminaires wired ready for connection | insulation class I has 3-pole terminal, insulation class II has 2-pole terminal (ECG-DALI or ECG-dimmable: + 2-pole for control signal), max. 2.5mm² | cable gland for cables or conduits with D= 8.5 to 13.5mm | suitable for through-wiring (with special wiring sets) within luminaire (insulation class I) or incl. 4x 1.5mm² through-wiring (with insulation class II)

Versions with emergency light function **self-contained supply** for operation on normal mains or with integral self-contained supply **with E14 socket** for operation on normal mains and with emergency socket for operation on a second, external power supply (emergency supply)

Dimming operation

Safe and trouble-free dimming of T26 fluorescent lamps is only guaranteed with ambient temperatures to -20°C.

Lighting technology

- pearled cover for extremely wide distribution with ceiling illumination
- direct distribution via supplementary reflector (accessory)





FR100 with pearl cover of PMMA or PC | insulation class I

FR100 damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | extremely wide distribution**; with pearl cover | with ECG | housing of glass-fibre reinforced polyester, grey; cover of PMMA or PC

Protection rating: IP65

Insulation class: I

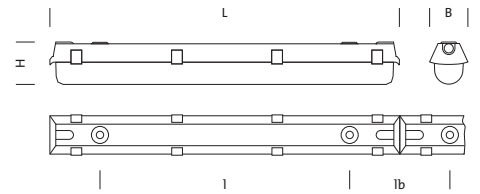
Impact resistance: IK07 (version with PC cover)

Protection symbol: D*/F or D*/FF* (according to version)

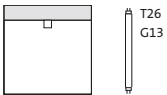
** direct distribution via supplementary reflector

* D designation according to current EN60598-2-24 approval

Previous FF designation according to VDE 0710, Section 5. This standard is invalid since 1.8.2005, the requirements are however further adhered to with appropriately labelled luminaires



	L	l	lb	B	H
1xT26 18W	667	330	335	105	116
1xT26 36W	1277	800	475	105	116
1xT26 58W	1577	1100	475	105	116
2xT26 36W	1277	800	475	136	132
2xT26 58W	1577	1100	475	136	132



Lamps	Socket	Wt. (kg)	ECG, D / F Order No.
enclosure, PMMA			
1x T26 18W	G13	1.6	5LS32971A
1x T26 36W	G13	2.5	5LS32971C
1x T26 58W	G13	2.9	5LS32971E
2x T26 36W	G13	3.2	5LS32972C
2x T26 58W	G13	3.9	5LS32972E

Lamps	Socket		Wt. (kg)	ECG, D / (FF) Order No.	ECG(1..10V), D / (FF) Order No.
enclosure, PC, UV-stabilised					
1x T26 36W	G13	IK07	2.7	5LS32971CP1	
1x T26 58W	G13	IK07	3.4	5LS32971EP1	5LS32961EP1
2x T26 36W	G13	IK07	3.2	5LS32972CP1	
2x T26 58W	G13	IK07	5.3	5LS32972EP1	5LS32962EP1

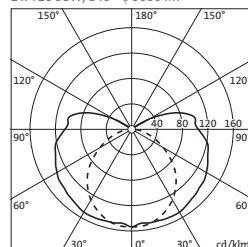
- please order specular reflector for direct distribution separately

Accessories (for details see page 7.38)

Article	Wt. (kg)	Order No.
specular reflector, aluminium, highly specular, direct symmetric distribution, for 1x T26 36W	0.2	5LS32201CS
specular reflector, aluminium, highly specular, direct symmetric distribution, for 1x T26 58W	0.2	5LS32201ES
specular reflector, aluminium, highly specular, direct symmetric distribution, for 2x T26 36W	0.7	5LS32202CS
specular reflector, aluminium, highly specular, direct symmetric distribution, for 2x T26 58W	0.2	5LS32202ES

SLS32971EP1

1 x T26 58W/840 φ 5000 lm



η_{ls} 80.6% φ₊ 82% φ₊ 18%

Luminance values (cd/m ²)		
	C 0/180	C 90/270
L ₈₀	5859	2995
L ₇₀	5269	3612
L ₆₅	5142	3945

UGR 24.9 19.8
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	5.9
30 m ²	1.5	1.7	2.9	3.4	7.4	8.4
40 m ²	1.8	2.1	3.7	4.1	9.2	10
50 m ²	2.2	2.4	4.4	4.9	11	12
75 m ²	3.1	3.4	6.2	6.8	16	17
100 m ²	3.9	4.3	7.9	8.6	20	21
500 m ²	17	18	34	35	84	88

Factors of other lamp configurations

1x36W 1.5 2x36W 0.8
2x58W 0.6

Maintenance factor 0.8 Rh = Lh + 0.5 m



FR100 with pearl cover of PMMA | V2A catches | insulation class I

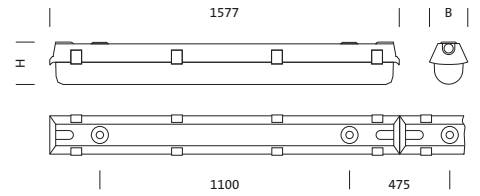
FR100 damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | extremely wide distribution**; with pearl cover | with ECG | housing of glass-fibre reinforced polyester, grey; cover of PMMA; V2A catches

Protection rating: IP65

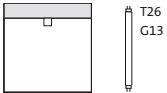
Insulation class: I

Protection symbol: D*/F

** direct distribution via supplementary reflector
* D designation according to current EN60598-2-24 approval



	B	H
1xT26 58W	105	116
2xT26 58W	136	132



Lamps	Socket	Wt. (kg)	ECG, D / F Order No.
clip for cover, stainless steel (V2A), enclosure, PMMA			
1x T26 58W	G13	3.5	5LS32971ES4
2x T26 58W	G13	5.4	5LS32972ES4

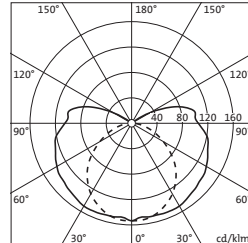
- please order specular reflector for direct distribution separately

Accessories (for details see page 7.38)

Article	Wt. (kg)	Order No.
specular reflector, aluminium, highly specular, direct symmetric distribution, for 1x T26 58W	0.2	5LS32201ES
specular reflector, aluminium, highly specular, direct symmetric distribution, for 2x T26 58W	0.2	5LS32202ES

5LS32971ES4

1 x T26 58W/840 ϕ 5000 lm



η_{th} 80.6% ϕ_{d} 82% ϕ_{r} 18%

Luminance values (cd/m²)

	C 0/180	C 90/270
L ₉₀	5859	2995
L ₇₀	5269	3612
L ₆₅	5142	3945

UGR 24.9 19.8
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
20 m ²	1.0	1.2	2.0	2.4	5.1	5.9
30 m ²	1.5	1.7	2.9	3.4	7.4	8.4
40 m ²	1.8	2.1	3.7	4.1	9.2	10
50 m ²	2.2	2.4	4.4	4.9	11	12
75 m ²	3.1	3.4	6.2	6.8	16	17
100 m ²	3.9	4.3	7.9	8.6	20	21
500 m ²	17	18	34	35	84	88

Factors of other lamp configurations

2x58W 0.6

Maintenance factor 0.8 Rh = Lh + 0.5 m



FR100 with pearl cover of PC | insulation class II

FR100 damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | extremely wide distribution**, with pearl cover (PC) | with ECG | housing of glass-fibre reinforced polyester, grey; cover of PC

Protection rating: IP65

Insulation class: II

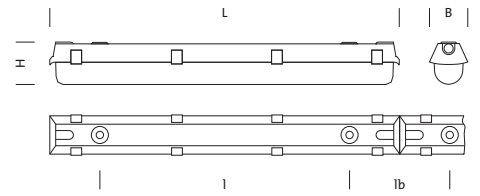
Impact resistance: IK07

Protection symbol: D*/FF*

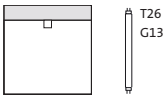
** direct distribution via supplementary reflector

* D designation according to current EN60598-2-24 approval

Previous FF designation according to VDE 0710, section 5. This standard is invalid since 1.8.2005, the requirements are however further adhered to with appropriately labelled luminaires



	L	l	lb	B	H
1xT26 18W	667	330	335	105	116
1xT26 36W	1277	800	475	105	116
1xT26 58W	1577	1100	475	105	116
2xT26 36W	1277	800	475	136	132
2xT26 58W	1577	1100	475	136	132



Lamps	Socket		Wt. (kg)	ECG, D / (FF) Order No.
enclosure, PC, UV-stabilised				
1x T26 36W	G13	IK07	2.8	5LS22871C
1x T26 58W	G13	IK07	3.4	5LS22871E
2x T26 58W	G13	IK07	5.3	5LS22872E

Lamps	Socket		Wt. (kg)	ECG, D / (FF) Order No.
enclosure, PC, UV-stabilised, with thr. wiring 4 x 1.5mm²				
1x T26 36W	G13	IK07	2.9	5LS22971C
1x T26 58W	G13	IK07	3.5	5LS22971E
2x T26 58W	G13	IK07	5.5	5LS22972E

- please order specular reflector for direct distribution separately

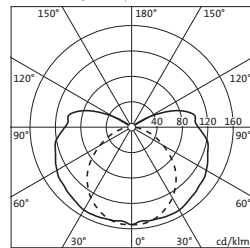
Accessories (for details see page 7.38)

Article	Wt. (kg)	Order No.
specular reflector, aluminium, highly specular, direct symmetric distribution, for 1x T26 36W	0.2	5LS32201CS
specular reflector, aluminium, highly specular, direct symmetric distribution, for 1x T26 58W	0.2	5LS32201ES
specular reflector, aluminium, highly specular, direct symmetric distribution, for 2x T26 58W	0.2	5LS32202ES

5LS22871E

1 x T26 58W/840 ϕ 5000 lm

η_{L} 80.6% ϕ 82% ϕ 18%



Luminance values (cd/m²)

	-----	-----
	C 0/180	C 90/270
L ₈₀	5859	2995
L ₇₀	5269	3612
L ₅₀	5142	3945

UGR 24.9 19.8
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	5.9
30 m ²	1.5	1.7	2.9	3.4	7.4	8.4
40 m ²	1.8	2.1	3.7	4.1	9.2	10
50 m ²	2.2	2.4	4.4	4.9	11	12
75 m ²	3.1	3.4	6.2	6.8	16	17
100 m ²	3.9	4.3	7.9	8.6	20	21
500 m ²	17	18	34	35	84	88

Factors of other lamp configurations

1x36W 1.5 2x58W 0.6

Maintenance factor 0.8 Rh = Lh + 0.5 m





FR100 with pearl cover of PMMA | with single battery emergency light element | insulation class I

FR100 damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | extremely wide distribution**; with pearl cover | with ECG, additionally with single battery emergency light element | housing of glass-fibre reinforced polyester, grey; cover of PMMA

Protection rating: IP65

Insulation class: I

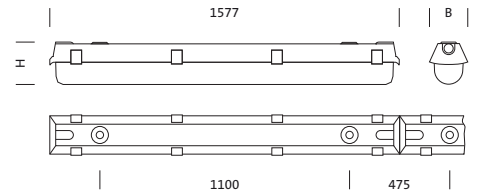
Protection symbol: F

** direct distribution via supplementary reflector

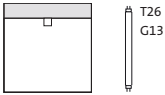
Electrical

Luminaire for operation on 'normal mains' or via the integral self-contained supply | wired ready for connection, with 4-pole connection terminal (3-pole for normal mains with switched phase + single pole for additional unswitched phase for emergency light element | single battery emergency light element for 1h or 3h operation; with LED (for optical self-test functioning control of battery)

Detail information: see appendix or www.Siteco.com (navigation: Products | Indoor luminaires | damp-proof luminaires | damp-proof diffuser luminaires | FR100 with pearl cover of PMMA | version with single battery emergency light element)



	B	H
1xT26 58W	105	116
2xT26 58W	136	132



Lamps	Socket	Wt. (kg)	ECG, F Order No.
with emergency element, nominal service life 1h			
1x T26 58W	G13	3.4	5LS32971EA04
2x T26 58W	G13	4.2	5LS32972EA04

with emergency element, nominal service life 3h			
1x T26 58W	G13	4.2	5LS32971EA05
2x T26 58W	G13	6.5	5LS32972EA05

- please order specular reflector for direct distribution separately

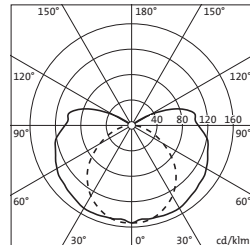
Accessories (for details see page 7.38)

Article	Wt. (kg)	Order No.
specular reflector, aluminium, highly specular, direct symmetric distribution, for 1x T26 58W	0.2	5LS32201ES
specular reflector, aluminium, highly specular, direct symmetric distribution, for 2x T26 58W	0.2	5LS32202ES

5LS32971EA04

1 x T26 58W/840 ϕ 5000 lm

η_{L8} 80.6% ϕ 82% ϕ 18%



Luminescence values (cd/m²)

	C 0/180	C 90/270
L ₈₀	5856	2994
L ₇₀	5267	3610
L ₅₀	5139	3943

UGR 24.9 19.8

X 4H Y 8H ρ 70/50/20 S 0.25H

No. of luminaires in room

Reflection factors 70/50/20

Ern(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	5.9
30 m ²	1.5	1.7	2.9	3.4	7.4	8.4
40 m ²	1.8	2.1	3.7	4.1	9.2	10
50 m ²	2.2	2.4	4.4	4.9	11	12
75 m ²	3.1	3.4	6.2	6.8	16	17
100 m ²	3.9	4.3	7.9	8.6	20	21
500 m ²	17	18	34	35	84	88

Factors of other lamp configurations

2x58W 0.6

Maintenance factor 0.8

Rh = Lh + 0.5 m



FR100 with pearl cover of PMMA | with E14 emergency lamp socket | insulation class I

FR100 damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | extremely wide distribution; with pearl cover | with ECG, additionally with E14 emergency lamp socket | housing of glass-fibre reinforced polyester, grey; cover of PMMA

Protection rating: IP65

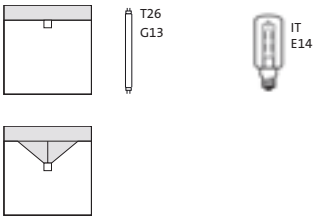
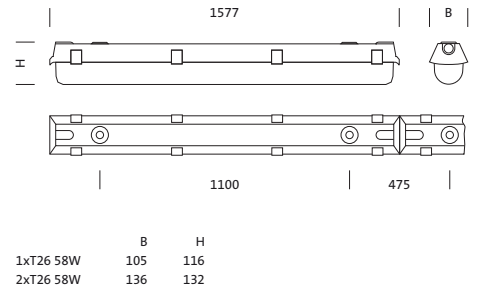
Insulation class: I

Protection symbol: F

(incl. high voltage tungsten halogen lamp IT 40W/matt for emergency operation)

Electrical

Luminaire for operation on 'normal mains' and with emergency socket for operation with a second, external power supply | A separate circuit with on-site energy supply is required for the emergency lamp socket | ON/OFF for emergency lamp socket possible with on-site installation
Detail information: see appendix or www.Siteco.com (navigation: Products | Indoor luminaires | damp-proof luminaires | damp-proof diffuser luminaires | FR100 with pearl cover of PMMA | version with E14 emergency socket)



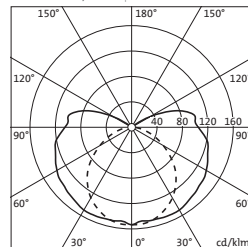
Lamps	Socket	Lamps 2	Socket 2	Wt. (kg)	ECG, F Order No.
with lamps, IT, 40W, E14, for emergency light function					
1x T26 58W	G13	1x IT 40W	E14	2.0	5LS32971EA01
2x T26 58W	G13	1x IT 40W	E14	4.4	5LS32972EA01

Accessories see page 7.38 f.

5LS32971EA01

1 x T26 58W/840 φ 5000 lm

η_l 80.6% φ_d 82% φ_t 18%



Luminaire values (cd/m²)

	C 0/180	C 90/270
L ₉₀	5856	2994
L ₇₀	5267	3610
L ₆₅	5139	3943
UGR	24.9	19.8

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
20 m ²	1.0	1.2	2.0
30 m ²	1.5	1.7	2.9
40 m ²	1.8	2.1	3.7
50 m ²	2.2	2.4	4.4
75 m ²	3.1	3.4	6.2
100 m ²	3.9	4.3	7.9
500 m ²	17	18	34

Factors of other lamp configurations

2x58W 0.6
Maintenance factor 0.8 Rh = Lh + 0.5 m





FR100 with pearl cover of PMMA | with vibration testing for earthquake resistance | insulation class I

FR100 damp proof diffuser luminaire for ceiling surface-mounting | extremely wide distribution; with pearl cover | with ECG | housing of glass-fibre reinforced polyester, grey; cover of PMMA

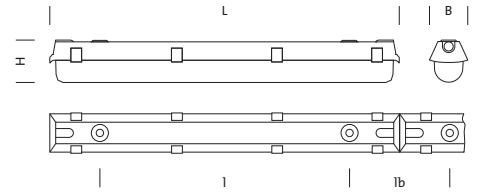
Protection rating: IP65

Insulation class: I

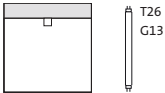
Protection symbol: D*/F

Vibration testing: with test certificate for earthquake resistance (with ceiling surface-mounting; with mounted supplementary bracket); inspected according to KTA 2201.4

* D designation according to current EN60598-2-24 approval



	L	l	lb	B	H
1xT26 18W	667	330	335	105	116
1xT26 36W	1277	800	475	105	116
1xT26 58W	1577	1100	475	105	116
2xT26 36W	1277	800	475	136	132
2xT26 58W	1577	1100	475	136	132



Lamps	Socket	Wt. (kg)	ECG, D / F Order No.
enclosure, PMMA			
1x T26 18W	G13	2.0	5LS32971AY
1x T26 36W	G13	2.9	5LS32971CY
1x T26 58W	G13	3.3	5LS32971EY
2x T26 36W	G13	3.6	5LS32972CY
2x T26 58W	G13	4.3	5LS32972EY

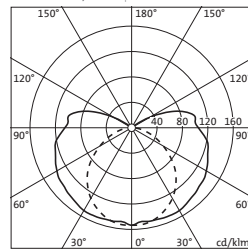
- incl. supplementary brackets (set of 2)

Accessories see page 7.38 f.

5LS32971EY

1 x T26 58W/840 ϕ 5000 lm

η_{lm} 80.6% ϕ_{a} 82% ϕ_{r} 18%



Luminaire values (cd/m²)

	C 0/180	C 90/270
L ₉₀	5859	2995
L ₇₀	5269	3612
L ₆₅	5142	3945

UGR 24.9 19.8

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	5.9
30 m ²	1.5	1.7	2.9	3.4	7.4	8.4
40 m ²	1.8	2.1	3.7	4.1	9.2	10
50 m ²	2.2	2.4	4.4	4.9	11	12
75 m ²	3.1	3.4	6.2	6.8	16	17
100 m ²	3.9	4.3	7.9	8.6	20	21
500 m ²	17	18	34	35	84	88

Factors of other lamp configurations

1x36W 1.5	2x36W 0.8
2x58W 0.6	

Maintenance factor 0.8 Rh = Lh + 0.5 m

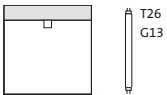
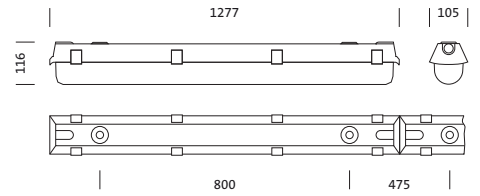


FR100 with pearl cover of PC | with vibration testing for earthquake resistance | insulation class II

FR100 damp proof diffuser luminaire for ceiling surface-mounting | extremely wide distribution; with pearl cover | with ECG | housing of glass-fibre reinforced polyester, grey; cover of PC

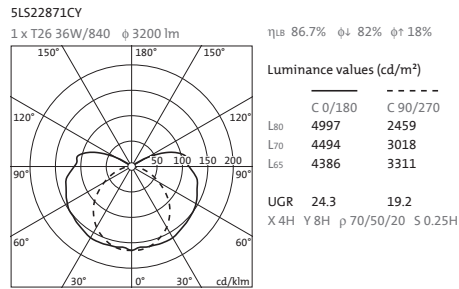
Protection rating: IP65
 Insulation class: II
 Impact resistance: IK07 (version with PC diffuser)
 Protection symbol: D*/FF
 Vibration testing: with test certificate for earthquake resistance (with ceiling surface-mounting; with mounted supplementary bracket); inspected according to KTA 2201.4

* D designation according to current EN60598-2-24 approval



Lamps	Socket		Wt. (kg)	ECG, D / (FF) Order No.
enclosure, PC, UV-stabilised				
1x T26 36W	G13	IK07	3.2	5LS22871CY
enclosure, PC, UV-stabilised, with thr. wiring 4 x 1.5mm²				
1x T26 36W	G13	IK07	3.3	5LS22971CY

Accessories see page 7.38 f.



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	1.5	1.7	2.9	3.4	7.3	8.6
30 m ²	2.1	2.4	4.3	4.9	11	12
40 m ²	2.7	3.0	5.3	6.0	13	15
50 m ²	3.2	3.5	6.3	7.1	16	18
75 m ²	4.5	5.0	9.1	9.9	23	25
100 m ²	5.7	6.2	11	12	29	31
500 m ²	24	25	49	51	122	127

Maintenance factor 0.8 $R_h = L_h + 0.5 \text{ m}$



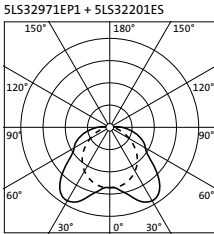
FR100 Optical Accessories



Supplementary specular reflector, direct extremely wide symmetric distribution

aluminium, highly specular | (incl. fixing screws)

Type	for series/lamps	Order No.
Reflector	1x T26 36W	5LS32201CS
Reflector	1x T26 58W	5LS32201ES
Reflector	2x T26 36W	5LS32202CS
Reflector	2x T26 58W	5LS32202ES



Freezer store luminaire for temperatures to min. -40°C and min. -30°C

Reflector	5LS329 . 1CT1/1x T26 36W	5LS32201CST1
Reflector	5LS329 . 1ET1/1x T26 58W	5LS32201EST1
Reflector	5LS329 . 2CT1/2x T26 36W	5LS32202CS
Reflector	5LS329 . 2ET1/2x T26 58W	5LS32202ES

FR100 Housing Accessories



Wire guard*

steel mesh, Ø = 4mm
galvanised | incl. mounting bracket
*only for ceiling mounting

Type	for lamps	Order No.
Wire guard	1x T26 18W	5LS32201AD
Wire guard	1x T26 36W	5LS32201CD
Wire guard	1x T26 58W	5LS32201ED
Wire guard	2x T26 36W	5LS32202CD
Wire guard	2x T26 58W	5LS32202ED

FR100 Electrical Accessories



Through-wiring set for interrupted continuous rows

for connecting through inside a luminaire | consists of heat-resistant single-core cable, terminals and mounting hardware | wiring from one luminaire to the next with standard cable (e.g. NYM)

Type		Order No.
Through-wiring	3x 1.5mm ²	5LS31301EK
Through-wiring	5x 1.5mm ²	5LS31311EK
Through-wiring	5x 2.5mm ²	5LS31321EK

- 1 set required per luminaire
- through-wiring with PE, for insulation class I
- suitable for 58 W (with 36 W: loop cable)



Through-wiring set for seamless continuous row arrangements

(luminaires mounted end to end) for connecting through from the terminal of one luminaire to the terminal of the next | comprises PC conduit for connecting adjacent luminaires, heat-resistant single-core cable, terminals and mounting hardware

Type		Order No.
Through-wiring	5x 1.5mm ²	5LS32211EK

- 1 set required per luminaire
- through-wiring with PE, for insulation class I
- suitable for 58 W (with 36 W: loop cable)



5-pole supplementary terminal

for last luminaire in a seamless continuous row (luminaires mounted end to end)

Type		Order No.
5x max. 2.5mm ²		5LS32200EK

- 1 piece required per continuous row (within last luminaire)



Twin entry grommet

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

Type		Order No.
Twin entry grommet		5LS32200XV

FR100 Mounting Accessories



Anti-vibration element
for vibration cushioning

Type	Order No.
Anti-vibration element	5LY9084

- 2 pieces required per luminaire
- with M6 female thread



Universal luminaire suspension
for wire ($\phi \leq 4.5\text{mm}$)
or chain (inner $\phi \geq 7\text{mm}$)
load capacity: 25kg

Type	Order No.
Suspension galvanised, partly V2A	5LY9086
Suspension V2A	5LY90861

- 2 pieces required per luminaire



Chain
inner link size 7 x 40mm
load capacity: 56kg

Type	Order No.
Chain galvanised	5LY9005
Chain V2A	5LY9111

- Chain: per metre



Quick-release link, galvanised
inner link size 8 x 20mm
load capacity: 50kg

Type	Order No.
Quick-release link galvanised	5LY9113



Mounting set
for luminaire mounting to unwired
DUS® trunking rail | consists of
mounting element, galvanised steel;
plastic plate, screw mounting; cable
retainer

Type	PU	Order No.
Mounting set	set of 2	5LS90900XC1

- 2 pieces required per luminaire
- DUS mounting rails: see page 6.67



Mounting set
for luminaire mounting to GRP
mounting rail | consists of threaded
plate, V2A; screw fastening

Type	Order No.
Mounting set	5LS91120EC

- 2 pieces required per luminaire
- See page 6.67 for plastic mounting rail and accessories
- threaded plates are included within delivery of plastic mounting rail (2 pieces, 4 pieces, 6 pieces with 1-length, 2-length, 3-length rail accordingly)

FR100 Spare Parts



Optical enclosure for FR100, pearled
PMMA or PC
(with luminaires for deep freezes:
special optical enclosure required)

Type	for lamps	Order No.
Opt. enclosure, PC	1x T26 18W	5LS32911AW
Opt. enclosure, PC	1x T26 36W	5LS32911CW
Opt. enclosure, PC	1x T26 58W	5LS32911EW
Opt. enclosure, PC	2x T26 36W	5LS32912CW
Opt. enclosure, PC	2x T26 58W	5LS32912EW
Opt. enclosure, PMMA	1x T26 18W	5LS32901AW
Opt. enclosure, PMMA	1x T26 36W	5LS32901CW
Opt. enclosure, PMMA	1x T26 58W	5LS32901EW
Opt. enclosure, PMMA	2x T26 36W	5LS32902CW
Opt. enclosure, PMMA	2x T26 58W	5LS32902EW

Freezer store luminaires for temperatures to min. -40°C and min. -30°C

Opt. enclosure, PMMA	5LS329 . 1CT1/1x T26 36W	5LS32901CWT1
Opt. enclosure, PMMA	5LS329 . 1ET1/1x T26 58W	5LS32901EWT1
Opt. enclosure, PMMA	5LS329 . 2CT1/2x T26 36W	5LS32902CWT1
Opt. enclosure, PMMA	5LS329 . 2ET1/2x T26 58W	5LS32902EWT1



Monsun[®] for T16 or T26

The damp-proof diffuser luminaires of the Monsun[®] family have been designed for the special ambient conditions presented by industrial manufacturing. A robust housing of glass-fibre reinforced plastic, an impact-resistant pearl diffuser of PMMA or impact-resistant cover of PC with high quality prismatic structures and a special sealing system provide protection against temperature fluctuations, critical humidity conditions and aggressive ambient conditions. High quality diffuser catches and



mounting elements of stainless steel make the luminaire highly reliable. The Monsun luminaires with either T16 or T26 fluorescent lamps feature IP65 protection and in combination with the PC enclosure, impact resistance to IK07. Refined lighting technology creates a homogeneously wide and glare-restricted light distribution on the working plane and ceiling. With wide-ranging and installation-friendly accessories the Monsun[®] luminaires are suitable for ceiling surface-mounting, suspended mounting and single or continuous row arrangements to mounting rails.

Housing

Glass-fibre reinforced polyester resin housing, resistant to corrosion, fire and ignition and largely unaffected by aggressive influences | PMMA or UV-stable PC diffuser for greater impact resistance (IK07) | V2A catches | inner reflector functions as gear tray for all electrical parts and is secured within housing by snap-fit mechanisms | housing and diffuser are completely recyclable

Electrics

Luminaires wired ready for connection | insulation class I has 3-pole terminal, insulation class II has 2-pole terminal (ECG-DALI or ECG-dimmable: + 2-pole for control signal), max. 2.5mm² | cable gland for cables or conduits with D= 8.5 to 13.5mm | suitable for through-wiring (with special wiring sets) within luminaire (insulation class I) or incl. through-wiring

Versions with emergency light function **with single battery emergency light element** for operation on normal mains or on integral self-contained supply see www.siteco.com for version with LLCG and further versions with ECG multiwatt DALI or ECG multiwatt dimmable

Dimming operation

Safe and trouble-free dimming of T26 fluorescent lamps is guaranteed with ambient temperatures to -20°C; with T16 fluorescent lamps this is only guaranteed with ambient temperatures > 10°C. Limited use with lower temperatures (please enquire)

Lighting technology

- injection-moulded prismatic cover with inner prisms for direct extremely wide light distribution with ceiling illumination
- direct symmetric or asymmetric distribution via supplementary reflector (accessory)





©Walter Lüttenberger

- + damp-proof diffuser luminaire with high quality materials and high protection rating
- + suitable for use under difficult ambient conditions with moisture or dust in interior and semi-exterior applications
- + housing resistant to fire and ignition
- + housing impact-resistant according to VDE 0711
- + light distribution via prismatic for good, homogeneous illumination
- + for innovative T16 light sources and compact fluorescent lamps
- + emergency light functionality possible
- + universal mounting system with use of individual fixing or mounting elements
- + luminaire easily installed via standard clips
- + prepared for rapid installation to mounting rails
- + relamping without tools



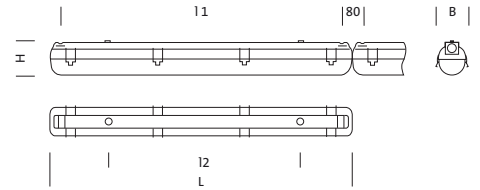


Monsun® with prismatic cover of PMMA or PC | for T16
| with ECG Multiwatt | insulation class I

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

Protection rating: IP65
Insulation class: I
Impact resistance: IK07 (version with PC cover)
Protection symbol: D*/F
(incl. V2A chain suspension)

** direct symmetric distribution via supplementary reflector
* D designation according to current EN60598-2-24 approval



	L	l1	l2	B	H
1xT16 14/24W	667	584	330	84	102
1xT16 21/28/39/54W	1277	1194	800	84	102
1xT16 35/49/80W	1577	1494	1100	84	102
2xT16 14/24W	667	584	330	130	110
2xT16 21/39W	1277	1194	800	130	110
2xT16 28/35/49/54W	1577	1494	1100	130	110

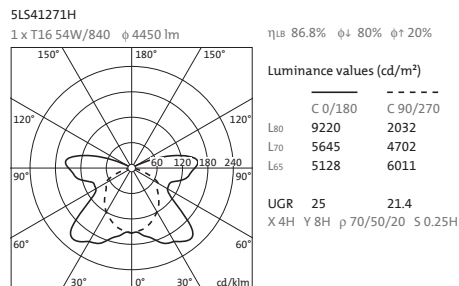


Lamps	Socket	Wt. (kg)	Order No.	ECG Multiwatt, D / F	ECG Multiwatt(DALI), D / F	ECG Multiwatt(1..10V), D
enclosure, PMMA						
1x T16 14/24W	G5	1.3	5LS41271B			
1x T16 21/39W	G5	2.3	5LS41271L			
1x T16 28/54W	G5	2.3	5LS41271H		5LS412D1H	
1x T16 35/49/80W	G5	2.6	5LS41271Q		5LS412D1Q	5LS41261Q
2x T16 14/24W	G5	1.8	5LS41272B			
2x T16 21/39W	G5	3.0	5LS41272L			
2x T16 28/54W	G5	3.6	5LS41272HE		5LS412D2HE	
2x T16 35/49W	G5	3.6	5LS41272W		5LS412D2W	

Lamps	Socket	Wt. (kg)	Order No.	ECG Multiwatt, D / F	ECG Multiwatt(DALI), D / (FF)
enclosure, PC, UV-stabilised					
1x T16 14/24W	G5	IK07	1.4	5LS42271B	
1x T16 21/39W	G5	IK07	2.2	5LS42271L	
1x T16 28/54W	G5	IK07	2.3	5LS42271H	5LS422D1H
1x T16 35/49/80W	G5	IK07	2.6	5LS42271Q	5LS422D1Q
2x T16 14/24W	G5	IK07	1.6	5LS42272B	
2x T16 21/39W	G5	IK07	3.0	5LS42272L	
2x T16 35/49W	G5	IK07	3.6	5LS42272W	

- please order reflector for direct symmetric distribution separately

Accessories (for supplementary reflector and further accessories see page 7.48 ff.)



No. of luminaires in room
Reflection factors 70/50/20

Em(lx)	100	200	500
Lh(m)	3.0	5.0	3.0
20 m²	1.2	2.1	2.4
30 m²	1.7	2.7	3.4
40 m²	2.1	3.2	4.3
50 m²	2.5	3.6	5.0
75 m²	3.5	4.8	7.0
100 m²	4.5	5.8	8.9
500 m²	18	21	37

Maintenance factor 0.8 Rh = Lh + 0.5 m



Monsun® with prismatic cover of PMMA or PC | for T16 or TC-LEL | with ECG | insulation class I

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

Protection rating: IP65

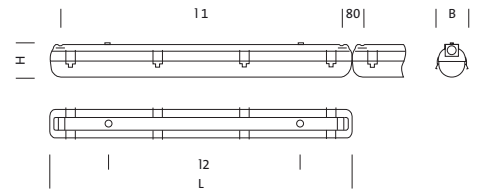
Insulation class: I

Impact resistance: IK07 (version with PC cover)

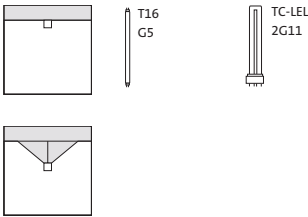
Protection symbol: D*/F or D*/FF* (according to version)

(incl. V2A chain suspension)

** direct symmetric distribution via supplementary reflector
 * D designation according to current EN60598-2-24 approval
 Previous FF designation according to VDE 0710, Section 5. This standard is invalid since 1.8.2005, the requirements are however further adhered to with appropriately labelled luminaires



	L	l1	l2	B	H
1xT16 14/24W	667	584	330	84	102
1xT16 28/54W	1277	1194	800	84	102
1xT16 35/49/80W	1577	1494	1100	84	102
1xTC-LEL 40W	667	584	330	84	102
2xT16 14/24W	667	584	330	130	110
2xT16 28W	1277	1194	800	130	110
2xT16 35/49/54W	1577	1494	1100	130	110



ECG, D / F, enclosure, PMMA

ECG, D / (FF), enclosure, PC, UV-stabilised, IK07

Lamps	Socket	Wt. (kg)	Order No.	Order No.
1x T16 14W	G5	1.4	5LS41271M	5LS42271M
1x T16 24W	G5	1.4	5LS41271Y	5LS42271Y
1x T16 28W	G5	2.3	5LS41271P	5LS42271P
1x T16 35W	G5	2.6	5LS41271R	5LS42271R
1x T16 49W	G5	2.6	5LS41271F	5LS42271F
1x T16 54W	G5	2.3	5LS41271J	5LS42271J
1x T16 80W	G5	2.6	5LS41271X	5LS42271X
2x T16 14W	G5	1.8	5LS41272M	5LS42272M
2x T16 24W	G5	1.8	5LS41272Y	5LS42272Y
2x T16 28W	G5	3.0	5LS41272P	5LS42272P
2x T16 35W	G5	3.6	5LS41272R	5LS42272R
2x T16 49W	G5	3.6	5LS41272F	5LS42272F
2x T16 54W	G5	3.6	5LS41272JE	5LS42272JE
1x TC-LEL 40W	2G11	1.3	5LS41275U	

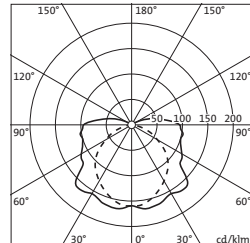
- please order reflector for direct symmetric distribution separately

Accessories (for supplementary reflector and further accessories see page 7.48 ff.)

5LS41275U

1 x TC-LEL 40W/840 ϕ 3500 lm

η_{th} 72.1% ϕ_{a} 86% ϕ_{r} 14%



Luminance values (cd/m²)

	C 0/180	C 90/270
L ₈₀	10911	3319
L ₇₀	8943	6029
L ₅₀	8638	6944

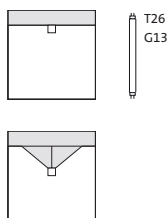
UGR 26.8 21
 X4H Y8H ρ 70/50/20 S 0.25H

No. of luminaires in room

Reflection factors 70/50/20

Em(lx)	100	200	500
Lh(m)	3.0	5.0	3.0
20 m ²	1.8	3.0	6.1
30 m ²	2.5	3.9	7.8
40 m ²	3.1	4.7	9.3
50 m ²	3.7	5.4	11
75 m ²	5.2	7.1	14
100 m ²	6.6	8.7	17
500 m ²	27	32	55

Maintenance factor 0.8 Rh = Lh + 0.5 m

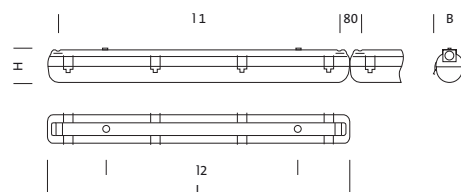


Monsun® with prismatic cover of PMMA or PC | for T26 | insulation class I

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

Protection rating: IP65
 Insulation class: I
 Impact resistance: IK07 (version with PC cover)
 Protection symbol: D*/F or D*/FF* (according to version)
 (incl. V2A chain suspension)

** direct symmetric or asymmetric distribution via supplementary reflector
 * D designation according to current EN60598-2-24 approval
 Previous FF designation according to VDE 0710, Section 5. This standard is invalid since 1.8.2005, the requirements are however further adhered to with appropriately labelled luminaires



	L	l1	l2	B	H
1xT26 18W	667	584	330	84	102
1xT26 36W	1277	1194	800	84	102
1xT26 58W	1577	1494	1100	84	102
2xT26 18W	667	584	330	130	110
2xT26 36W	1277	1194	800	130	110
2xT26 58W	1577	1494	1100	130	110

Lamps	Socket	Wt. (kg)	ECG, D / F Order No.	ECG DALI, D / F Order No.	ECG(1..10V), D / F Order No.
enclosure, PMMA					
1x T26 18W	G13	1.4	5LS41271A		5LS41261A
1x T26 36W	G13	2.3	5LS41271C		5LS41261C
1x T26 58W	G13	2.6	5LS41271E	5LS412D1E	5LS41261E
2x T26 18W	G13	1.8	5LS41272A		
2x T26 36W	G13	3.0	5LS41272C		5LS41262C
2x T26 58W	G13	3.6	5LS41272E	5LS412D2E	5LS41262E

enclosure, PMMA, with thr. wiring 3 x 1.5mm²					
1x T26 36W	G13	2.3	5LS41271CA0003		
1x T26 58W	G13	2.8	5LS41271EA0003		
2x T26 36W	G13	3.2	5LS41272CA0003		
2x T26 58W	G13	3.8	5LS41272EA0003		

enclosure, PMMA, with thr. wiring 5 x 2.5mm²					
1x T26 36W	G13	2.4	5LS41271CA0007		5LS41261CA0007
1x T26 58W	G13	2.9	5LS41271EA0007		5LS41261EA0007
2x T26 36W	G13	3.2	5LS41272CA0007		5LS41262CA0007
2x T26 58W	G13	4.0	5LS41272EA0007		5LS41262EA0007

Lamps	Socket		Wt. (kg)	ECG, D / (FF) Order No.	ECG DALI, D / F Order No.	ECG(1..10V), D / (FF) Order No.
enclosure, PC, UV-stabilised						
1x T26 18W	G13	IK07	1.4	5LS42271A		
1x T26 36W	G13	IK07	2.3	5LS42271C	5LS422D1C	5LS42261C
1x T26 58W	G13	IK07	2.6	5LS42271E	5LS422D1E	5LS42261E
2x T26 18W	G13	IK07	1.8	5LS42272A		
2x T26 36W	G13	IK07	3.0	5LS42272C		
2x T26 58W	G13	IK07	3.6	5LS42272E	5LS422D2E	5LS42262E

- please order reflector for direct symmetric or asymmetric distribution separately

Accessories (for supplementary reflector and further accessories see page 7.48 ff. | photometric specifications: see next page)

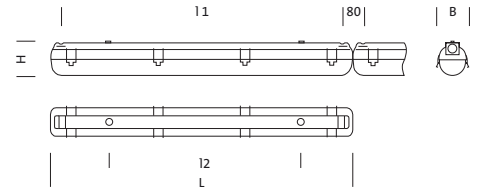


Monsun® with prismatic cover of PMMA or PC | for T26 | insulation class II

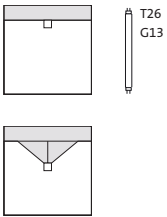
Monsun® damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | direct extremely wide distribution with ceiling illumination**, with injection-moulded prismatic cover | with ECG | housing of glass-fibre reinforced polyester, grey; cover of PMMA or PC; V2A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

Protection rating: IP65
 Insulation class: II
 Impact resistance: IK07 (version with PC cover)
 Protection symbol: D*/F or D*/FF* (according to version)
 (incl. V2A chain suspension)

** direct symmetric or asymmetric distribution via supplementary reflector
 * D designation according to current EN60598-2-24 approval
 Previous FF designation according to VDE 0710, Section 5. This standard is invalid since 1.8.2005, the requirements are however further adhered to with appropriately labelled luminaires



	L	l1	l2	B	H
1xT26 18W	667	584	330	84	102
1xT26 36W	1277	1194	800	84	102
1xT26 58W	1577	1494	1100	84	102
2xT26 18W	667	584	330	130	110
2xT26 36W	1277	1194	800	130	110
2xT26 58W	1577	1494	1100	130	110



Lamps	Socket	Wt. (kg)	ECG, D / F Order No.
enclosure, PMMA			
1x T26 18W	G13	1.4	5LS41771A
1x T26 36W	G13	2.3	5LS41771C
1x T26 58W	G13	2.6	5LS41771E
2x T26 36W	G13	3.0	5LS41772C
2x T26 58W	G13	3.6	5LS41772E

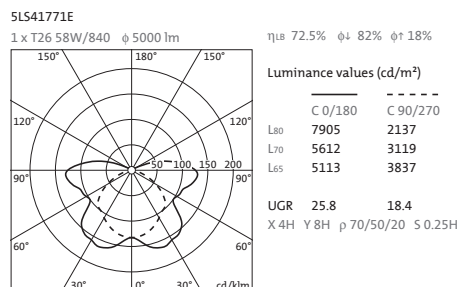
Lamps	Socket	Wt. (kg)	ECG, D / (FF) Order No.
enclosure, PMMA, with thr. wiring 4 x 1.5mm²			
1x T26 58W	G13	2.8	5LS41771EA0004
2x T26 58W	G13	3.8	5LS41772EA0004

Lamps	Socket	Wt. (kg)	ECG, D / (FF) Order No.	ECG DALI, D / F Order No.	
enclosure, PC, UV-stabilised					
1x T26 36W	G13	IK07	2.3	5LS42771C	
1x T26 58W	G13	IK07	2.6	5LS42771E	
2x T26 36W	G13	IK07	3.0		5LS427D2C
2x T26 58W	G13	IK07	3.6	5LS42772E	5LS427D2E

Lamps	Socket	Wt. (kg)	ECG, D / (FF) Order No.	
enclosure, PC, UV-stabilised, with thr. wiring 4 x 1.5mm²				
1x T26 58W	G13	IK07	2.8	5LS42771EA0004
2x T26 58W	G13	IK07	3.8	5LS42772EA0004

- please order reflector for direct symmetric or asymmetric distribution separately

Accessories (for supplementary reflector and further accessories see page 7.48 ff.)



No. of luminaires in room
 Reflection factors 70/50/20

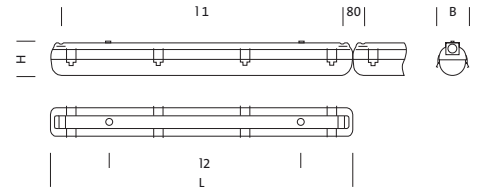
Em(lx)	100	200	500			
Lh(m)	2.5	3.0	2.5	3.0	2.5	3.0
20 m ²	1.1	1.3	2.2	2.6	5.6	6.5
30 m ²	1.6	1.8	3.2	3.7	8.0	9.1
40 m ²	2.0	2.3	4.1	4.6	10	11
50 m ²	2.4	2.7	4.8	5.4	12	14
75 m ²	3.4	3.8	6.8	7.5	17	19
100 m ²	4.4	4.8	8.8	9.6	22	24
500 m ²	19	20	38	39	95	99

Factors of other lamp configurations
 1x18W 3.9 1x36W 1.5
 2x58W 0.6
 Maintenance factor 0.8 Rh = Lh + 0.5 m

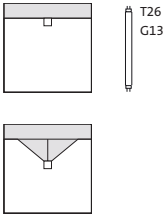


Monsun® with prismatic cover of PMMA or PC | with single battery emergency light element | for T26 | insulation class I

Monsun® damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | direct extremely wide distribution with ceiling illumination**; with injection-moulded prismatic cover | with ECG, additionally with single battery emergency light element | housing of glass-fibre reinforced polyester, grey; cover of PMMA or PC; V2A catches and ceiling mounting



	L	l1	l2	B	H
1xT26 36W	1277	1194	800	84	102
1xT26 58W	1577	1494	1100	84	102
2xT26 36W	1277	1194	800	130	110
2xT26 58W	1577	1494	1100	130	110



Protection rating: IP65
 Insulation class: I
 Impact resistance: IK07 (version with PC cover)
 Protection symbol: F
 (incl. V2A chain suspension)
 ** direct symmetric or asymmetric distribution via supplementary reflector

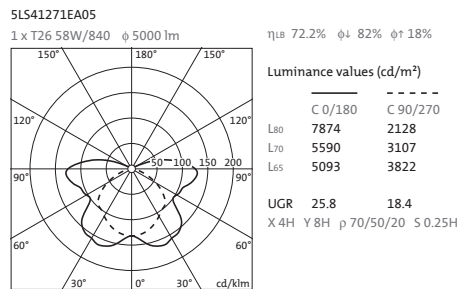
Electrical
 Luminaire for operation on 'normal mains' or via the integral self-contained supply | wired ready for connection, with 4-pole connection terminal (3-pole for normal mains with switched phase + single pole for additional unswitched phase for emergency light element | single battery emergency light element for 1h or 3h operation; with LED (for optical self-test functioning control of battery)
 Detail information: see appendix or www.Siteco.com (navigation: Products | Indoor luminaires | damp-proof luminaires | damp-proof diffuser luminaires | Monsun® with prismatic cover of PMMA or PC | for T26 | version with single battery emergency light element)



Lamps	Socket	Wt. (kg)	ECG, F Order No.	
enclosure, PMMA, with emergency element, nominal service life 1h				
1x T26 58W	G13	3.2	5LS41271EA04	
2x T26 58W	G13	4.2	5LS41272EA04	
enclosure, PMMA, with emergency element, nominal service life 3h				
1x T26 58W	G13	3.8	5LS41271EA05	
2x T26 58W	G13	4.8	5LS41272EA05	
enclosure, PC, UV-stabilised, with emergency element, nominal service life 1h				
1x T26 36W	G13	IK07	2.8	5LS42271CA04
1x T26 58W	G13	IK07	3.2	5LS42271EA04
2x T26 36W	G13	IK07	3.7	5LS42272CA04
2x T26 58W	G13	IK07	4.3	5LS42272EA04
enclosure, PC, UV-stabilised, with emergency element, nominal service life 3h				
1x T26 36W	G13	IK07	3.1	5LS42271CA05
1x T26 58W	G13	IK07	3.9	5LS42271EA05
2x T26 36W	G13	IK07	4.3	5LS42272CA05
2x T26 58W	G13	IK07	4.8	5LS42272EA05

- please order reflector for direct symmetric or asymmetric distribution separately

Accessories (for supplementary reflector and further accessories see page 7.48 ff.)



No. of luminaires in room
 Reflection factors 70/50/20

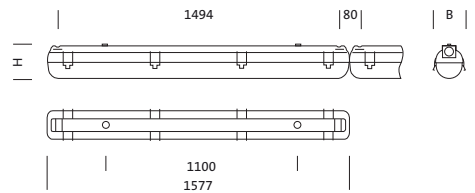
Em(x)	100	200	500
Lh(m)	2.5	3.0	2.5
20 m ²	1.1	1.3	2.2
30 m ²	1.6	1.8	3.2
40 m ²	2.0	2.3	4.1
50 m ²	2.4	2.7	4.9
75 m ²	3.4	3.8	6.9
100 m ²	4.4	4.8	8.8
500 m ²	19	20	38

Maintenance factor 0.8 Rh = Lh + 0.5 m

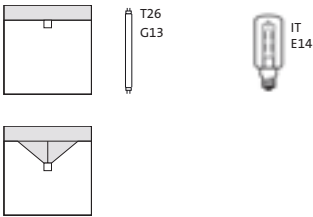


Monsun® with prismatic cover of PMMA | with E14 emergency lamp socket | for T26 | insulation class I

Monsun® damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | direct extremely wide distribution with ceiling illumination**; with injection-moulded prismatic cover | with ECG, additionally with E14 emergency lamp socket | housing of glass-fibre reinforced polyester, grey; cover of PMMA; V2A catches and ceiling mounting



	B	H
1xT26 58W	84	102
2xT26 58W	130	110



Protection rating: IP65
 Insulation class: I
 Protection symbol: F
 (incl. high voltage tungsten halogen lamp IT 40W/matt for emergency operation | (incl. V2A chain suspension)

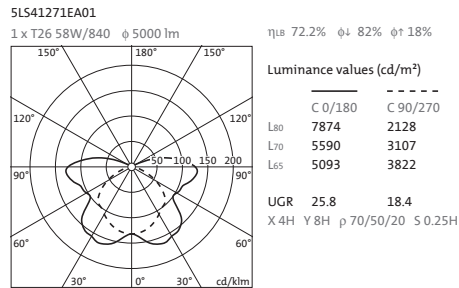
Electrical
 Luminaire for operation on 'normal mains' and with emergency socket for operation with a second, external power supply | A separate circuit with on-site energy supply is required for the emergency lamp socket | ON/OFF for emergency lamp socket possible with on-site installation

Detail information: see appendix or www.Siteco.com (navigation: Products | Indoor luminaires | damp-proof luminaires | damp-proof diffuser luminaires | Monsun® with prismatic cover of PMMA or PC | for T26 | version with E14 emergency socket)



Lamps	Socket	Lamps 2	Socket 2	Wt. (kg)	ECG, F Order No.
enclosure, PMMA, with lamps, IT, 40W, E14, for emergency light function					
1x T26 58W	G13	1x IT 40W	E14	2.8	5LS41271EA01
2x T26 58W	G13	1x IT 40W	E14	3.8	5LS41272EA01

Accessories (for housing, electrics and mounting accessories see page 7.48 ff.)



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	1.1	1.3	2.2	2.6	5.6	6.5
30 m ²	1.6	1.8	3.2	3.7	8.0	9.2
40 m ²	2.0	2.3	4.1	4.6	10	11
50 m ²	2.4	2.7	4.9	5.4	12	14
75 m ²	3.4	3.8	6.9	7.5	17	19
100 m ²	4.4	4.8	8.8	9.6	22	24
500 m ²	19	20	38	40	95	99

Factors of other lamp configurations
 2x58W 0.6
 Maintenance factor 0.8 Rh = Lh + 0.5 m



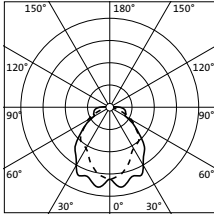
Monsun® Optical Accessories



Supplementary specular reflector direct symmetric or asymmetric distribution
 aluminium, highly specular, incl. fixing screws

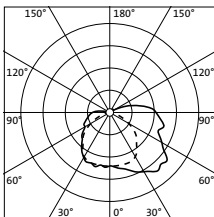
Type	for lamps	Order No.
for luminaire for T16 lamps		
symmetric narrow distribution		
Reflector	1x T16 14/24W	5LS44201MS
Reflector	1x T16 28/54W	5LS44201PS
Reflector	1x T16 35/49/80W	5LS44201RS

5LS41271P + 5LS44201PS



symmetric wide distribution		
Reflector	2x T16 14/24W	5LS44202MS
Reflector	2x T16 28W	5LS44202PS
Reflector	2x T16 35/49/54W	5LS44202RS

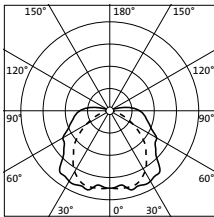
5LS41271E + 5LS44301ES



for luminaire for T26 lamps		
asymmetric distribution		
Reflector	1x T26 36W	5LS44301CS
Reflector	1x T26 58W	5LS44301ES
Reflector	2x T26 36W	5LS44302CS
Reflector	2x T26 58W	5LS44302ES

symmetric wide distribution		
Reflector	1x T26 36W	5LS44201CS
Reflector	1x T26 58W	5LS44201ES
Reflector	2x T26 36W	5LS44202CS
Reflector	2x T26 58W	5LS44202ES

5LS41271E + 5LS44201ES



Monsun® Housing Accessories



Wire guard*
 steel mesh, galvanised | $\varnothing = 4\text{mm}$ |
 incl. mounting bracket
 *only for ceiling mounting

Type	for lamps	Order No.
Wire guard	1x T16 14/18/24 TC-LEL 40W	5LS31301AD
Wire guard	1x T16 21/28/39/54W T26 36W	5LS31301CD
Wire guard	1x T16 35/49/80W T26 58W	5LS31301ED
Wire guard	2x T16 14/18/24W T26 36W	5LS31302AD
Wire guard	2x T16 21/28/39/54W T26 36W	5LS31302CD
Wire guard	2x T16 35/49 T26 58W	5LS31302ED



Vandal-proof straps
 prevents tool-free opening of luminaire | steel strap of V2A with safety screw

Type	PU	Order No.
Vandal-proof straps		
for housing width W= 84mm	set of 2	5LS44101
for housing width W= 130mm	set of 2	5LS44102

- 2 pieces required per luminaire

Monsun® Electrical Accessories


Through-wiring set for interrupted continuous rows

for connecting through inside a luminaire | consists of heat-resistant single-core cable, terminals and mounting hardware | wiring from one luminaire to the next with standard cable (e.g. NYM)

Type		Order No.
Through-wiring	3x 1.5mm ²	5LS44301EK
Through-wiring	5x 1.5mm ²	5LS44311EK
Through-wiring	5x 2.5mm ²	5LS44321EK

- 1 set required per luminaire
- through-wiring with PE, for insulation class I
- suitable for 35W/49W/58W/80W (with 28W/36W/54W: loop cable)


Through-wiring set for seamless continuous row arrangements

(luminaires mounted end to end) for connecting through from the terminal of one luminaire to the terminal of the next | comprises PC conduit for connecting adjacent luminaires, heat-resistant single-core cable, terminals and mounting hardware

Type		Order No.
Through-wiring	5x 1.5mm ²	5LS44211EK

- 1 set required per luminaire
- through-wiring with PE, for insulation class I
- suitable for 35W/49W/58W/80W (with 28W/36W/54W: loop cable)


5-pole supplementary terminal

for last luminaire in a seamless continuous row (luminaires mounted end to end)

Type		Order No.
5x max. 2.5mm ²		5LS44200EK

- 1 piece required per continuous row (in last luminaire)


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® Mounting Accessories


Suspension bracket, V2A

for mounting close to ceiling or for suspended mounting, e.g. with chain | for hooking into Monsun® mounting elements

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

- 2 pieces required per luminaire


Chain

inner link size 5.6 x 31mm
load capacity: 40kg

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

- Chain: per metre


Quick-release link

inner link size 5 x 16mm
load capacity: 20kg

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



Monsun® Mounting Accessories



Wall mounting set
 Sealing set for luminaire for wall mounting | consisting of 2x sealing washers, washer and cover for screws (delivery without screws) | 2x on-site drilling (Ø = 5mm) required in the luminaire
 Luminaire protection rating: IP54 (with wall mounting)

Type	PU	Order No.
Wall mounting set	set of 2	5LS44003

- 2 pieces required per luminaire



Mounting set
 for luminaire mounting to DUS trunking 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
 - See page 6.67 for mounting rails and accessories



Mounting set
 for luminaire mounting to GRP mounting rail | consists of threaded plate, V2A; screw fastening

Type	Order No.
Mounting set	5LS91120EC

- 2 pieces required per luminaire
 - See page 6.67 for plastic mounting rails and accessories
 - threaded plates are included within delivery of plastic mounting rail (2 pieces, 4 pieces, 6 pieces with 1-length, 2-length, 3-length rail accordingly)

Monsun® Spare Parts



Optical enclosure, prismatic
 PMMA or UV-stabilised PC

Type	for lamps	Order No.
Opt. enclosure, PC	1x T16 14/24W T26 18W	5LS44911AW
Opt. enclosure, PC	1x T16 28/54W T26 36W	5LS44911CW
Opt. enclosure, PC	1x T16 35/49/80W T26 58W	5LS44911EW
Opt. enclosure, PC	2x T16 14/24W T26 18W	5LS44912AW
Opt. enclosure, PC	2x T16 28W T26 36W	5LS44912CW
Opt. enclosure, PC	2x T16 35/49/54W T26 58W	5LS44912EW
Opt. enclosure, PMMA	1x T16 14/24W T26 18W, TC-LEL 40W	5LS44901AW
Opt. enclosure, PMMA	1x T16 28/54W T26 36W	5LS44901CW
Opt. enclosure, PMMA	1x T16 35/49/80W T26 58W	5LS44901EW
Opt. enclosure, PMMA	2x T16 14/24W T26 18W	5LS44902AW
Opt. enclosure, PMMA	2x T16 28W T26 36W	5LS44902CW
Opt. enclosure, PMMA	2x T16 35/49/54W T26 58W	5LS44902EW

Catch for optical enclosure (not shown)
 V2A

Type	Order No.
Catch	set of 10

- for housing length
 L= 667mm: 6 pieces required
 L= 1277mm: 8 pieces required
 L= 1577mm: 10 pieces required





Panel Luminaire

The wide distribution panel luminaires with their form and dimensions have been designed for recessed mounting in panel ceilings, in which they are optically fully integrated. A robust sheet steel housing and impact-resistant PMMA enclosure qualify the luminaires for IP54 protection.

- + For suspended ceiling systems and panel ceilings (module 100)
- + Luminaire design flush with panels



Housing

Housing of sheet steel, pure white (similar to RAL 9010), with matt black fringes on longitudinal sides of the housing as shadow gaps | PMMA cover | luminaire has been specially designed for installing in module 100 panel ceilings

Electrics

Luminaire wired ready for connection | with 3-pole terminal, max. 2.5mm² | through-wiring above luminaire possible via sheathed cable (e.g. NYM) | see www.siteco.com for version with LLCC

Lighting technology

- opal cover for diffuse light distribution





recessed luminaire for module 100 panel ceilings | with opal cover | insulation class I

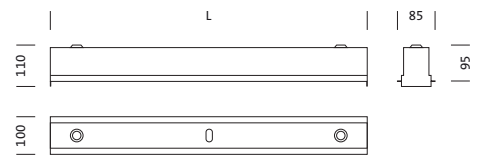
Panel luminaire as single luminaire for installation in Module 100 system ceilings | direct diffuse distribution; with opal cover | with ECG | sheet steel housing, pure-white (similar to RAL 9010), matt black coated in visible area; cover of PMMA

Protection rating: IP54

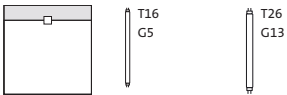
Insulation class: I

(incl. mounting rail for luminaire installation | exception: version for T16 54W)

- for type 5LS34071J (1x T16 54W): please order mounting rail separately



	L
1xT26 18W	640
1xT26 36W	1250
1xT26 58W	1550
1xT16 54W	1247



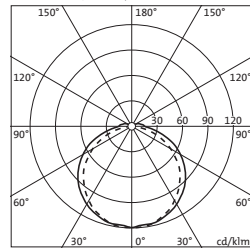
Lamps	Socket	Wt. (kg)	ECG Order No.
T16			
1x T16 54W	G5	3.6	5LS34071J
T26			
1x T26 18W	G13	2.8	5LS35071A
1x T26 36W	G13	5.0	5LS35071C
1x T26 58W	G13	5.9	5LS35071E

Mandatory accessories (for details see below)

Article	PU	Wt. (kg)	Order No.
angle, long side, sheet steel, galvanised	set of 2	1.5	5LS34000CD

5LS35071C

1 x T26 36W/840 ϕ 3200 lm



η_{lm} 40.2% ϕ 95% ϕ 5%

Luminaire values (cd/m²)

	C 0/180	C 90/270
L ₈₀	5157	2214
L ₇₀	4396	2994
L ₆₅	4317	3177

UGR 23.3 20.8

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	2.6	3.0	5.2	6.1	13	15
30 m ²	3.8	4.4	7.7	8.7	19	22
40 m ²	4.9	5.5	9.8	11	24	27
50 m ²	5.8	6.5	12	13	29	33
75 m ²	8.4	9.2	17	18	42	46
100 m ²	11	12	22	23	54	59
500 m ²	49	51	98	101	244	253

Factors of other lamp configurations

1x54W 0.6

Maintenance factor 0.8

Rh = Lh

Panel Luminaire Mounting Accessories



Mounting rails

for luminaire 5LS34071J | for mounting to longitudinal luminaire side | clamping range 20...35mm (mounting rails with luminaire 5LS350... included in luminaire scope of supply)

Type	PU	Order No.
Mounting rails	set of 2	5LS34000CD

- 2 pieces required per luminaire



Suction pad

rubber suction pad for removing smooth covers (e.g. with flush-fitted installation)

Type	Order No.
Suction pad	5LJ48400XJ

SiPLAST® open distribution

The open distribution damp-proof luminaires of the SiPLAST® family have been designed for the special ambient conditions found with industrial manufacturing. A robust housing of glass-fibre reinforced plastic, lamp protection tubes of silicate glass, PMMA or PC and a special sealing system provide protection against extreme temperatures, critical humidity conditions and aggressive ingress of dust. The precise workmanship and high quality materials qualify the luminaire for an IP65 protection rating with insulation class 2. With wide-ranging and installation-friendly accessories the SiPLAST® open distribution luminaires are suitable for ceiling surface-mounting, suspended mounting and single or continuous row arrangements to mounting rails.

- + open distribution damp-proof luminaire with high-grade materials and high protection class
- + suitable for use under difficult ambient conditions with moisture or dust in interior and semi-exterior applications
- + housing resistant to fire and ignition
- + housing impact-resistant according to VDE 0711
- + high light output ratio
- + variable optics due to optional lamp protection tube reflectors
- + relamping without tools for simple mounting



Housing

Two-part glass-fibre reinforced polyester housing, resistant to corrosion, fire and ignition and largely unaffected by aggressive influences | with 90° rotary catches connecting upper and lower housing | lamp protection tube of silicate glass, PMMA or PC, specular protection tube reflectors of PMMA as accessories | housing and optical accessories are completely recyclable

Electrics

Luminaires wired ready for connection | with 2-pole terminal, max. 2.5mm² | cable gland for cables with D= 8.5 to 13.5mm | luminaires suitable for through-wiring (with special wiring sets) within luminaire | see www.siteco.com for versions with LLCG

damp-proof luminaire with open distribution | optics can be defined with protection tube reflector:
lamp protection tube reflector, specular inner

- for narrow light distribution
- for wide light distribution
- asymmetric distribution via manual adjustment of protection tube reflector

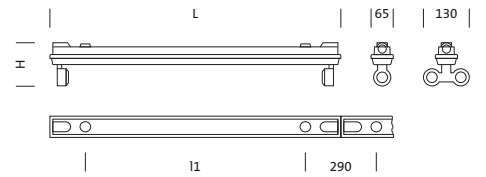




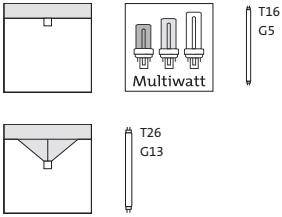
SiPLAST® open distribution | for T16 or T26 | insulation class II

SiPLAST® damp-proof luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | open distribution** | with ECG | housing of glass-fibre reinforced polyester, grey; with ring holders D= 16mm or D= 26mm

Protection rating: IP65
Insulation class: II
Protection symbol: F



	L	H	I
1 x T16 28/54W	1260	970	120
1 x T16 35/49/80W	1560	1270	120
2 x T16 28/54W	1260	970	120
2 x T16 35/49/80W	1560	1270	120
1 x T26 36W	1260	970	120
1 x T26 58W	1560	1270	120
2 x T26 58W	1560	1270	107



** narrow, wide or asymmetrical distribution with protection tube reflector



Lamps	Socket	Wt. (kg)	ECG Multiwatt, F Order No.
T16			
1x T16 28/54W	G5	1.7	5LS21671H
1x T16 35/49/80W	G5	1.9	5LS21671Q
2x T16 28/54W	G5	1.9	5LS21672H
2x T16 35/49/80W	G5	2.2	5LS21672Q

Lamps	Socket	Wt. (kg)	ECG, F Order No.
T26			
1x T26 36W	G13	1.7	5LS21671CT1
1x T26 58W	G13	1.9	5LS21671ET1
2x T26 58W	G13	2.2	5LS21672ET1

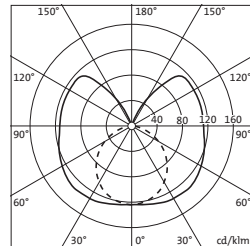
- please order protection tube or protection tube reflector separately

Accessories see page 7.56 ff.

5LS21671ET1

1 x T26 58W/840 φ 5000 lm

η_{lm} 92.3% φ 63% φ_t 37%



Luminance values (cd/m²)

	C 0/180	C 90/270
L ₈₀	4938	2527
L ₇₀	4655	3622
L ₅₀	4601	4070

UGR 23.1 17.7
X 4H Y 8H φ 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	2.1	2.4	5.1	6.0
30 m ²	1.4	1.6	2.7	3.1	6.9	7.8
40 m ²	1.7	2.0	3.5	3.9	8.7	9.8
50 m ²	2.1	2.3	4.1	4.6	10	11
75 m ²	2.9	3.1	5.7	6.3	14	16
100 m ²	3.7	4.0	7.5	8.1	19	20
500 m ²	16	16	32	33	79	82

Factors of other lamp configurations

1x36W 1.6 2x58W 0.5
Maintenance factor 0.8 Rh = Lh + 0.5 m



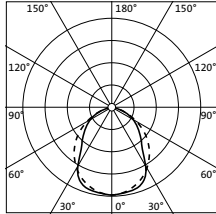
SiPLAST® T26 Open Distribution Optical Accessories



Lamp protection reflector for SiPLAST® T26

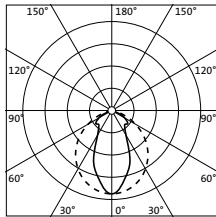
optionally narrow or wide distribution | beam direction (asymmetry) adjustable | reflector of PMMA, specular inner, transparent cover

5LS21671ET1 + 5LS21501EB



In combination with a SiPLAST® T26 luminaire with ECG this system fulfils requirements for the D symbol according to current EN60598-2-24 approval | previous FF designation according to VDE 0710, Section 5 is invalid since 01.08.2005, the requirements are however further adhered to with appropriately labelled luminaires

5LS21671ET1 + 5LS21521EB



Type	for lamps	Wt. (kg)	Order No.
Protection reflector tube with wide distribution			
Cover, transparent	1x T26 36W	0.8	5LS21501CB
Cover, transparent	1x T26 58W	1.1	5LS21501EB
Lampholder ring, D= 50mm	T26 wide distribution		5LS21602XK

Type	for lamps	Wt. (kg)	Order No.
Protection reflector tube with narrow distribution			
Cover, transparent	1x T26 36W	1.0	5LS21521CB
Cover, transparent	1x T26 58W	1.3	5LS21521EB
Lampholder ring, D= 38mm	T26 narrow distribution		5LS21601XK

- please order 2 suitable ring holders for each protection tube reflector
- only limited adjustment with twin lamp luminaires



Reflector for SiPLAST® T26 with LLCG

symmetric wide distribution | sheet steel, white | (incl. fixing clamps and screwable connector for alignment of continuous row mounting

Type	for lamps	Wt. (kg)	Order No.
Reflector	1x T26 36W LLCG	2.0	5LS21610CB1
Reflector	1x T26 58W LLCG	2.8	5LS21610EB1

- only suitable for luminaires with LLCG (see www.siteco.com for luminaires with LLCG for T26)
- not suitable for twin lamp luminaires with protection tube

SiPLAST® T26 Open Distribution Housing Accessories



Silicate glass protection tube, Ø 38 mm, transparent, for SiPLAST® T26

In combination with a SiPLAST® T26 luminaire with ECG this system fulfils requirements for the D symbol according to current EN60598-2-24 approval | previous FF designation according to VDE 0710, Section 5 is invalid since 01.08.2005, the requirements are however further adhered to

Type	for lamps	Order No.
Protection tube	T26 36W	5LS21501CG
Protection tube	T26 58W	5LS21501EG
Lampholder ring, D= 38mm	T26 36W/58W	5LS21601XK

- protection tubes suitable for 1-lamp and 2-lamp luminaires
- please order 2 ring holders for each lamp protection tube



PC protection tube, Ø 38 mm, transparent, for SiPLAST® T26

In combination with a SiPLAST® T26 luminaire with ECG this system fulfils requirements for the D symbol according to current EN60598-2-24 approval | previous FF designation according to VDE 0710, Section 5 is invalid since 01.08.2005, the requirements are however further adhered to

Type	for lamps	Order No.
Protection tube	T26 36W	5LS21511CG
Protection tube	T26 58W	5LS21511EG
Lampholder ring, D= 38mm	T26 36W/58W	5LS21601XK

- protection tubes suitable for 1-lamp and 2-lamp luminaires
- please order 2 ring holders for each lamp protection tube

SiPLAST® T16 Open Distribution Housing Accessories



**PMMA protection tube, Ø 38mm
for SiPLAST® T16**
frosted

Type	for lamps	Order No.
Protection tube	T16 28/54W	5LS21701JG
Protection tube	T16 35W/49W	5LS21701XG
Lampholder ring D= 38mm	for protection tube	5LS21702

- protection tubes suitable for 1-lamp and 2-lamp luminaires
- please order 2 ring holders for each lamp protection tube



**PC protection tube, Ø 38mm
for SiPLAST® T16**
transparent, with decorative inner
prismatics

Type	for lamps	Order No.
Protection tube	T16 28/54W	5LS21711JG
Protection tube	T16 35W/49W/80W	5LS21711XG
Lampholder ring D= 38mm	for protection tube	5LS21702

- protection tubes suitable for 1-lamp and 2-lamp luminaires
- please order 2 ring holders for each lamp protection tube



**PC protection tube, Ø 38mm
for SiPLAST® T16**
frosted

Type	for lamps	Order No.
Protection tube	T16 28/54W	5LS21721JG
Protection tube	T16 35W/49W/80W	5LS21721XG
Lampholder ring D= 38mm	for protection tube	5LS21702

- protection tubes suitable for 1-lamp and 2-lamp luminaires
- please order 2 ring holders for each lamp protection tube



**PC protection tube, Ø 38mm
for SiPLAST® T16**
transparent

Type	for lamps	Order No.
Protection tube	T16 35W/49W/80W	5LS21511QG
Lampholder ring D= 38mm	for protection tube	5LS21702

- protection tubes suitable for 1-lamp and 2-lamp luminaires
- please order 2 ring holders for each lamp protection tube

SiPLAST® Open Distribution Housing Accessories



Wire guard
steel mesh, Ø = 4mm, galvanised
incl. mounting bracket

Type	for lamps	Order No.
Wire guard	1x T16 28/54W 1x T26 36W	5LS20901CD
Wire guard	1x T16 35/49/80W 1x T26 58W	5LS20901ED

- open at face ends
- only for ceiling mounting



Wire guard
steel mesh, Ø = 4mm, galvanised
incl. mounting bracket

Type	for lamps	Order No.
Wire guard	2x T16 28/54W 2x T26 36W	5LS32201CD
Wire guard	2x T16 35/49/80W 2x T26 58W	5LS32201ED

- only for ceiling mounting

SiPLAST® Open Distribution Electrical Accessories



Through-wiring set
for through-wiring inside a luminaire |
consists of heat-resistant single-core
cable, terminals and mounting
hardware | wiring from one luminaire
to the next with standard cable
(e.g. NYM)

Type	Order No.
Through-wiring	4x 1.5mm ² 5LS21601EK

- 1 set required per luminaire
- suitable for T16 35/49/80W and T26 58W (with T16 28/54W or T26 36W: loop cable)



SiPLAST® Open Distribution Mounting accessories



Universal luminaire suspension
 for wire ($\varnothing \leq 4.5\text{mm}$)
 or chain (inner $\varnothing \geq 7\text{mm}$)
 Load capacity: 25kg

Type		Order No.
Suspension	galvanised, partly V2A	5LY9086
Suspension	V2A	5LY90861

- 2 pieces required per luminaire



Chain
 inner link size 7 x 40 mm
 load capacity: 56 kg

Type		Order No.
chain	galvanised	5LY9005
chain	V2A	5LY9111

- Chain: per metre



Quick-release link, galvanised
 inner link size 8 x 20mm
 load capacity: 50kg

Type		Order No.
Quick-release link	galvanised	5LY9113



Mounting set 1
 for luminaire mounting to unwired
 DUS® trunking rail | consists of
 mounting element, galvanised steel |
 screw mounting; cable retainer

Type	PU	Order No.
Mounting set	set of 2	5LS90900XC1

- 2 pieces required per luminaire



Mounting set
 for luminaire mounting to GRP
 mounting rail | consists of threaded
 plate, V2A; screw fastening

Type		Order No.
Mounting set		5LS91120EC

- 2 pieces required per luminaire
 - See Page 6.67 for plastic mounting rail and accessories
 - threaded plates are included within delivery of plastic mounting rail
 (2 pieces, 4 pieces, 6 pieces with 1-length, 2-length, 3-length rail accordingly)





FR100 for low ambient temperatures

The damp-proof diffuser luminaires of the FR100 family have been designed for the special ambient conditions presented by industrial manufacturing, and selected versions also for rooms with especially low ambient temperatures. A robust housing of glass-fibre reinforced plastic, a pearled cover of PMMA and a special sealing system provide protection against temperature fluctuations, critical humidity conditions and challenging ambient conditions. The precise workmanship and high quality materials qualify the luminaire for IP65 protection. The extremely wide distribution luminaires have been optimised for use with T26 fluorescent lamps. With wide-ranging and installation-friendly accessories the luminaires are suitable for ceiling surface-mounting, suspended mounting and continuous rows with rails.

- + wide spectrum of damp-proof luminaires for low temperatures to -40°C, e.g. for use in freezer stores and cold stores
- + for good, even illumination of working areas
- + housing resistant to fire and ignition
- + housing impact-resistant according to VDE 0711
- + robust, trapezoid, glass-fibre reinforced plastic housing
- + simple mounting



Housing

Glass-fibre reinforced polyester resin housing, resistant to corrosion, fire and ignition and largely unaffected by aggressive influences | PMMA diffuser | V2A catches | inner reflector functions as gear tray for all electrical parts and is secured within housing by rotary catches | housing and diffuser are completely recyclable

Electrics

Luminaire wired ready for connection | with 3-pole terminal, max. 2.5mm² | cable gland for cables or conduits with D= 8.5 to 13.5mm | suitable for through-wiring (with special wiring sets) within luminaire

Lighting technology

- pearled cover for extremely wide distribution with ceiling illumination
- direct distribution via supplementary reflector (accessory)





FR100 with pearl cover of PMMA | for cold stores or deep-freeze stores

FR100 damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | extremely wide distribution**; with pearl cover | with ECG or LLCC | housing of glass-fibre reinforced polyester, grey; cover of PMMA; V2A catches

Protection rating: IP65

Insulation class: I

Protection symbol: F

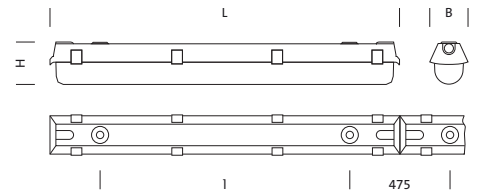
Temperature areas (according to specification):

-40°C..-10°C*** (freezer stores)

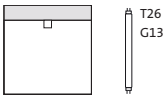
-30°C..+25°C*** (freezer stores and cold stores)

-10°C..+25°C (cold stores)

*** Luminaire with heat accumulation tubes; the specified maximum ambient temperature must not be exceeded | Luminaire for temperatures to -30°C with special ECG
** direct distribution via supplementary reflector



	L	l	B	H
1xT26 36W	1277	800	105	116
1xT26 58W	1577	1100	105	116
2xT26 36W	1277	800	136	132
2xT26 58W	1577	1100	136	132



Lamps	Socket	AT min. / max.	Wt. (kg)	ECG, F Order No.	LLCC, ind., F Order No.
enclosure, PMMA					
1x T26 36W	G13	-30..+25°C	2.5	5LS32971CT1	
1x T26 58W	G13	-40..-10°C	4.3		5LS32911ET1
1x T26 58W	G13	-30..+25°C	2.9	5LS32971ET1	
2x T26 36W	G13	-30..+25°C	4.1	5LS32972CT1	
2x T26 58W	G13	-40..-10°C	5.7		5LS32912ET1
2x T26 58W	G13	-30..+25°C	5.1	5LS32972ET1	
2x T26 58W	G13	-10..+25°C	5.4		5LS32912ET0

- please order specular reflector for direct distribution separately (for single-lamp luminaires for temperatures to -40°C and -30°C, a special reflector is required)

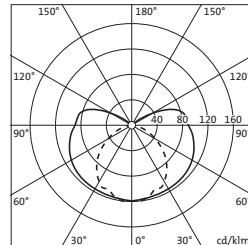
Accessories (for details and further accessories see page 7.38 f.)

Article	Wt. (kg)	Order No.
specular reflector, aluminium, highly specular, direct symmetric distribution, for 1x T26 36W	0.1	5LS32201CST1
specular reflector, aluminium, highly specular, direct symmetric distribution, for 1x T26 58W	0.2	5LS32201EST1
specular reflector, aluminium, highly specular, direct symmetric distribution, for 2x T26 36W	0.7	5LS32202CS
specular reflector, aluminium, highly specular, direct symmetric distribution, for 2x T26 58W	0.2	5LS32202ES

5LS32971ET1

1 x T26 58W/840 ϕ 5000 lm

η_{lm} 64.3% ϕ± 80% ϕ± 20%



Luminaire values (cd/m²)

	C 0/180	C 90/270
L ₈₀	3777	1313
L ₇₀	3416	1899
L ₆₅	3297	2170

UGR 23.4 17.6

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
20 m ²	1.3	1.5	2.6
30 m ²	1.9	2.2	3.8
40 m ²	2.4	2.7	4.7
50 m ²	2.8	3.1	5.6
75 m ²	4.0	4.4	8.0
100 m ²	5.0	5.5	10
500 m ²	21	22	43

Factors of other lamp configurations

1x36W 1.5 2x36W 0.8

2x58W 0.6

Maintenance factor 0.8

Rh = Lh + 0.5 m

FR100 for high ambient temperatures

The damp-proof diffuser luminaires of the FR100 family have been designed for the special ambient conditions presented by industrial manufacturing, and selected versions also for especially high ambient temperatures. A robust housing of glass-fibre reinforced plastic, a pearl diffuser of PMMA or PC and a special sealing system provide protection against temperature fluctuations, critical humidity conditions and difficult ambient conditions. The precise workmanship and high quality materials qualify the luminaire for IP65 protection. The extremely wide distribution luminaires have been optimised for use with T26 fluorescent lamps. With wide-ranging and installation-friendly accessories the luminaires are suitable for ceiling surface-mounting, suspended mounting and continuous rows with rails.

- + suitable for use with ambient temperatures to +70°C
- + for good, even illumination of working plane
- + housing resistant to fire and ignition
- + housing impact-resistant according to VDE 0711
- + robust, trapezoid, glass-fibre reinforced plastic housing
- + simple mounting



Housing

Glass-fibre reinforced polyester resin housing, resistant to corrosion, fire and ignition and largely unaffected by aggressive influences | PMMA diffuser or UV-stabilised PC diffuser for impact resistance | inner reflector functions as gear tray for all electrical parts and is secured within housing by rotary catches | housing and enclosure are completely recyclable

Electrics

Luminaire wired ready for connection | with 3-pole terminal, max. 2.5mm² | cable gland for cables or conduits with D= 8.5 to 13.5mm | suitable for through-wiring (with special wiring sets) within luminaire

Lighting technology

- pearled cover for extremely wide distribution with ceiling illumination
- direct distribution via supplementary reflector (accessory)





FR100 with pearl cover of PMMA or PC | for ambient temperatures to +70°C

FR100 damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | extremely wide distribution**; with pearl cover | with ECG or LLCG | housing of glass-fibre reinforced polyester, grey; cover of PMMA or PC; V2A catches with version for ambient temp_{max} ≤ +70°C

Protection rating: IP65

Insulation class: I

Impact resistance: IK07 (version with PC cover)

Protection symbol: D*/F or F (according to version)

Temperature areas (according to specification):

To max. +50°C***

To max. +55°C***

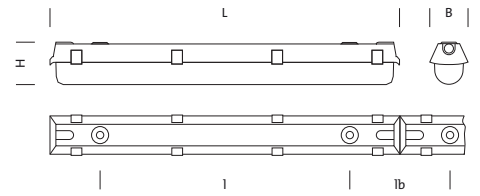
To max. +60°C***

To max. +70°C*** (with V2A catches)

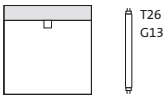
*** the specified maximum ambient temperature must not be exceeded

** direct distribution via supplementary reflector

* D designation according to current EN60598-2-24 approval



	AT max.	L	l	lb	B	H
1 x 18W		667	330	335	105	116
1 x 36W		1277	800	475	105	116
1 x 36W	55°C / 70°C	1277	800	475	136	132
1 x 58W		1577	1100	475	105	116
1 x 58W	55°C / 70°C	1577	1100	475	136	132
2 x 36W		1277	800	475	136	132
2 x 58W		1577	1100	475	136	132



Lamps	Socket	AT min. / max.	Wt. (kg)	ECG, D / F Order No.	LLCG, ind., F Order No.
enclosure, PMMA					
1x T26 18W	G13	≤ +50°C	2.1		5LS32911AT5
1x T26 36W	G13	≤ +50°C	3.0		5LS32911CT5
1x T26 36W	G13	≤ +55°C	2.7	5LS32971CT55	
1x T26 58W	G13	≤ +50°C	3.8		5LS32911ET5
1x T26 58W	G13	≤ +55°C	3.7	5LS32971ET55	
2x T26 36W	G13	≤ +50°C	4.5		5LS32912CT5
2x T26 58W	G13	≤ +50°C	5.2		5LS32912ET5

enclosure, PC, UV-stabilised					
1x T26 36W	G13	IK07	≤ +60°C	3.0	5LS32911CT6
1x T26 36W	G13	IK07	≤ +70°C	3.7	5LS32911CT7
1x T26 58W	G13	IK07	≤ +60°C	3.9	5LS32911ET6
1x T26 58W	G13	IK07	≤ +70°C	4.8	5LS32911ET7
2x T26 36W	G13	IK07	≤ +60°C	4.5	5LS32912CT6
2x T26 58W	G13	IK07	≤ +60°C	6.2	5LS32912ET6

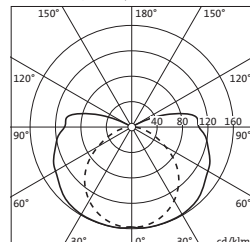
- please order specular reflector for direct distribution separately

Accessories (for details and further accessories see page 7.38 f)

Article	Wt. (kg)	Order No.
specular reflector, aluminium, highly specular, direct symmetric distribution, for 1x T26 36W	0.2	5LS32201CS
specular reflector, aluminium, highly specular, direct symmetric distribution, for 1x T26 58W	0.2	5LS32201ES
specular reflector, aluminium, highly specular, direct symmetric distribution, for 2x T26 36W	0.7	5LS32202CS
specular reflector, aluminium, highly specular, direct symmetric distribution, for 2x T26 58W	0.2	5LS32202ES

5LS32911ET7

1 x T26 58W/840 φ 5200 lm



η_{lm} 78.9% φ 85% φ_t 15%

Luminance values (cd/m²)

	C 0/180	C 90/270
L ₈₀	5600	2323
L ₇₀	4948	2825
L ₆₅	4761	3115

UGR 24.8 19.5

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	1.1	2.0	2.3	4.9	5.7
30 m ²	1.4	1.6	2.8	3.3	7.1	8.1
40 m ²	1.8	2.0	3.6	4.0	8.9	10
50 m ²	2.1	2.4	4.3	4.8	11	12
75 m ²	3.0	3.3	6.0	6.6	15	17
100 m ²	3.8	4.2	7.7	8.3	19	21
500 m ²	16	17	33	34	82	85

Factors of other lamp configurations

1x36W	1.5	2x36W	0.9
2x58W	0.6		

Maintenance factor 0.8 Rh = Lh + 0.5 m

FR-Ex for explosive areas

The damp-proof diffuser luminaires of the FR-Ex family have been designed for special ambient conditions in environments with danger of explosion. A robust housing of glass-fibre reinforced plastic, an impact-resistant pearl diffuser of PC and a special sealing system provide protection against extreme temperatures, critical humidity conditions and aggressive ingress of dust. The precise workmanship and high quality materials qualify the luminaire for an IP65 protection rating with insulation class 2. The extremely wide distribution luminaires with ceiling illumination have been optimised for use with T26 fluorescent lamps.

- + suitable for use in explosion zones 2 or 22 according to ATEX directive 94/9/EG
- + emergency light function can be implemented
- + for good, even illumination of working plane
- + housing resistant to fire and ignition
- + housing impact-resistant according to VDE 0711



Housing

Glass-fibre reinforced polyester resin housing, resistant to corrosion, fire and ignition and largely unaffected by aggressive influences | PC cover for greater impact resistance | safety catch cannot be opened without tools; V2A catches | inner reflector functions as gear tray for all electrical parts and is secured within housing by rotary catches | housing and cover are completely recyclable

Electrics

Luminaires wired ready for connection with insulation class II with 3-pole (5-pole with through-wiring) connection terminal (incl. protective earth) with insulation class I with 4-pole connection terminal (3-pole for normal mains + 1-pole for unswitched phase, max. 2.5mm² | cable entry with M25x 1.5 metric cable gland for cables with D= 8.5...13mm

Versions with emergency light function **with single battery emergency light element** for operation on normal mains or on integral self-contained supply

Lighting technology

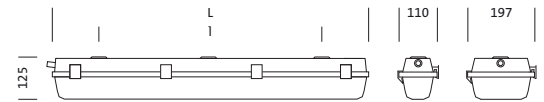
- prismatic cover for extremely wide light distribution with ceiling illumination





FR-Ex with prismatic cover of PC | for expl.-hazard zone 2 or 22 acc. to ATEX 94/9/EG | insulation class II

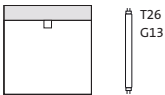
FR-Ex damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | extremely wide distribution**, with prismatic cover | with ECG | housing of glass-fibre reinforced polyester, grey; cover of PC; V4A catches



	L	l
1 x T26 36W	1272	800
1 x T26 58W	1572	1100
2 x T26 36W	1272	800
2 x T26 58W	1572	1100

Protection rating: IP65
 Insulation class: II
 Impact resistance: IK07
 Permissible ambient temp: -20°C..+40°C
 Explosion protection: for explosion-hazard zone 2 or 22 in accordance with ATEX 94/9/EG directive
 Designation (Ex zone 2): Ⓜ II 3G Ex nA IIC T4*
 Designation (Ex zone 22): Ⓜ II 3D Ex tD A22 IP65 T80°C

* (temperature class T4: max. surface temperature of luminaire ≤ 135°C)



IP 65

Lamps	Socket	Wt. (kg)	ECG Order No.
enclosure, PC, UV-stabilised			
1x T26 36W	G13	2.9	5LS22871CF5
1x T26 58W	G13	4.3	5LS22871EF5
2x T26 36W	G13	5.1	5LS22872CF5
2x T26 58W	G13	6.3	5LS22872EF5

Lamps	Socket	Wt. (kg)	ECG Order No.
enclosure, PC, UV-stabilised, with thr. wiring 5 x 2.5mm²			
1x T26 36W	G13	3.2	5LS22971CF5007
1x T26 58W	G13	4.8	5LS22971EF5007
2x T26 36W	G13	5.4	5LS22972CF5007
2x T26 58W	G13	6.7	5LS22972EF5007

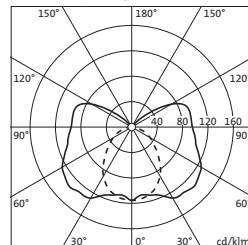
- cable infeed with luminaire without through-wiring: 1 cable gland M20x 1.5, 1 closure screw and 2 locknuts included
 - cable infeed with luminaire with through-wiring: 2 cable glands M20x 1.5, 2 locknuts and 1 red closure seal included

Accessories see page 7.67

5LS22871EF5

1 x T26 58W/840 φ 5000 lm

η_{LB} 72.4% φ_d 76% φ_t 24%



No. of luminaires in room

Reflection factors 70/50/20

Ern(lx)	100		200		500	
Lh(m)	2.5	3.0	2.5	3.0	2.5	3.0
20 m ²	1.2	1.4	2.4	2.8	5.9	7.0
30 m ²	1.7	2.0	3.5	4.0	8.7	9.9
40 m ²	2.2	2.4	4.3	4.9	11	12
50 m ²	2.6	2.9	5.1	5.7	13	14
75 m ²	3.6	4.0	7.2	7.9	18	20
100 m ²	4.6	5.0	9.1	10.0	23	25
500 m ²	19	20	39	40	96	101

Maintenance factor 0.8 Rh = Lh + 0.5 m



FR-Ex with prismatic cover of PC | for expl.-hazard zone 2 or 22 acc. to ATEX 94/9/EG | with single battery emergency light element | insulation class I

FR-Ex damp-proof diffuser luminaire for ceiling surface mounting, suspended mounting or mounting to a rail | extremely wide distribution**, with prismatic cover | with ECG | housing of glass-fibre reinforced polyester, grey; cover of PC; V4A catches

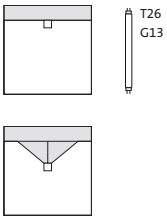
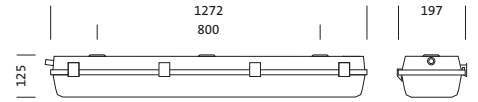
Protection rating: IP65
 Insulation class: I
 Impact resistance: IK07
 Permissible ambient temp: 0°C to 25°C
 Explosion protection: for explosion-hazard zone 2 or 22 in accordance with ATEX 94/9/EG directive
 Designation (Ex zone 2): Ⓜ II 3G Ex nA IIC T4*
 Designation (Ex zone 22): Ⓜ II 3D Ex tD A22 IP65 T80°C

* (temperature class T4: max. surface temperature of luminaire ≤ 135°C)

Electrical

Luminaire for operation on 'normal mains' or via the integral self-contained supply | wired ready for connection, with 4-pole connection terminal (3-pole for normal mains with switched phase + single pole for additional unswitched phase for emergency light element | single battery emergency light element for 1h or 3h operation; with LED (for optical self-test functioning control of battery)

Detail information: see appendix or www.Siteco.com (navigation: Products | Indoor luminaires | damp-proof luminaires | luminaires for special applications | FR-Ex; for expl.-hazard zone 2 or 22 acc. to ATEX 94/9/EG | version with single battery emergency light element; insulation class I)



Lamps	Socket	Wt. (kg)	ECC Order No.
enclosure, PC, UV-stabilised, with emergency element, nominal service life 1h			
2x T26 36W	G13	7.0	5LS22872CF5A04

enclosure, PC, UV-stabilised, with emergency element, nominal service life 3h			
2x T26 36W	G13	7.5	5LS22872CF5A05

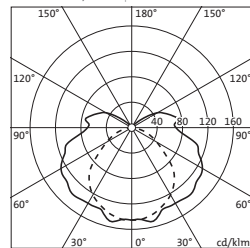
- cable infeed of luminaire: 1 cable gland M20x 1.5, 1 closure screw and 2 locknuts included

Accessories see page 7.67

5LS22872CF5A04

2 x T26 36W/840 φ 6400 lm

η_{LED} 71.2% φ 83% φ⁺ 17%



Luminance values (cd/m²)

	C 0/180	C 90/270
L ₈₀	4070	1328
L ₇₀	3961	2022
L ₅₀	3917	2182
UGR	23.6	18.2

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
20 m ²	0.9	1.0	1.7
30 m ²	1.3	1.4	2.5
40 m ²	1.6	1.8	3.2
50 m ²	1.9	2.1	3.8
75 m ²	2.7	2.9	5.4
100 m ²	3.4	3.7	6.8
500 m ²	15	15	29

Maintenance factor 0.8 Rh = Lh + 0.5 m

**Universal luminaire suspension**

for wire ($\varnothing \leq 4.5\text{mm}$) or chain
 (\varnothing inside $\geq 7\text{mm}$)
 load capacity: 25kg

Type

Suspension	galvanised, partly V2A
------------	------------------------

Order No.

5LY9086

Suspension	V2A
------------	-----

5LY90861

– 2 pieces required per luminaire

**Chain**

inner link size 7 x 40 mm
 load capacity: 56 kg

Type

Chain	galvanised
-------	------------

Order No.

5LY9005

Chain	V2A
-------	-----

5LY9111

– Chain: per metre

**Mounting set**

For luminaire mounting to un-wired
 DUS® trunking rail

Type

Mounting set

Order No.

5LY9142

- 2 pieces required per luminaire
- See Page 6.67 for DUS® mounting rail and accessories
- through-wiring from luminaire to luminaire with sheathed cable (e.g. NYM)

**Mounting set**

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

Type

Mounting set

Order No.

5LS91120EC

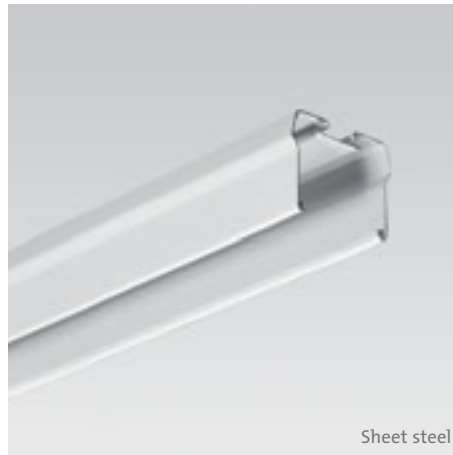
- 2 pieces required per luminaire
- See Page 6.67 for plastic mounting rail and accessories
- threaded plates are included within delivery of plastic mounting rail
 (2 pieces, 4 pieces, 6 pieces with 1-length, 2-length, 3-length rail accordingly)



Mounting rails

The mounting rails enable damp-proof luminaires to be installed as continuous or interrupted trunking. Various mounting sets are available for this, adapted to the various luminaire types and allowing rapid and simple mounting.

- + various mounting sets for rapid, simple mounting of various luminaire types to the rail
- + wide range of accessories for suspended mounting or for mounting rails to ceilings
- + wide distances between suspension points
- + practical accessories for concealing exposed rail sections and for through-wiring with interrupted luminaire arrangements



Sheet steel



Plastic

Housing

Mounting rail of sheet steel

Sheet steel galvanised housing, pure white (similar to RAL 9010) | plastic covers, white or grey, can be cut to suit | compatible with mounting rails and mounting rail components of DUS® trunking systems

Plastic mounting rail

Housing of glass-reinforced polyester, grey | rail connectors, suspension- and mounting accessories of V2A

Electrics

Rails as bare mounting rails, without wiring | with arrangement as seamless trunking, through-wiring within luminaires via special wiring sets according to luminaire or above luminaire via sheathed cable (e.g. NYM) | with interrupted continuous rows, through-wiring from luminaire to luminaire with conventional sheathed cable (e.g. NYM) | cable fixing between luminaires to DUS® rail via blank cover or via additional cable retainers in or on rail; cable fixing to GRP mounting rail via additional cable retainers on rail

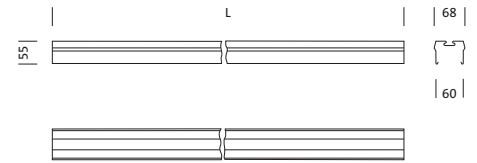




DUS® mounting rail | galvanised sheet steel, coated white

DUS® trunking rail for ceiling surface mounting or suspended mounting | galvanised steel, pure white (similar to RAL 9010) | unwired |

For installation of damp-proof luminaires, diffuser luminaires or louvre luminaires as seamless or interrupted continuous rows



L (mm)	Wt. (kg)	Order No.
3153	4.2	5LS90920E
4730	6.0	5LS90930E

- please order connectors, end caps and suspension for DUS® trunking rail separately
- please order mounting sets for mounting luminaires and fixed covers for the DUS® trunking rail separately

Mandatory accessories (for details see page 7.70 ff.)

Article	PU	Wt. (kg)	Order No.
connector, steel, galvanised		0.5	5LJ90910XV
joint cover, pure white		0.1	5LS90900XD
end cap, pure white	set of 2	0.1	5LS90910XD
spacing panel cover, white, flat, can be cut to suit, L=1535 mm		0.2	5LJ90830ED
spacing panel cover, light grey (RAL7035), curved, can be cut to suit, L=1596 mm		0.3	5LS90800XD



GRP mounting rail | glass-fibre reinforced plastic, grey

Mounting rail for ceiling surface mounting or suspended mounting | glass-fibre reinforced polyester, grey | unwired |

For installation of linear fluorescent luminaires with higher protection rating as seamless or interrupted continuous rows

(incl. ceiling mounting accessories | incl. mounting sets for mounting of luminaires to rail: 2, pieces, 4 pieces, 6 pieces with 1-length, 2-length or 3-length rail)








L (mm)	Wt. (kg)	Order No.
1597	2.0	5LS91011EN
3194	4.0	5LS91012EN
4791	6.0	5LS91013EN

- please order connectors and suspension for mounting rail separately
- please order fixed covers, end caps and cable clips or cable retainers for through-wiring of rail separately

Mandatory accessories (for details see page 7.72 f.)

Article	PU	Wt. (kg)	Order No.
connector, stainless steel, uncoated		0.2	5LS91101EV
end cap, grey	set of 2	0.1	5LS91106
cable retainer, grey, can be cut to suit, mounting to the mounting rail		0.2	5LS91101
cable clip, grey	set of 20	0.1	5LS91102
spacing panel cover, grey, can be cut to suit, L=1500 mm		0.1	5LS91103



DUS Mounting Rail Housing Accessories

	<p>End cap for DUS® trunking rail for clipping to mounting rail, with safety screws plastic, white pushed out for cable entry</p>	Type	PU	Order No.	
		End cap	set of 2	5LS90910XD	
	<p>Connector for DUS® trunking rail Steel, galvanised double screw connection ensures firm, flush-fit connection self-supporting</p>	Type		Order No.	
		Connector		5LJ90910XV	
		– self-supporting connection, suspension in area of join not necessary			
	<p>Join cover for DUS® trunking rail plastic, white</p>	Type		Order No.	
		Join cover		5LS90900XD	
		– 1 piece required per join			
	<p>Blank cover for DUS® trunking rail plastic, grey, can be cut to suit suitable for FR500, FR200, FR100, SiPLAST® open distribution luminaires (mounting set 1 and 5) for covering of DUS® trunking rail with interrupted luminaire arrangements (blank cover encloses cable entry of luminaires and aids through-wiring from one luminaire to the next)</p>	Type	L (mm)	Order No.	
		Blank cover	1596	■ 5LS90800XD	
		– can be cut to suit for covering rail sections in which no luminaire insert has been installed			
	<p>Blank cover plastic, can be cut to suit suitable for Monsun®, Siteco Louvre Luminaire Plus, Sigro MLU luminaires (mounting sets 2, 3 and 4) for covering of DUS® trunking rail with interrupted luminaire arrangements</p>	Type	length (mm)	Wt. (kg)	Order No.
		Blank cover			
		white	1535	0.2	5LJ90830ED
		– can be cut to suit for covering rail sections in which no luminaire insert has been installed			

DUS Trunking Rail Mounting Accessories

The number of mounting points results from the total weight of the whole continuous row (rail and luminaires) and the load capacity of the suspension. The maximum permissible distance between two mounting points and the maximum permissible length of the unsupported rail end must not be exceeded.

- maximum permissible distance between two mounting points: $l_{\max} = 3.5\text{m}$
- maximum permissible length of unsupported rail end: $l_{a\max} = 0.8\text{m}$

	<p>Ceiling mounting "A" galvanised steel, incl. spacer load capacity: 20kg</p>	Type		Order No.
		Ceiling mounting		5LJ90930XC
	<p>Wire suspension "B" with height adjustment without wire (for wire: D= 1.5mm) load capacity: 16kg</p>	Type		Order No.
		Wire suspension		5LJ90921XC

DUS trunking rail Mounting Accessories

**Wire suspension "C"**

with height adjustment | incl. wire
with loop at top
Wire: D = 1.5mm | load capacity: 16kg

Type	Suspension height	Order No.
Wire suspension	H ≤ 1m	5LJ90900
Wire suspension	H ≤ 2m	5LJ90901

– without ceiling-sided mounting (ceiling hooks on-site)

**Wire suspension "D"**

with height adjustment | incl. wire,
ceiling mounting element, canopy,
white
Wire: L = 2m, D = 1.2mm
Load capacity: 12kg

Type	Order No.
Wire suspension without terminal	5LJ909001
Wire suspension with terminal ¹⁾	5LJ90921XC2
Supplementary wire	L = 6m ²⁾ 5LK91300

1) with 5 terminals, 1-pole, max 2.5 mm²

2) for 2 part lengths ≤ 3m or for 1 suspension ≤ 6m

**Chain suspension "E"**

on rail | safety hook with height
adjustment | galvanised steel
load capacity: 20kg

Type	Order No.
Chain suspension	5LJ90910XC

– without chain, without ceiling-sided mounting (ceiling hooks on-site)

**Chain suspension "F"**

safety hook with height adjustment |
galvanised steel, partly with diecast
aluminium | incl. suspension bracket,
quick-release link and white canopy |
load capacity: 20kg

Type	Order No.
Chain suspension	5LJ90912XC

– without chain

**Chain suspension "G"**

on rail | safety hook with height
adjustment | galvanised steel, partly
diecast aluminium
load capacity: 20kg

Type	Order No.
Chain suspension	5LJ90911XC

– without chain, without ceiling-sided mounting (ceiling hooks on-site)

**Chain, galvanised**

inner link size 7mm x 40mm
load capacity: 56kg

Type	Order No.
Chain	galvanised 5LY9005
Quick-release link	galvanised 5LY9113

– Chain: per metre

Quick-release link (not shown)

inner link size 8mm x 20mm
load capacity: 50kg

DUS trunking rail Mounting Accessories for luminaires

**Mounting set 1**

for fixing FR500, FR200, FR100,
SiPLAST® 92, SiPLAST® 98 or SiPLAST®
open distribution to DUS® mounting
rail

Type	PU	Order No.
Mounting set	set of 2	5LS90900XC1

– 2 pieces required per luminaire

– consists of mounting element, galvanised steel; plastic plate; screw mounting and cable retainer

**Mounting set 2**

for fixing Monsun® damp-proof
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



DUS trunking rail Mounting Accessories for Luminaires



Mounting set 3

for mechanical fixing of Europlex® surface-mounted diffuser luminaires, FR-Ex or Siteco Louvre Luminaire Plus surface-mounted luminaires to unwired DUS® mounting rail

Type

Order No.

Mounting set

5LY9142

- 2 pieces required per luminaire
- through-wiring on upper side of luminaire with sheathed cable (e.g. NYM), cable entry on upper side of luminaire



Mounting set 5

for fixing Siteco Louvre Luminaire Plus surface-mounted louvre luminaires to pre-wired DUS® mounting rails | incl. connection cable and plug (with phase selection) for connection in the wired DUS® rail

Type

Order No.

Mounting set

3-pole, for 5- or 7-core wired rail

5LJ90940XC

5-pole, for 7-core wired rail

5LJ90950XC

- 1 set required per luminaire
- see section 5 for wired DUS® mounting rails and accessories



Mounting set 6

for fixing Hexal® modules in pre-wired DUS® rail; consists of mounting clips, V2A; connection cable and plug (with phase selection) for connection in the wired DUS® rail | tool-free mounting, can be positioned at random in the rail

Type

Order No.

Mounting set 1 for current DUS® trunking rail 5LJ909...

5LJ90040XC

Mounting set 2 for DUS® "classic" mounting rail 5LJ809...

5LJ90050XC

- 1 set required per light module
- Mounting clips, V2A, mounted without tools, can be positioned to choice

DUS Mounting Rail Electrical Accessories



Cable holder

for supplementary wiring (e.g. for multiple circuits etc.) | suitable for sheathed cable
 $D_{max} \leq 13.5\text{mm}$
 (e.g. NYM 5x 2.5mm²)

Type

PU

Order No.

Cable retainer for one cable on rail

set of 10

5LJ90810XY

Cable retainer for one or two cables in rail

set of 10

5LJ90800XY

GRP Mounting Rail Housing Accessories



End cap for GRP trunking rail

plastic, grey | incl. stainless steel fastening clips

Type

PU

Order No.

End cap

set of 2

5LS91106



Connector for GRP trunking rail

for seamless connection | V2A

Type

Order No.

Connector

5LS91101EV



Blank cover for GRP trunking rail

for covering with interrupted luminaire arrangements | grey plastic, can be cut to suit

Type

L (mm)

Order No.

Blank cover

1500

5LS91103

GRP Mounting Rail Mounting Accessories

The number of mounting points results from the total weight of the whole continuous row (rail and luminaires) and the load capacity of the suspension. The maximum permissible distance between two mounting points and the maximum permissible length of the unsupported rail end must not be exceeded.

- maximum permissible distance between two mounting points: $l_{\max} = 3.5\text{m}$
- maximum permissible length of unsupported rail end: $l_{a\max} = 0.8\text{m}$

**Ceiling mounting**

for clipping to mounting rail | for ceiling mounting or chain suspension | V2A
load capacity: 20kg

Type		Order No.
Ceiling mounting	V2A	5LS91101EA

**Universal luminaire suspension**

for wire ($\phi \leq 4.5\text{mm}$) or chain (ϕ inside $\geq 7.5\text{mm}$)
load capacity: 25kg

Type		Order No.
Suspension	V2A	5LY90861

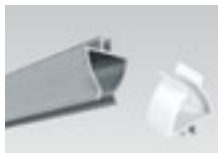
**V2A chain**

inner link size 7 x 40mm
load capacity: 56kg

Type		Order No.
Chain	V2A	5LY9111

– Chain: per metre

GRP Mounting Rail Electrical Accessories

**Cable clip / cable retainer**

for fixing of cables to mounting rail | plastic, grey | suitable for sheathed cable | $D = 8..15\text{mm}$ (e.g. NYM)

Type	PU	L (mm)	Order No.
cable clip	set of 20	25	5LS91102
cable retainer		1500	5LS91101

GRP Mounting Rail Spare parts

**Mounting set**

for mounting of damp-proof luminaires FR500, FR200, FR100, FR-Ex and Monsun® or open distribution SiPLAST® to plastic mounting rail (as accessory) | V2A | (only as spare part)

Type		Order No.
Mounting set	V2A	5LS91120EC

- 2 pieces required per luminaire
- threaded plates are included within delivery of plastic mounting rail (2 pieces, 4 pieces, 6 pieces with 1-length, 2-length, 3-length rail accordingly)

