

Линейные светильники LINURA, MACH

Технические характеристики

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THE LIGHT OF PERFORMANCE.

To ensure that the lights in the country remain lit, we all need to produce better, faster and more precisely. With LINURA, Waldmann is setting a new standard, as market leader for industrial and machine luminaires, that opens up a world of possibilities to you. Wherever LINURA is used, it delivers lighting solutions designed to meet the future needs of many sectors and applications. It is easy to install this luminaire, and it can be integrated perfectly into a machine and at the controller level where it delivers powerful, homogeneous light. In such optimum production conditions, even better work results can be achieved – and the lights in the country can continue to shine.



LINURA. THE LIGHT OF NEW POSSIBILITIES



Performance

Powerful and homogeneous light, better performance: With the latest LED technology ($> 170 \text{ lm/W}$) and a lens to distribute light to optimum effect in a highly efficient manner while also improving the price-performance ratio. You can achieve the same level of lighting as before, but with smaller or fewer luminaires.

Quality

Robust housing, less downtime. A simple body made of aluminium, a lens made of PMMA, side parts made of glass-fibre-reinforced plastic (GRP). The special sealing concept for lens and side parts make this luminaire resistant to high ambient temperatures, liquids and dust.

Compactness

Slim design, less space required: It has been possible to compress the dimensions of the electronics and design (LINURA is available with diameters of 25 mm and 35 mm), the luminaire can be installed in confined spaces or in aluminium system and switch cabinet profiles.

Design

User-oriented design, great functionality: The shape of LINURA is based solely on its function – its application on or in the machine. The slimline design of this luminaire enables it to blend in seamlessly with the machine. Great aesthetics with high functionality.

Anyone who aspires to high standards personally and in terms of product quality is entitled to expect the same from the lighting on their production premises. Whether in terms of lighting performance, design, product range or installation: LINURA scores highly in every discipline. With the most powerful light possible for optimum visibility. With shapes that are as slimline as possible, to fit into any space available. With as many variants as possible for even more applications. Last but not least, with an installation as easy as possible. Wherever lighting conditions are good, it is possible to work better and more efficiently – to deliver ultimate quality.

**extremely slim
extremely strong**



Variety

Many sizes, more flexible

application options: To enable LINURA to be used as flexibly as possible, we have developed two basic concepts with variable lengths based on a 140mm grid: 10 lengths with a diameter of 25mm and 6 lengths with a diameter of 35mm. This ensures that optimum lighting conditions can be achieved everywhere and at all times.

Price

Degree of protection

appropriate for the application, better price: Thanks to a proprietary sealing concept developed for IP54, the seals are integrated in the enclosures, so no tools are required (2K). No adhesive bonding is required, reducing the production cost of LINURA, and helping to achieve an optimum price-performance ratio.

Mounting

Universal luminaire bracket, problem-free installation:

The scope of delivery includes brackets that make installation much simpler in typical situations such as aluminium system and switch cabinet profiles. The adjustment range of +/- 60° means that this luminaire can be used almost anywhere – and the changeover to LINURA is a very simple process.

Connection

More connection options, less wiring: LINURA has an integrated M12 connection and can connect other luminaires (variants). Control is performed via digital interfaces. This greatly reduces the amount of wiring needed.

AS ADAPTABLE AS POSSIBLE



LINURA.edge

The appropriate light colour for every application. LINURA.edge, with a diameter of 25 mm is the thinnest possible luminaire. It is available in 10 lengths ranging from 195 – 1455 mm and in these variants: white (5000 K/Ra > 80) for normal production processes and RGB (multi-coloured) to display machine and process statuses.

25 mm in diameter,
available in 10 different lengths

The most sophisticated solution by the machine luminaire specialist with full scope for delivering the right lighting to industry. LINURA.edge, the standard variant for wherever more light is needed in and on a machine. Its diameter of 25 mm also makes it ideal for use in confined spaces. And LINURA.maxx, the high-performance variant, for wherever even more light is needed. With a diameter of 35 mm, it also covers maximum lighting needs. This ensures that appropriate lighting is always there, wherever it is needed.



LINURA.maxx

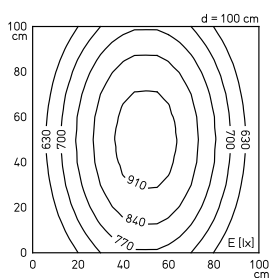
Can be integrated via digital inputs or an IO-Link interface. LINURA.maxx, with a diameter of 35 mm – still a slimline luminaire, but a real powerhouse. Available in 6 lengths, from 195–895 mm, and also with an IO-Link interface for problem-free integration into suitable IO-Link architectures.

35 mm in diameter,
available in 6 different lengths

ILLUMINATION AS PERFECT AS POSSIBLE

Whether made by a robot or by human hand, wherever things are produced or joined together, you need professional skills, concentration – and above all, good lighting conditions. LINURA.edge delivers powerful, homogeneous white light to monitor processes without specific spectral requirements, for example in assembly systems. Perfect illumination for perfect results.

- White light (5000 K/Ra > 80) to illuminate different production processes
- Digital input for powerless switching
- ADVANCED package for gradual dimming, automatic dimming when temperature limits are exceeded (at $T_a > 50^\circ\text{C}$), and for connecting an RGB luminaire (variants)
- Through-wiring for electrical interlinking of several luminaires (variants)



Variant 1455 mm

0195 mm	
0335 mm	
0475 mm	
0615 mm	
0755 mm	
0895 mm	
1035 mm	
1175 mm	
1315 mm	
1455 mm	



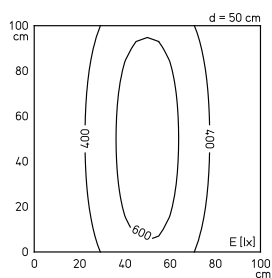
A close-up photograph of a microchip with a grid of gold contacts. A metal probe is positioned over one of the contacts, emitting a small light. The background is a warm, golden-yellow color.

LINURA.edge YELLOW

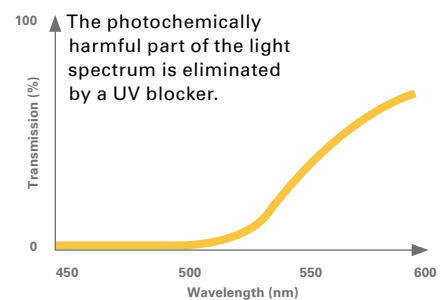
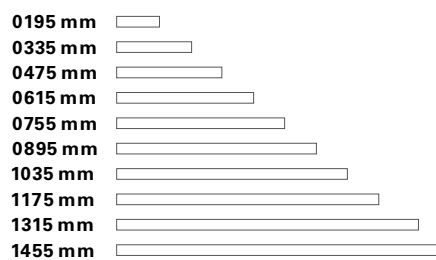
**MONITOR AS
SENSITIVELY
AS POSSIBLE**

Photochemically sensitive processes require an equally sensitive lighting solution. Specially developed for use in microelectronics, photolithography, pharmaceuticals, etc., LINURA.edge provides efficient UV-free light, protecting photoresists or similar from unintentional exposure.

- Yellow light (>500 nm without UV) for the illumination of photochemically sensitive processes
- Digital inputs for powerless switching



Variant 1455 mm

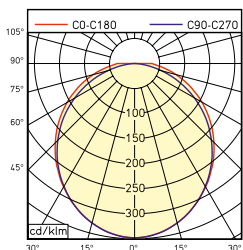


The photochemically harmful part of the light spectrum is eliminated by a UV blocker.

SIGNALLING AS CLEARLY AS POSSIBLE

Luminaire with signal action: LINURA.edge RGB uses RGB-LEDs in various colours to display machine and process statuses, or to achieve colour effects. An RGB luminaire can be operated in a line with white luminaires (ADVANCED package). The dimming level of white light and the colour of the RGB light can be controlled by a single supply line.

- Digital inputs for powerless switching
- 7 colours for status messages and design effects



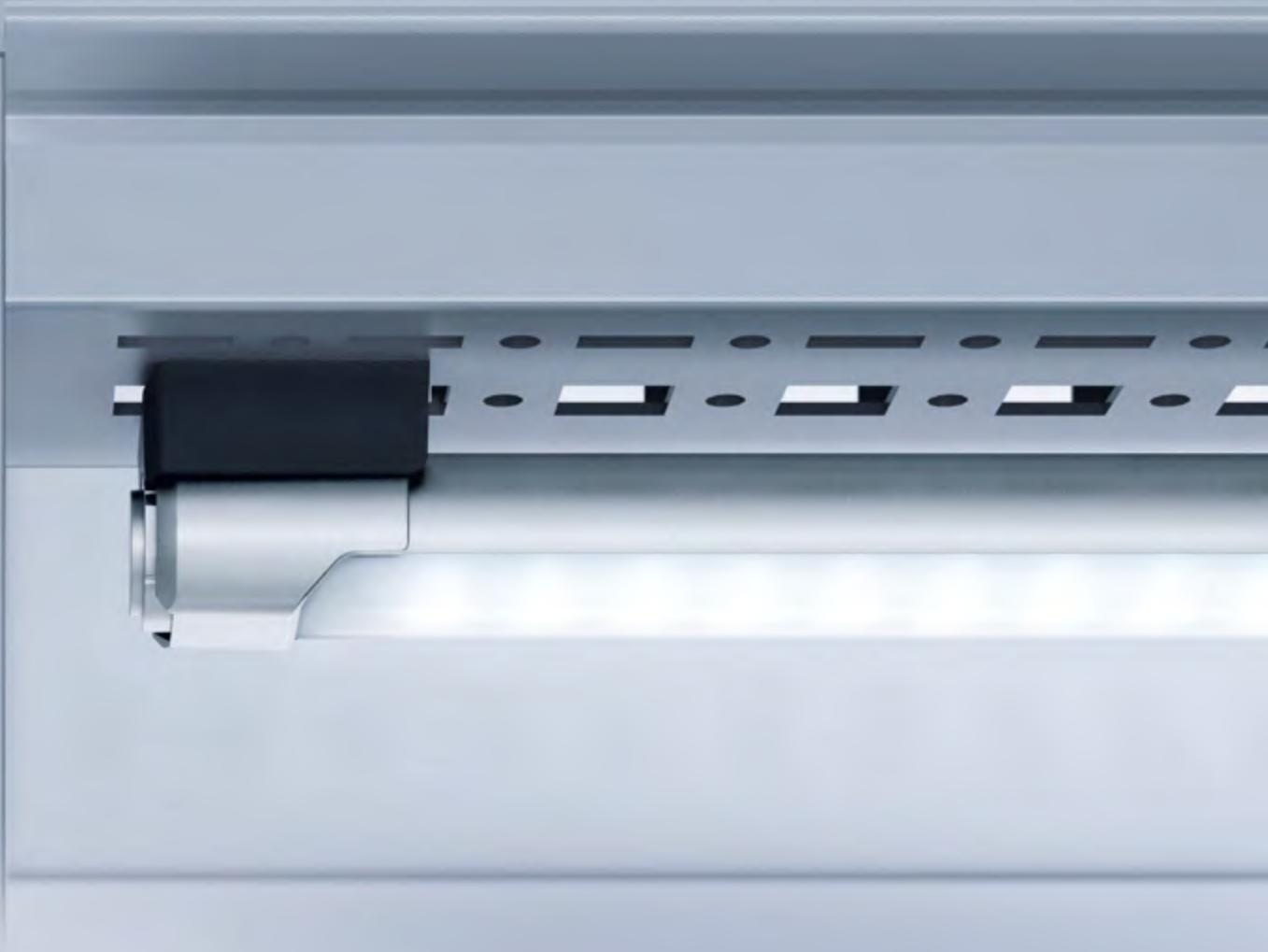
0195 mm ☐
0335 mm ☐
0475 mm ☐
0615 mm ☐



COMBINING AS CLEVERLY AS POSSIBLE

Let there be light – quite automatically: The distance sensor for LINURA.edge enables the luminaire to be switched automatically. For example in the switch cabinet when the door is being opened and closed. A manual pushbutton is provided for manual switching. And best of all: accessories are just as easy to install as the luminaire itself.

- The scope of delivery includes flexible brackets with an adjustment range of $\pm 60^\circ$, also suitable for commonly used types of aluminium system and switch cabinet profiles, compatible with previous models
- Laser-based time-of-flight sensor with M12 plug connectors, for the automatic switching of luminaires
- Capacitive sensor with M12 plug connectors for the manual switching of luminaires



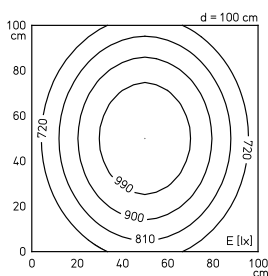
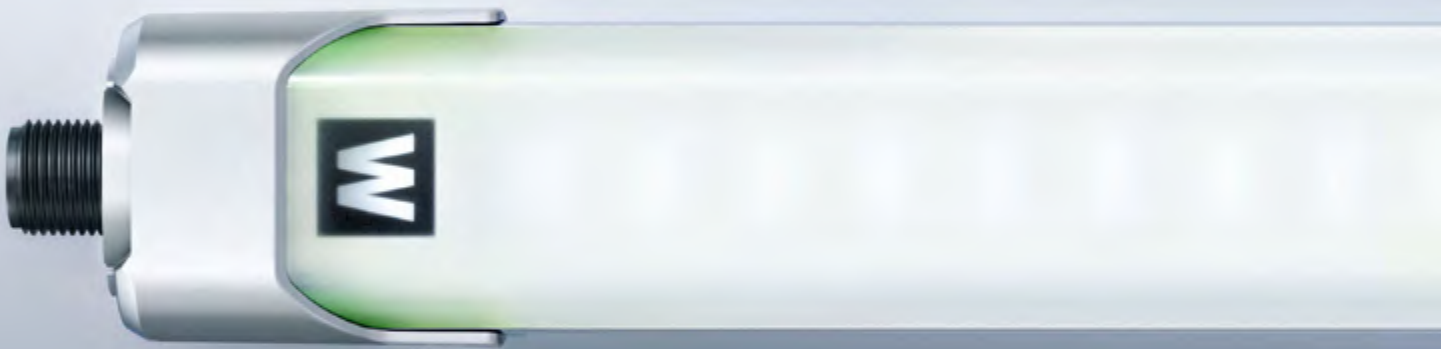
A large roll of paper, likely for printing, is being processed by a machine. The paper has a color calibration strip on the left side. The machine is orange and black. The background is orange.

LINURA.maxx

**LINKING AS
INTELLIGENTLY
AS POSSIBLE**

Wherever good lighting – and a lot of it – is needed, LINURA.maxx delivers the goods. This slimline luminaire does more than just deliver power, it is also really smart: Available with ADVANCED package or IO-Link, it provides intelligent lighting solutions for automation. Via an IO-Link interface, it can also be integrated seamlessly into all IO-Link architectures.

- White light (5000 K/Ra > 80) for the illumination of various types of production processes
- ADVANCED package for powerless switching, progressive dimming and automatic dimming when temperature limits are exceeded (at $T_a > 50^\circ\text{C}$) (variants)
- Through-wiring for electrical interlinking of several luminaires (variants)
- IO-Link interface for the configuration and control of lighting functions such as switching, dimming and flashing, as well as for evaluating diagnostic information and error messages (variants)



Variant 0895 mm

0195 mm	
0335 mm	
0475 mm	
0615 mm	
0755 mm	
0895 mm	



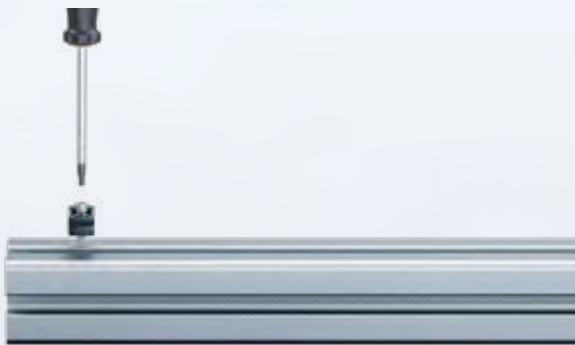
A person wearing blue jeans and dark sneakers is walking in a modern, brightly lit hallway. They are holding a long, white, cylindrical LINURA light fixture. The background shows a clean, minimalist interior with light-colored walls and floors.

LINURA installation

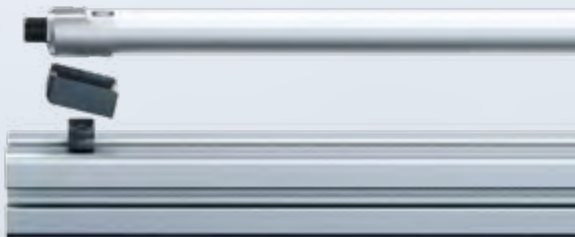
**INSTALLING
AS FAST
AS POSSIBLE**

What use is the smartest product if installation is a very resource-intensive operation? Great that LINURA also scores highly in terms of installation. It is easily done without problems, thanks to a universal luminaire bracket, a clever clip system and M12 plug connectors. In a few simple steps. For replacement, a simple twist is all it takes to remove the luminaire from its bracket.

- Compensation for hole spacings in a tolerance range of 15 mm (LINURA.edge) or 25 mm (LINURA.maxx)
- Suitable for all commonly used switch cabinet profiles
- Compatible with the mounting bores on previous models
- Tool-free installation/disassembly of luminaires in their brackets
- Luminaire adjustment across a range of +/- 60°
- Connection via M12 plug connector
- Variants with connection option for other luminaires (through-wiring)
- Identical mounting of accessories (manual pushbutton/distance sensor)



1. The enclosed fastening elements are mounted on the installation surface with appropriate screws.



2. The enclosed brackets are inserted into the grooves in the end caps of the luminaire.



3. The brackets are used to clip the luminaire onto the retaining elements. Then just plug it into the electric supply – job done.



Consumption	Dimensions	Special feature	E_m/E_{max}^*	Model	Order no.
LINURA.edge					
2.5 W	195 mm	ADVANCED package	91/126 lx ¹	LEA 300/850/MS	114080000-00803510
5.0 W	335 mm	ADVANCED package	181/249 lx ¹	LEA 600/850/MS	114082000-00803512
7.5 W	475 mm	ADVANCED package	268/367 lx ¹	LEA 900/850/MS	114084000-00803550
10.0 W	615 mm	ADVANCED package	353/477 lx ¹	LEA 1200/850/MS	114086000-00803552
12.5 W	755 mm	ADVANCED package	433/578 lx ¹	LEA 1500/850/MS	114088000-00803555
15.0 W	895 mm	ADVANCED package	508/671 lx ¹	LEA 1800/850/MS	114090000-00803570
17.5 W	1035 mm	ADVANCED package	577/753 lx ¹	LEA 2100/850/MS	114092000-00803585
20.0 W	1175 mm	ADVANCED package	642/825 lx ¹	LEA 2400/850/MS	114094000-00803612
22.5 W	1315 mm	ADVANCED package	699/888 lx ¹	LEA 2700/850/MS	114096000-00803618
25.0 W	1455 mm	ADVANCED package	751/942 lx ¹	LEA 3000/850/MS	114098000-00803703
2.5 W	195 mm	ADVANCED package, through-wired	91/126 lx ¹	LEA 300/850/MST	114081000-00803511
5.0 W	335 mm	ADVANCED package, through-wired	181/249 lx ¹	LEA 600/850/MST	114083000-00803513
7.5 W	475 mm	ADVANCED package, through-wired	268/367 lx ¹	LEA 900/850/MST	114085000-00803551
10.0 W	615 mm	ADVANCED package, through-wired	353/477 lx ¹	LEA 1200/850/MST	114087000-00803553
12.5 W	755 mm	ADVANCED package, through-wired	433/578 lx ¹	LEA 1500/850/MST	114089000-00803561
15.0 W	895 mm	ADVANCED package, through-wired	508/671 lx ¹	LEA 1800/850/MST	114091000-00803583
17.5 W	1035 mm	ADVANCED package, through-wired	577/753 lx ¹	LEA 2100/850/MST	114093000-00803611
20.0 W	1175 mm	ADVANCED package, through-wired	642/825 lx ¹	LEA 2400/850/MST	114095000-00803615
22.5 W	1315 mm	ADVANCED package, through-wired	699/888 lx ¹	LEA 2700/850/MST	114097000-00803632
25.0 W	1455 mm	ADVANCED package, through-wired	751/942 lx ¹	LEA 3000/850/MST	114099000-00803705
3.0 W	195 mm		91/126 lx ¹	LEA 300/850/S	114033000-00801340
6.0 W	335 mm		181/249 lx ¹	LEA 600/850/S	114035000-00801346
9.0 W	475 mm		268/367 lx ¹	LEA 900/850/S	114037000-00801349
12.0 W	615 mm		353/477 lx ¹	LEA 1200/850/S	114039000-00801355
15.0 W	755 mm		433/578 lx ¹	LEA 1500/850/S	114041000-00801360
18.0 W	895 mm		508/671 lx ¹	LEA 1800/850/S	114043000-00801374
21.0 W	1035 mm		577/753 lx ¹	LEA 2100/850/S	114045000-00801392
24.0 W	1175 mm		642/825 lx ¹	LEA 2400/850/S	114047000-00801394
27.0 W	1315 mm		699/888 lx ¹	LEA 2700/850/S	114049000-00801397
30.0 W	1455 mm		751/942 lx ¹	LEA 3000/850/S	114051000-00801409
3.0 W	195 mm	through-wired	91/126 lx ¹	LEA 300/850/ST	114032000-00801320
6.0 W	335 mm	through-wired	181/249 lx ¹	LEA 600/850/ST	114034000-00801344
9.0 W	475 mm	through-wired	268/367 lx ¹	LEA 900/850/ST	114036000-00801348
12.0 W	615 mm	through-wired	353/477 lx ¹	LEA 1200/850/ST	114038000-00801350
15.0 W	755 mm	through-wired	433/578 lx ¹	LEA 1500/850/ST	114040000-00801356
18.0 W	895 mm	through-wired	508/671 lx ¹	LEA 1800/850/ST	114042000-00801366
21.0 W	1035 mm	through-wired	577/753 lx ¹	LEA 2100/850/ST	114044000-00801380
24.0 W	1175 mm	through-wired	642/825 lx ¹	LEA 2400/850/ST	114046000-00801393
27.0 W	1315 mm	through-wired	699/888 lx ¹	LEA 2700/850/ST	114048000-00801396
30.0 W	1455 mm	through-wired	751/942 lx ¹	LEA 3000/850/ST	114050000-00801408

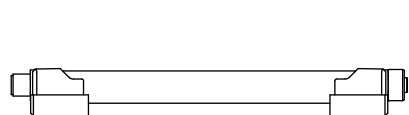
* E_m = medium illuminance; E_{ma} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

Consumption	Dimensions	Special feature	E_m/E_{max}^*	Model	Order no.
LINURA.edge YELLOW					
3,0 W	195 mm	Luminous flux 150 lm		LEA 100/YEL/S	114100000-00804404
6,0 W	335 mm	Luminous flux 300 lm		LEA 200/YEL/S	114101000-00804405
9,0 W	475 mm	Luminous flux 450 lm		LEA 300/YEL/S	114102000-00804406
12,0 W	615 mm	Luminous flux 600 lm		LEA 400/YEL/S	114103000-00804407
15,0 W	755 mm	Luminous flux 750 lm		LEA 500/YEL/S	114104000-00804408
18,0 W	895 mm	Luminous flux 900 lm		LEA 600/YEL/S	114105000-00804409
21,0 W	1035 mm	Luminous flux 1.050 lm		LEA 700/YEL/S	114106000-00804410
24,0 W	1175 mm	Luminous flux 1.200 lm		LEA 800/YEL/S	114107000-00804411
27,0 W	1315 mm	Luminous flux 1.350 lm		LEA 900/YEL/S	114108000-00804412
30,0 W	1455 mm	Luminous flux 1.500 lm		LEA 1000/YEL/S	114109000-00804413
LINURA.edge RGB					
3.0 W	195 mm	Luminous flux 70 lm		LEA 100/RGB/S	114052000-00802116
6.0 W	335 mm	Luminous flux 140 lm		LEA 200/RGB/S	114053000-00802117
9.0 W	475 mm	Luminous flux 210 lm		LEA 300/RGB/S	114054000-00802118
12.0 W	615 mm	Luminous flux 280 lm		LEA 400/RGB/S	114055000-00802119
LINURA.maxx					
5.0 W	195 mm	IO-Link	167/225 lx ¹	LMA 500/850/BS	114110000-00804046
9.0 W	335 mm	IO-Link	332/445 lx ¹	LMA 1000/850/BS	114113000-00804049
13.0 W	475 mm	IO-Link	493/657 lx ¹	LMA 1500/850/BS	114116000-00804052
17.0 W	615 mm	IO-Link	648/856 lx ¹	LMA 2000/850/BS	114119000-00804055
21.0 W	755 mm	IO-Link	796/1 042 lx ¹	LMA 2500/850/BS	114122000-00804058
25.0 W	895 mm	IO-Link	935/1 212 lx ¹	LMA 3000/850/BS	114125000-00804061
5.0 W	195 mm	ADVANCED package	167/225 lx ¹	LMA 500/850/MS	114111000-00804047
9.0 W	335 mm	ADVANCED package	332/445 lx ¹	LMA 1000/850/MS	114114000-00804050
13.0 W	475 mm	ADVANCED package	493/657 lx ¹	LMA 1500/850/MS	114117000-00804053
17.0 W	615 mm	ADVANCED package	648/856 lx ¹	LMA 2000/850/MS	114120000-00804056
21.0 W	755 mm	ADVANCED package	796/1 042 lx ¹	LMA 2500/850/MS	114123000-00804059
25.0 W	895 mm	ADVANCED package	935/1 212 lx ¹	LMA 3000/850/MS	114126000-00804062
5.0 W	195 mm	ADVANCED package, through-wired	167/225 lx ¹	LMA 500/850/MST	114112000-00804048
9.0 W	335 mm	ADVANCED package, through-wired	332/445 lx ¹	LMA 1000/850/MST	114115000-00804051
13.0 W	475 mm	ADVANCED package, through-wired	493/657 lx ¹	LMA 1500/850/MST	114118000-00804054
17.0 W	615 mm	ADVANCED package, through-wired	648/856 lx ¹	LMA 2000/850/MST	114121000-00804057
21.0 W	755 mm	ADVANCED package, through-wired	796/1 042 lx ¹	LMA 2500/850/MST	114124000-00804060
25.0 W	895 mm	ADVANCED package, through-wired	935/1 212 lx ¹	LMA 3000/850/MST	114127000-00804063
Accessories					
manual pushbutton	115 mm	capacitive contact sensor with M12 plug connectors		LTS/ST	114129000-00805353
distance sensor	115 mm	laser-based time-of-flight sensor with M12 plug connectors		LDS/ST	114128000-00805352

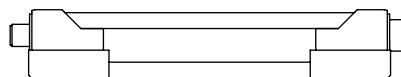
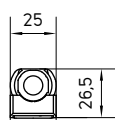
* E_m = medium illuminance; E_{ma} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

SPECIFICATIONS ARE EASILY ACHIEVED

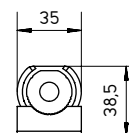
Lamps:	LED technology
Beam angle:	90°
Glare-free technology:	direct beam via a diffuse lens
Housing:	basic body made of aluminium, lens made of PMMA, side parts made of glass-fibre-reinforced PA
Ambient temperature $T_{a_{max}}$:	40°C or 50°C with automatic dimming whenever temperature is exceeded (variants with ADVANCED package or IO-Link)
LED service life:	> 60000 h [L70 B50] (white variants)
Degree of protection / Protection class:	IP54/III
Connection:	M12 plug connector (aligned), A-coded
Power supply:	22–26 VDC
Certificates:	CE, cETLus, D
Accessories:	manual pushbutton and distance sensor for looping into the supply line bracket, +/- 60° adjustable (included in scope of delivery)



LINURA.edge



LINURA.maxx



THE LIGHT OF NEW POSSIBILITIES

LINURA.edge

Whether made by a robot or by human hand, wherever things are produced or joined together, you need professional skills, concentration – and above all, good lighting conditions. LINURA.edge delivers powerful, homogeneous white light to monitor processes without specific spectral requirements, for example in assembly systems. Perfect illumination for perfect results.

AS SHORT AND TECHNICAL AS POSSIBLE

Lamps:	LED-Technologie
Colour temperature:	neutral white 5000 K
Colour rendering:	Ra > 80
Beam angle:	90°
Glare-free technology:	direct beam via a diffuse lens
Housing:	basic body made of aluminium, lens made of PMMA/ reinforced PA
Ambient temperature Ta max:	40° C or 50° C (variants with ADVANCED package)
LED service life:	> 60 000 h [L70 B50] (white variants)
Degree of protection / Protection class:	IP54 / III
Connection:	M12 plug connector (aligned), A-coded
Control:	Digital input for powerless switching
Power supply:	22 – 26 VDC
Certificates:	CE, cETLus, D
Special features:	Through-wiring for electrical interlinking of several lu ADVANCED package (variants) <ul style="list-style-type: none">• Dimming function: gradual dimming in 8 steps fr• Coupling function: control of a linked RGB lumin• protective function: automatic dimming when te
Accessories:	manual pushbutton and distance sensor for looping bracket, + / - 60° adjustable (included in scope of del

Overview of variants



Woodworking Machines



Integrated Manufacturing and Auditing
Systems (IAS)

Fitted with Power consumption	Operating device Connected load	Dimensions Special feature	Luminous flux		Model Order No.
LED 10 W	Without 22-26 V; DC	615 mm ADVANCED package	1260 lm		LEA 1200/850/MS 00803552
LED 10 W	Without 22-26 V; DC	615 mm ADVANCED package Through-wired	1260 lm		LEA 1200/850/MST 00803553
LED 12 W	Without 22-26 V; DC	615 mm	1260 lm		LEA 1200/850/S 00801355
LED 12 W	Without 22-26 V; DC	615 mm Through-wired	1260 lm		LEA 1200/850/ST 00801350
LED 12,5 W	Without 22-26 V; DC	755 mm ADVANCED package	1575 lm		LEA 1500/850/MS 00803555
LED 12,5 W	Without 22-26 V; DC	755 mm ADVANCED package Through-wired	1575 lm		LEA 1500/850/MST 00803561
LED 15 W	Without 22-26 V; DC	755 mm	1575 lm		LEA 1500/850/S 00801360
LED 15 W	Without 22-26 V; DC	755 mm Through-wired	1575 lm		LEA 1500/850/ST 00801356
LED 15 W	Without 22-26 V; DC	895 mm ADVANCED package	1890 lm		LEA 1800/850/MS 00803570
LED 15 W	Without 22-26 V; DC	895 mm ADVANCED package Through-wired	1890 lm		LEA 1800/850/MST 00803583
LED 18 W	Without 22-26 V; DC	895 mm	1890 lm		LEA 1800/850/S 00801374
LED 18 W	Without 22-26 V; DC	895 mm Through-wired	1890 lm		LEA 1800/850/ST 00801366
LED 17,5 W	Without 22-26 V; DC	1035 mm ADVANCED package	2205 lm		LEA 2100/850/MS 00803585
LED 17,5 W	Without 22-26 V; DC	1035 mm ADVANCED package Through-wired	2205 lm		LEA 2100/850/MST 00803611
LED 21 W	Without 22-26 V; DC	1035 mm	2205 lm		LEA 2100/850/S 00801392
LED 21 W	Without 22-26 V; DC	1035 mm Through-wired	2205 lm		LEA 2100/850/ST 00801380
LED 20 W	Without 22-26 V; DC	1175 mm ADVANCED package	2520 lm		LEA 2400/850/MS 00803612
LED 20 W	Without 22-26 V; DC	1175 mm ADVANCED package Through-wired	2520 lm		LEA 2400/850/MST 00803615
LED 24 W	Without 22-26 V; DC	1175 mm	2520 lm		LEA 2400/850/S 00801394

LED 24 W	Without 22-26 V; DC	1175 mm Through-wired	2520 lm		LEA 2400/850/ST 00801393
LED 22,5 W	Without 22-26 V; DC	1315 mm ADVANCED package	2835 lm		LEA 2700/850/MS 00803618
LED 22,5 W	Without 22-26 V; DC	1315 mm ADVANCED package Through-wired	2835 lm		LEA 2700/850/MST 00803632
LED 27 W	Without 22-26 V; DC	1315 mm	2835 lm		LEA 2700/850/S 00801397
LED 27 W	Without 22-26 V; DC	1315 mm Through-wired	2835 lm		LEA 2700/850/ST 00801396
LED 2,5 W	Without 22-26 V; DC	195 mm ADVANCED package	315 lm		LEA 300/850/MS 00803510
LED 2,5 W	Without 22-26 V; DC	195 mm ADVANCED package Through-wired	315 lm		LEA 300/850/MST 00803511
LED 3 W	Without 22-26 V; DC	195 mm	315 lm		LEA 300/850/S 00801340
LED 3 W	Without 22-26 V; DC	195 mm Through-wired	315 lm		LEA 300/850/ST 00801320
LED 25 W	Without 22-26 V; DC	1455 mm ADVANCED package	3150 lm		LEA 3000/850/MS 00803703
LED 25 W	Without 22-26 V; DC	1455 mm ADVANCED package Through-wired	3150 lm		LEA 3000/850/MST 00803705
LED 30 W	Without 22-26 V; DC	1455 mm	3150 lm		LEA 3000/850/S 00801409
LED 30 W	Without 22-26 V; DC	1455 mm Through-wired	3150 lm		LEA 3000/850/ST 00801408
LED 5 W	Without 22-26 V; DC	335 mm ADVANCED package Optics	630 lm		LEA 600/850/MS 00803512
LED 5 W	Without 22-26 V; DC	335 mm ADVANCED package Through-wired	630 lm		LEA 600/850/MST 00803513
LED 6 W	Without 22-26 V; DC	335 mm	630 lm		LEA 600/850/S 00801346
LED 6 W	Without 22-26 V; DC	335 mm Through-wired	630 lm		LEA 600/850/ST 00801344
LED 7,5 W	Without 22-26 V; DC	475 mm ADVANCED package	945 lm		LEA 900/850/MS 00803550
LED 7,5 W	Without 22-26 V; DC	475 mm ADVANCED package Through-wired	945 lm		LEA 900/850/MST 00803551
LED 9 W	Without 22-26 V; DC	475 mm	945 lm		LEA 900/850/S 00801349
LED 9 W	Without 22-26 V; DC	475 mm Through-wired	945 lm		LEA 900/850/ST 00801348

Accessoires



Manual pushbutton

Description	Order No.	Data sheet	Instructions for use
capacitive contact sensor with M12 plug connectors	114129000 - 00805353	↓	↓



Distance sensor

Description	Order No.	Data sheet	Instructions for use
laser-based time-of-flight sensor with M12 plug connectors	114128000 - 00805352	↓	↓



Connection cable for LINURA.edge without Through-wiring

Description	Connector type	Order No.
3 m lead, 5 x 0.5 mm ²	M12 socket: Straight; 5-pole; A-coded	336703010 - 00582109
7 m lead, 5 x 0.5 mm ²	M12 socket: Straight; 5-pole; A-coded	336703020 - 00543341



Connection socket for LINURA.edge without Through-wiring

Description	Connector type	Ordner No.
Cable passage 4 - 8 mm, wires ≤ 0.75 mm ²	Cable passage 4 - 8 mm, wires ≤ 0.75 mm ²	336615019 - 00522018



Connection cable for LINURA.edge with Through-wiring (for daisy-chaining several luminaires)

Description	Connector type	Order No.
3 m lead, 5 x 1,0 mm ²	M12 socket: Straight; 5-pole; A-coded	336890010 - 00598058
7 m lead, 5 x 1,0 mm ²	M12 socket: Straight; 5-pole; A-coded	336890020 - 00598063



Cennection socket for LINURA.edge with Through-wiring (for daisy-chaining several luminaires)

Description	Connector type	Order No.
Cable passage 6 - 8 mm, wires ≤ 1.5 mm ²	M12 socket: Straight; 5-pole; A-coded	336882010 - 00597541



Connecting plug for LINURA.edge with Through-wiring (for daisy-chaining several luminaires)

Description	Connector type	Order No.
Cable passage 6 - 8 mm, wires ≤ 1.5 mm ²	M12 plug: Straight; 5-pole; A-coded	338286010 - 00808081



Alternative holder (pipe clip) for LINURA.edge

Description	Colour	Order No.
Holder with black heat-shrinkable sleeve for screwing on	Black	306385020-00813134
Holder with black heat-shrinkable sleeve with magnet	Black	225439019-00812859

Installation

What use is the smartest product if installation is a very resource-intensive operation? Great that LINURA also scores highly in terms of installation. It is easily done without problems, thanks to a universal luminaire bracket, a clever clip system and M12 plug connectors. In a

few simple steps. For replacement, a simple twist is all it takes to remove the luminaire from its bracket.

- Compensation for hole spacings in a tolerance range of + / - 15 mm
- Suitable for all commonly used switch cabinet profiles
- Compatible with the mounting bores on previous models
- Tool-free installation / disassembly of luminaires in their brackets
- Luminaire adjustment across a range of + / - 60 °
- Identical mounting of accessories (manual pushbutton / distance sensor)



1. The enclosed fastening elements are mounted on the installation surface with appropriate screws.



2. The enclosed brackets are inserted into the grooves in the end caps of the luminaire.



3. The brackets are used to clip the luminaire onto the retaining elements. Then just plug it into the electric supply – job done.

THE LIGHT OF NEW POSSIBILITIES

LINURA.edge RGB

Luminaire with signal action: LINURA.edge RGB uses RGB-LEDs in various colours to display machine and process statuses, or to achieve colour effects. An RGB luminaire can be operated in a line with white luminaires (ADVANCED package). The dimming level of white light and the colour of the RGB light can be controlled by a single supply line.

AS SHORT AND TECHNICAL AS POSSIBLE

Lamps:	LED-Technologie
Light colour:	7 colours
Beam angle:	90°
Glare-free technology:	direct beam via a diffuse lens
Housing:	basic body made of aluminium, lens made of PMMA, side parts made of glass-fibre-reinforced PA
Ambient temperature Tamax:	40° C
Degree of protection / Protection class:	IP54 / III
Connection:	M12 plug connector (aligned), A-coded
Power supply:	22 – 26 VDC
Control:	Digital inputs for powerless switching
Certificates:	CE, cETLus, D
Accessories:	manual pushbutton and distance sensor for looping into the supply line bracket, + / - 60° adjustable (included in scope of delivery)

Overview of variants



Woodworking Machines



Integrated Manufacturing and Auditing Systems (IAS)



Fitted with	Operating device	Dimensions	Luminous flux	Model
Power consumption	Connected load	Special feature		Order No.

LED 3 W	Without 22-26 V; DC	195 mm 7 colours controllable	65 lm		LEA 100/RGB/S 00802116
LED 6 W	Without 22-26 V; DC	335 mm 7 colours controllable	130 lm		LEA 200/RGB/S 00802117
LED 9 W	Without 22-26 V; DC	475 mm 7 colours controllable	195 lm		LEA 300/RGB/S 00802118
LED 12 W	Without 22-26 V; DC	615 mm 7 colours controllable	260 lm		LEA 400/RGB/S 00802119
LED 13 W	Without 22-26 V; DC	755 mm 7 colours controllable	325 lm		LEA 500/RGB/S 00809954
LED 16 W	Without 22-26 V; DC	895 mm 7 colours controllable	390 lm		LEA 600/RGB/S 00809553
LED 18 W	Without 22-26 V; DC	1035 mm 7 colours controllable	455 lm		LEA 700/RGB/S 00809955
LED 21 W	Without 22-26 V; DC	1175 mm 7 colours controllable	520 lm		LEA 800/RGB/S 00809956
LED 24 W	Without 22-26 V; DC	1315 mm 7 colours controllable	585 lm		LEA 900/RGB/S 00809957
LED 26 W	Without 22-26 V; DC	1455 mm 7 colours controllable	650 lm		LEA 1000/RGB/S 00809557

Accessoires





Manual pushbutton

Description	Order No.	Data sheet	Instructions for use
capacitive contact sensor with M12 plug connectors	114129000 - 00805353		



Distance sensor

Description	Order No.	Data sheet	Instructions for use
laser- based time-of- flight sensor with M12 plug connectors	114128000 - 00805352		



Connection cable for LINURA.edge RGB

Description	Connector type	Order No.
3 m lead, 5 x 0.5 mm ²	M12 socket: Straight; 5 -pole; A-coded	336703010 - 00582109
7 m lead, 5 x 0.5 mm ²	M12 socket: Straight; 5 -pole; A-coded	336703020 - 00543341



Connection socket for LINURA.edge RGB

Description	Connector type	Order No.
Cable passage 4 - 8 mm, wires ≤ 0.75 mm ²	M12 socket: Straight; 5-pole; A-coded	336615019 - 00522018



Alternative holder (pipe clip) for LINURA.edge RGB

Description	Colour	Order No.
Holder with black heat-shrinkable sleeve for screwing on	Black	306385020-00813134
Holder with black heat-shrinkable sleeve with magnet	Black	225439019-00812859

Installation

What use is the smartest product if installation is a very resource-intensive operation? Great that LINURA also scores highly in terms of installation. It is easily done without problems, thanks to a universal luminaire bracket, a clever clip system and M12 plug connectors. In a few simple steps. For replacement, a simple twist is all it takes to remove the luminaire from its bracket.

- Compensation for hole spacings in a tolerance range of + / - 15 mm
- Suitable for all commonly used switch cabinet profiles

- Compatible with the mounting bores on previous models
- Tool-free installation / disassembly of luminaires in their brackets
- Luminaire adjustment across a range of + / - 60 °
- Identical mounting of accessories (manual pushbutton / distance sensor)



1. The enclosed fastening elements are mounted on the installation surface with appropriate screws.



2. The enclosed brackets are inserted into the grooves in the end caps of the luminaire.



3. The brackets are used to clip the luminaire onto the retaining elements. Then just plug it into the electric supply – job done.

The LIGHT OF NEW POSSIBILITIES

LINURA.edge Yellow

Photochemically sensitive processes require an equally sensitive lighting solution. Specially developed for use in microelectronics, photolithography, pharmaceuticals, etc., LINURA.edge provides efficient UV-free light, protecting photoresists or similar from unintentional exposure.

Overview of variants



Fitted with Power consumption	Operating device Connected load	Dimensions Special feature	Luminous flux		Model Order No.
LED 3 W	Without 22-26 V; DC	195 mm	150 lm		LEA 100/YEL/S 00804404
LED 30 W	Without 22-26 V; DC	1455 mm	1500 lm		LEA 1000/YEL/S 00804413
LED 6 W	Without 22-26 V; DC	335 mm	300 lm		LEA 200/YEL/S 00804405
LED 9 W	Without 22-26 V; DC	475 mm	450 lm		LEA 300/YEL/S 00804406
LED 12 W	Without 22-26 V; DC	615 mm	600 lm		LEA 400/YEL/S 00804407
LED 15 W	Without 22-26 V; DC	755 mm	750 lm		LEA 500/YEL/S 00804408
LED 18 W	Without 22-26 V; DC	895 mm	900 lm		LEA 600/YEL/S 00804409
LED 21 W	Without 22-26 V; DC	1035 mm	1050 lm		LEA 700/YEL/S 00804410
LED 24 W	Without 22-26 V; DC	1175 mm	1200 lm		LEA 800/YEL/S 00804411
LED 27 W	Without 22-26 V; DC	1315 mm	1350 lm		LEA 900/YEL/S 00804412

Accessories



Manual pushbutton

Description	Order No.	Data sheet	Instructions for use
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capacitive contact sensor with M12 plug connectors	114129000 - 00805353		
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Distance sensor

Description	Order No.	Data sheet	Instructions for use
laser- based time-of- flight sensor with M12 plug connectors	114128000 - 00805352		



Connection cable for LINURA.edge YELLOW

Description	Connector type	Order No.
3 m lead, 5 x 0.5 mm ²	M12 socket: Straight; 5 -pole; A-coded	336703010 - 00582109
7 m lead, 5 x 0.5 mm ²	M12 socket: Straight; 5 -pole; A-coded	336703020 - 00543341



Connection socket for LINURA.edge YELLOW

Description	Connector type	Order No.
Cable passage 4 - 8 mm, wires ≤ 0.75 mm ²	M12 socket: Straight; 5-pole; A-coded	336615019 - 00522018



Alternative holder (pipe clip) for LINURA.edge YELLOW

Description	Colour	Order No.
Holder with black heat-shrinkable sleeve for screwing on	Black	306385020-00813134
Holder with black heat-shrinkable sleeve with magnet	Black	225439019-00812859

Mounting

What use is the smartest product if installation is a very resource-intensive operation? Great that LINURA also scores highly in terms of installation. It is easily done without problems, thanks to a universal luminaire bracket, a clever clip system and M12 plug connectors. In a few simple steps. For replacement, a simple twist is all it takes to remove the luminaire from its bracket.

- Compensation for hole spacings in a tolerance range of + / - 15 mm
- Suitable for all commonly used switch cabinet profiles
- Compatible with the mounting bores on previous models
- Tool-free installation / disassembly of luminaires in their brackets
- Luminaire adjustment across a range of + / - 60 °
- Identical mounting of accessories (manual pushbutton / distance sensor)



1. The enclosed fastening elements are mounted on the installation surface with appropriate screws.



2. The enclosed brackets are inserted into the grooves in the end caps of the luminaire.



3. The brackets are used to clip the luminaire onto the retaining elements. Then just plug it into the electric supply – job done.



THE LIGHT OF NEW POSSIBILITIES

LINURA.maxx

AS SHORT AND TECHNICAL AS POSSIBLE

Lamps:	LED-Technologie
Colour temperature:	neutral white 5000 K
Colour rendering:	Ra > 80
Beam angle:	90 °
Glare-free technology:	direct beam via a diffuse lens
Housing:	basic body made of aluminium, lens made of PMMA, side panel made of aluminium
Ambient temperature Ta max:	50 ° C
LED service life:	> 60 000 h [L70 B50]
Degree of protection / Protection class:	IP 54 / III
Connection:	M12 plug connector (aligned), A-coded
Power supply:	22 – 26 VDC
Control:	Digital inputs or IO-Link
Certificates:	CE, cETLus, D
Special features:	Through-wiring for electrical interlinking of several luminaires ADVANCED package (variants) <ul style="list-style-type: none">• Dimming function: gradual dimming in 8 steps from 100 to 10 %• Coupling function: control of a linked RGB luminaire via the IO-Link interface• protective function: automatic dimming when temperature exceeds 50 ° C
	IO-Link interface (variants) <ul style="list-style-type: none">• Photo functions: dimmable continuous, flashing, breathing• protective function: automatic dimming when temperature exceeds 50 ° C• diagnostic information: Overtemperature, operating hours• Error messages: Overvoltage, overtemperature
Accessories:	manual pushbutton and distance sensor for looping into the system (included in scope of delivery) bracket, + / - 75° adjustable (included in scope of delivery)

Overview of variants



Integrated Manufacturing and Auditing Systems (IAS)

Fitted with Power consumption	Operating device Connected load	Dimensions Special feature	Luminous flux		Model Order No.
LED 5 W	Without 22-26 V; DC	195 mm IO-Link	550 lm		LMA 500/850/BS 00804046
LED 5 W	Without 22-26 V; DC	195 mm ADVANCED package	550 lm		LMA 500/850/MS 00804047
LED 5 W	Without 22-26 V; DC	195 mm ADVANCED package Through-wired	550 lm		LMA 500/850/MST 00804048
LED 9 W	Without 22-26 V; DC	335 mm IO-Link	1100 lm		LMA 1000/850/BS 00804049
LED 9 W	Without 22-26 V; DC	335 mm ADVANCED package	1100 lm		LMA 1000/850/MS 00804050
LED 9 W	Without 22-26 V; DC	335 mm ADVANCED package Through-wired	1100 lm		LMA 1000/850/MST 00804051
LED 13 W	Without 22-26 V; DC	475 mm IO-Link	1650 lm		LMA 1500/850/BS 00804052
LED 13 W	Without 22-26 V; DC	475 mm ADVANCED package	1650 lm		LMA 1500/850/MS 00804053
LED 13 W	Without 22-26 V; DC	475 mm ADVANCED package Through-wired	1650 lm		LMA 1500/850/MST 00804054
LED 17 W	Without 22-26 V; DC	615 mm IO-Link	2200 lm		LMA 2000/850/BS 00804055
LED 17 W	Without 22-26 V; DC	615 mm ADVANCED package	2200 lm		LMA 2000/850/MS 00804056
LED 17 W	Without 22-26 V; DC	615 mm ADVANCED package Through-wired	2200 lm		LMA 2000/850/MST 00804057
LED 21 W	Without 22-26 V; DC	755 mm ADVANCED package	2750 lm		LMA 2500/850/MS 00804059
LED 21 W	Without 22-26 V; DC	755 mm ADVANCED package Through-wired	2750 lm		LMA 2500/850/MST 00804060
LED 21 W	Without 22-26 V; DC	755 mm IO-Link	2750 lm		LMA 2500/850/BS 00804058
LED 25 W	Without 22-26 V; DC	895 mm IO-Link	3300 lm		LMA 3000/850/BS 00804061
LED 25 W	Without 22-26 V; DC	895 mm ADVANCED package	3300 lm		LMA 3000/850/MS 00804062
LED 25 W	Without 22-26 V; DC	895 mm ADVANCED package Through-wired	3300 lm		LMA 3000/850/MST 00804063

Accessories



Manual pushbutton for LINURA.maxx with ADVANCED package

Description	Order No.	Data sheet	Instructions for use
capacitive contact sensor with M12 plug connectors	114129000 - 00805353	↓	↓



Distance sensor for LINURA.maxx with ADVANCED package

Description	Order No.	Data sheet	Instructions for use
laser-based time-of-flight sensor with M12 plug connectors	114128000 - 00805352	↓	↓



Connection cable for LINURA.maxx with ADVANCED package or IO-Link without Through-wiring

Description	Connector type	Order No.
3 m lead, 5 x 0.5 mm ²	M12 socket: Straight; 5-pole; A-coded	336703010 - 00582109
7 m lead, 5 x 0.5 mm ²	M12 socket: Straight; 5-pole; A-coded	336703020 - 00543341



Connection socket for LINURA.maxx with ADVANCED package or IO-Link without Through-wiring

Description	Connector type	Ordner No.
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Cable passage 4 - 8 mm, wires $\leq 0.75 \text{ mm}^2$	Cable passage 4 - 8 mm, wires $\leq 0.75 \text{ mm}^2$	336615019 - 00522018
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Connection cable for LINURA.maxx with ADVANCED package and with Through-wiring (for daisy-chaining several luminaires)

Description	Connector type	Order No.
3 m lead, 5 x 1,0 mm ²	M12 socket: Straight; 5-pole; A-coded	336890010 - 00598058
7 m lead, 5 x 1,0 mm ²	M12 socket: Straight; 5-pole; A-coded	336890020 - 00598063



Connection socket for LINURA.maxx with ADVANCED package and with Through-wiring (for daisy-chaining several luminaires)

Description	Connector type	Order No.
Cable passage 6 - 8 mm, wires $\leq 1.5 \text{ mm}^2$	M12 socket: Straight; 5-pole; A-coded	336882010 - 00597541



Connecting plug for LINURA.maxx with ADVANCED package and with Through-wiring (for daisy-chaining several luminaires)

Description	Connector type	Order No.
Cable passage 6 - 8 mm, wires $\leq 1.5 \text{ mm}^2$	M12 plug: Straight; 5-pole; A-coded	338286010 - 00808081



Alternative holder (pipe clip) for LINURA.maxx

Description	Colour	Order No.
Holder with black heat-shrinkable sleeve for screwing on	Black	306386020-00813139

Mounting

What use is the smartest product if installation is a very resource-intensive operation? Great that LINURA also scores highly in terms of installation. It is easily done without problems, thanks to a universal luminaire bracket, a clever clip system and M12 plug connectors. In a few simple steps. For replacement, a simple twist is all it takes to remove the luminaire from its bracket.

- Compensation for hole spacings in a tolerance range of ± 15 mm
- Suitable for all commonly used switch cabinet profiles
- Compatible with the mounting bores on previous models
- Tool-free installation / disassembly of luminaires in their brackets
- Luminaire adjustment across a range of $\pm 60^\circ$
- Identical mounting of accessories (manual pushbutton / distance sensor)



1. The enclosed fastening elements are mounted on the installation surface with appropriate screws.



2. The enclosed brackets are inserted into the grooves in the end caps of the luminaire.



3. The brackets are used to clip the luminaire onto the retaining elements. Then just plug it into the electric supply – job done.

MACH LED PLUS.FORTY





REDUCE COSTS

Raises the brightness in the machine tool to an unprecedented level.

Exceeds illuminance levels by up to 20 percent compared to other luminaires.

Required lighting levels with a smaller number of luminaires – **saving money.**



AVOID STANDSTILLS

The **vibration and shock-resistant design** results in exceptional robustness. The **crossover-free sealing technology** eliminates the risk of leaks.

A process-safe automated bonding process, with **plasma cleaning, climate-controlled adhesive curing** and **100% vacuum leak testing**, guarantees the reliability of each individual luminaire.

Important contributions to **uninterrupted machine operation**.

ENVIRONMENTAL FRIENDLY

MACH LED PLUS luminaires **designed to be repairable** for many years.

Sustainable luminaire concept and efficient LED technology help to **achieve environmental targets**.



MINIMIZE RISKS – AVOID COSTS

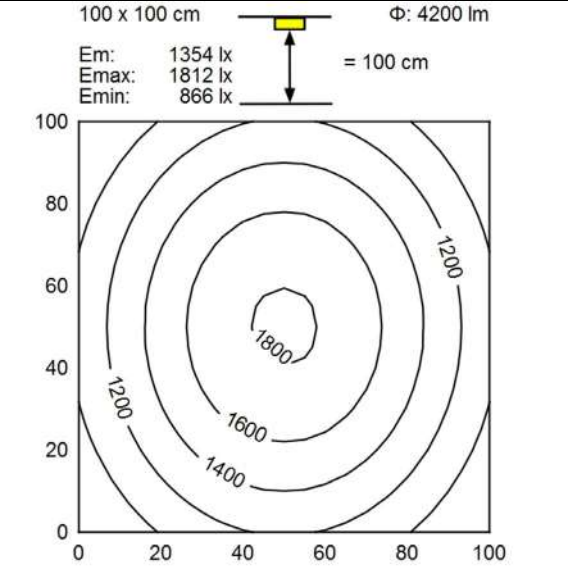
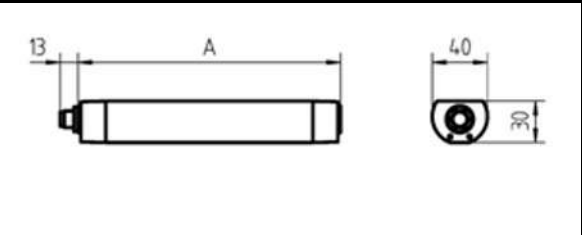
Our **own test laboratory** ensures that the luminaires comply with all relevant standards and directives.

Additionally, we have a **3 years warranty** and **service around the world**.



MACH LED PLUS.forty CORE

Technical data



- 14, 28, 49 or 63 x LED
- Color temperature 5,000 K / color rendering Ra > 80
- LED service life (L70) > 60,000 h
- Glare control through reflector with beam angle 90°
- Clear anodized aluminium housing
- Black side parts made of high-performance plastic
- 4 mm thick safety glass
- Maximum permissible ambient temperature $T_{a_{max}}$ 50° C
- Vibration-resistant at 10 to 55 Hz (amplitude 0.35 mm)
- Shock-resistant up to 50 g
- IP rating IP67 / protection class III
- Connection to 24 VDC / A-coded M12 plug
- Mounting using various holders from the accessories



Power consumption	Length A	Luminous flux	Model	Order number
9 W	190 mm	840 lm	MLAL 14 S	815419
17 W	365 mm	1,900 lm	MLAL 28 S	815421
29 W	540 mm	3,100 lm	MLAL 49 S	815423
37 W	715 mm	4,200 lm	MLAL 63 S	815425

MACH LED PLUS.forty - Without compromise

For many years, MACH LED PLUS.forty has been recognized around the world as the benchmark for outstanding machine lighting. Thanks to continuous further development, it not only remains at the cutting edge, but also repeatedly opens up new application possibilities with innovative ideas.

AS SHORT AND TECHNICAL AS POSSIBLE

- LED technology
- Light color white and an additional 6 colors (RGB+W version)
- Colour temperature neutral white 5 000 K
- Colour rendering Ra > 80
- Beam angle 40 ° (optics) or 90 ° (reflector)
- Housing made of colourless anodised aluminium and black side parts made of high-performance plastic with Viton® seals
- 4 mm thick safety glass
- Mounted by means of various brackets from the accessories
- Maximum allowed ambient temperature Tamax 50 ° C (Standard version) or Tamax 60 ° C (High Temperature version)
- LED service life (L70) > 60 000 h
- Vibrations-resistant at 10 to 55 Hz (amplitude 0.35 mm), shock-proof up to 50 g
- Degree of protection IP67, protection class III
- 24 VDC connection via M12 plug-in connector, A-coded
- Various brackets, M12 connection technology and operating device as accessories for connection to the mains voltage

MACH LED PLUS.forty CORE with High Output







Fitted with	Operating device	Dimensions	Luminous flux	Model
Power consumption	Connected load	Special feature		Order No.
LED	Without	190 mm	840 lm	MLAL 14 S
9 W	24 V; DC			00815419

NEW

LED 17 W	Without 24 V; DC	365 mm	1900 lm	NEW	MLAL 28 S 00815421
LED 29 W	Without 24 V; DC	540 mm	3100 lm	NEW	MLAL 49 S 00815423
LED 37 W	Without 24 V; DC	715 mm	4200 lm	NEW	MLAL 63 S 00815425

MACH LED PLUS.forty with High Temperature version

Special configuration for use at high temperatures of up to 60°C





Fitted with Power consumption	Operating device Connected load	Dimensions Special feature	Luminous flux		Model Order No.
LED 43 W	Without 20-28 V; DC	1540 mm angle of illumination 90° Suitable for higher ambient temperatures	4500 lm		MLAL 126 S 00800919
LED 4 W	Without 20-28 V; DC	190 mm angle of illumination 90° Suitable for higher ambient temperatures	390 lm		MLAL 12 S 00801351
LED 9 W	Without 20-28 V; DC	365 mm angle of illumination 90° Suitable for higher ambient temperatures	920 lm		MLAL 27 S 00801358
LED 14 W	Without 20-28 V; DC	540 mm angle of illumination 90° Suitable for higher ambient temperatures	1450 lm		MLAL 42 S 00801359
LED 18 W	Without 20-28 V; DC	715 mm angle of illumination 90° Suitable for higher ambient temperatures	2000 lm		MLAL 57 S 00801361
LED 28 W	Without 20-28 V; DC	1040 mm angle of illumination 90° Suitable for higher ambient temperatures	3000 lm		MLAL 84 S 00805412

MACH LED PLUS.forty RGB+W with signaling function

Fitted with Power consumption	Operating device Connected load	Dimensions Special feature	Luminous flux		Model Order No.
LED 6 W	Without 20-28 V; DC	190 mm 7 colours controllable angle of illumination 90°	420 lm		MLAL 12 S 00804121
LED 12 W	Without 20-28 V; DC	365 mm 7 colours controllable angle of illumination 90°	1000 lm		MLAL 27 S 00804232
LED 18 W	Without 20-28 V; DC	540 mm 7 colours controllable angle of illumination 90°	1600 lm		MLAL 42 S 00804233
LED 24 W	Without 20-28 V; DC	715 mm 7 colours controllable angle of illumination 90°	2200 lm		MLAL 57 S 00804234

MACH LED PLUS.forty with Light interface

Digital input for powerless switching and PWM interface for flashing and dimming

Fitted with Power consumption	Operating device Connected load	Dimensions Special feature	Luminous flux	Model Order No.
LED 5 W	Without 20-28 V; DC	190 mm angle of illumination 90° Light interface	480 lm	 MLAL 12 S 00662591
LED 10,5 W	Without 20-28 V; DC	365 mm angle of illumination 90° Light interface	1080 lm	 MLAL 27 S 00662699
LED 16 W	Without 20-28 V; DC	540 mm angle of illumination 90° Light interface	1680 lm	 MLAL 42 S 00662729
LED 21,5 W	Without 20-28 V; DC	715 mm angle of illumination 90° Light interface	2280 lm	 MLAL 57 S 00662821

MACH LED PLUS.forty CLASSIC with proven technology

Most popular features – also with through-wiring for electrical linking of several luminaires and narrow beam light distribution for larger distances

Fitted with Power consumption	Operating device Connected load	Dimensions Special feature	Luminous flux	Model Order No.
LED 50 W	Without 20-28 V; DC	1540 mm angle of illumination 40°	5300 lm	 MLAL 126 S 00800920
LED 50 W	Without 20-28 V; DC	1540 mm angle of illumination 90°	5100 lm	 MLAL 126 S 00801634
LED 50 W	Without 20-28 V; DC	1540 mm angle of illumination 90° Through-wired	5100 lm	 MLAL 126 SD 00800918
LED 5 W	Without 20-28 V; DC	190 mm angle of illumination 40° without	490 lm	 MLAL 12 S 00660033
LED 5 W	Without 20-28 V; DC	190 mm angle of illumination 90°	480 lm	 MLAL 12 S 00662575
LED 5 W	Without 20-28 V; DC	190 mm angle of illumination 90° Through-wired	480 lm	 MLAL 12 SD 00662600
LED 10,5 W	Without 20-28 V; DC	365 mm angle of illumination 40°	1120 lm	 MLAL 27 S 00660681
LED 10,5 W	Without 20-28 V; DC	365 mm angle of illumination 90°	1080 lm	 MLAL 27 S 00662685
LED 10,5 W	Without 20-28 V; DC	365 mm angle of illumination 90° Through-wired	1080 lm	 MLAL 27 SD 00662706
LED 16 W	Without 20-28 V; DC	540 mm angle of illumination 40°	1720 lm	 MLAL 42 S 00660684

LED 16 W	Without 20-28 V; DC	540 mm angle of illumination 90°	1680 lm		MLAL 42 S 00662717
LED 16 W	Without 20-28 V; DC	540 mm angle of illumination 90° Through-wired	1680 lm		MLAL 42 SD 00662735
LED 21,5 W	Without 20-28 V; DC	715 mm angle of illumination 40°	2330 lm		MLAL 57 S 00660687
LED 21,5 W	Without 20-28 V; DC	715 mm angle of illumination 90°	2280 lm		MLAL 57 S 00662806
LED 21,5 W	Without 20-28 V; DC	715 mm angle of illumination 90° Through-wired	2280 lm		MLAL 57 SD 00662833
LED 32 W	Without 20-28 V; DC	A=1040 mm angle of illumination 90°	3450 lm		MLAL 84 S 00688552
LED 32 W	Without 20-28 V; DC	A=1040 mm angle of illumination 40°	3550 lm		MLAL 84 S 00800754
LED 32 W	Without 20-28 V; DC	A=1040 mm angle of illumination 90° Through-wired	3450 lm		MLAL 84 SD 00800911

Accessories



Luminaire bracket set

Colour	Special feature	Order No.
-	adjustable + / -90 °	408001403 - 00671626



Luminaire bracket *

Colour	Special feature	Order No.
-	adjustable + / -20 °	408001402 - 00671623



Connection socket for MACH LED PLUS (24 V without TW**))

Description	Connector type	Order No.
Cable passage 4 - 8 mm, wires ≤ 0.75 mm ²	M12 socket: Straight; 5-pole; A-coded	336615019 - 00522018



Connection socket for MACH LED PLUS (24 V with TW^{**})

Description	Connector type	Order No.
Cable passage 6 - 8 mm, wires $\leq 1.5 \text{ mm}^2$	M12 socket: Straight; 4-pole; A-coded	336883010 - 00597530



Connecting plug for MACH LED PLUS (24 V with TW^{**})

Description	Connector type	Order No.
Cable passage 6 - 8 mm, wires $\leq 1.5 \text{ mm}^2$	M12 plug: Straight; 4-pole; A-coded	336884010 - 00597520



Connection cable MACH LED PLUS (24 V without TW^{**})

Description	Connector type	Order No.
3 m lead, 5 x 0.5 mm ²	M12 socket: Straight; 5 -pole; A-coded	336703010 - 00582109
7 m lead, 5 x 0.5 mm ²	M12 socket: Straight; 5 -pole; A-coded	336703020 - 00543341



Connection cable for MACH LED PLUS (24 V with TW^{**})

Description	Connector type	Order No.
3 m lead, 3 x 1.5 mm ²	M12 socket: Straight; 4-pole; A-coded	336889010 - 00597907
7 m lead, 3 x 1.5 mm ²	M12 socket: Straight; 4-pole; A-coded	336889020 - 00597935



Protective cap for MACH LED PLUS (TW^{**})

Description	Connector type	Order No.
10 units	M12 socket	408001404 - 00679634



Operating device

Power	Connection	Special feature	Order No.
30 W	100 – 240 V, 50 / 60 Hz; 24 VDC constant voltage	clip for hat rail	309537010 - 00670453



Operating device

Power	Connection	Special feature	Order No.
100 W	100 – 240 V, 50 / 60 Hz; 24 VDC constant voltage	–	309538010 - 00670456



Operating device

Power	Connection	Special feature	Order No.
100 W	220 – 240 V, 50 / 60 Hz; 24 VDC constant voltage	IP67	309581010 - 00805600

MACH LED PLUS.seventy - Ultra-powerful light for high lighting needs



The MACH LED PLUS.seventy ensures a wide-area illumination both as a replacement for classic tube luminaires or for initial equipping of machines. With a diameter of 70 mm, long versions ranging from 370 mm to 1490 mm and the connection option to 24 V or 100 / 120 / 220 – 240 V, the MACH LED PLUS.seventy is the optimum solution to convert machines and production facilities from classic tube luminaires to modern LED lighting technology.

The versions fitted with Eco components are often sufficient to ensure comparable illumination. Thanks to their long versions and power fitting with twice the number of LEDs, the MACH LED PLUS.seventy is also particularly suitable for initial equipment, especially for larger machines that have higher lighting demands.

- Maintenance-free LED technology
- Ultra low-glare, homogeneous light with soft transitions
- Outer diameter of 70 mm for easy replacement of traditional tube luminaires
- Robust aluminium housing with solid safety glass screen
- Side parts made of high-performance
- Viton® seal for high degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Insensitive to shocks and vibrations
- Ideal for high mechanical and thermal stress
- Connection to machine or mains voltage
- Luminaires for daisy chaining

plastic

- Potted M12 connector

Overview of variants

- LED technology
- Colour temperature neutral white 5 000 K
- Colour rendering $R_a > 80$
- Glare-free with Light Forming Technology
- Housing made of colourless anodised aluminium and black side parts made of high-performance plastic
- 4 mm thick safety glass
- Mounted by means of various brackets from the accessories
- Maximum allowed ambient temperature $T_{a\max}$:
 - Eco: 60 ° C (24V) or 55 ° C (100 / 120 / 220 – 240 V),
 - Power: 45 ° C (24 V) or 40 ° C (100 / 120 / 220 – 240 V)
- LED service life (L70) > 60 000 h
- Vibrations-resistant at 10 to 55 Hz (amplitude 0.35 mm), shock-proof up to 50 g
- Degree of protection IP67, protection class I (100 / 120 / 220 – 240 V) or protection class III (24 V)
- Connection via M12 plug connector, S-coded (100 / 120 / 220 – 240 V) or A-coded (24 V)
- Various brackets and M12 connection technology as accessories



Machine Tools




Woodworking Machines







Integrated Manufacturing and Auditing

Systems (IAS)

Fitted with Power consumption	Operating device Connected load	Dimensions Special feature	Luminous flux	Model Order No.
LED 5 W	Without 18-30 V; DC	370 mm Eco equipment	500 lm	 MQAL 12 S 00580702

LED 5 W	Without 18-30 V; DC	370 mm Through-wired Eco equipment	500 lm		MQAL 12 SD 00580696
LED 7,5 W	Without 18-30 V; DC	510 mm Eco equipment	750 lm		MQAL 18 S 00580588
LED 7,5 W	Without 18-30 V; DC	510 mm Through-wired Eco equipment	750 lm		MQAL 18 SD 00580591
LED 7,5 W	Without 18-30 V; DC	565 mm Eco equipment	750 lm		MQAL 18 S 00580612
LED 7,5 W	Without 18-30 V; DC	565 mm Through-wired Eco equipment	750 lm		MQAL 18 SD 00580615
LED 10 W	Without 18-30 V; DC	650 mm Eco equipment	1000 lm		MQAL 24 S 00580639
LED 10 W	Without 18-30 V; DC	650 mm Through-wired Eco equipment	1000 lm		MQAL 24 SD 00580642
LED 12 W	Without 18-30 V; DC	370 mm Power equipment	1100 lm		MQAL 24 S 00580693
LED 12 W	Without 18-30 V; DC	370 mm Through-wired Power equipment	1100 lm		MQAL 24 SD 00580573
LED 13 W	Without 18-30 V; DC	790 mm Eco equipment	1250 lm		MQAL 30 S 00580663
LED 13 W	Without 18-30 V; DC	790 mm Through-wired Eco equipment	1250 lm		MQAL 30 SD 00580666
LED 16,7 W	Without 18-30 V; DC	510 mm Power equipment	1650 lm		MQAL 36 S 00580594
LED 16,7 W	Without 18-30 V; DC	510 mm Through-wired Power equipment	1650 lm		MQAL 36 SD 00580597
LED 16,7 W	Without 18-30 V; DC	565 mm Power equipment	1650 lm		MQAL 36 S 00580618
LED 16,7 W	Without 18-30 V; DC	565 mm Through-wired Power equipment	1650 lm		MQAL 36 SD 00580621
LED 18 W	Without 18-30 V; DC	1070 mm Eco equipment	1750 lm		MQAL 42 S 00580675
LED 18 W	Without 18-30 V; DC	1070 mm Through-wired Eco equipment	1750 lm		MQAL 42 SD 00580681
LED 24 W	Without 18-30 V; DC	650 mm Power equipment	2200 lm		MQAL 48 S 00580645
LED 24 W	Without 18-30 V; DC	650 mm Through-wired Power equipment	2200 lm		MQAL 48 SD 00580648
LED 26 W	Without 18-30 V; DC	1490 mm Eco equipment	2500 lm		MQAL 60 S 00801854
LED 26 W	Without 18-30 V; DC	1490 mm through-wired Eco equipment	2500 lm		MQAL 60 SD 00801855
LED 27,7 W	Without 18-30 V; DC	790 mm Power equipment	2700 lm		MQAL 60 S 00611855
LED 27,7 W	Without 18-30 V; DC	790 mm Through-wired Power equipment	2700 lm		MQAL 60 SD 00612844

LED 38,7 W	Without 18-30 V; DC	1070 mm Through-wired Power equipment	3700 lm		MQAL 84 SD 00609807
LED 38,7 W	Without 18-30 V; DC	1070 mm Power equipment	3700 lm		MQAL 84 S 00612973
LED 55,4 W	Without 18-30 V; DC	1490 mm Power equipment	5300 lm		MQAL 120 S 00802557
LED 55,4 W	Without 18-30 V; DC	1490 mm through-wired Power equipment	5300 lm		MQAL 120 SD 00802558



Machine tools















Textile machines



Woodworking machines



Production facilities

Fitted with Power consumption	Operating device Connected load	Dimensions Special feature	Luminous flux		Model Order No.
LED 7 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	370 mm Eco equipment	500 lm		MQAL 12 N 00580576
LED 7 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	370 mm Through-wired Eco equipment	500 lm		MQAL 12 ND 00580579
LED 9,5 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	510 mm Eco equipment	750 lm		MQAL 18 N 00580600
LED 9,5 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	510 mm Through-wired Eco equipment	750 lm		MQAL 18 ND 00580603
LED 9,5 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	565 mm Eco equipment	750 lm		MQAL 18 N 00580624
LED 9,5 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	565 mm Through-wired Eco equipment	750 lm		MQAL 18 ND 00580630
LED 12 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	650 mm Eco equipment	1000 lm		MQAL 24 N 00580651
LED 12 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	650 mm Through-wired Eco equipment	1000 lm		MQAL 24 ND 00580654
LED 15 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	370 mm Power equipment	1100 lm		MQAL 24 N 00580582
LED 15 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	370 mm Through-wired Power equipment	1100 lm		MQAL 24 ND 00580585
LED 15 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	790 mm Eco equipment	1250 lm		MQAL 30 N 00580669
LED 15 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	790 mm Through-wired Eco equipment	1250 lm		MQAL 30 ND 00580672
LED 20 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	1070 mm Eco equipment	1750 lm		MQAL 42 N 00580684
LED 20 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	1070 mm Through-wired Eco equipment	1750 lm		MQAL 42 ND 00580690

LED 21 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	510 mm Power equipment	1650 lm		MQAL 36 N 00580606
LED 21 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	510 mm Through-wired Power equipment	1650 lm		MQAL 36 ND 00580609
LED 21 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	565 mm Power equipment	1650 lm		MQAL 36 N 00580633
LED 21 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	565 mm Through-wired Power equipment	1650 lm		MQAL 36 ND 00580636
LED 27 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	650 mm Power equipment	2200 lm		MQAL 48 N 00580657
LED 27 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	650 mm Through-wired Power equipment	2200 lm		MQAL 48 ND 00580660
LED 29 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	1490mm Eco equipment	2500 lm		MQAL 60 N 00802571
LED 29 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	1490 mm Through-wired Eco equipment	2500 lm		MQAL 60 ND 00802573
LED 31 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	790 mm Power equipment	2700 lm		MQAL 60 N 00802563
LED 31 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	790 mm Through-wired Power equipment	2700 lm		MQAL 60 ND 00802565
LED 43 W	Electronic ballast 220-240 V; AC; 50/60 HZ	1070 mm Power	3700 lm		MQAL 84 N 00802567
LED 43 W	Electronic ballast 220-240 V; AC; 50/60 HZ	1070 mm Through-wired Power equipment	3700 lm		MQAL 84 ND 00802569
LED 44 W	Electronic ballast 120-277 V; AC; 50/60 HZ	1070 mm Power equipment	3700 lm		MQAL 84 N 00806842
LED 44 W	Electronic ballast 120-277 V; AC; 50/60 HZ	1070 mm Through-wired Power equipment	3700 lm		MQAL 84 ND 00806840
LED 61 W	Electronic ballast 220-240 V; AC; 50/60 HZ	1490 mm Through-wired Power equipment	5300 lm		MQAL 120 ND 00802577
LED 61 W	Electronic ballast 220-240 V; AC; 50/60 HZ	1490mm Power equipment	5300 lm		MQAL 120 N 00802575
LED 62 W	Electronic ballast 120-277 V; AC; 50/60 HZ	1490 mm Through-wired Power equipment	5300 lm		MQAL 120 ND 00806879
LED 62 W	Electronic ballast 120-277 V; AC; 50/60 HZ	1490mm Power equipment	5300 lm		MQAL 120 N 00806877

Accessories



Luminaire bracket set

Colour	Special feature	Order No.
-	adjustable + / -65 °	408001876 - 00582065



Luminaire bracket *

Colour	Special feature	Order No.
-	adjustable + / -30 °	408001878 - 00585535



Luminaire bracket *

Colour	Special feature	Order No.
-	with rubber profile	SK1021719 - 00085499



Luminaire bracket *

Colour	Special feature	Order No.
-	with rubber profile	SK0995719 - 00085652



Luminaire bracket *

Colour	Special feature	Order No.
-	with rubber profile	190015719 - 00085498



Protective cap set; not suitable for use with luminaire bracket set 408001876 - 00582065

Dimensions	Colour	Order No.
-	colourless anodised	408001875 - 00582072



Connection socket for MACH LED PLUS (24 V without TW^{**})

Description	Connector type	Order No.
Cable passage 4 - 8 mm, wires ≤ 0.75 mm ²	M12 socket: Straight; 5-pole; A-coded	336615019 - 00522018



Connection socket for MACH LED PLUS (24 V with TW^{**})

Description	Connector type	Order No.
Cable passage 6 - 8 mm, wires ≤ 1.5 mm ²	M12 socket: Straight; 4-pole; A-coded	336883010 - 00597530



Connection socket for MACH LED PLUS (100 / 120 / 220 – 240 V)

Description	Connector type	Order No.
Cable passage 6 - 8 mm, wires ≤ 1.5 mm ²	M12 socket: Straight; 4-pole; S-coded	336885010 - 00597538
Cable passage 8 - 10 mm, wires ≤ 1.5 mm ²	M12 socket: Straight; 4-pole; S-coded	336885020 - 00634614



Connecting plug for MACH LED PLUS (24 V with TW^{**})

Description	Connector type	Order No.
Cable passage 6 - 8 mm, wires ≤ 1.5 mm ²	M12 plug: Straight; 4-pole; A-coded	336884010 - 00597520



Connecting plug for MACH LED PLUS (100 / 120 / 220 – 240 V with TW^{**})

Description	Connector type	Order No.
Cable passage 6 - 8 mm, wires ≤ 1.5 mm ²	M12 plug: Straight; 4-pole; S-coded	336886010 - 00597535
Cable passage 8 - 10 mm, wires ≤ 1.5 mm ²	M12 plug: Straight; 4-pole; S-coded	336886020 - 00634596



Connection cable for MACH LED PLUS (24 V without TW^{**})

Description	Connector type	Order No.
3 m lead, 5 x 0.5 mm ²	M12 socket: Straight; 5 -pole; A-coded	336703010 - 00582109
7 m lead, 5 x 0.5 mm ²	M12 socket: Straight; 5 -pole; A-coded	336703020 - 00543341



Connection cable for MACH LED PLUS (24 V with TW^{**})

Description	Connector type	Order No.
3 m lead, 3 x 1.5 mm ²	M12 socket: Straight; 4-pole; A-coded	336889010 - 00597907
7 m lead, 3 x 1.5 mm ²	M12 socket: Straight; 4-pole; A-coded	336889020 - 00597935



Connection cable for MACH LED PLUS (100 / 120 / 220 – 240 V)

Description	Connector type	Order No.
3 m lead, 3 x 1.5 mm ²	M12 socket: Straight; 4-pole; S-coded	336891010 - 00597943
7 m lead, 3 x 1.5 mm ²	M12 socket: Straight; 4-pole; S-coded	336891020 - 00597948



Protective cap for MACH LED PLUS (TW^{**})

Description	Connector type	Order No.
10 units	M12 socket	408001404 - 00679634



Operating device

Power	Connection	Special feature	Order No.
30 W	100 – 240 V, 50 / 60 Hz; 24 VDC constant voltage	clip for hat rail	309537010 - 00670453



Operating device

Power	Connection	Special feature	Order No.
100 W	100 – 240 V, 50 / 60 Hz; 24 VDC constant voltage	–	309538010 - 00670456



Operating device

Power	Connection	Special feature	Order No.
100 W	220 – 240 V, 50 / 60 Hz; 24 VDC constant voltage	IP67	309581010 - 00805600

*Each luminaire requires at least two brackets

** TW: Through-wired (for daisy-chaining several luminaires)

MACH LED PLUS.seventy (with one-sided mounting)



The MACH LED PLUS.seventy ensures a wide-area illumination both as a replacement for classic tube luminaires (AWD) or for initial equipping of machines. With a diameter of 70 mm and the connection option to 24 V or 100 / 120 / 220 – 240 V, the MACH LED PLUS.seventy is the optimum solution to convert machines and production facilities from classic tube luminaires to modern LED lighting technology.

- Maintenance-free LED technology
- Ultra low-glare, homogeneous light with soft transitions
- Outer diameter of 70 mm for easy replacement of traditional tube luminaires (AWD)
- Robust aluminium housing with solid safety glass screen
- Side parts made of high-performance plastic
- Potted M12 connector or screwed cable gland (SCG)
- Viton® seal for high degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Insensitive to shocks and vibrations
- Ideal for high mechanical and thermal stress
- Connection to machine or mains voltage

Overview of variants

- Colour temperature neutral white 5 000 K
- Colour rendering $R_a > 80$
- Glare-free with Light Forming Technology
- Housing made of colourless anodised aluminium and black side parts made of high-performance plastic
- 4 mm thick safety glass

- Mounted by means of screw connection or bracket from the accessories
- Maximum allowed ambient temperature $T_{a_{max}}$: 45 ° C (24 V) or 40 ° C (100 / 120 / 220 – 240 V)
- LED service life (L70) > 60 000 h
- Vibrations-resistant at 10 to 55 Hz (amplitude 0.35 mm), shock-proof up to 50 g
- Degree of protection IP67, protection class I (100 / 120 / 220 – 240 V) or protection class III (24 V)
- Connection via cable gland or M12 plug connector, S-coded (100 / 120 / 220 – 240 V) or A-coded (24 V)
- brackets and M12 connection technology as accessories







Machine Tools



Woodworking Machines



Integrated Manufacturing and Auditing
Systems (IAS)

Fitted with Power consumption	Operating device Connected load	Dimensions Special feature	Luminous flux	Model Order No.
LED 7 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	220 mm Screw cable gland (SCG)	500 lm	 MQAL 12 N 00804713
LED 7 W	Electronic ballast 100/120/220-240 V; AC; 50/60 HZ	220 mm M12 Connecting Plug	500 lm	 MQAL 12 N 00804714
LED 5 W	Without 20-28 V; DC	220 mm Screw cable gland (SCG)	500 lm	 MQAL 12 S 00804709
LED 5 W	Without 20-28 V; DC	220 mm M12 Connecting Plug	500 lm	 MQAL 12 S 00804711

Accessories



Luminaire bracket (only for variants with screwed cable gland)

Colour	Special feature	Order No.
black	-	191092019 - 00086727



Connection socket for MACH LED PLUS (24 V without TW^{**})

Description	Connector type	Order No.
Cable passage 4 - 8 mm, wires ≤ 0.75 mm ²	M12 socket: Straight; 5-pole; A-coded	336615019 - 00522018



Connection socket for MACH LED PLUS (100 / 120 / 220 – 240 V)

Description	Connector type	Order No.
Cable passage 6 - 8 mm, wires ≤ 1.5 mm ²	M12 socket: Straight; 4-pole; S-coded	336885010 - 00597538
Cable passage 8 - 10 mm, wires ≤ 1.5 mm ²	M12 socket: Straight; 4-pole; S-coded	336885020 - 00634614



Connection cable for MACH LED PLUS (24 V without TW^{**})

Description	Connector type	Order No.
3 m lead, 5 x 0.5 mm ²	M12 socket: Straight; 5 -pole; A-coded	336703010 - 00582109
7 m lead, 5 x 0.5 mm ²	M12 socket: Straight; 5 -pole; A-coded	336703020 - 00543341



Connection cable for MACH LED PLUS (100 / 120 / 220 – 240 V)

Description	Connector type	Order No.
3 m lead, 3 x 1.5 mm ²	M12 socket: Straight; 4-pole; S-coded	336891010 - 00597943
7 m lead, 3 x 1.5 mm ²	M12 socket: Straight; 4-pole; S-coded	336891020 - 00597948

^{**} DV: Durchverdrahtet (zur Verkettung mehrerer Leuchten)

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