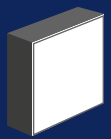
AGILIGHT® | TRIDONIC
Light It Up signage

TALEXX LED

Signage Solutions

Letter standard

Letter mini



Lightbox standard

Lightbox slim

Light contour

TALEXXchain P541, P551 & P561

Perfect homogeneity, fewer modules – beam characteristic 155°

The next generation of P541, P551 and P561 modules, each equipped with three light points with individual lenses, provide extremely uniform illumination for signage applications. Thanks the higher luminous flux and increased efficiency, fewer modules and fewer LED Driver are needed for the same brightness. Installation costs are correspondingly low, which means that overall costs are much lower. Another benefit is that the small P541 and P551 modules with 155° wide-angle light points produce their optimum effect at a mounting depth of only 4 cm.

__ Perfectly uniform illumination
__ Small mounting depth
__ Low material and assembly costs

TALEXXchain P551 / P541

Small robust modules – IP 68

IP 68 design and high-quality materials reliably protect the electronic components and in particular the phosphor of the light emitting diodes against environmental factors. Thanks to their reduced width the modules can be installed even in small applications.

__ High-quality materials
__ Small modules

Maximum flexibility

Optimum illumination and no annoying cables: TALEXXchain EXCITE chains are available with two module spacings to keep installation costs as low as possible for all applications. Because the P541 and P551 modules are the same size it is possible to adapt the brightness of the sign to meet specific customer requirements by simply switching between the P541 and P551 modules without changing the layout and mounting arrangement.

__ Low installation costs
__ Different brightness levels from the same mounting arrangement

Narrow white light tolerance – MacAdam 5

The human eye can detect the smallest differences in light colours. To ensure that the individual letters and signs are perfectly uniform the LED modules and LED chains must exhibit a very narrow white light tolerance. Tridonic is one of only a few manufacturers who can guarantee a MacAdam 5 white light tolerance for its TALEXXchain EXCITE products and is constantly striving to improve the quality of white light still further. The new generation of TALEXXchain EXCITE units has an improved colour mix for the individual light points, resulting in a light colour that is even more brilliant and uniform – even at low mounting depths.

__ Brilliant uniform light colour
__ Perfect signage effect
__ No colour difference after replacement

5-year guarantee

With a 5-year guarantee on TALEXXchain EXCITE products, AgiLight is guaranteeing a lifetime of up to 50,000 hours – even at high ambient temperatures of up to 60°C. Thanks to AgiLight's robust TALEXXchain EXCITE modules, equipment failure, high replacement costs and loss of light output can be avoided.

__ High reliability
__ No consequential costs, no loss of advertising impact

TALEXchain P541, P551 & P561

TALEXchain
P561 and P551 / P541

▼ At a glance

__ Beam characteristic 155°:
uniform light distribution with fewer modules
__ MacAdam 5: narrow white light tolerance
__ Small robust modules with IP68 protection
__ Maximum flexibility
__ 5-year guarantee
__ Matching LED Driver in IP20 and IP67
designs for 10W to 150W
__ Dimmable with TALEXcontrol LNU PWM dimmers

Technical property	P561	P551	P541 ... X	P541
Luminous flux [1]	154 lm	60 lm	45 lm	31 lm
Luminous efficacy	104 lm/W	86 lm/W	88 lm/W	92 lm/W
Power per module	1.48 W	0.70 W	0.50 W	0.34 W
Beam characteristic	155°	155°	155°	155°
Light colour [2]	CW (7,500 K) DL (6,500 K) NW (4,000 K) WW (3,000 K)	CW (7,500 K) DL (6,500 K) NW (4,000 K) WW (3,000 K)	CW (7,500K) DL (6,500 K)	CW (7,500 K) DL (6,500 K) R (620 – 630 nm) G (520 – 537nm) B (465 – 470 nm) O (600 – 609 nm) A (583 – 592 nm)
White light tolerance	MacAdam 5	MacAdam 5	MacAdam 5	MacAdam 5
Type of protection	IP68	IP68	IP68	IP68
Number of modules per chain	50 pcs	100 pcs	100 pcs	100 pcs
Distance between modules	250 mm / 300 mm	150 mm / 200 mm	150 mm / 200 mm	100 mm / 150 mm
Ambient temperature t_a	–40 ... +60°C	–40 ... +60°C	–40 ... +60°C	–40 ... +60°C
Storage temperature t_s	–40 ... +85°C	–40 ... +85°C	–40 ... +85°C	–40 ... +85°C
Guarantee	5 years	5 years	5 years	5 years
Expected life time at t_a 60°C	50,000 h	50,000 h	50,000 h	50,000 h
Marks of conformity	CE	CE, ENEC, cRUus, cCSAus	CE, ENEC, cRUus, cCSAus	CE, ENEC, cRUus, cCSAus
Tape	3M VHB 5925	3M VHB 5925	3M VHB 5925	3M VHB 5925
Can depth	> 12 cm	> 4 cm	> 4 cm	> 4 cm

[1] Luminous flux for light colour DL (6,500 K)
[2] Colour temperature for information only. Detailed information see data sheet.

TALEXchain P541, P551 & P561

TALEXchain P561	Art. No. Distribution Center Europe	Art. No. Distribution Center Asia-Pacific	Luminous flux per module	Light colour	Colour temperature[1)]	Spacing between modules
P561 G1 CW 154lm 250mm 50 68 EXC	tbd	n/a	154 lm	Crystal white (CL)	7,500 K	250 mm
P561 G1 DL 154 lm 250 mm 50 68 EXC	28000958	n/a	154 lm	Daylight white (DL)	6,500 K	250 mm
P561 G1 DL 154 lm 300 mm 50 68 EXC	28000959	n/a	154 lm	Daylight white (DL)	6,500 K	300 mm
P561 G1 NW 142 lm 300 mm 50 68 EXC	28000960	n/a	142 lm	Neutral white (NW)	4,000 K	300 mm
P561 G1 WW 130 lm 300 mm 50 68 EXC	28000957	n/a	130 lm	Warm white (WW)	4,000 K	300 mm

[1)] Colour temperature for information only. Detailed information see data sheet.

TALEXchain P551	Art. No. Distribution Center Europe	Art. No. Distribution Center Asia-Pacific	Luminous flux per module	Light colour	Colour temperature[1)]	Spacing between modules
LED P551E-S CW 12 200 100 68 B G1	28000717	n/a	60 lm	Crystal white (CL)	7,500 K	200 mm
LED P551E-S DL 12 150 100 68 B G1	28000365	87500297	60 lm	Daylight white (DL)	6,500 K	150 mm
LED P551E-S DL 12 200 100 68 B G1	28000366	87500298	60 lm	Daylight white (DL)	6,500 K	200 mm
LED P551E-S NW 12 200 100 68 B G1	28000432	n/a	66 lm	Neutral white (NW)	4,000 K	200 mm
LED P551E-S WW 12 200 100 68 B G1	28000433	n/a	66 lm	Warm white (WW)	3,000 K	200 mm

[1)] Colour temperature for information only. Detailed information see data sheet.

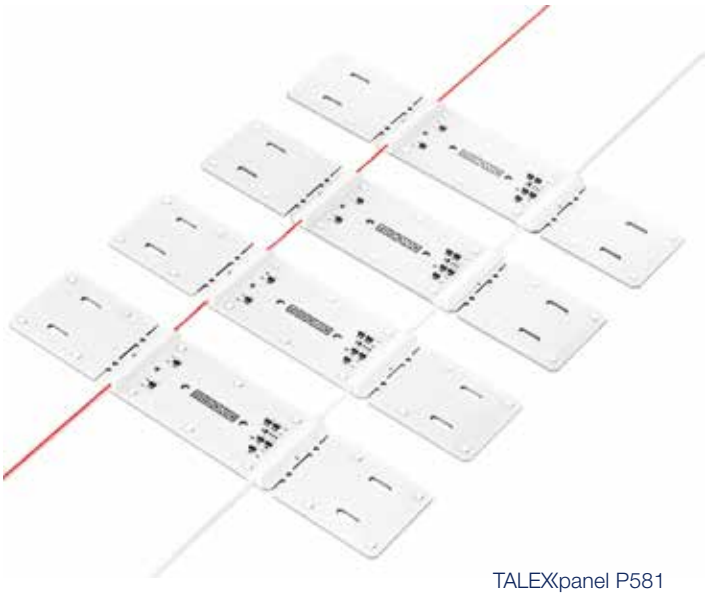
TALEXchain P541	Art. No. Distribution Center Europe	Art. No. Distribution Center Asia-Pacific	Luminous flux per module	Light colour	Colour temperature[1)]	Spacing between modules
LED P541E-C CW 12 150 100 68 B G1	28000715	n/a	31 lm	Crystal white (CL)	7,500 K	150 mm
LED P541E-C CW 12 150 100 68 B G1 X	28000176	n/a	45 lm	Crystal white (CL)	7,500 K	200 mm
LED P541E-C DL 12 100 100 68 B G1	28000361	87500293	31 lm	Daylight white (DL)	6,500 K	100 mm
LED P541E-C DL 12 150 100 68 B G1	28000362	87500294	31 lm	Daylight white (DL)	6,500 K	150 mm
LED P541E-C DL 12 150 100 68 B G1 X	28000363	87500295	45 lm	Daylight white (DL)	6,500 K	150 mm
LED P541E-C DL 12 200 100 68 B G1 X	28000364	87500296	45 lm	Daylight white (DL)	6,500 K	200 mm
LED P541E-C R 12 150 100 68 B G1	28000468	87500359	12 lm	Red (R)	620 – 630 nm	150 mm
LED P541E-C G 12 150 100 68 B G1	28000471	n/a	35 lm	Green (G)	520 – 537 nm	150 mm
LED P541E-C B 12 150 100 68 B G1	28000472	n/a	11 lm	Blue (B)	465 – 470 nm	150 mm
LED P541E-C O 12 150 100 68 B G1	28000469	n/a	16 lm	Orange (O)	600 – 609 nm	150 mm
LED P541E-C A 12 150 100 68 B G1	28000470	n/a	12 lm	Amber (A)	583 – 592 nm	150 mm

[1)] Colour temperature for information only. Detailed information see data sheet.

TALEXpanel P581

Perfect backlighting for small mouthing depths
The trend in luminaires, light boxes and even illuminated room dividers is for slimmer and slimmer designs. The smaller the mounting depth, the greater the demands on the light source to achieve homogeneous illumination.

TALEXpanel P581 has been developed for such applications. For mounting depths starting at 30 mm TALEXpanel P581 provides absolutely uniform backlighting.
__ Perfect backlighting of slim systems with complex shapes



TALEXpanel P581

Maximum freedom of design
The advent of LED light sources for illumination tasks has led to a huge rise in expectations regarding freedom of design.

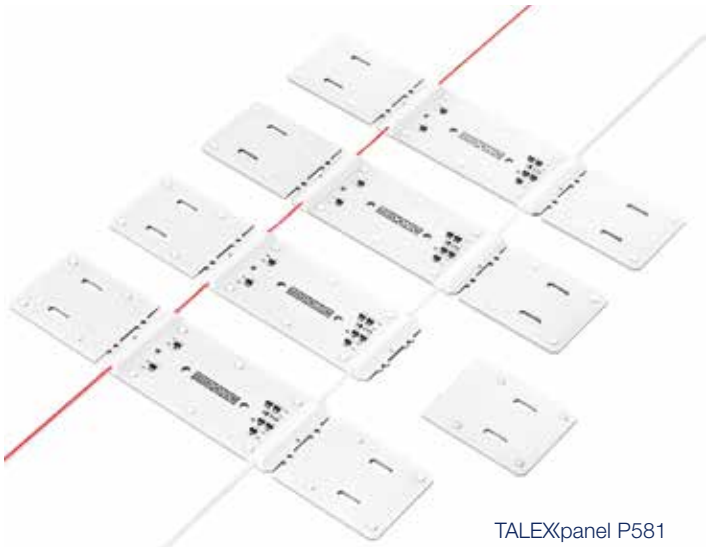
TALEXpanel P581 has been developed with a view to meeting individual requirements in terms of freedom of design. Based on DIN formats, TALEXpanel P581 covers all possible shapes. TALEXpanel P581 always provides optimum illumination even for luminaires not compliant with DIN standards. This is thanks to its unique design. TALEXpanel P581 can be separated between any modules. If this is not sufficient it is also possible to remove the side components of the module.
__ Great freedom of desing

5-year guarantee
AgiLight provides a 5-year guarantee for TALEXpanel P581. Even at a high ambient temperature of 60°C the expected life is at least 50,000 hours. This avoids high replacement costs.
__ Reliability/total operating costs

Quick and easy installation
Providing large-area backlighting for systems with small mounting depths (≥ 30 mm) is an extremely time-consuming task.

All this is a thing of the past thanks to TALEXpanel P581. Its flexible chain design means that installation is quicker and easier than ever before. Installation time is reduced to a minimum without compromising on freedom of design.
__ Installation time minimized

TALEXpanel P581



TALEXpanel P581

▼ At a glance

__ Optimum backlighting for small mounting depths irrespective of the front material (fabric, PMMA, etc.)
__ Quick, easy and reliable installation (24V DC)
__ Great freedom of design
__ 5-year guarantee/50,000 hours of operation

Technical property	TALEXpanel P581
Luminous efficacy	100 lm
Luminous efficacy	106 lm/W
Power per module	0.94 W
Beam characteristic	120°
Light colour [2]	DL (6,500 K) LW (5,000 K) NW (4,000 K) WW (3,000 K)
White light tolerance	MacAdam 4
Number of modules per chain	25 pieces
Distance between modules	60 mm
Ambient temperature t_a	–40 ... +60°C
Storage temperature t_s	–40 ... +60°C
Guarantee	5 years
Expected life time at t_a 60°C	≥ 50,000 h
Approval marks	CE, ENEC, UL, CSA
Optimum mounting depth	≥ 30 mm

[1] Luminous flux for light colour LW (5,000 K)
[2] Light colours only for information purposes. For detailed information see the relevant data sheet.

TALEXpanel	Art. No.	Luminous flux per module	Light colour	Colour temperature [1]	Spacing between modules
P581 G1 WW 100 lm 60 mm 25 00 D EXC	TBD	100 lm	Warm white (WW)	3,000 K	60 mm
P581 G1 NW 100 lm 60 mm 25 00 D EXC	TBD	100 lm	Neutral white (NW)	4,000 K	60 mm
P581 G1 LW 100 lm 60 mm 25 00 D EXC	28000615	100 lm	Lightwhite (LW)	5,000 K	60 mm
P581 G1 DL100 lm 60 mm 25 00 D EXC	28000614	100 lm	Daylight white (DL)	6,500 K	60 mm

[1] Colour temperature for information only. Detailed information see data sheet.

Small dimensions
LED light sources come in an extremely wide range of shapes and sizes, providing a high degree of flexibility in both luminaire design and illuminated signage.

To take account of this flexibility in terms also of the LED Driver, designers focused on achieving small dimensions when developing the new constant-current LED Driver in the LCU EXC product series, without compromising on the traditional robustness and durability. The LED Driver in the LCU EXC series are setting new standards in compactness
__ Great freedom of design and flexibility

TALEXdriver LCU
indoor IP20

Complies with the European EMC standard for lighting
Electrical equipment such as luminaires and advertising panels must not produce interference that impairs the operation of other devices, and must function properly in a defined electromagnetic environment. Luminaires or advertising panels must therefore comply with the statutory EMC regulations in Europe, Australia and China.

The LCU LED Driver from Tridonic meet the requirements of the relevant EMC regulations, particularly EN 61000-3-2 Class C for luminaires, across the entire output load range. This means that the LED Driver meet the EMC requirements in every case, irrespective of how many LEDs are connected to the LED Driver and irrespective of the dimming value of the LEDs.
__ Legal requirements in Europe, Australia and China

5-year guarantee
Tridonic offers a 5-year guarantee for LCU LED Driver. Even at an increased ambient temperature of up to 50°C for outdoor types and up to 45°C for indoor types, LCU LED Driver have an expected lifetime of at least 50,000 hours. Please note that ambient temperature has a significant impact on the expected life-time of a LED Driver. For detailed information on life-time and ambient temperature please check the correspondent datasheet.
__ Aspect of reliability or total operating costs

High efficiency
To make luminaires and signage systems as efficient as possible, not only the LED light sources have to be efficient but also the LED Driver. With an efficiency of up to 92 % for the LCU EXC product series, these LED Driver provide the basis for optimum system efficiency.
__Energy savings

Wide input voltage range of 90 to 305 VAC
Temperature range –40 to +70°C
Thanks to an input voltage range of 90 to 305 VAC, they you can use the LED Driver in the LCU EXC series anywhere in the world. Even in very cold or very hot regions you will always have the right LED Driver if you choose an LCU EXC in type of protection IP67 which can be operated in ambient temperatures between –40 and +70°C.
__ Universal use

TALEXdriver LCU

TALEXdriver LCU
outdoor IP67

▼ At a glance:

__ Small, robust design
__ 5-year guarantee / 50,000 hours of operation
__ Wide LED Driver range:
IP20 / IP67; 12 V DC / 24 V DC; 15 W – 180 W
__ Wide input range:
90 to 305 V AC 0 / 50 / 60 Hz
__ Temperature range:
IP67: –40 to +70°C
IP20: –25 to +70°C

Technical property		TALEXdriver LCU outdoor					TALEXdriver LCU indoor				
IP Protection		IP67					IP20				
Available output voltage		12 V DC or 24 V DC									
Guarantee		5 years									
Lifetime		50,000 at t_a 50 °C					50,000 at t_a 45°C				50,000 at t_a 40°C
Rated input voltage[1]		90 – 305 V AC 0/50/60 Hz									108 – 264 V AC 0/50/60 Hz
Output power at 12 V DC		15 W	35 W	60 W	100 W	180 W	35 W	60 W	100 W	–	150 W
Output power at 24 V DC				60 W	96 W	180 W	35 W	60 W	96 W	180 W	–
Output tolerance		12 V types: –0 % / +10 % 24 V types: –0 % / +5 %									
Design	Height in mm	21	21	21	23 (12 V) 21 (24 V)	29	21	21	23 (12 V) 21 (24 V)	29 (24 V)	40,5 (12 V)
	Width in mm	40	40	40	40	60	40	40	44 (12 V) 40 (24 V)	60 (24 V)	63 (12 V)
	Length in mm	130	170	240	270	245	220	250	300	280 (24 V)	270 (12 V)
Temperature range[1]		–40 … +70°C					–25 … +70°C				–25 … +50°C
Storage temperature		–40 … +85°C									–30 … +85°C
Connection cable length in mm		300	300	500	500	500	–				
SELV		yes									
EMC compliant		yes / EN 61000-3-2 CLASS C full load range									
Emergency compliant EN 50172 / DC input		yes									
Protection CLASS		Class II ◎					Class II ⧈				
Short circuit / overload / overtemp. protection		yes									
NEC Class 2		yes	yes	yes	yes[2]	no	yes	yes	yes[2]	no	no
Certificates		CCC[3], CE, CSA, EL, ENEC, RCM, UL									CE, CSA, ENEC, RCM, UL
Housing material		metal					plastic				

[1] Detailed information and data you can find the correspondent datasheet on www.tridonic.com
[2] 24 V DC types only
[3] IP20 types only

12 V DC

Type (Protection class IP67)	Order No.	U_{out}	P_{out}
LCU 180W 12V IP67 EXC	28000511	12 V DC	18–180 W
LCU 100W 12V IP67 EXC	28000510	12 V DC	10–100 W
LCU 60W 12V IP67 EXC	28000509	12 V DC	6–60 W
LCU 35W 12V IP67 EXC	28000508	12 V DC	4–35 W
LCU 15W 12V IP67 EXC	28000507	12 V DC	2–15 W

Type (Protection class IP20)	Order No.	U_{out}	P_{out}
LCU 150/12 E020	24166332	12 V DC	20–150 W
LCU 100W 12V SR EXC	28000408	12 V DC	10–100 W
LCU 60W 12V SR EXC	28000407	12 V DC	6–60 W
LCU 35W 12V SR EXC	28000406	12 V DC	4–35 W

24 V DC

Type (Protection class IP67)	Order No.	U_{out}	P_{out}
LCU 180W 24V IP67 EXC	28000514	24 V DC	18–180 W
LCU 100W 24V IP67 EXC	28000513	24 V DC	10–100 W
LCU 60W 24V IP67 EXC	28000512	24 V DC	6–60 W

Type (Protection class IP20)	Order No.	U_{out}	P_{out}
LCU 180W 24V SR EXC	28000414	24 V DC	18–180 W
LCU 96W 24V SR EXC	28000413	24 V DC	10–96 W
LCU 60W 24V SR EXC	28000412	24 V DC	6–60 W
LCU 35W 24V SR EXC	28000411	24 V DC	4–35 W

Perfect visibility – twilightCONTROL
In twilightCONTROL mode, the lighting level of the signage installation automatically adjusts to ambient brightness thanks to the built-in light sensor. This ensures perfect illumination and energy savings.

In this mode of operation, the system is completely switched off during the day. In the evening, the signage switches on automatically, up to the maximum settable level. The high lighting level at dusk ensures perfect visibility, significantly enhancing the advertising effect. As it grows darker, brightness is reduced to the lowest settable level, thereby substantially improving signage legibility during the night. At daybreak, the lighting is again adjusted to its maximum level, in order to optimise visibility. As soon as there is sufficient ambient brightness the sign is switched off.

__ Perfect visibility even on overcast days
__ Potential energy savings of up to 40 %
__ Reduction of light pollution in accordance with national directives and laws
__ Switches on and off depending on ambient brightness – no clock required
__ Increased LED service life

Without twilightCONTROL

With twilightCONTROL

Quick and easy installation – no external light sensor – no programming
The TALEXXcontrol LNU PWM dimmer with a built-in light sensor is installed in the signage installation so as to be invisible for the observer. The dimmer is simply connected between the LED Driver and the LEDs and does not need any programming.

__ No installation effort required for light sensor
__ Easy retrofitting of existing installations

Easy dimming via touch switch – switchDIM
In another mode of operation, the so-called switchDIM mode, the lighting level of the LEDs and/or the signage installation can be changed by means of a connected touch switch.

__ Lighting level of signage installation adjusted to meet national laws and directives
__ Simple system for dimming LEDs for general-lighting applications such as cove lighting, shelf lighting, etc.

TALEXXcontrol LNU

TALEXXcontrol LNU M

TALEXXcontrol LNU S

TALEXXcontrol LNU I

▼ At a glance:

__ Perfect visibility – twilightCONTROL
__ Energy savings of up to 40 %
__ Reduction of light pollution –
("Dark Sky certified friendly devices")
__ Quick and easy installation –
no external light sensor – no programming

__ Rugged design – IP 67
__ Easy dimming via touch switch – switchDIM
__ Can be upgraded using LNU S extension units
for installations with LED output in excess of 7,000 W
__ Built-in temperature monitoring function
__ Increased LED service life
__ Customised settings possible via LNU I service unit
__ 5-year guarantee

Technical features	LNU M	LNU S	LNU I
Input voltage	12 / 24 VDC		USB – 5 V
Max. input current	15 A		USB – 50 mA
No. of output channels	3 × PWM		Not applicable
DC voltage range output	12 / 24 VDC		Not applicable
Output current	max. 5 A / channel		Not applicable
PWM frequency	495 Hz		Not applicable
Voltage drop	150 mV max.		Not applicable
Ambient temperature t_a	–40 ... +60°C		0 ... +50°C
Storage temperature	–40 ... +85°C		–30 ... +85°C
Housing temperature t_c	max. 85°C		max. 60°C
Dimensions L × W × H	139 × 40 × 18.5 mm		48.5 × 53 × 13 mm
Protection rating	IP 67		IP 20
Input voltage range switchDIM	100–277 VAC 50/60 Hz	Not applicable	Not applicable
Dimming range twilightCONTROL	0–98 %[2]	0–98 %[1]/[2]	Not applicable
Dimming range switchDIM	0 % / 0.1–100 %	0 % / 0.1–100 %	Not applicable
Marks of conformity	CE, ENEC, cRUus, IDA	CE, ENEC, cRUus	CE
Max. no. of LNU S per LNU M	Not applicable	19	Not applicable
Service life t_a +55 °C	50,000 h	50,000 h	50,000 h

[1] The extension units are controlled by the master unit via the synchronisation cable.
[2] Maximum level depends on the LEDs used and the mounting situation.

TALEXXcontrol LNU PWM dimmer	Art. No.	Description
LNU M 12–24 V IP 67 G1	28000018	Master unit
LNU S 12–24 V IP 67 G1	28000050	Extension unit
LNU I IP 20 G1	28000163	Service unit for programming LNU M and LNU S