

INS240LED





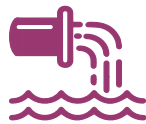
| | | | | | | |
|--------|---|-------------------|----------------|---------------------------|--------------------|---------------------|
| | CHEMICALLY RESISTANT NH₃ | EASY TO CLEAN | LED OPTICS | IP66 | IP67 | IP69 |
| 24 VDC | CLO | C4 | C5 | EMERGENCY A3S -20°C | CONTROL SYSTEM | CENTRAL BATTERY |

FEATURES: 1st and 3rd class of chemical resistance

EXEMPLARY APPLICATIONS



PRESSURE CLEANED
INSTALLATIONS



SEWAGE
TREATMENTS
PLANTS



CARWASHES

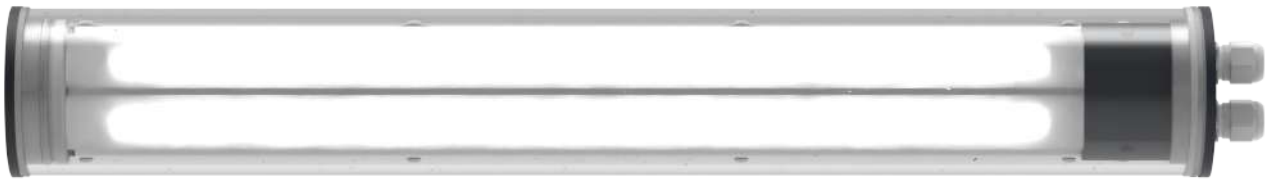


SEWERS








Tubular waterproof light fitting with LED modules. The light fitting has very high ingress protection class - IP69K. The diffuser is made of borosilicate glass, polycarbonate or polymethyl methacrylate. Additionally the light fitting is equipped with special optics which provides the propagation of light.

Optionally, the light fitting can be equipped with 3h emergency power module **A3S**, adapted to be powered from central battery **ZB**, equipped with driver with DALI-2 interface **DA**, or with constant lumen output feature **CLO**.








FEATURES





MECHANICAL PARAMETERS

| | | |
|---|--------------------|---|
|  | tube | polycarbonate poly(methyl methacrylate) |
|  | end-cap | stainless steel type 316 aluminum type 2017A |
|  | ingress protection | IP66, IP67, IP69 |
|  | impact resistance | PC: IK11 PM: IK08 |
|  | protection class | I, III |
|  | mounting | different brackets <i>check: mountings</i> |
|  | accessories | mounting accessories |


ELECTRICAL PARAMETERS

| | | |
|---|----------------------------|---|
| 2,5 mm ² | connection terminals |  |
| 220-240V, 0/50-60Hz (I) 24V, 0Hz (III) | power supply |  |
| ENEC certified LED modules | source of light |  |
| >0,95 | power factor |  |
| Ø20 (wire Ø6-13mm) Ø25 (wire Ø9-17mm) RST (wire Ø7-13mm) | cable inlets |  |
| L/N-PE: 4kV (IEC 61000-4-5) L-N: 4kV (IEC 61000-4-5) EFT: 4kV (IEC 61000-4-4) | overvoltage protection |  |
| THD <10% | harmonic distortion factor |  |

WORK PARAMETERS

| | | |
|---|---------------------|---|
|  | ambient temperature | -40°C to +60°C <i>check: types comparison</i> |
|  | lifetime | >70.000h L ₈₀ B ₁₀ >100.000h L ₇₀ B ₁₀ |

PHOTOMETRICAL PARAMETERS

| | | |
|---|-------------------|---|
| >80 | CRI |  |
| 3000K - option 4000K 4500K - for C4 5000K - option 6500K - option | color temperature |  |



TYPES COMPARISON

WIDE BEAM OPTICS (WB)

| THE LIGHT FITTING | LUMINOUS FLUX [lm] | POWER CONSUMP. [W] | EFFICIENCY [lm/W] |
|---------------------|--------------------|--------------------|-------------------|
| INS240LED-0600-J2-1 | 2 677 | 18,7 | 143 |
| INS240LED-0600-J2-3 | 3 711 | 26,3 | 141 |
| INS240LED-0600-B2-1 | 5 179 | 34,3 | 151 |
| INS240LED-1200-J2-1 | 2 714 | 18,8 | 144 |
| INS240LED-1200-J2-3 | 3 783 | 26,6 | 142 |
| INS240LED-1200-B2-1 | 5 137 | 34,3 | 150 |
| INS240LED-1200-B2-3 | 7 111 | 48,8 | 146 |
| INS240LED-1200-J4-1 | 5 371 | 34,7 | 155 |
| INS240LED-1200-J4-3 | 7 453 | 51,0 | 146 |
| INS240LED-1200-B4-0 | 9 583 | 60,2 | 159 |

NARROW BEAM OPTICS (NB)

| THE LIGHT FITTING | LUMINOUS FLUX [lm] | POWER CONSUMP. [W] | EFFICIENCY [lm/W] |
|---------------------|--------------------|--------------------|-------------------|
| INS240LED-0600-J2-1 | 2 691 | 18,7 | 144 |
| INS240LED-0600-J2-3 | 3 730 | 26,3 | 142 |
| INS240LED-0600-B2-1 | 5 205 | 34,3 | 152 |
| INS240LED-1200-J2-1 | 2 728 | 18,8 | 145 |
| INS240LED-1200-J2-3 | 3 802 | 26,6 | 143 |
| INS240LED-1200-B2-1 | 5 163 | 34,3 | 151 |
| INS240LED-1200-B2-3 | 7 147 | 48,8 | 146 |
| INS240LED-1200-J4-1 | 5 398 | 34,7 | 156 |
| INS240LED-1200-J4-3 | 7 491 | 51,0 | 147 |
| INS240LED-1200-B4-0 | 9 632 | 60,2 | 160 |

ENCAPSULATED LED MODULES (C4)

| THE LIGHT FITTING | LUMINOUS FLUX [lm] | POWER CONSUMP. [W] | EFFICIENCY [lm/W] |
|---------------------|--------------------|--------------------|-------------------|
| INS240LED-0600-J2-1 | 2 744 | 18,7 | 147 |
| INS240LED-0600-J2-3 | 3 804 | 26,3 | 145 |
| INS240LED-0600-B2-1 | 5 104 | 34,3 | 149 |
| INS240LED-1200-J2-1 | 2 782 | 18,8 | 148 |
| INS240LED-1200-J2-3 | 3 878 | 26,6 | 146 |
| INS240LED-1200-B2-1 | 5 266 | 34,3 | 154 |
| INS240LED-1200-B2-3 | 7 289 | 48,8 | 149 |
| INS240LED-1200-J4-1 | 5 506 | 34,7 | 159 |
| INS240LED-1200-J4-3 | 7 640 | 51,0 | 150 |
| INS240LED-1200-B4-0 | 9 824 | 60,2 | 163 |

WORK TEMPERATURES RANGE

| THE LIGHT FITTING | PC DIFFUSER | PM DIFFUSER |
|---------------------|----------------|----------------|
| INS240LED-0600-J2-1 | -40°C ÷ +55 °C | -35°C ÷ +50 °C |
| INS240LED-0600-J2-3 | -40°C ÷ +50 °C | -35°C ÷ +50 °C |
| INS240LED-0600-B2-1 | -40°C ÷ +45 °C | -35°C ÷ +45 °C |
| INS240LED-1200-J2-1 | -40°C ÷ +60 °C | -35°C ÷ +55 °C |
| INS240LED-1200-J2-3 | -40°C ÷ +55 °C | -35°C ÷ +50 °C |
| INS240LED-1200-B2-1 | -40°C ÷ +55 °C | -35°C ÷ +50 °C |
| INS240LED-1200-B2-3 | -40°C ÷ +45 °C | -35°C ÷ +45 °C |
| INS240LED-1200-J4-1 | -40°C ÷ +55 °C | -35°C ÷ +50 °C |
| INS240LED-1200-J4-3 | -40°C ÷ +45 °C | -35°C ÷ +45 °C |
| INS240LED-1200-B4-0 | -40°C ÷ +40 °C | -35°C ÷ +40 °C |

VOLTAGE 24VDC (III) - WIDE BEAM (WB)

| THE LIGHT FITTING | LUMINOUS FLUX [lm] | POWER CONSUMP. [W] | EFFICIENCY [lm/W] | AMBIENT TEMPERATURE |
|---------------------|--------------------|--------------------|-------------------|---------------------|
| INS240LED-0600-D1-0 | 1 330 | 12,3 | 108 | -25°C ÷ +55 °C |
| INS240LED-0600-D2-0 | 2 660 | 23,5 | 117 | -25°C ÷ +50 °C |
| INS240LED-1200-D4-0 | 5 319 | 45,0 | 118 | -25°C ÷ +50 °C |

VOLTAGE 24VDC (III) - NARROW BEAM (NB)

| THE LIGHT FITTING | LUMINOUS FLUX [lm] | POWER CONSUMP. [W] | EFFICIENCY [lm/W] | AMBIENT TEMPERATURE |
|---------------------|--------------------|--------------------|-------------------|---------------------|
| INS240LED-0600-D1-0 | 1 337 | 12,3 | 109 | -25°C ÷ +55 °C |
| INS240LED-0600-D2-0 | 2 674 | 23,5 | 114 | -25°C ÷ +50 °C |
| INS240LED-1200-D4-0 | 5 346 | 45,0 | 119 | -25°C ÷ +50 °C |



Luminous flux tolerance +/- 10%

Power tolerance +/- 10%

The parameters given in the following data sheet has been determined for the temperature Ta=25°C.

Luminous flux, light intensity distribution and efficiency has been tested on the basis of the standards EN ISO 17025:2005, norm series EN13032 and LM-79.

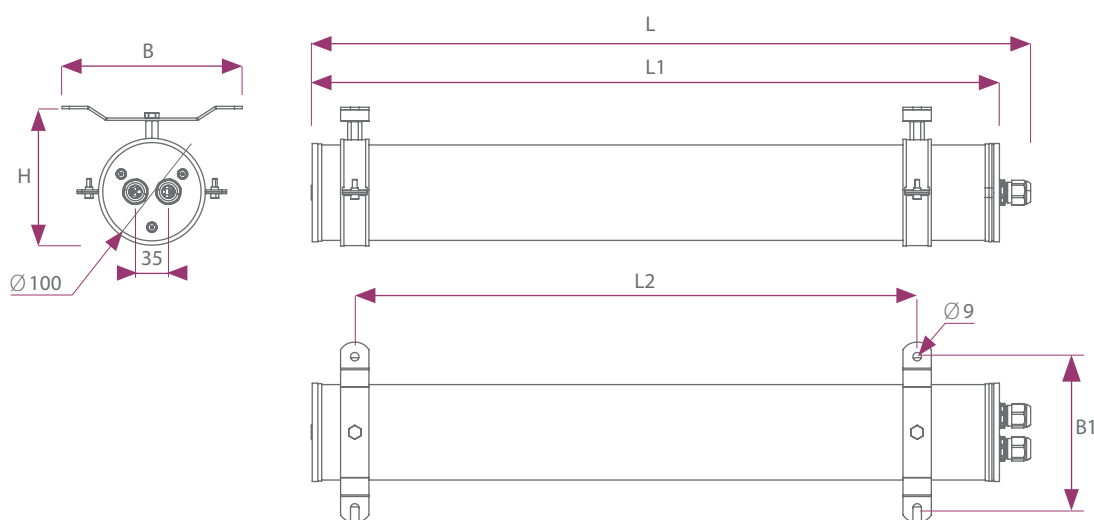
The actual data and General Warranty Conditions are available on our website www.atmlighting.pl

MAX. QUANTITY OF LINE CONNECTED LIGHT FITTINGS

| THE LIGHT FITTING | circuit breaker | | Max. inrush current | Start-up time |
|-------------------|-----------------|-----|---------------------|----------------|
| | C16 | B16 | | |
| INS240LED | 45 | 27 | 4A | 1,3ms (1300µs) |

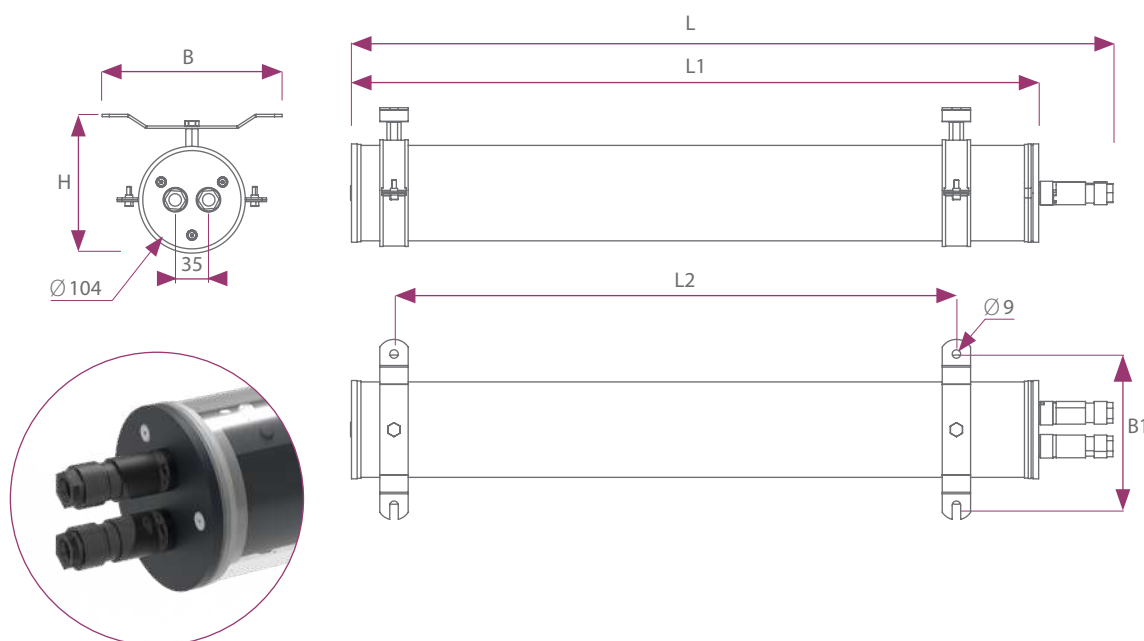
It is recommended to use MCB type C with LED lighting.
 Variables may vary depending on the use case. Both starting and continuous current calculations are based on ABB S200 series circuit breakers for Ta = 30°C.

STANDARD VERSION WITH CABLE INLETS






| THE LIGHT FITTING | L [mm] | L1 [mm] | L2 [mm] | B [mm] | B1 [mm] | H [mm] | weight [kg] |
|-------------------|--------|---------|-----------------------|--------|---------|--------|-------------|
| INS240LED-0600 | 760 | 727 | min. 595 - max. 650 | 190 | 160 | 147 | ~ 6,0 |
| INS240LED-1200 | 1320 | 1287 | min. 1155 - max. 1210 | 190 | 160 | 147 | ~ 11,5 |

OPTIONAL VERSION WITH RST CONNECTORS



| THE LIGHT FITTING | L [mm] | L1 [mm] | L2 [mm] | B [mm] | B1 [mm] | H [mm] | weight [kg] |
|-------------------|--------|---------|-----------------------|--------|---------|--------|-------------|
| INS240LED-0600 | 806 | 727 | min. 595 - max. 650 | 190 | 160 | 147 | ~ 6,0 |
| INS240LED-1200 | 1366 | 1287 | min. 1155 - max. 1210 | 190 | 160 | 147 | ~ 11,5 |

OPTIONAL VERSION

| | | |
|--|---|------------|
|  3h | Emergency power module: Version with emergency 3h power module 3h. Works in temp. range -20°C* to +45°C. Additional power consump. during charging of the battery - 3W. Version not available with RST connector. | A3S |
|  ZB | Central battery: Version designed to work with a central battery. Power supply 176-280VDC. For ZB version, below -35°C switching of the power supply is not allowed. | ZB |
|  DALI | DALI-2 driver: Version equipped with an integrated power supply with DALI-2 interface. For temperatures below -30°C DALI functionality may be limited, the power supply at the terminal should be > 12V. | DA |
| C5 | Anti-corrosion protection: Version with anti-corrosion protection in category C5. Selection of encapsulated LED modules (C4) and stainless steel (316) endcaps required. | C5 |
| CLO | Constant Lumen Output: An additional function that allows for maintaining a constant luminous flux throughout the life of the fixture. | CLO |

MEAN EMERGENCY LUMINOUS FLUX

| THE LIGHT FIXTURE | version A3S [lm] | version ZB** [lm] |
|---------------------|------------------|-------------------|
| INS240LED-0600-J2-1 | 774 | 1 339 |
| INS240LED-0600-J2-3 | 737 | 1 856 |
| INS240LED-0600-B2-1 | 838 | 2 590 |
| INS240LED-1200-B2-1 | 831 | 2 569 |
| INS240LED-1200-B2-3 | 789 | 3 556 |
| INS240LED-1200-B4-0 | 852 | 4 792 |
| INS240LED-1200-J2-1 | 785 | 1 357 |
| INS240LED-1200-J2-3 | 751 | 1 892 |
| INS240LED-1200-J4-1 | 853 | 2 686 |
| INS240LED-1200-J4-3 | 811 | 3 727 |

** - ZB version luminaires consume half the nominal power.

WORK TEMPERATURE

| EMERGENCY VERSION | WORK TEMP. [°C] |
|-------------------------|----------------------------|
| A3S - work | -20°C to +45°C |
| A3S - battery charging* | 0°C to +45°C |
| ZB | check: types comparison |
| DA | |

* - The battery must be charged in the temperature range of 0°C to +45°C when non-maintained. When maintained, in the temperature range of -10°C to +45°C.

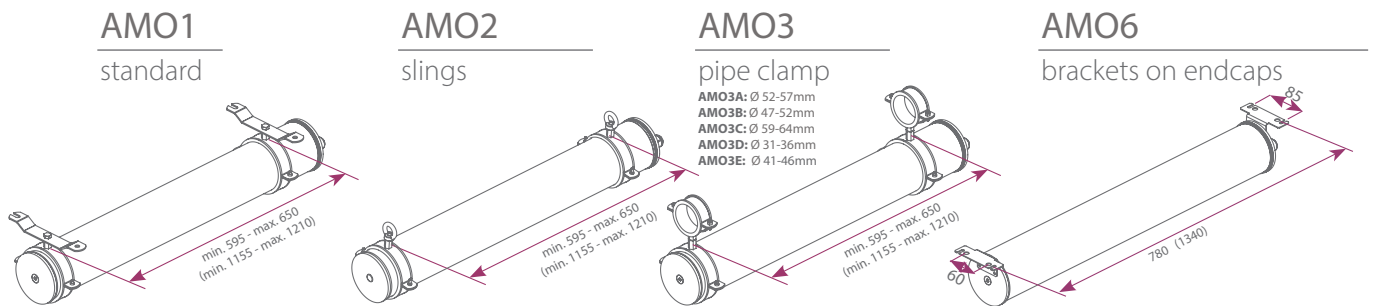


The DA version is equipped with an integrated power supply with a DALI-2 interface, which allows monitoring the operation of the luminaires and controlling the lighting using data directly from motion sensors or from the building management system (BIM). A properly configured lighting control system can significantly reduce electricity costs and improve the ergonomics of users' work. The DA version of the luminaire is not equipped with an emergency power supply module.

CLO

An additional function that allows for maintaining a constant luminous flux (Constant Lumen Output) throughout the life of the luminaire. Thanks to the constant luminous flux, the luminaire not only provides stable lighting, but also saves energy and extends the life of the LEDs.

MOUNTINGS



OPTICS

