



# Friedhelm TRAPP GmbH

Ostring 15 - 63533 Mainhausen - Zentrale: 06182/9294-5 - Fax: 06182/9294-69 - Mail: [trapp@f-trapp.de](mailto:trapp@f-trapp.de)

[www.f-trapp.de](http://www.f-trapp.de)

## Universalmodule 170



### HARMONY BETWEEN HISTORY AND MODERN - LED RETROFIT

The universal modules as LED conversion kits comply offer extensive possibilities to customized modernizing existing lighting systems to LED technology - from modern to historic lights.

The universal module 170 is designed as LED conversion kit preferably represent Luminaire lampshade and bells lights.

It represents a completely prefabricated module which can be connected via its own terminals to the lamp or the power connector and replaced easily.

The LED conversion kits comply independently all relevant safety requirements, IP65 protection, consisting of VDE-certified electronic components.



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## Universalmodule 170



### Universalmodule 170 S

The universal module 170 PV 15 ECO WW with optics is a modular system that can be flexibly adapted to existing lights.

The match constructive-technical execution for the intended for retrofitting lighting is fixed or released by internal laboratory tests on the part of our suppliers. The provided LED conversion set complies in all its technical requirements of the relevant standards and is characterized by its distinctive security concept and their basic design with IP65 degree of protection principle be used in all mechanically suitable luminaires, regardless of their inventory situation regarding water and dust tightness.

Furthermore, the electrical connection technology of the inventory situation is not relevant due to the direct possibility of making contact with the pole end line within a new independent terminal housing with a high degree of protection and rugged cable gland.



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# Universalmodule 170

## Universalmodule 170 S

### Design variants

As design variants flat and construction end systems are possible, the concrete solution depends on the given in the stock luminaire Installation conditions and the available space. Furthermore, two technical versions are possible with respect to the mechanical adaptation within the inventory lamps:

- Mounting on fishplates with wing nut system and thermal paste directly to an existing reflector or mounting plate the existing electrical assembly or other appropriate housing part.
- Complete system for direct replacement of existing reflector or mounting metal sheet.

The geometry data for fixing are normally coordinated in advance with the ratios of the constituent luminaire. Please contact the Friedhelm Trapp GmbH, we are happy to consider the applications and you will receive appropriate dimensional drawings of the design version.

### Options

For this product, you can choose the following options:

- Halfnight switching
- Installation set Universal Module
- Uplift conversion set

### LED-System\*\*

| LED current | Number of LED | System performance with 100% operation | System performance with 50% operation | Luminous flux color light WW | Luminous flux color light NW/CW |
|-------------|---------------|--|---------------------------------------|------------------------------|---------------------------------|
| 370 mA      | 16            | 19 W                                   | 12 W                                  | 1.500 lm                     | 2.000 lm                        |
| 370 mA      | 24            | 29 W                                   | 17 W                                  | 2.300 lm                     | 3.050 lm                        |

\*\* We reserve the right to make technical changes.

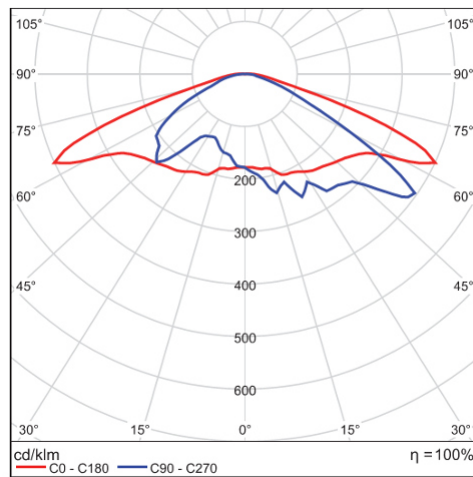


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# Universalmodule 170

## Universalmodule 170 S

### Light distribution





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## Universalmodule 170



### Universalmodule 170 P

The universal module 170 SV 15 ECO WW with optics is a modular system that can be flexibly adapted to existing lights.

The match constructive-technical execution for the intended for retrofitting lighting is fixed or released by internal laboratory tests on the part of our suppliers. The provided LED conversion set complies in all its technical requirements of the relevant standards and is characterized by its distinctive security concept and their basic design with IP65 degree of protection principle be used in all mechanically suitable luminaires, regardless of their inventory situation regarding water and dust tightness.

Furthermore, the electrical connection technology of the inventory situation is not relevant due to the direct possibility of making contact with the pole end line within a new independent terminal housing with a high degree of protection and rugged cable gland.



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# Universalmodule 170

## Universalmodule 170 P

### Design variants

As design variants flat and construction end systems are possible, the concrete solution depends on the given in the stock luminaire Installation conditions and the available space. Furthermore, two technical versions are possible with respect to the mechanical adaptation within the inventory lamps:

- Mounting on fishplates with wing nut system and thermal paste directly to an existing reflector or mounting plate the existing electrical assembly or other appropriate housing part.
- Complete system for direct replacement of existing reflector or mounting metal sheet.

The geometry data for fixing are normally coordinated in advance with the ratios of the constituent luminaire. Please contact the Friedhelm Trapp GmbH, we are happy to consider the applications and you will receive appropriate dimensional drawings of the design version.

### Options

For this product, you can choose the following options:

- Halfnight switching
- Installation set Universal Module
- Uplift conversion set

### LED-System\*\*

| LED current | Number of LED | System performance with 100% operation | System performance with 50% operation | Luminous flux color light WW | Luminous flux color light NW/CW |
|-------------|---------------|--|---------------------------------------|------------------------------|---------------------------------|
| 370 mA      | 16            | 19 W                                   | 12 W                                  | 1.650 lm                     | 2.200 lm                        |
| 370 mA      | 24            | 29 W                                   | 17 W                                  | 2.500 lm                     | 3.300 lm                        |

\*\* We reserve the right to make technical changes.



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# Universalmodule 170

## Universalmodule 170 P

### Light distribution

