

- High-efficiency LED inserts with up to 167 lm/W – also suitable for the replacement of conventional luminaire inserts for existing Modario®- and DUS® systems taking full advantage of energy saving potential

- Luminous flux tracking and multi-lumen capability also for on/off types for a need based lighting solution

- Compact range for a wide spectrum of applications

- Frosted prismatic optics for low glare and high visual comfort

- Proven, functional system with up-to-date technology



## Modario® 31 & DUS® 31 trunking systems

Robust, proven and up-to date.

# Renovate and expand trunking systems

Our successful Modario® and DUS® trunking systems are installed in large numbers around the world. With Modario® 31 and DUS® 31, we offer state-of-the-art luminaire inserts that help you upgrade existing installations to the latest energy efficiency standard in no time at all. This saves operating costs and reduces energy consumption by up to 60 %.

## Modern technology for your installation

- ✓ **LED-lighting inserts** with IP50 for renovations and new projects
- ✓ **Lumen packages adjustable in 8 levels by Multilumen:**

Types with Multilumen ON/OFF	Types with Multilumen CLOi
• 9.000 class: 9.000 – 5.000 lm	• 8.000 class: 7.600 – 4.000 lm
• 12.000 class: 12.400 – 5.000 lm	• 10.000 class: 10.500 – 4.000 lm
- ✓ **High glare control** thanks to frosted prismatic PMMA cover (IK03) without direct view of the optical unit
- ✓ **Highest efficacy** of up to 167 lm/W for up to 60 % reduction of power consumption compared to T5
- ✓ **Simple and quick assembly** with proven metal twist lock and simple phase selector
- ✓ **Long service life, maintenance-free**
- ✓ **Higher lighting level** due to up to 12.400 lm per unit



Industry



Logistics



Shop and  
retail

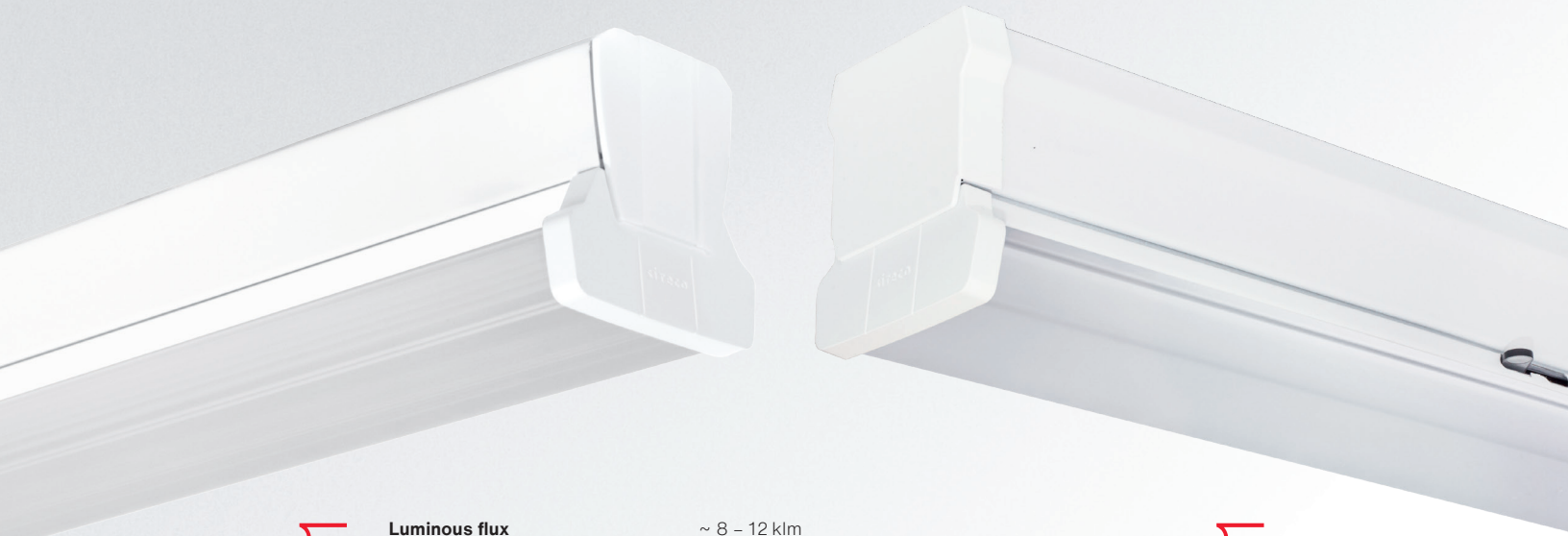


Trade and  
craft

up to **60%** less  
energy consumption

# Small range – great spectrum

With their compact range of components, Modario® 31 and DUS® 31 cover a wide spectrum of applications.



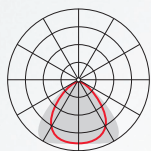
Modario® 31

<b>Luminous flux</b>	~ 8 – 12 klm
<b>Rated power</b>	up to 80 W
<b>Voltage range</b>	220 – 240 V, AC, DC
<b>Service life</b>	50.000 h @ 25° C (L85/B50) or (L100/B50)
<b>Permissible ambient temperature*</b>	-35° C ... + 35° C (suspended mounting)
<b>Colour temperature</b>	4.000 K and 6.500 K as standard
<b>CRI</b>	80
<b>ECG</b>	Multilumen CLOi, Multilumen ON/OFF, ON/OFF, DALI
<b>Protection rating</b>	IP50 (LED-compartment)
<b>Protection class</b>	I

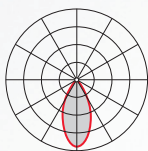
\* depending on type

DUS® 31

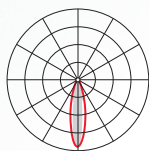
up to 166 lm/W	<b>System efficacy</b>	up to 167 lm/W
1.495 × 81 × 82 mm	<b>Dimensions (L × W × H)</b>	1.535 × 81 × 90 mm
wide distr., narrow distr., extremely narrow distr.	<b>Light distributions</b>	wide distribution



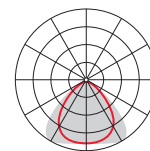
wide distribution



narrow distribution



extremely narrow  
distribution



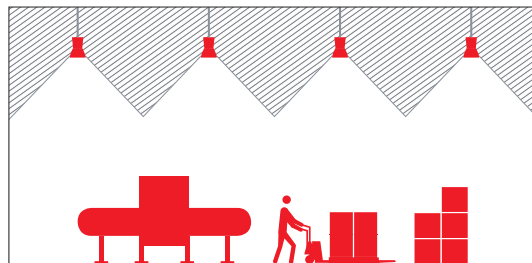
wide distribution

# Flexibility and planning reliability via luminous flux adjustment

## No problem with multilumen



Warehouse with 300 lx



Production with 500 lx

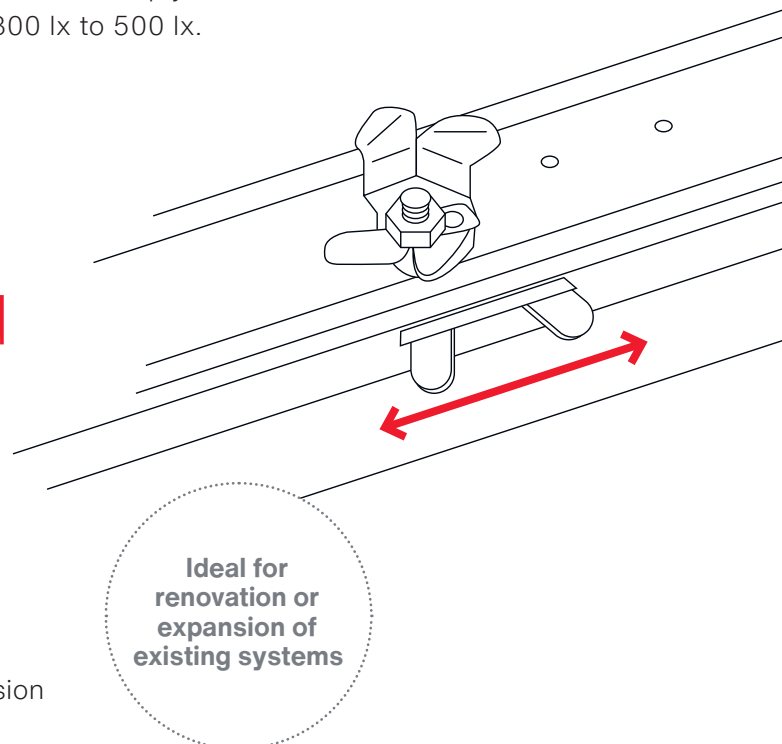
### Warehouse today, production facility tomorrow.

With Modario® 31 and DUS® 31, you remain flexible thanks to multilumen. If the usage changes, the illuminance levels can be simply adjusted with a DIP switch. As here, for example, from 300 lx to 500 lx.

## Quick installation and change

### LED luminaire inserts for retrofitting conventional Modario® and DUS® installations or for new Modario® installations

- Inserts can be freely positioned within system dimension 299 mm for Modario® and 305 mm for DUS®.
- Secure hold thanks to proven twist-lock technology
- DUS® 31 ideal for 1 : 1 replacement of existing light inserts
- Fast phase selection due to adjustable connection plug



# It has never been more worthwhile

Lighting systems with fluorescent lamps are highly inefficient compared to current technology. In addition, from September 2023, T8 lamps, for example, will be completely banned throughout Europe. The good news is that many system refurbishments are now subsidized by local governments and you can easily upgrade an old SITECO system to the latest art version. Our experience shows that payback periods of less than three years for renovations with SITECO products are the rule.

## Modario® 31 TCO-Comparative calculation (total cost of ownership)

### Payback period

	Old system	New system
Luminaire type	<b>Modario® 1 x 80 W T5</b>	<b>Modario® 31, 6.530 lm</b>
<b>Lighting system</b> Production hall (L 50 x B 30 x H 8,5 m, according to EN 12464-1 Em 300 lx)		
Number of luminaires	115	110
<b>Energy consumption</b>		
Energy consumption / year [kWh]	48.034	20.650
Energy consumption / system runtime [kWh]	480.344	206.504
<b>Total overview TCO (over 10 years)</b>		
Investment costs [€] (Luminaires & Installation)	690	15.400
Energy costs over system runtime [€]	94.102	40.455
<b>Saving energy costs in %</b>		<b>57 %</b>
Maintenance costs over system runtime [€]	4.198	1.375
<b>Saving maintenance costs</b>		<b>67 %</b>
<b>TCO total costs over system runtime</b>		
Total costs over system runtime [€]	98.990	57.230
<b>Saving total costs</b>		<b>42 %</b>
Payback period in years	0	2,60
<b>CO<sub>2</sub>-saving over system runtime [t]</b>		<b>137</b>

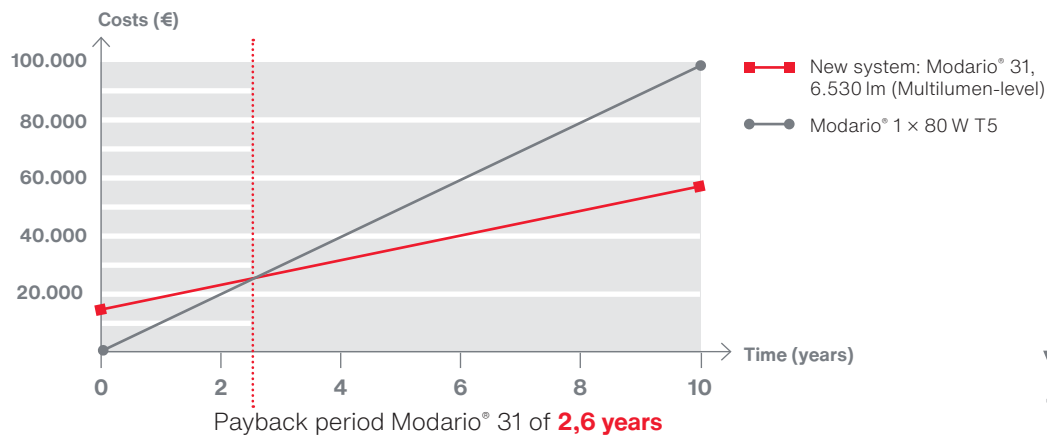
57% saving corresponds to **137 t CO<sub>2</sub>** over system lifetime

Energy **-57%**

Maintenance **-67%**

Total costs **-42%**

Assumptions: Annual operating hours 4,590 h, energy costs 0.20 € / kWh; maintenance costs: luminaire cleaning 2.50 € per luminaire and lamp replacement 12 € per luminaire



**2,6**  
years  
payback period

# Modario® 31

## Modario® 31 luminaire inserts

Length: 1.495 mm, frosted PMMA cover, IP50 (LED-room)

Colour-temp. K	Lum. flux lm	Efficacy lm/W	Control	Optic	Service life at 25° C	Temperature range for suspended mounting**	Replaces old order number	Order number current
4.000	8.950	150	Multi ON/OFF*	wide distribution	50.000 h (L85, B50)	-35° C ... +30° C	5TS812M1V4080	<b>53BM812M1V4085</b>
4.000	7.620	156	Multi ON/OFF CLOi*	wide distribution	50.000 h (L100, B50)	-35° C ... +30° C	-	<b>53BM812C1V4075</b>
4.000	7.810	154	ON/OFF	wide distribution	50.000 h (L85, B50)	-35° C ... +35° C	-	<b>53BM81271V4080</b>
4.000	8.930	145	DALI	wide distribution	50.000 h (L85, B50)	-25° C ... +30° C	5TS812D2V4080	<b>53BM812D2V4085</b>
4.000	12.380	160	Multi ON/OFF*	wide distribution	50.000 h (L85, B50)	-35° C ... +35° C	5TS812M1V4110	<b>53BM812M1V4120</b>
4.000	10.520	165	Multi ON/OFF CLOi*	wide distribution	50.000 h (L100, B50)	-35° C ... +35° C	-	<b>53BM812C1V4105</b>
4.000	12.350	155	DALI	wide distribution	50.000 h (L85, B50)	-25° C ... +30° C	5TS812D2V4120	<b>53BM812D2V4120</b>
4.000	8.930	145	DALI	narrow distribution	50.000 h (L85, B50)	-25° C ... +30° C	5TS811D2V4080	<b>53BM811D2V4085</b>
4.000	8.770	142	DALI	extremely narrow dist.	50.000 h (L85, B50)	-25° C ... +30° C	5TS813D2V4080	<b>53BM813D2V4085</b>
4.000	12.260	154	DALI	extremely narrow dist.	50.000 h (L85, B50)	-25° C ... +30° C	5TS813D2V4120	<b>53BM813D2V4120</b>
6.500	7.640	156	Multi ON/OFF CLOi*	wide distribution	50.000 h (L100, B50)	-35° C ... +30° C	5TS812M1V6080	<b>53BM812C1V6075</b>
6.500	7.820	154	ON/OFF	wide distribution	50.000 h (L85, B50)	-35° C ... +35° C	-	<b>53BM81271V6080</b>
6.500	8.960	145	DALI	wide distribution	50.000 h (L85, B50)	-25° C ... +30° C	5TS812D2V6080	<b>53BM812D2V6085</b>
6.500	10.560	166	Multi ON/OFF CLOi*	wide distribution	50.000 h (L100, B50)	-35° C ... +35° C	5TS812M1V6110	<b>53BM812C1V6105</b>
6.500	12.400	156	DALI	wide distribution	50.000 h (L85, B50)	-25° C ... +30° C	-	<b>53BM812D2V6120</b>

\* With DIP switch: 9.000 class: 9.000 – 5.000 lm / 12.000 class: 12.400 – 5.000 lm (at Multi ON/OFF CLOi: 7.600 - 4.000 lm resp. 10.500 - 4.000 lm).

\*\* For ceiling mounting, reduction of the maximum permissible ambient temperature by 5° C.

Variants > 10.000 lm expected to be available from mid-2021.

## Modario® 31 mounting rails

Number of wires	Length mm	Colour	Protection rating	Order number
5-pole, max. 2,5 mm <sup>2</sup>	1.495 / single-length	white	IP20	5TR10150Q
10-pole, max. 2,5 mm <sup>2</sup>	1.495 / single-length	white	IP20	5TR101A0Q
5-pole, max. 2,5mm <sup>2</sup>	2.990 / double-length	white	IP20	5TR10250Q
10-pole, max. 2,5 mm <sup>2</sup>	2.990 / double-length	white	IP20	5TR102A0Q
5-pole, max. 2,5 mm <sup>2</sup>	4.485 / triple-length	white	IP20	5TR10350Q
10-pole, max. 2,5 mm <sup>2</sup>	4.485 / triple-length	white	IP20	5TR103A0Q

## Modario® 31 accessories

Description	Order number
Fixed insert, 1.495 / single-length, white, IP20	5TR30000Q
End cap: PC, transparent with 10-pole feed (1 set = 2 pcs.)	5TR9016
End cap: PC, white with 10-pole feed (1 set = 2 pcs.)	5TR90161
Single wire suspension, loop and wire, galvanised steel, length: 2.000 mm, diameter: 1.5 mm	5TR901302
Single wire suspension, without terminal block, ceiling fastening element, made of sheet steel, galvanized, length: 2.000 mm	5TR901312
Single wire suspension, Caddy-Clip, galvanised steel, length: 2.000 mm	5TR901322
Single wire suspension, with 5 terminals, 1-pole, max. 2.5 mm <sup>2</sup> , ceiling fastening element, made of sheet steel, galvanized, length: 2.000 mm	5TR901332
Single wire suspension, ceiling fastening element, cylindrical, made of stainless steel (V2A), length: 2.000 mm	5TR901342
Chain suspension, galvanized steel, load capacity 30 kg	5TR9012
Link chain, galvanised steel, per running meter	5LY9001
Link chain, stainless steel (V2A), per running meter	5LY9002
Emergency link for link chain, stainless steel (V2A)	5LY9004
Ceiling fastening element, made of spring steel (V2A)	5LS91101EA

# DUS® 31



## DUS® 31 luminaire inserts

Length: 1.535 mm, frosted PMMA cover, IP50 (LED-room)

Colour temp. K	Lum. flux lm	Efficacy lm/W	Control	Optic	Service life at 25° C	Temperature range for suspended mounting**	Replaces old order number	Order number current
4.000	8.950	150	Multi ON/OFF*	wide distribution	50.000 h (L85, B50)	-35° C ... +30° C	5LS812M1V4080	<b>53BD812M1V4085</b>
4.000	7.620	156	Multi ON/OFF CLOi*	wide distribution	50.000 h (L100, B50)	-35° C ... +30° C	-	<b>53BD812C1V4075</b>
4.000	7.810	154	ON/OFF	wide distribution	50.000 h (L85, B50)	-35° C ... +35° C	-	<b>53BD81271V4080</b>
4.000	8.930	145	DALI	wide distribution	50.000 h (L85, B50)	-25° C ... +30° C	5LS812D2V4080	<b>53BD812D2V4085</b>
4.000	12.380	160	Multi ON/OFF*	wide distribution	50.000 h (L85, B50)	-35° C ... +35° C	5LS812M1V4110	<b>53BD812M1V4120</b>
4.000	10.520	165	Multi ON/OFF CLOi*	wide distribution	50.000 h (L100, B50)	-35° C ... +35° C	-	<b>53BD812C1V4105</b>
4.000	12.350	155	DALI	wide distribution	50.000 h (L85, B50)	-25° C ... +30° C	5LS812D2V4110	<b>53BD812D2V4120</b>
6.500	7.640	156	Multi ON/OFF CLOi*	wide distribution	50.000 h (L100, B50)	-35° C ... +30° C	5LS812M1V6080	<b>53BD812C1V6075</b>
6.500	7.820	154	ON/OFF	wide distribution	50.000 h (L85, B50)	-35° C ... +35° C	-	<b>53BD81271V6080</b>
6.500	8.960	145	DALI	wide distribution	50.000 h (L85, B50)	-25° C ... +30° C	-	<b>53BD812D2V6085</b>
6.500	10.560	167	Multi ON/OFF CLOi*	wide distribution	50.000 h (L100, B50)	-35° C ... +35° C	5LS812M1V6110	<b>53BD812C1V6105</b>
6.500	12.400	156	DALI	wide distribution	50.000 h (L85, B50)	-25° C ... +30° C	-	<b>53BD812D2V6120</b>

\* With DIP switch: 9.000 class: 9.000 - 5.000 lm / 12.000 class: 12.400 - 5.000 lm (at Multi ON/OFF CLOi: 7.600 - 4.000 lm resp. 10.500 - 4.000 lm).

\*\* For ceiling mounting, reduction of the maximum permissible ambient temperature by 5° C.

Variants > 10.000 lm expected to be available from mid-2021.



Project: Bork, Langgöns, Germany  
Product: Modario®-Trunking system  
and integrated lighting control solution

## Contact.

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