

Архангельск (8182)63-90-72
Астана (7172)727-132
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06

Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81
Киргизия (996)312-96-26-47

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Казахстан (772)734-952-31

Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Россия (495)288-04-70

Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

<https://weidmuller.nt-rt.ru/> || wde@nt-rt.ru

A bright future for the efficiency of your systems
Our intelligent combination of lighting and power
Let's connect.

FieldPower® Wind Energy



Weidmüller 

Our system solution
Benefit from the advantages of a system solution from a single source
Let's connect.



Dear readers,

Your aspiration is to achieve maximum system efficiency for minimum acquisition and overall operating costs. At the same time, your customers demand reliable and sustainable cost-effective solutions. At Weidmüller, we have been involved in the wind power sector right from the start and know your requirements inside out.

Based on our proven FieldPower® series we have developed a complete lighting and power system specifically for wind power installations, which you can integrate into any application-specific system: FieldPower® Wind Energy.

FieldPower® Wind Energy will allow you to unlock new potential for achieving increased efficiency, overall cost reductions and quality assurance. And the best part: you get all the components from a single source. This does away with time-consuming arrangements with different component suppliers – and saves a lot of hassle.

Let's connect.

- 4 **You want to be successful in the wind energy sector**
You can count on our experience
- 6 **Take advantage of an up to 100% customised system design**
Thanks to our proven FieldPower® concept
- 8 **The future of your lighting systems is in LED technology**
We have enlightening arguments to back up our claim
- 10 **Your systems require a reliable power supply**
With our connectivity solutions you are permanently supplied
- 12 **You want to know if the investment is worth your while**
We will show you – by way of direct comparison
- 14 **You benefit from the advantages of a system solution**
We supply you with everything from a single source
- 16 **LED customized solution**
That's how your tower solution could look like
- 18 **Technical data**
LEDs, Control Unit, Power supplies, UPS modules
- 28 **Your expectations of system engineering continue to grow**
Just like the performance of our product range
- 30 **Our expertise for your requirements**
Service connects – worldwide
- 32 **Online support and downloads**
Exactly the right help and information on our solutions and products



You increase the market success of your systems
We support you with an integrated design

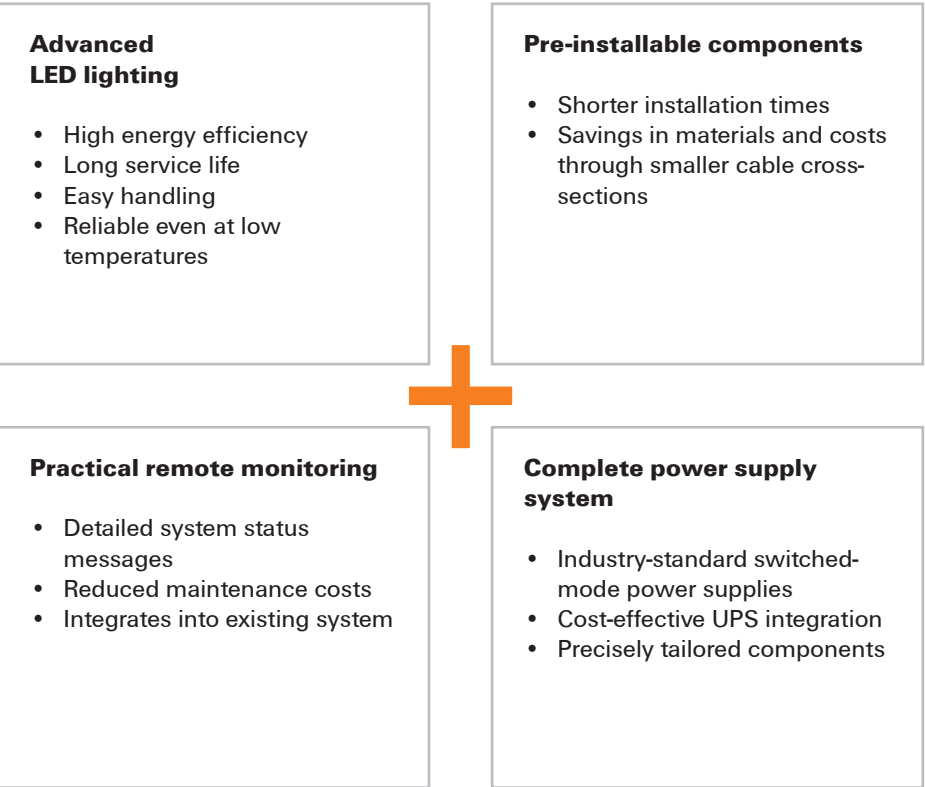
As a supplier of wind power systems you are under ever-increasing pressure from your competitors. This is why you need to design your latest wind turbines to deliver as much success as possible. The aim is to achieve maximum system efficiency for minimum acquisition and overall operating costs. At the same time, your customers demand reliable and sustainable cost-effective solutions.

At Weidmüller we have been involved in the wind power sector right from the start and know your requirements inside out. Based on our proven FieldPower® series we have developed a complete lighting and power system specifically for wind power installations, which you can integrate into any application-specific system: FieldPower® Wind Energy. FieldPower® Wind Energy will allow you to unlock new potential for achieving increased efficiency, overall cost reductions and quality assurance. And the best part: you get all the components from a single source. This does away with time-consuming arrangements with different component suppliers – and saves a lot of hassle.

Let's connect.

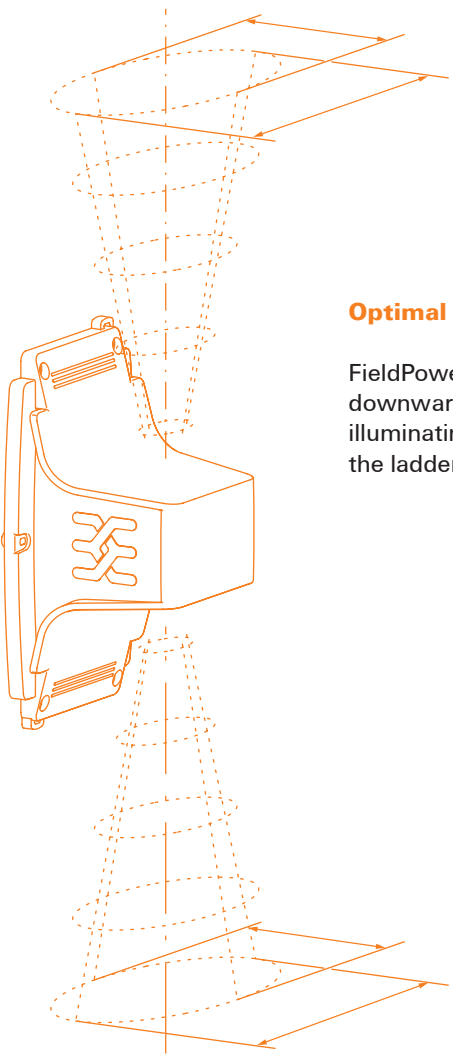
High system efficiency – low operating costs
Our unique system for lighting and power

FieldPower® Wind Energy – all the benefits of a system solution



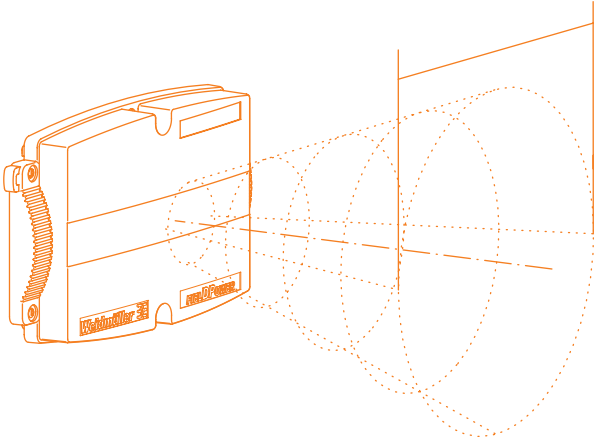
With FieldPower® Wind Energy we have harnessed all the benefits of our proven FieldPower® power bus systems especially for wind turbines. For you, this means high economic efficiency and practical usage – with a complete system that can be tailored to your exact needs.

Take advantage of an up to 100% customised system design
Thanks to our proven FieldPower® concept



Optimal lighting in the tower

FieldPower® Duo LED with upwards and downwards facing directional light. Ideal for illuminating wall sections, such as in and around the ladders in the tower.

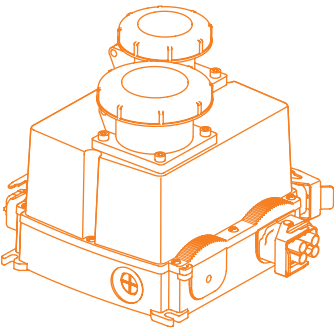


Optimal lighting in the hub and nacelle

FieldPower® Mono LED K with collimators for directional lighting. Ideal for illuminating work areas requiring high levels of lighting in a small space.

Optimum power supply

Individual positioning of compact power outlets. For quick access to power in all sections and levels of the turbine.



The future of your lighting systems is in LED technology

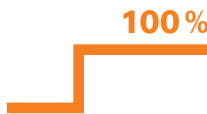
We have enlightening arguments to back up our claim

LED lamps currently provide the most advanced and long-term cost-effective lighting concept on the market. They are much more efficient, compact, robust and durable than conventional strip lights – and far easier to handle.



Temperature-insensitive

LED lamps are considerably less sensitive to extreme temperatures and temperature fluctuations than conventional forms of lighting.



100%

Full power in an instant

LED lamps achieve full luminosity the moment they are switched on – even in emergency mode. Their fast response behaviour means that visual warning and error messages are also an option.



Well protected

Enclosures with enhanced IP protection classes make FieldPower® LED lamps impervious to the ingress of dirt and moisture.

DC

DC input

A wide input range of 24 V DC to 120 V DC makes LED lamps suitable in all sections of a wind turbine.



Vibration-resistant

LED lamps continue to work reliably for long periods even when subjected to strong vibrations. This allows them to be used in all locations and reduces the cost of maintenance and replacements.



Exceptional energy efficiency

The high energy efficiency of LED lights make them economical to use over the long term in all areas of wind turbine applications.



Shock-resistant

Even severe shocks have hardly any impact on LED lamps. This makes them easy to transport and also reduces downtimes for installation and replacements.



Cost-effective installation

Voltages from 24 V DC to 120 V DC enable conductors with small cross sections to be used. This significantly reduces materials and investment costs.



Your systems require a reliable power supply
With our connectivity solutions you are permanently supplied



The choice of device connection technology often has a significant bearing on the economics of the system. To ensure you are permanently connected, we provide you with a power supply solution that is precisely tailored to all the relevant requirements and environmental conditions. This includes everything from the most suitable power supply unit thorough to a central UPS with battery and any additional modules that may be required.

Power supplies

Switched-mode power supplies from the PROmax series are the robust and high-performance connectivity solution for the wind energy sector. Even continuous overloads or short-term peak loads of 300 percent hardly have an impact on them. We provide you with suitable uninterrupted power supplies and electronic fuses. A multitude of approvals mean that our PROmax switched-mode power supplies can be used around the world.



UPS and battery modules

The UPS control units are adapted to the SMPS and, in conjunction with the associated battery modules, form a complete DC-UPS system. The system permits backup times ranging from minutes to hours and has been optimised for long battery life. Multiple status relays provide comprehensive condition monitoring.



Control Unit

The remote monitoring system provides status messages on the condition of the lighting and power supply system. This enables maintenance work to be scheduled well in advance, leading to a significant reduction in system maintenance costs. Remote monitoring can be easily integrated into existing systems. The remote monitoring system also provides optional support for existing warning systems, such as the control of a visual alarm system in the tower.



You want to know if the investment is worth your while
We will show you – by way of direct comparison

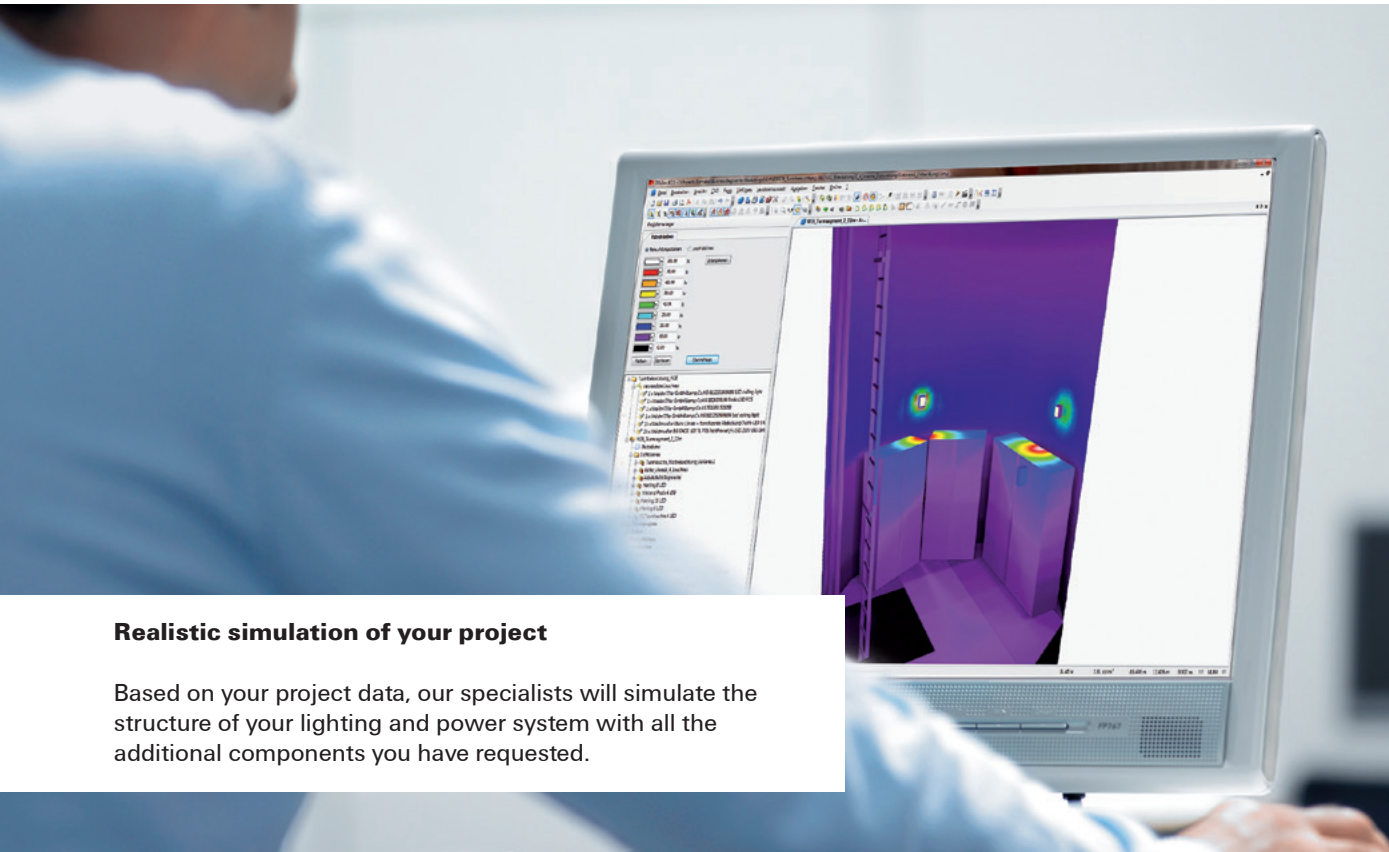
Plant size and type, location, environmental conditions, country-specific standards and regulations: a multitude of factors influence the individual planning of a wind turbine system. For this reason, we want to make sure that our lighting and power concept meets each and every one of your requirements. In a detailed simulation, we will show you how our system can be integrated in your wind turbines – as well as explaining exactly how you will benefit. The service is free and without obligation.

Totally secure: our project support



Gathering of project data

We will help you work out the exact requirements for your wind turbines and prepare your data for import into our simulation software.



Realistic simulation of your project

Based on your project data, our specialists will simulate the structure of your lighting and power system with all the additional components you have requested.



Active planning support

Once we have determined all the necessary components, we will guide you through the application-specific planning and implementation of your customised lighting and power supply concept.

You benefit from the advantages of a system solution

We supply you with everything from a single source

FieldPower® Wind Energy has everything you need to light up the interior of your wind turbines and supply them with power. In keeping with the Weidmüller FieldPower® series, which has proven its worth many times over, the innovative system solution cuts an impressive figure with its high efficiency and practical handling.

FieldPower® Mono LED FieldPower® Mono LED K

Non-directional lighting for illuminating entire rooms and larger areas. Provides optimum working conditions in the nacelle, hub and on the platforms.

FieldPower® Duo LED

Lights facing both upwards and downwards for lighting up the wall area. Ideal for illuminating the ladders in the tower.

Pre-assembled cables

On request, we can supply power cables assembled according to your individual requirements. They are ready to install and equipped with our proven plug-in connectors.

Individual outlets

The FieldPower® system enables customised use of compact power outlets at all levels and in all locations. This means that service staff, for instance, always have perfect access to power and thus save valuable time.

Feed-In Box

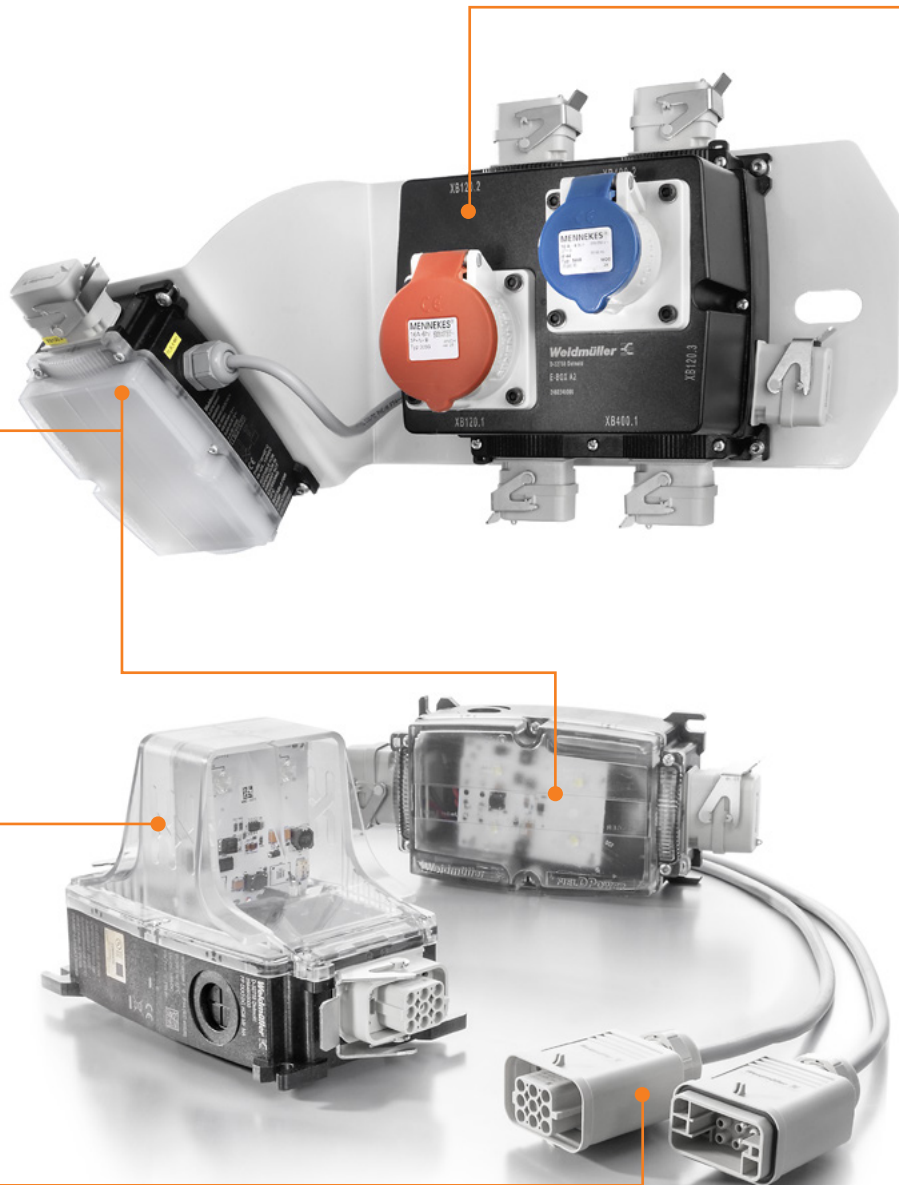
For 48V DC feed-in to our Fieldpower LED tower lighting. In the event of power loss, continued operation is ensured for 60 minutes.

Complete power supply system

We provide you with a power supply solution that is precisely tailored to specific requirements and environmental conditions. This includes everything from the power supply unit through to a UPS with central battery and any suitable add-on modules.

Control Unit

The remote monitoring system provides status messages on the condition of the lighting system and can be easily integrated into existing wind farm systems. It also provides an option for controlling a visual alarm system in the tower as a perfect complement to existing monitoring systems.

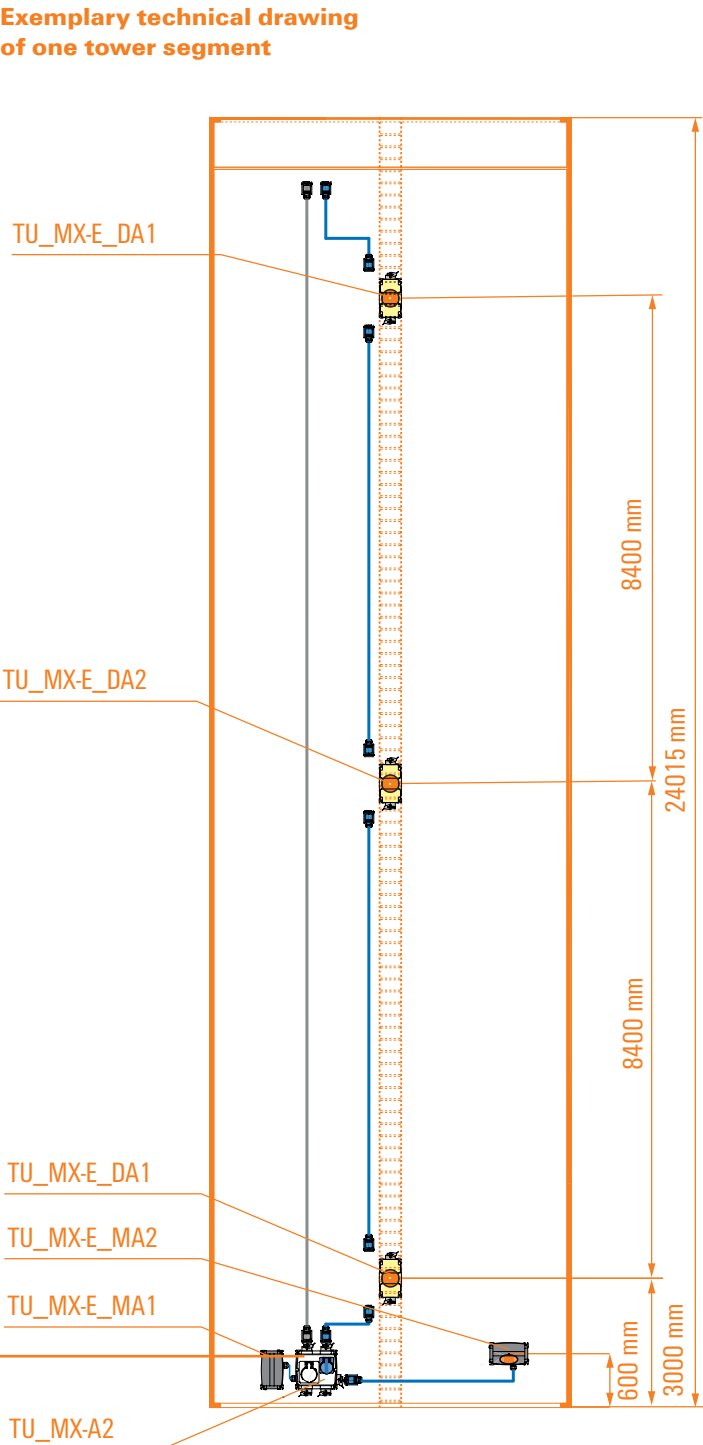
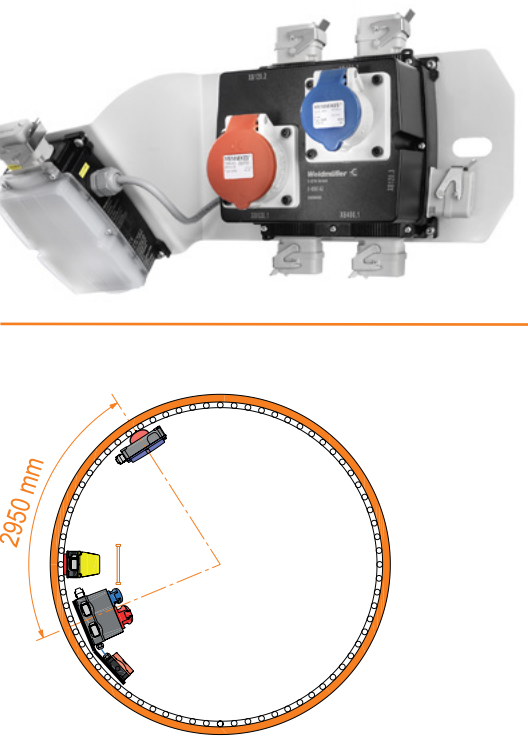


LED customized solution

That's how your tower solution could look like

- Pre-assembled system acc.to customers demands for wind turbine generators**
- Non-directional lighting for illuminating entire rooms and larger areas. Provides optimum working conditions in the nacelle, hub and on the platforms.
 - Easy fixing along cable channel or with magnets
 - Fixing plates of LEDs and Outlet boxes up to 100% customised acc. to customer needs
 - Pluggable segment to segment
 - Reduced cable sizes
 - Defined labeling of all components acc. to E-Plan and installation manual
 - Individual, easy fitting packages of all components

Tested LED strings → reduced test procedure @ tower manufacturer
Easy expansion, platform concept



- Feed-in Box**
- Power supply PRO MAX
 - Fuse protection device
 - Control Unit WCU for inspection and alert
 - Test mode battery
 - 230 V Schuko, 230 V CEE, 400 V CEE
 - Cooling fan/ Heating (option)
 - On / Off Switch, Status LEDs
 - Multiplug feed-in (Harting or compatibel)
 - Supply LED strings AC/DC
 - Supply Outlets 230 V / 400 V
 - Details acc. to customers Specs



Directional lighting for illuminating the tower

FP Duo LED DC HQ8



FP Duo LED DC SA



Technical data

Rated data to EN 60598-1

Rated voltage
Variable-voltage input
Power rating /power loss
Inrush current

General data

Overvoltage category pollution degree
Elevation
Insulation voltage
Mounting position
Protection class to IEC 60529
Protection class
Ambient temperature (operational/storage)
Halogen-free /silicone-free
LED operating life
Resistance to vibration, sinusoidal, stationary
Amplitude deflection
Amplitude acceleration
Resistance to shock, portable
Peak acceleration, type L
Short-circuit protection
Light colour (CCT)
Light current
Efficiency class (to EU Ordinance No. 874/2012)

EMC

Noise emission
Noise immunity tests

Connection data

Type of connection
Line type
Wire cross-section (connecting line)

Approvals

Standard
Fire specification to UL 94

Ordering data

Type	Qty	Order No.
FP Duo LED DC HQ8	1	1488480000

Accessories

Markers (self-adhesive)

Type	Qty	Order No.
THM MT30x 38/17	Reel	1011610000

24...120 V DC
21,6 V...144 V DC /reverse polarity protected
5 W
0,2 A (24 V DC)

II/2
≤ 3.000 m
< 500 V (housing / PE)
any
IP 54
2
-40 °C...+60 °C / -40 °C...+70 °C
no (PVC conductor) /yes
> 50.000 hrs
EN 60721-3-3, Class 3M3
1,5 mm (2-9 Hz)
5 m/s² (0,5 G) (at 9-200 Hz)
EN 60721-3-3, Class 3M3
70 m/s² (7 G)
intern
Cool White, 6.000 K
496 lm (both directions in total)
A+

Acc. to EN 55015
Acc. to EN 61547

Plug-in connector with fixed number of poles, HQ 4/2
0,5 mm²...2,5 mm² (HQ 2,5)

UL 1598 / GL / CSA
V0

Type	Qty	Order No.
FP Duo LED DC HQ8	1	1488480000

Type	Qty	Order No.
THM MT30x 38/17	Reel	1011610000

24...120 V DC
21,6 V...144 V DC /reverse polarity protected
5 W
0,2 A (24 V DC)

II/2
≤ 3.000 m
< 500 V (housing / PE)
any
IP 54 / IP 65*
2
-40 °C...+60 °C / -40 °C...+70 °C
no (PVC conductor) /yes
> 50.000 Std.
EN 60721-3-3, Klasse 3M3
1,5 mm (2-9 Hz)
5 m/s² (0,5 G) (bei 9-200 Hz)
EN 60721-3-3, Klasse 3M3
70 m/s² (7 G)
intern
Cool White, 6.000 K
496 lm (both directions in total)
A+

nach EN 55015
nach EN 61547

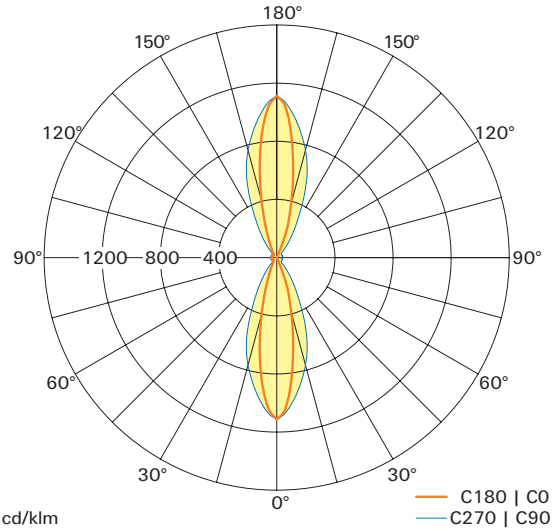
open conductor end /length 2 m
Heluwind WK 103w-Torsion 2 x 2,5 mm²

UL 1598 / GL / CSA
V0

Typ	Qty	Order No.
FP Duo LED DC SA	1	1488500000

Typ	Qty	Order No.
THM MT30x 38/17	Reel	1011610000

FP DUO LED DC HQ8



FP DUO LED DC HQ8

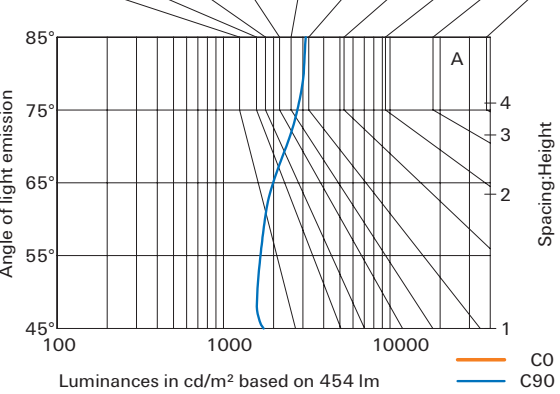
Mounting height	Average illuminance	Beam Diameter
1 m	413 lux	0.41 m
2 m	103 lux	0.82 m
3 m	46 lux	1.24 m
4 m	26 lux	1.65 m
5 m	17 lux	2.06 m
496 lm	Half beam angle 23°	η _i = 100%

Technical Description

Designation	FP DUO L ED DC HQ8
Manufacturers	Weidmueller
Catalogue numbe	1488480000
Light exit	Cuboid 0.148 x 0.100 x 0.010 m
Lamps	1 x LED 5 W
Nominal luminous flux	496 lm
Nominal power	4.9 W
LOR	100 %

Söllner

CIE	DIN	Nominal Illuminance (lx)									
A	A	2000	1000	750	500		300				
B	1		2000	1500	1000	750	500	300			
C					2000		1000	500	300		
D	2						2000	1000	500	300	
E	3							2000	1000	500	300



Glare Evaluation

X = 4 H, Y = 8 H	S = 0.25 H
Reflection factors	70/50/20
UGR transversal	14.9
UGR axial	16.6

Classification

LiTG	C63
EN	
BZ	
UTE	0.50 B + 0.50 T
CIE Flux Codes	79 86 93 50 100

* in preparation

Optima surface illumination in DC environments

FP Mono LED K DC HQ8



FP Mono LED K DC SA



Technical data

Rated data to EN 60598-1	
Rated voltage	24...120 V DC
Variable-voltage input	21,6 V...144 V DC / reverse polarity protected
Power rating / power loss	5 W
Inrush current	0.2 A (24 V DC)

General data	
Overvoltage category pollution degree	II / 2
Elevation	≤ 3.000 m
Insulation voltage	< 500 V (housing / PE)
Mounting position	any
Protection class to IEC 60529	IP 54
Protection class	2
Ambient temperature (operational/storage)	-40 °C...+60 °C / -40 °C...+70 °C
Halogen-free / silicone-free	no (PVC conductor) / yes
LED operating life	> 50.000 hrs
Resistance to vibration, sinusoidal, stationary	EN 60721-3-3, Class 3M3
Amplitude deflection	1.5 mm (2-9 Hz)
Amplitude acceleration	5 m/s² (0.5 G) (at 9-200 Hz)
Resistance to shock, portable	EN 60721-3-3, Class 3M3
Peak acceleration, type L	70 m/s² (7 G)
Short-circuit protection	internal
Light colour (CCT)	Cool White, 6.000 K
Light current	454 lm
Efficiency class (to EU Ordinance No. 874/2012)	A

EMC	
Noise emission	Acc. to EN 55015
Noise immunity tests	Acc. to EN 61547

Connection data	
Type of connection	Plug-in connector with fixed number of poles, HQ 4/2
Line type	
Wire cross-section (connecting line)	0.5 mm²... 2.5 mm²

Approvals	
Standard	UL 1598 / GL / CSA
Fire specification to UL 94	VO

Ordering data

Type	Qty	Order No.
FP MONO LED K DC HQ8	1	1507050000

Accessories

Markers (self-adhesive)		
THM MT30x 38/17	Reel	1011610000

24...120 V DC
21,6 V...144 V DC / reverse polarity protected
5 W
0.2 A (24 V DC)

II / 2
≤ 3.000 m
< 500 V (housing / PE)
any
IP 54
2
-40 °C...+60 °C / -40 °C...+70 °C
no (PVC conductor) / yes
> 50.000 hrs
EN 60721-3-3, Class 3M3
1.5 mm (2-9 Hz)
5 m/s² (0.5 G) (at 9-200 Hz)
EN 60721-3-3, Class 3M3
70 m/s² (7 G)
internal
Cool White, 6.000 K
454 lm
A

Acc. to EN 55015
Acc. to EN 61547

Plug-in connector with fixed number of poles, HQ 4/2
0.5 mm²... 2.5 mm²

UL 1598 / GL / CSA
VO

Type	Qty	Order No.
FP MONO LED K DC HQ8	1	1507050000

Type	Qty	Order No.
THM MT30x 38/17	Reel	1011610000

24...120 V DC
21,6 V...144 V DC / reverse polarity protected
5 W
0.2 A (24 V DC)

II / 2
≤ 3.000 m
< 500 V (housing / PE)
any
IP 54 / IP 65*
2
-40 °C...+60 °C / -40 °C...+70 °C
no (PVC conductor) / yes
> 50.000 hrs
EN 60721-3-3, Class 3M3
1.5 mm (2-9 Hz)
5 m/s² (0.5 G) (at 9-200 Hz)
EN 60721-3-3, Class 3M3
70 m/s² (7 G)
internal
Cool White, 6.000 K
454 lm
A

Acc. to EN 55015
Acc. to EN 61547

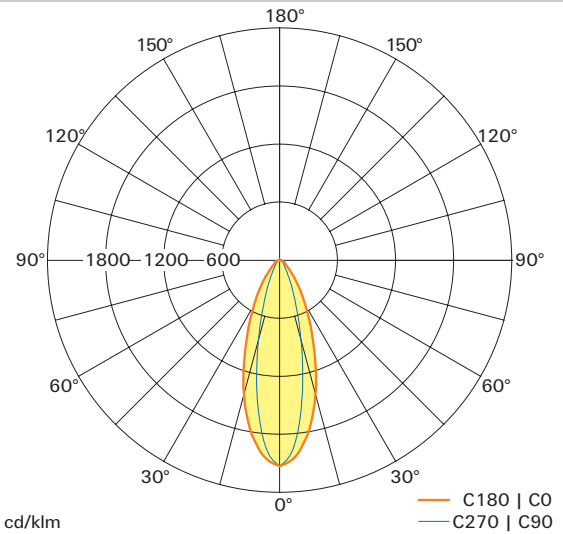
open conductor end /length 2 m
Heluwind WK 103w-Torsion 2 x 2.5 mm²

UL 1598 / GL / CSA
VO

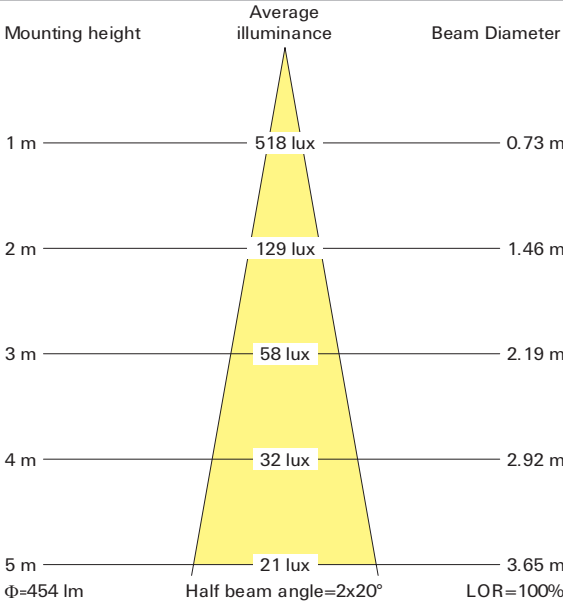
Type	Qty	Order No.
FP MONO LED K DC SA	1	1507040000

Type	Qty	Order No.
THM MT30x 38/17	Reel	1011610000

FP MONO LED K DC HQ8



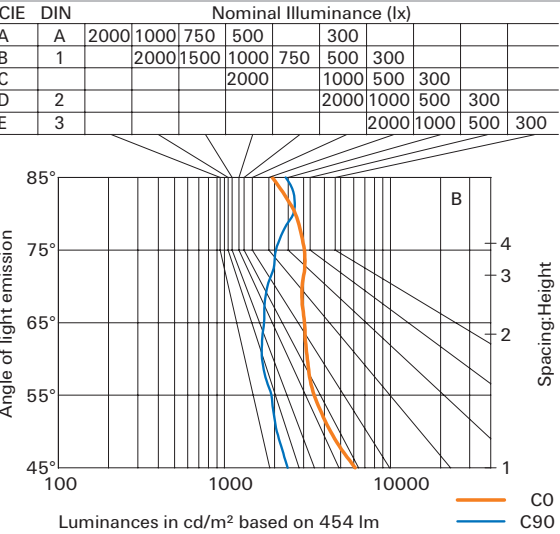
FP MONO LED K DC HQ8



Technical Description

Designation	FP MONO LED K DC HQ8
Manufacturers	Weidmueller
Catalogue numbe	1507050000
Light exit	Cuboid 0.148 x 0.100 x 0.010 m
Lamps	1 x LED 5 W
Nominal luminous flux	454 lm
Nominal power	4.4 W
LOR	100 %

Söllner



Glare Evaluation

X = 4 H, Y = 8 H	S = 0.25 H
Reflection factors	70/50/20
UGR transversal	17.7
UGR axial	15.1

Classification

LiTG	A71
EN	
BZ	
UTE	0.99 A + 0.01 T
CIE Flux Codes	83 93 98 99 100

Optimum surface illumination for AC and DC environments

FP Mono LED DC HQ8



FP Mono LED DC SA



BG GHDE LED TL M4 PT6



BG GHDE LED TL PT6



Technical data

Rated data to EN 60598-1	
Rated voltage	
Variable-voltage input	
Power rating /power loss	
Inrush current	
General data	
Overvoltage category pollution degree	
Elevation	
Insulation voltage	
Mounting position	
Protection class to IEC 60529	
Protection class	
Ambient temperature (operational/storage)	
Halogen-free /silicone-free	
LED operating life	
Resistance to vibration, sinusoidal, stationary	
Amplitude deflection	
Amplitude acceleration	
Resistance to shock, portable	
Peak acceleration, type L	
Short-circuit protection	
Light colour (CCT)	
Light current	
Efficiency class (to EU Ordinance No. 874/2012)	
EMC	
Noise emission	
Noise immunity tests	
Connection data	
Type of connection	
Line type	
Wire cross-section (connecting line)	
Approvals	
Standard	
Fire specification to UL 94	

Ordering data

Type	Qty	Order No.
FP MONO LED DC HQ8	1	1488530000

Accessories

Markers (self-adhesive)
THM MT30x 38/17

Type	Qty	Order No.
FP MONO LED DC HQ8	1	1488530000

Type	Qty	Order No.
THM MT30x 38/17	Reel	1011610000

24...120 V DC	
21,6 V...144 V DC / reverse polarity protected	
5 W	
0.2 A (24 V DC)	
II / 2	
≤ 3.000 m	
< 500 V (housing / PE)	
any	
IP 54 / IP 65*	
2	
-40 °C...+60 °C / -40 °C...+70 °C	
no (PVC conductor) / yes	
> 50.000 hrs	
EN 60721-3-3, Class 3M3	
1.5 mm (2-9 Hz)	
5 m/s² (0.5 G) (at 9-200 Hz)	
EN 60721-3-3, Class 3M3	
70 m/s² (7 G)	
internal	
Cool White, 6.000 K	
393 lm	
A	
Acc. to EN 55015	
Acc. to EN 61547	
open conductor end / length 2 m	
Heluwind WK 103w-Torsion 2 x 2.5 mm²	
UL 1598 / GL / CSA	
V0	

Type	Qty	Order No.
FP MONO LED DC SA	1	1488520000

Type	Qty	Order No.
THM MT30x 38/17	Reel	1011610000

Technical data

Rated data to EN 60598-1	
Rated voltage	265 V
Variable-voltage input	100...265 V DC + AC (45...65 Hz)
Power rating / power loss	7 W / < 2 W
Inrush current	0.5 A / 0.1 ms
General data	
Overvoltage category pollution degree	II / 2
Elevation	≤ 3.000 m
Insulation voltage	< 500 V (housing / PE)
Mounting position	any
Protection class to IEC 60529	IP 65 when mounted
Protection class	2
Ambient temperature (operational/storage)	-40 °C...+60 °C / -40 °C...+70 °C
Halogen-free / silicone-free	no (PVC conductor) / yes
LED operating life	> 50.000 hrs
Resistance to vibration, sinusoidal, stationary	EN 60721-3-3, Class 3M3
Amplitude deflection	1.5 mm (2-9 Hz)
Amplitude acceleration	5 m/s² (0.5 G) (at 9-200 Hz)
Resistance to shock, portable	EN 60721-3-3, Class 3M3
Peak acceleration, type L	70 m/s² (7 G)
Short-circuit protection	internal
Circuit breaker	< 10 A
Light colour (CCT)	Cool White, 6.000 K
Light current	393 lm
EMC	
Noise emission	Acc. to EN 55015
Noise immunity tests	Acc. to EN 61547
Connection data	
Type of connection	open conductor end /length 2 m
Line type	Heluwind WK 103w-T 3G1.5 (AD 8 mm)
Note	
Mounting: direct mounting on a stainless steel mounting plate with four metric M4 screws. Conductor gasket: cable gland M16 order seperately Note the maximum thread lengths of the glands.	
Approvals	
Standard	UL 1598
Fire specification to UL 94	V0
Rated voltage	120 VAC

Ordering data

Type	Qty	Order No.
BG GHDE LED TL M4 PT6	1	1390870000

265 V
100...265 V DC + AC (45...65 Hz)
7 W / < 2 W
0.5 A / 0.1 ms
II / 2
≤ 3.000 m
< 500 V (housing / PE)
any
IP 65 when mounted
2
-40 °C...+60 °C / -40 °C...+70 °C
no (PVC conductor) / yes
> 50.000 hrs
EN 60721-3-3, Class 3M3
1.5 mm (2-9 Hz)
5 m/s² (0.5 G) (at 9-200 Hz)
EN 60721-3-3, Class 3M3
70 m/s² (7 G)
internal
< 10 A
Cool White, 6.000 K
393 lm
Acc. to EN 55015
Acc. to EN 61547
open conductor end / length 2 m
Heluwind WK 103w-T 3G1.5 (AD 8 mm)
Mounting: direct mounting on a stainless steel mounting plate with four metric M4 screws.
Conductor gasket: cable gland M16 order seperately
Note the maximum thread lengths of the glands.

Type	Qty	Order No.
BG GHDE LED TL M4 PT6	1	1390870000

265 V
100...265 V DC + AC (45...65 Hz)
7 W / < 2 W
0.5 A / 0.1 ms
II / 2
≤ 3.000 m
< 500 V (housing / PE)
any
IP 65 when mounted
2
-40 °C...+60 °C / -40 °C...+70 °C
no (PVC conductor) / yes
> 50.000 hrs
EN 60721-3-3, Class 3M3
1.5 mm (2-9 Hz)
5 m/s² (0.5 G) (at 9-200 Hz)
EN 60721-3-3, Class 3M3
70 m/s² (7 G)
internal
< 10 A
Cool White, 6.000 K
393 lm
Acc. to EN 55015
Acc. to EN 61547
open conductor end / length 2 m
Heluwind WK 103w-T 3G1.5 (AD 8 mm)
On housing base without (1070140000) or with cutout (1272210000) or with cable gland (....0000). Enclosure seals RKDG.... must be ordered separately.

Type	Qty	Order No.
BG GHDE LED TL PT6	1	1390850000

BG GHDE LED TL PT6



Technical data

Rated data to EN 60598-1	
Rated voltage	265 V
Variable-voltage input	100...265 V DC + AC (45...65 Hz)
Power rating/power loss	7 W / < 2 W
Inrush current	0.5 A / 0.1 ms
General data	
Overvoltage category pollution degree	II / 2
Elevation	≤ 3 000 m
Insulation voltage	< 500 V (housing / PE)
Mounting position	any
Protection class to IEC 60529	IP 65 when mounted
Protection class	2
Ambient temperature (operational/storage)	-40 °C...+60 °C / -40 °C...+70 °C
Halogen-free /silicone-free	no (PVC conductor) /yes
LED operating life	> 50.000 hrs
Resistance to vibration, sinusoidal, stationary	EN 60721-3-3, Class 3M3
Amplitude deflection	1.5 mm (2-9 Hz)
Amplitude acceleration	5 m/s² (0.5 G) (at 9-200 Hz)
Resistance to shock, portable	EN 60721-3-3, Class 3M3
Peak acceleration, type L	70 m/s² (7 G)
Short-circuit protection	internal
Circuit breaker	< 10 A
Light colour (CCT)	Cool White, 6.000 K
Light current	393 lm
EMC	
Noise emission	Acc. to EN 55015
Noise immunity tests	Acc. to EN 61547
Connection data	
Type of connection	open conductor end /length 2 m
Line type	Heluwind WK 103w-T 3G1.5 (AD 8 mm)
Note	
On lower housing section GH PT6 (1070140000) with contact terminal PT6 (1957620000) RKDG.... must be ordered separately.	
Approvals	
Standard	UL 1598
Fire specification to UL 94	VO
Rated voltage	120 VAC

Ordering data

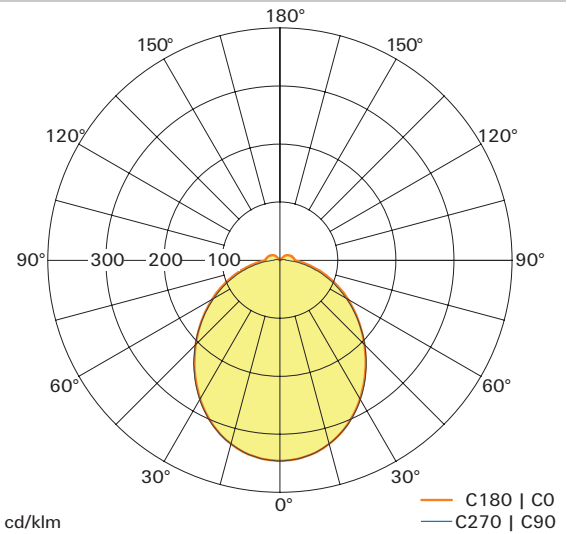
Type	Qty	Order No.
BG GHDE LED TL PTS 4	1	1390880000

Mounting options

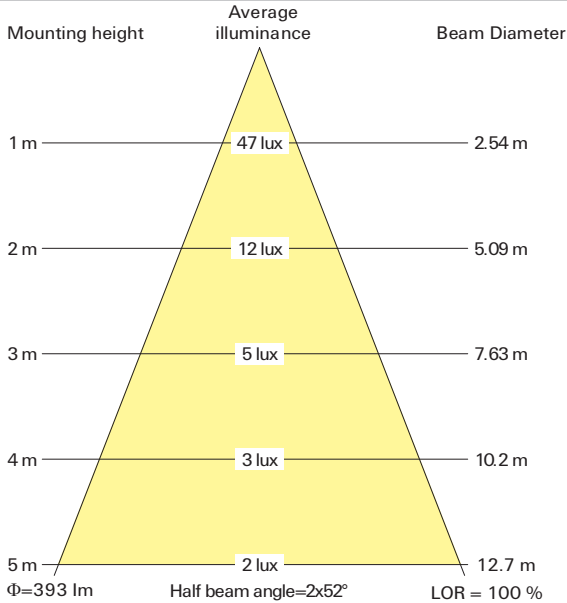
LED module installed on bottom housing section GH PT6 (1070140000), with contact terminal PT6 (1957620000).



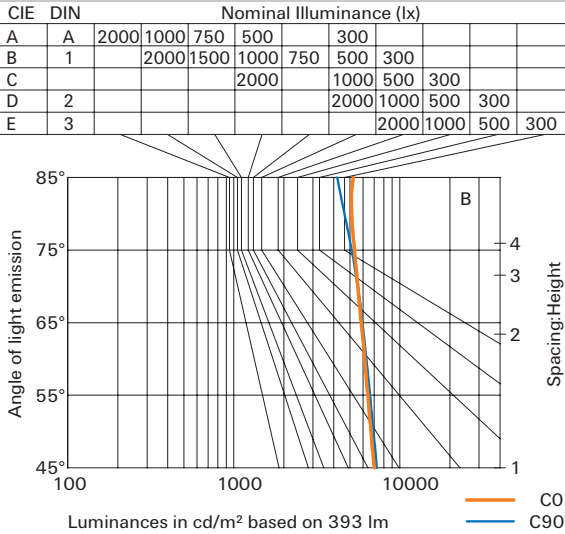
FP MONO LED DC HQ8



FP MONO LED DC HQ8



Söllner



Glare Evaluation

X = 4 H, Y = 8 H	S = 0.25 H
Reflection factors	70/50/20
UGR transversal	22.9
UGR axial	22.5

Classification

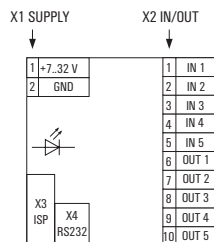
LITG	A41
EN	
BZ	
UTE	0.94 D + 0.06 T
CIE Flux Codes	47 77 93 94 100

Technical Description

Designation	FP MONO LED DC HQ8
Manufacturers	Weidmueller
Catalogue number	1488530000
Light exit	Cuboid 0.148 x 0.100 x 0.010 m
Lamps	1 x LED 5 W
Nominal luminous flux	393 lm
Nominal power	4.8 W
LOR	100 %

Convenient and economical remote maintenance

Control Unit WCU 501



Technical data

Input	
Input fuse (external)	max. 5 A
Current consumption	< 4 mA
Operating voltage	7 V DC...32 V DC
Electrical connection	
Connection cross-section, min./max.	0.25 mm² / 1.5 mm²
Wire connection method	PUSH IN
General data	
Ambient temperature (operational/storage)	-40 °C...+70 °C / -40 °C...+70 °C
Type of protection	IP 20
Safety	Watch, Fail-Safe Clock
Enclosure material	Acrylnitril-Butadien-Styrol (ABS)
Grouting material	Polyurethane (PU)
Programmable, interface	miCon-L (graphical), RS232
EMV / shock / vibration	
Shock resistance	min. 100 m/s² (10 G)
Vibration resistance	min. 50 m/s² (5 G) bei 10...100 Hz
Digital input IN1-IN2	
U_{IN}	0-30 V DC
U_{LOW}	≅ 5 V DC
f_{IN}	≅ 1 kHz
R_i	> 30 kΩ
U_{HIGH}	> 5 V DC
t_{IN}	≅ 1 ms
Analogue input IN3-IN5	
U_{IN}	0-30 V DC
R_i	> 11 kΩ
Accuracy IN3-IN5	
Accuracy ADC	+/- 3 % (0,5 V DC) 10 Bit
Output OUT1-OUT4	
I_{OUT}	1.5 A
$U_{OUT} = U_{IN}$	-0.45 V
I_{TOT}	≅ 4 A
PWM output OUT5	
I_{OUT}	≅ 2 A
U_{OUT}	≅ GND + 0.25 V
f_{OUT}	1-5 kHz
S	500 Hz
Conformity / standards	
Conformity	2006/95/EG; 2004/108/EG
Standards	EN 60730-1; EN 61010-1; EN 50081-1; EN 50082-1; EN 60068-2-78:2002; EN 60068-2-6:2008; ISO 16750-3:2007

Ordering data

Type	Order No.
Control Unit WCU 501	1517130000

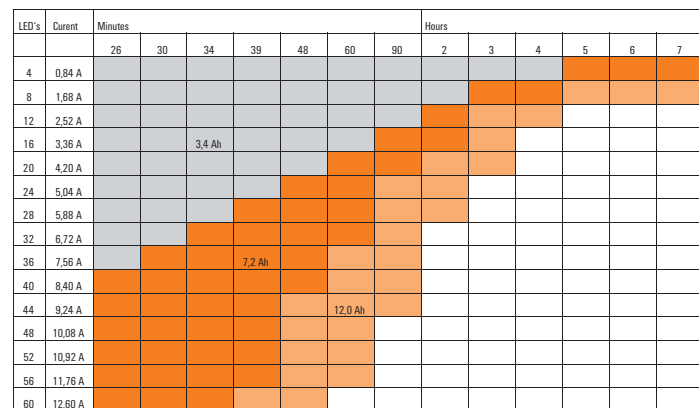
Accessories

	Type	Order No.
	Starter Kit WCU 501	1548720000

Sufficiently high performance – at any time PROmax power supplies and UPS modules

Type		Input side		Output side			Additional Functions					Recommended application						Order No.							
		Phases	AC input voltage [V]	DC input voltage [V]	Rated voltage [V]	Rated current [A]	Power rating [W]	Derating at [°C]	Power Boost [60 s]	Status relay	Side-by-side connectivity	Temperature range [°C]	Efficiency [%]	MTBF time [Mh]	Overvoltage category	Approvals	Feldschaltschränke	Small and series machine constr.	Machine construction	Simple process applications	Process industry	Energy technology	Power distribution	Marine engineering	
PROmax	PRO MAX 72 W 24 V 3 A	1	85-277	80-370	24	3	72	> 60	120 % 300 % @ 1 s	CO	●	-25 up to +70	90	> 0.5	III	      Energie ausstrahlung Aus 01.04.2014		●	●	●	●	●	●	1478100000	
	PRO MAX 120 W 24 V 5 A	1	85-277	80-370	24	5	120			CO	●		90					●	●	●	●	●	1478110000		
	PRO MAX 180 W 24 V 7.5 A	1	85-277	80-370	24	7.5	180			CO	●		91					●	●	●	●	●	1478120000		
	PRO MAX 240 W 24 V 10 A	1	85-277	80-370	24	10	240			CO	●		91					●	●	●	●	●	1478130000		
	PRO MAX 480 W 24 V 20 A	1	85-277	80-370	24	20	480			CO	●	91.5					●	●	●	●	●	1478140000			
	PRO MAX 960 W 24 V 40 A	1	85-277	80-370	24	40	960			CO	●	92.5					●	●	●	●	●	1478150000			
	PRO MAX3 120 W 24 V 5 A	3	3 x 320-3 x 575	450-800	24	5	120			CO	●	90	Start-up @ -40 °C					●	●	●	●	●	1478170000		
	PRO MAX3 240 W 24 V 10 A	3	3 x 320-3 x 575	450-800	24	10	240			CO	●	91						●	●	●	●	●	1478180000		
	PRO MAX3 480 W 24 V 20 A	3	3 x 320-3 x 575	450-800	24	20	480			CO	●	91.5						●	●	●	●	●	1478190000		
	PRO MAX3 960 W 24 V 40 A	3	3 x 320-3 x 575	450-800	24	40	960			CO	●	92.5						●	●	●	●	●	1478200000		

Type		Input	Output				Additional Functions				Order No.
		DC input voltage [V]	Rated voltage [V]	Rated current [A]	Power rating [W]	Status relay	Parallel connection option	Side-by-side connectability	Temperature range [°C]	Approvals (all CE)	
UPS	CP DC BUFFER 24 V 20 A	22.5-30	24	20	480	●		●	-25 to +70	  	1251220000
	CP DC UPS 24 V 20 A/10 A	20-30	U _m -0.3 V	20/10	480/240	●		●			1370050010
	CP DC UPS 24 V 40 A	20-30	U _m -0.3 V	40	960	●		●			1370040010
	CP A BATTERY 24 V DC 1.3 Ah		24	10 A / 11.3 min	1.3 Ah		≤ 2	●			1406930000
	CP A BATTERY 24 V DC 3.4 Ah		24	10 A / 11.3 min	3.4 Ah		≤ 2	●			1251070000
	CP A BATTERY 24 V DC 7.2 Ah		24	10 A / 26.5 min	7.2 Ah		≤ 2	●			1251080000
	CP A BATTERY 24 V DC 12 Ah		24	10 A / 51 min	12 Ah		≤ 2	●			1251090000
	CP A BATTERY 24 V DC 17 Ah		24	10 A / 81 min	17 Ah		≤ 2	●			1251110000



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At Weidmüller we have been involved in the development of wind turbines right from the start. Hence, we now have a wide range of products and components for the wind energy sector, characterised by excellent quality, reliability and cost-effectiveness, in addition to meeting the most stringent safety standards. This is attested by international certificates and approvals as well as country and application-specific test certificates.

1 Reliable signal connections at the "heart" of the nacelle

- Reliable relays, resistant to temperature and vibration
- Quick-installation WeiCoS spring-loaded modular terminals – up to 690 V
- VARITECTOR SPC pluggable surge protection

2 Durable shock-proof and surge-proof connections

Terminal blocks and connectors with tension clamp or "PUSH IN" connection technology

3 Secure signal connections that won't be slowed down by anything

- Modules and cables for secure signal transmission to the turbine control system
- Seawater-resistant modules with high protection classes (IP 67/68)
- WAVE TTA measuring transducer for underspeed and overspeed detection

4 Failure-free functionality for maximum energy output

Wear-free TERMOPTO opto-coupler for exceptional cost-effective isolation and signal conditioning

5 Modularity and maintainability efficiently connected

- Rapid connection of testing equipment with the POCON current and voltage transformer terminal
- LXXX-15.00 PCB terminals for high performance and long life of your equipment



6 Compact connections – optimally protected

- Heavy-duty connectors in die-cast aluminium – protection against dirt, moisture and mechanical stress
- Power supplies from the PRO-M series with vibration-proof fastenings and high DC input voltages for operation with CAP modules

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FieldPower® Box for the quick installation of lamps, outlets and components in all areas of the tower – individual connections with low installation costs

8 Integrated data connections throughout the wind farm

- Media converters and switches for transforming electrical signals to optical signals – for a smooth data flow
- FrontCom® service interface for convenient accessing of mains components – without having to open the cabinet

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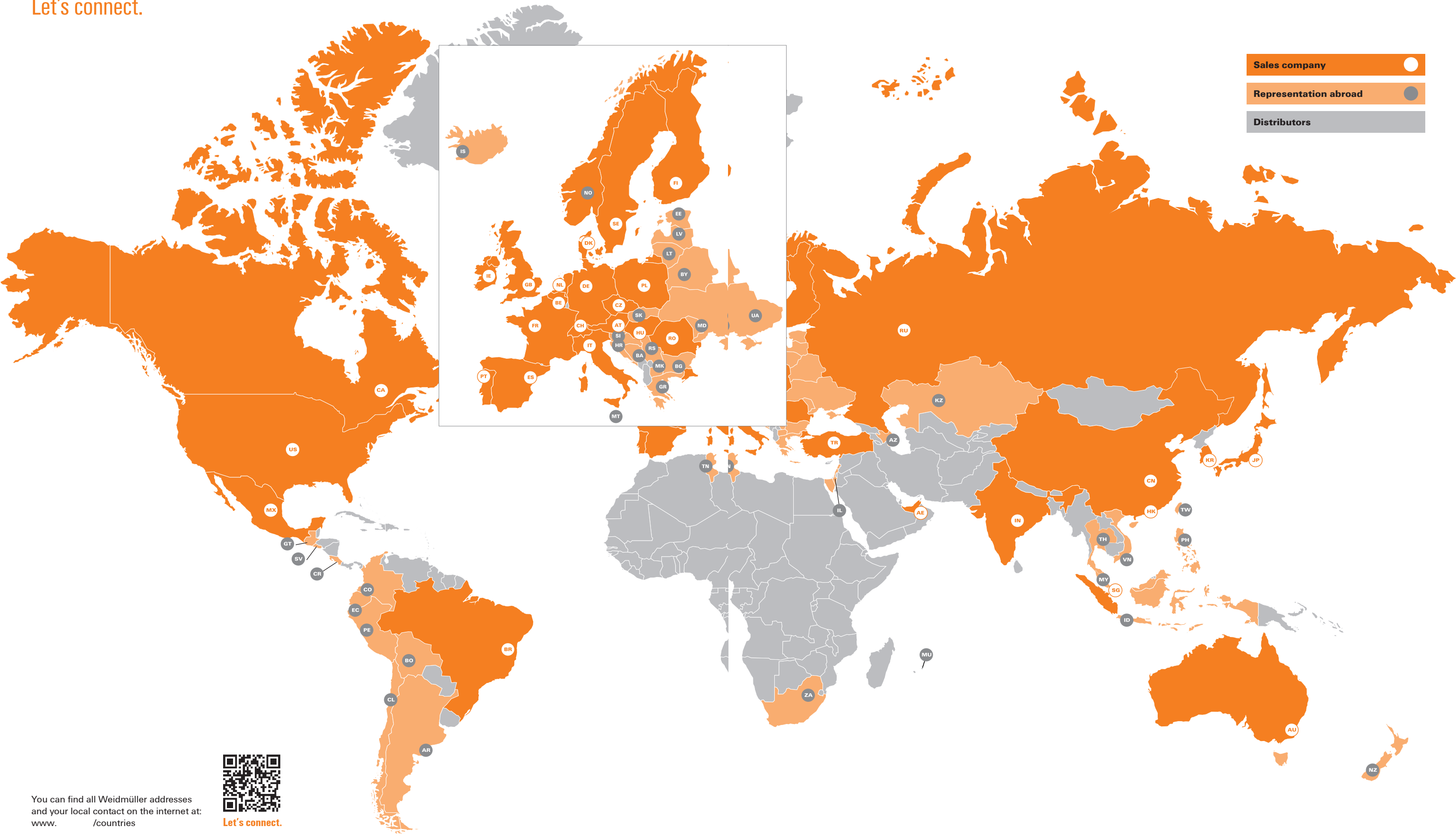
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