Sammode

Technical lighting since 1927

LED

Lighting in

# Atex Zones

2, 21 and 22

## THEY TRUST US

ACETEX CHIMIE • ADISSEO • ADNATCO (Abu Dhabi National Tanker Company) • AIRBUS • BRITISH PETROLEUM • EURENCO • Grand Port Maritime de Dunkerque • MISC (Malaysia International Shipping Corporation Berhad) • PANSN (Port Atlantique Nantes Saint-Nazaire) • PERENCO • PETRONAS • QAPCO (Qatar Petrochemical Company) • SANOFI • TEREOS • TOTAL and others

# Expert
in technical lighting

In addition to compliance with the requirements of international standards, lighting areas classified as ATEX require luminaires designed according to strict criteria of robustness and sealing to withstand extreme environments which typically have explosive atmospheres as well. Based on our experience and our knowledge of the specific nature of our clients' businesses (chemical, petrochemical, onshore and offshore installations, water treatment, etc.) our ATEX luminaire ranges have been designed specifically for this purpose.

# We guarantee quality and performance


### RESISTANT
The quality of the chosen materials and our strict construction principles make our luminaires exceptionally resistant to polluted and corrosive environments and climatic influences such as ageing.


### IMPERVIOUS (IP68/IP69K)
The absolute sealing (IP68) of our luminaires maintains their performance throughout their lifetime. Constructed to be hermetically sealed, they are weatherproof (heavy seas, spray, etc.) as well as impervious to cleaning with high pressure jets (IP69K).


### INCREASE SERVICE INTERVALS
We offer a high resistance lighting solution with long life, especially suitable for areas that are difficult to reach. We thus guarantee our customers a return on their investment and reduced maintenance costs.


### EFFICIENT
Our products include high-efficiency (lm/W) LED modules to reduce the energy consumption associated with lighting. The chosen technology ensures efficient operation even at very low temperatures.


### 5 YEAR WARRANTY
Sammode embodies its commitment to the quality and sustainability of its luminaires by offering a guarantee for its tubular ranges that exceeds the legal warranty. A Sammode product isn't a consumable; it's an investment!

# OUR COMMITMENT :
# TO WITHSTAND YOUR AGGRESSIVE ENVIRONMENT

Conditions in ATEX environments are often aggressive for installations and equipment (corrosive saline environments, UV, etc.). These constraints result in premature deterioration of materials that could lead to the spontaneous breakage of equipment. For this reason SAMMODE, with more than 40 years of experience in the design and use of ATEX luminaires, offers a selection of materials for your applications.

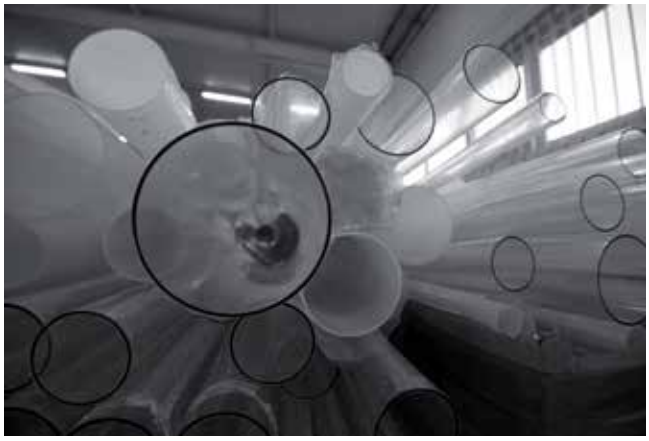
**STAINLESS STEEL**

Sammode offers two grades of stainless steel:

- 304L grade stainless steel suitable for most industrial applications
- 316L marine stainless steel (MR option) that solves problems of use in extreme conditions, particularly in corrosive ones such as marine environments.

**COEXTRUDED POLYCARBONATE / PMMA (POME)**

Combining the chemical resistance of methacrylate with the strength of polycarbonate (IK10), our POME diffuser is recommended for applications that require high resistance to mechanical shock. Thanks to its outer layer of methacrylate, which acts as barrier against UV rays and avoids yellowing, it is ideal for outdoor use.



**BOROSILICATE GLASS DIFFUSER (PY)**

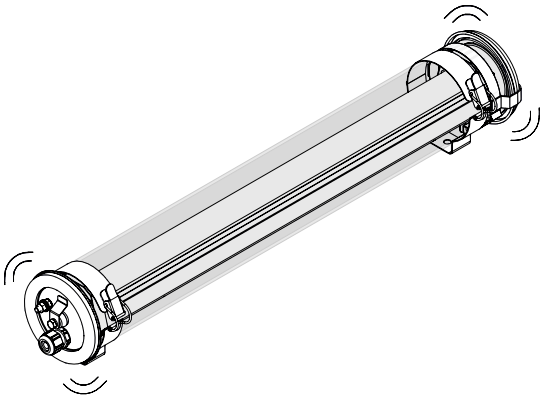
Borosilicate glass is recommended for applications requiring exceptional chemical (acid environments, hydrocarbons, etc.) or abrasion (coal dust, cement, etc.) resistance. Because of the ease with which it can be cleaned it is recommended for environments such as paint shops.

# PRINCIPLES OF CONSTRUCTION TO STAND THE TEST OF TIME

Decades of experience and expertise have enabled us to develop design principles (tubular structure, single-piece housing, closure systems, fixing systems, axial clamping by stainless steel screws, etc.) all of which guarantee an absolute seal and foolproof mechanical construction. Our light fittings demonstrate all their qualities in demanding environments.

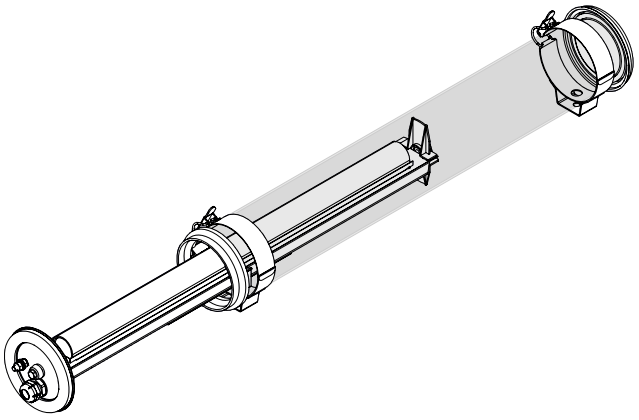
**LUMINAIRES FOR HARSH ENVIRONMENTS**
Luminaires installed in «harsh environments» can be exposed to strong and permanent vibration, environmental pollution by hydrocarbons, corrosion due to salt spray, abrasion, etc.

**Method of construction:**
Monobloc enclosure with high mechanical and chemical resistance
Long-term sealing maintained by axial clamping
**Materials:**
Diffusers: Borosilicate glass (PY) or co-extruded polycarbonate/PMMA (POME)
External metallic parts: 304L or 316L stainless steel (MR option)



**LUMINAIRES FOR NORMAL ENVIRONMENTS**
Luminaires installed in «normal environments» may be exposed to shock, weather, humid atmospheres, washing with high pressure jets, UV, etc.

**Method of construction:**
Single-piece housing with reinforced seal
(Patented) drawer opening system
**Materials:**
Diffusers: Co-extruded polycarbonate/PMMA (POME)
External metallic parts: 304L or 316L stainless steel (MR option)



Our design office is available to help you choose the best product to meet your requirements.

## DEFINITIONS

**General lighting**
The high power of these products makes them especially suitable for lighting large areas with significant levels of illumination, acting as natural replacements for conventional fluorescent solutions (1 x 36 W, 2 x 36 W, etc).

**Task lighting**
Because of their small size, these product lines can be fitted in confined spaces and easily pointed at the area to be lit. They offer the best compromise between size and the right amount of light.

**Low temperatures**
These products are specifically designed for operation over a wide temperature range (-40 °C to + 40 °C) without any difference in their service life. The selected LED technology guarantees immediate 100% light output and efficient operation even at very low temperatures.

## ZONE CLASSIFICATION

### Gas and fumes

**Zone 2**
Location where an explosive atmosphere consisting of a mixture of air with flammable substances in the form of a gas, fumes or a mist is not likely to occur in normal operation but, if it does occur, is only short-lived.

### Dust

**Zone 21**
Location where a hazardous explosive atmosphere in the form of a cloud of combustible dust may occur from time to time during normal operation.

**Zone 22**
Location where a hazardous explosive atmosphere in the form of a cloud of combustible dust is not likely to occur in normal operation but, if it does occur, is only short-lived.

## PROTECTION MODES

### Protection mode “n”

Electrical equipment that is designed to make it impossible, in normal operation, for any external source of ignition (spark, hot surface) to occur. Its temperature class takes into account the maximum surface temperature of the outer housing.

# ATEX lighting solutions that stand the test of time

## SELECTION GUIDE

LED

| | Product | Flux |
|---|---|---|
| **GENERAL LIGHTING** | | |
| Normal environments | Jamin 100 | 2775lm to 4625lm |
| | Jamin 133 | 5550lm to 9250lm |
| Harsh environments | Boyle 100 | 2775lm to 4625lm |
| | Boyle 133 | 5550lm to 9250lm |
| Low temperatures -40°C | Hutton 100 | 2775lm to 4625lm |
| | Hutton 133 | 5550lm to 9250lm |
| **TASK LIGHTING** | | |
| Normal environments | Jamin 100 | 1850lm |
| Harsh environments | Boyle 100 | 1850lm |
| Low temperatures -40°C | Hutton 100 | 1850lm |

# Géneral lighting

Particularly powerful, these products help illuminate large spaces with significant levels of illumination. They are designed to act as replacements for a conventional fluorescent solutions (1 x 36 W, 2 x 36 W, etc.) , providing identical illumination with reduced energy consumption.

## Selection guide

| | Product | Flux | Glass diffuser | Coextruded diffuser |
|---|---|---|---|---|
| **GENERAL LIGHTING** | | | | |
| Normal environments | Jamin 100 | 2775lm to 4625lm | | x |
| | Jamin 133 | 5550lm to 9250lm | | x |
| Harsh environments | Boyle 100 | 2775lm to 4625lm | x | x |
| | Boyle 133 | 5550lm to 9250lm | x | x |
| Low temperatures -40°C | Hutton 100 | 2775lm to 4625lm | x | x |
| | Hutton 133 | 5550lm to 9250lm | x | x |

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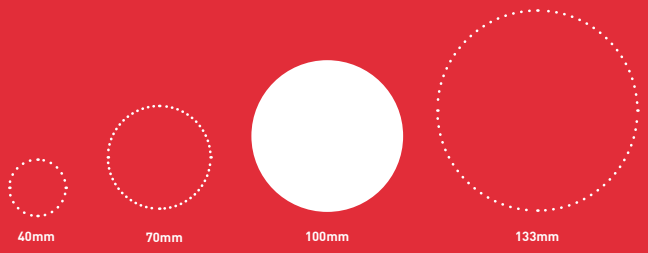



## ZONES 2, 21 AND 22 - EASY MAINTENANCE - GENERAL LIGHTING -20°C/40°C - LED - 2775 TO 4625 LM

# JAMIN 100

## EASY MAINTENANCE IMPERVIOUS TUBULAR LIGHT FITTING FOR EXPLOSIVE ENVIRONMENTS

**LED TECHNOLOGY**
Low in maintenance
Instantaneous full light output on ignition over the entire temperature range of use
Designed for repeated switching on and off

**TUBULAR**
Increased mechanical resistance
Easy to clean
Limited dirt accumulation
360° orientation

**IMPERVIOUS (IP68/IP69K)**
Absolute imperviousness
No internal dust accumulation
Maximum light output
Adapted for pressure cleaning

**EASY MAINTENANCE**
Easy opening and closing with just one screw

**DURABLE**
High resistance to shocks and corrosion
Single piece casing, material and components selected to ensure long-term investment

| | |
|---|---|
| ELECTRICAL CLASS | CLASS 1 |
| FIRE RESISTANCE | 650°C |
| PROTECTION | IP68/IP69K |
| SHOCK RESISTANCE | IK10 |
| OPERATING TEMPERATURE | -20°C +40°C |

ZONES 2, 21, 22

CE 0080
II 3G Ex nA IIC T4 Gc
II 2D Ex tb IIIC T80°C Db IP66/IP68

## DESCRIPTION

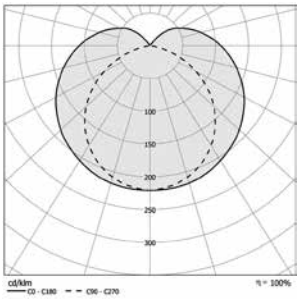
**HOUSING**
- Ø100 mm coextruded polycarbonate/ PMMA diffuser for chemically aggressive environments environments and outdoor lighting
- End caps 1/2 ring press-formed in 304L stainless steel (316L also available)
- Gaskets moulded in EPDM
- Cable entry with cable gland
- Possibility for a model with 2 cable entries for looping-in (2 cable glands with stopper plug or 1 cable gland and 1 blind plug at the same cap)

**GEAR TRAY WITH LED**
- Gear tray in white powder coated steel
- Light mixing chamber
- Aluminium heat sink
- Optical diffuser
- High-efficiency LED moduls (145 lm/W)
- Service life: 50,000 hours L80/B50
- Colour temperature: 3000 K or 4000 K
- CRI > 80
- Integrated LED-Driver 220-240V 50/60Hz with constant current output

**INSTALLATION - MAINTENANCE**
- Off-load opening in an explosive environment
- Connection to a 3x2,5mm² terminal block
- Attachment with 2 bolt-fitted stainless steel straps with variable centre distance and allowing 360° orientation (available with closure by HSHC screw)
- Maintenance: remove the end-cap and slide the guided gear tray (patented system)
- Electronic components (LED and driver) have a very long lifetime (50,000 hours) and can be easily replaced to extend the life of the luminaire and contribute to the sustainability of the investment and to environmental protection.

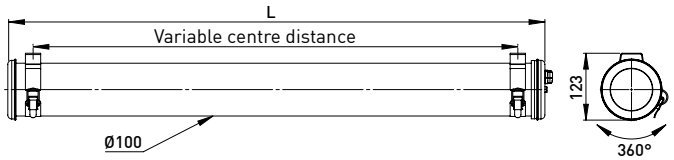
WARRANTY 5 YEARS WARRANTY

## PHOTOMETRY



## PROTECTION AGAINST EXPLOSION

- Protection : Protection « n »
- Compliant with the ATEX 94/9/EC directive and standards IEC 60079-0, IEC 60079-15, IEC 60079-31




## MAIN REFERENCES

| POWER | FLUX (lm) | DESIGNATION | CODE | OPTICS | COLOUR TEMPERATURE (K) | L (mm) | WEIGHT (kg) |
|---|---|---|---|---|---|---|---|
| **VERSIONS WITH COEXTRUDED POLYCARBONATE / PMMA HOUSING** | | | | | | | |
| | | **Equivalent to 1x36W T8** | | | | | |
| **24W** | 2775 | JAM100 13H830 POME 113 | 1987 0030 |  | 3000 | 1018 | 2,9 |
| **24W** | 2775 | JAM100 13H840 POME 113 | 1987 0040 | | 4000 | 1018 | 2,9 |
| | | **Equivalent to 1x58W T8** | | | | | |
| **40W** | 4625 | JAM100 15H830 POME 113 | 1987 0050 |  | 3000 | 1618 | 4,2 |
| **40W** | 4625 | JAM100 15H840 POME 113 | 1987 0060 | | 4000 | 1618 | 4,2 |

## OPTIONS

| DESCRIPTION | OPTION CODE |
|---|---|
| **CABLE ENTRIES** | |
| 1 or 2 cable glands in black polyamide | |
| Cable Ø: 8-13 mm | 113/213 |
| Cable Ø: 10-15 mm | 116/216 |
| **1 cable gland in black polyamide and 1 blind plug (Hole Ø : 20 mm)** | |
| Cable Ø: 8-13 mm | 113-1B |
| Cable Ø: 10-15 mm | 116-1B |
| **1 or 2 cable glands in nickel-coated brass** | |
| Cable Ø : 5-14 mm | 113LN/213LN |
| **GEAR UNITS** | |
| 5-point terminal block for phase balancing C5P | C5P |

| DESCRIPTION | OPTION CODE |
|---|---|
| **FINISHINGS** | |
| End caps and fixing straps in 316L stainless steel | MR |
| **FIXINGS** | |
| Reinforced bolt-fitted fixing straps with HSHC screw* | BRV |
| (*Tamper-resistant Torx screw on request) | |
| **ACCESSOIRES** | |
| Protective covers | |
| Fixing for columns | |

**Option codes to be added or to replace the designation codes of main references, subject to the compatibility of options.**

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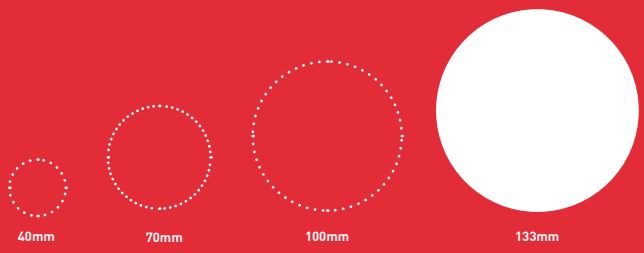



ZONES 2, 21 AND 22 - EASY MAINTENANCE - GENERAL LIGHTING -20°C/40°C - LED - 5550 TO 9250 LM

# JAMIN 133

## EASY MAINTENANCE IMPERVIOUS TUBULAR LIGHT FITTING FOR EXPLOSIVE ENVIRONMENTS

**LED TECHNOLOGY**
Low in maintenance
Instantaneous full light output on ignition over the entire temperature range of use
Designed for repeated switching on and off

**TUBULAR**
Increased mechanical resistance
Easy to clean
Limited dirt accumulation
360° orientation

**IMPERVIOUS (IP68/IP69K)**
Absolute imperviousness
No internal dust accumulation
Maximum light output
Adapted for pressure cleaning

**EASY MAINTENANCE**
Easy opening and closing with just one screw

**DURABLE**
High resistance to shocks and corrosion
Single piece casing, material and components selected to ensure long-term investment

| | |
|---|---|
| ELECTRICAL CLASS | CLASS 1 |
| FIRE RESISTANCE | 650°C |
| PROTECTION | IP68/IP69K |
| SHOCK RESISTANCE | IK10 |
| OPERATING TEMPERATURE | -20°C +40°C |

ZONES 2, 21, 22

CE 0080
II 3G Ex nA IIC T4 Gc
II 2D Ex tb IIIC T80°C Db IP66/IP68

## DESCRIPTION

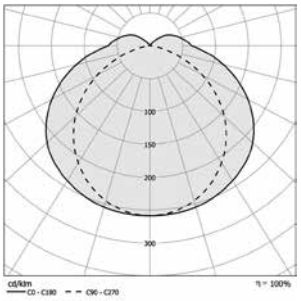
**HOUSING**
- Ø133 mm coextruded polycarbonate/ PMMA diffuser for chemically aggressive environments environments and outdoor lighting
- End caps 1/2 ring press-formed in 304L stainless steel (316L also available)
- Gaskets moulded in EPDM
- Cable entry with cable gland
- Possibility for a model with 2 cable entries for looping-in (2 cable glands with stopper plug or 1 cable gland and 1 blind plug at the same cap)

**GEAR TRAY WITH LED**
- Gear tray in white powder coated steel
- Light mixing chamber
- Aluminium heat sink
- Optical diffuser
- High-efficiency LED moduls (145 lm/W)
- Service life: 50,000 hours L80/B50
- Colour temperature: 3000 K or 4000 K
- CRI > 80
- Integrated LED-Driver 220-240V 50/60Hz with constant current output

**INSTALLATION - MAINTENANCE**
- Off-load opening in an explosive environment
- Connection to a 3x2,5mm² terminal block
- Attachment with 2 bolt-fitted stainless steel straps with variable centre distance and allowing 360° orientation (available with closure by HSHC screw)
- Maintenance: remove the end-cap and slide the guided gear tray (patented system)
- Electronic components (LED and driver) have a very long lifetime (50,000 hours) and can be easily replaced to extend the life of the luminaire and contribute to the sustainability of the investment and to environmental protection.

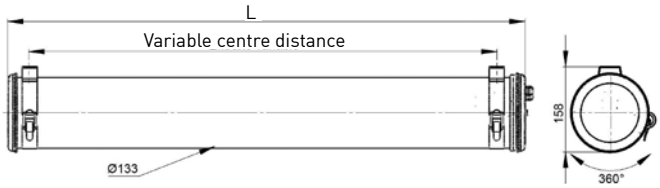
WARRANTY 5 YEARS WARRANTY

## PHOTOMETRY



## PROTECTION AGAINST EXPLOSION

- Protection : Protection « n »
- Compliant with the ATEX 94/9/EC directive and standards IEC 60079-0, IEC 60079-15, IEC 60079-31




## MAIN REFERENCES

| POWER | FLUX (lm) | DESIGNATION | CODE | OPTICS | COLOUR TEMPERATURE (K) | L (mm) | WEIGHT (kg) |
|---|---|---|---|---|---|---|---|
| **VERSIONS WITH COEXTRUDED POLYCARBONATE / PMMA HOUSING** | | | | | | | |
| | | **Equivalent to 2x36W T8** | | | | | |
| **48W** | 5550 | JAM133 23H830 POME 113 | 1988 0010 |  | 3000 | 995 | 3,9 |
| **48W** | 5550 | JAM133 23H840 POME 113 | 1988 0020 | | 4000 | 995 | 3,9 |
| | | **Equivalent to 2x58W T8** | | | | | |
| **80W** | 9250 | JAM133 25H830 POME 113 | 1988 0030 |  | 3000 | 1595 | 5,5 |
| **80W** | 9250 | JAM133 25H840 POME 113 | 1988 0040 | | 4000 | 1595 | 5,5 |

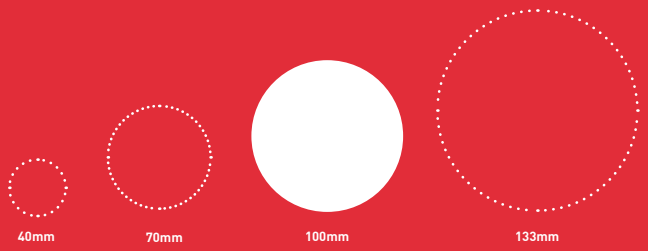
## OPTIONS

| DESCRIPTION | OPTION CODE |
|---|---|
| **CABLE ENTRIES** | |
| 1 or 2 cable glands in black polyamide | |
| Cable Ø: 8-13 mm | 113/213 |
| Cable Ø: 10-15 mm | 116/216 |
| **1 cable gland in black polyamide and 1 blind plug (Hole Ø : 20 mm)** | |
| Cable Ø: 8-13 mm | 113-1B |
| Cable Ø: 10-15 mm | 116-1B |
| **1 or 2 cable glands in nickel-coated brass** | |
| Cable Ø : 5-14 mm | 113LN/213LN |
| **GEAR UNITS** | |
| 5-point terminal block for phase balancing C5P | C5P |

| DESCRIPTION | OPTION CODE |
|---|---|
| **FINISHINGS** | |
| End caps and fixing straps in 316L stainless steel | MR |
| **FIXINGS** | |
| Reinforced bolt-fitted fixing straps with HSHC screw* | BRV |
| (*Tamper-resistant Torx screw on request) | |
| **ACCESSOIRES** | |
| Protective covers | |
| Fixing for columns | |

**Option codes to be added or to replace the designation codes of main references, subject to the compatibility of options.**

® three-dimensional trademark




## ZONES 2, 21 AND 22 - INCREASED RESISTANCE - GENERAL LIGHTING -20°C/40°C - LED – 2775 TO 4625 LM

# BOYLE 100

## IMPERVIOUS TUBULAR LIGHT FITTING FOR DIFFICULT EXPLOSIVE ENVIRONMENTS

**LED TECHNOLOGY**
Low in maintenance
Instantaneous full light output on ignition over the entire temperature range of use
Designed for repeated switching on and off

**TUBULAR**
Increased mechanical resistance
Easy to clean
Limited dirt accumulation
360° orientation

**IMPERVIOUS (IP68/IP69K)**
Absolute imperviousness
No internal dust accumulation
Maximum light output
Adapted for pressure cleaning

**ROBUST**
Mechanical assembly insensitive to external mechanical and/or chemical aggression

**DURABLE**
High resistance to shocks and corrosion
Single piece casing, material and components selected to ensure long-term investment

| | |
|---|---|
| ELECTRICAL CLASS | CLASS 1 |
| FIRE RESISTANCE | |
| Coex. polycarbonate/PMMA | 650°C |
| Borosilicate glass | non-flammable |
| PROTECTION | IP68/IP69K |
| SHOCK RESISTANCE | |
| Coex. polycarbonate/PMMA | IK10 |
| Borosilicate glass | IK07 |
| OPERATING TEMPERATURE | -20°C +40°C |

ZONES 2, 21, 22

CE 0080
II 3G Ex nA IIC T4 Gc
II 2D Ex tb IIIC T80°C Db IP66/IP68

## DESCRIPTION

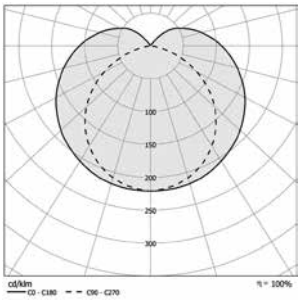
**HOUSING**
- Ø100 mm diffuser in borosilicate glass for corrosive environments
- Also available in coextruded polycarbonate/PMMA for chemically aggressive environments and outdoor lighting
- End caps 1/2 ring press-formed in 304L stainless steel (316L also available)
- Gaskets moulded in EPDM
- Cable entry with cable gland
- Possibility for a model with 2 cable entries for looping-in (2 cable glands with stopper plug or 1 cable gland and 1 blind plug at the same cap)

**GEAR TRAY WITH LED**
- Gear tray in white powder coated steel
- Light mixing chamber
- Aluminium heat sink
- Optical diffuser
- High-efficiency LED moduls (145 lm/W)
- Service life: 50,000 hours L80/B50
- Colour temperature: 3000 K or 4000 K
- CRI > 80
- Integrated LED-Driver 220-240V 50/60Hz with constant current output

**INSTALLATION - MAINTENANCE**
- Off-load opening in an explosive environment
- Connection to a 3x2,5mm² terminal block
- Attachment with 2 bolt-fitted stainless steel straps with variable centre distance and allowing 360° orientation (available with closure by HSHC screw)
- Maintenance: release the 2 closing screws, remove the end cap and extract the gear
- Electronic components (LED and driver) have a very long lifetime (50,000 hours) and can be easily replaced to extend the life of the luminaire and contribute to the sustainability of the investment and to environmental protection.

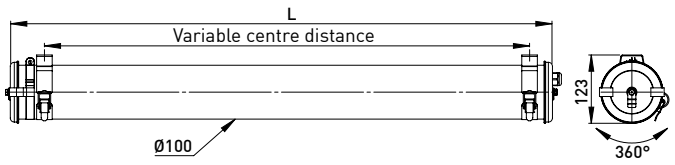
WARRANTY 5 YEARS WARRANTY

## PHOTOMETRY



## PROTECTION AGAINST EXPLOSION

- Protection : Protection « n »
- Compliant with the ATEX 94/9/EC directive and standards IEC 60079-0, IEC 60079-15, IEC 60079-31




## MAIN REFERENCES

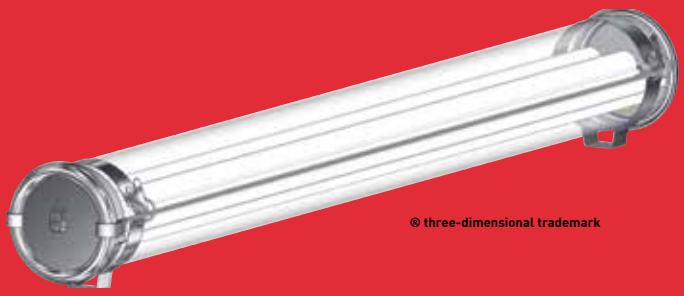
| POWER | FLUX (lm) | DESIGNATION | CODE | OPTICS | COLOUR TEMPERATURE (K | L (mm) | WEIGHT (kg)) |
|---|---|---|---|---|---|---|---|
| **VERSIONS WITH BOROSILICATE GLASS HOUSING** | | | | | | | |
| | | **Equivalent to 1x36W T8** | | | | | |
| **24W** | 2775 | BOY100 13H830 PY 113 | 1983 0050 | | 3000 | 1007 | 4,9 |
| **24W** | 2775 | BOY100 13H840 PY 113 | 1983 0060 | | 4000 | 1007 | 4,9 |
| | | **Equivalent to 1x58W T8** | | | | | |
| **40W** | 4625 | BOY100 15H830 PY 113 | 1983 0070 | | 3000 | 1607 | 7,6 |
| **40W** | 4625 | BOY100 15H840 PY 113 | 1983 0080 | | 4000 | 1607 | 7,6 |
| **VERSIONS WITH COEXTRUDED POLYCARBONATE / PMMA HOUSING** | | | | | | | |
| | | **Equivalent to 1x36W T8** | | | | | |
| **24W** | 2775 | BOY100 13H830 POME 113 | 1983 0090 | | 3000 | 1007 | 3,0 |
| **24W** | 2775 | BOY100 13H840 POME 113 | 1983 0100 | | 4000 | 1007 | 3,0 |
| | | **Equivalent au 1x58W T8** | | | | | |
| **40W** | 4625 | BOY100 15H830 POME 113 | 1983 0110 | | 3000 | 1607 | 4,3 |
| **40W** | 4625 | BOY100 15H840 POME 113 | 1983 0120 | | 4000 | 1607 | 4,3 |

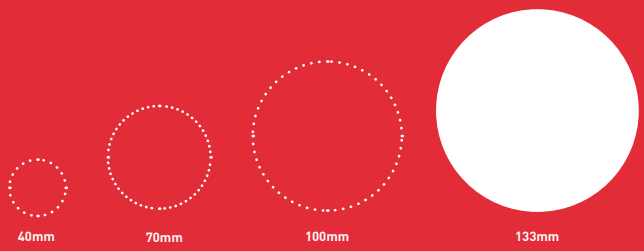
## OPTIONS

| DESCRIPTION | OPTION CODE |
|---|---|
| **CABLE ENTRIES** | |
| 1 or 2 cable glands in black polyamide | |
| Cable Ø: 8-13 mm | 113/213 |
| Cable Ø: 10-15 mm | 116/216 |
| **1 cable gland in black polyamide and 1 blind plug (Hole Ø : 20 mm)** | |
| Cable Ø: 8-13 mm | 113-1B |
| Cable Ø: 10-15 mm | 116-1B |
| **1 or 2 cable glands in nickel-coated brass** | |
| Cable Ø : 5-14 mm | 113LN/213LN |
| **GEAR UNITS** | |
| 5-point terminal block for phase balancing C5P | C5P |

| DESCRIPTION | OPTION CODE |
|---|---|
| **FINISHINGS** | |
| End caps and fixing straps in 316L stainless steel | MR |
| **FIXINGS** | |
| Reinforced bolt-fitted fixing straps with HSHC screw* | BRV |
| (*Tamper-resistant Torx screw on request) | |
| **ACCESSOIRES** | |
| Protective covers | |
| Fixing for columns | |

**Option codes to be added or to replace the designation codes of main references, subject to the compatibility of options.**




ZONES 2, 21 AND 22 - INCREASED RESISTANCE - GENERAL LIGHTING -20°C/40°C - LED – 5550 TO 9250 LM

# BOYLE 133

## IMPERVIOUS LIGHT FITTING FOR DIFFICULT EXPLOSIVE ENVIRONMENTS

**LED TECHNOLOGY**
Low in maintenance
Instantaneous full light output on ignition over the entire temperature range of use
Designed for repeated switching on and off

**TUBULAR**
Increased mechanical resistance
Easy to clean
Limited dirt accumulation
360° orientation

**IMPERVIOUS (IP68/IP69K)**
Absolute imperviousness
No internal dust accumulation
Maximum light output
Adapted for pressure cleaning

**ROBUST**
Mechanical assembly insensitive to external mechanical and/or chemical aggression

**DURABLE**
High resistance to shocks and corrosion
Single piece casing, material and components selected to ensure long-term investment

| | |
|---|---|
| ELECTRICAL CLASS | CLASS 1 |
| FIRE RESISTANCE | |
| Coex. polycarbonate/PMMA | 650°C |
| Borosilicate glass | non-flammable |
| PROTECTION | IP68/IP69K |
| SHOCK RESISTANCE | |
| Coex. polycarbonate/PMMA | IK10 |
| Borosilicate glass | IK07 |
| OPERATING TEMPERATURE | -20°C +40°C |

ZONES 2, 21, 22

CE 0080
II 3G Ex nA IIC T4 Gc
II 2D Ex tb IIIC T80°C Db IP66/IP68

## DESCRIPTION

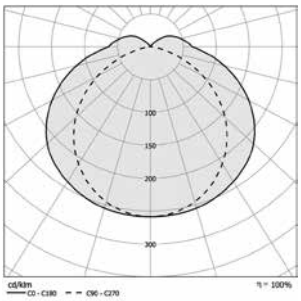
**HOUSING**
- Ø135 mm diffuser in borosilicate glass for corrosive environments
- Also available in coextruded polycarbonate/PMMA for chemically aggressive environments and outdoor lighting
- End caps 1/2 ring press-formed in 304L stainless steel (316L also available)
- Gaskets moulded in EPDM
- Cable entry with cable gland
- Possibility for a model with 2 cable entries for looping-in (2 cable glands with stopper plug or 1 cable gland and 1 blind plug at the same cap)

**GEAR TRAY WITH LED**
- Gear tray in white powder coated steel
- Light mixing chamber
- Aluminium heat sink
- Optical diffuser
- High-efficiency LED moduls (145 lm/W)
- Service life: 50,000 hours L80/B50
- Colour temperature: 3000 K or 4000 K
- CRI > 80
- Integrated LED-Driver 220-240V 50/60Hz with constant current output

**INSTALLATION - MAINTENANCE**
- Off-load opening in an explosive environment
- Connection to a 3x2,5mm² terminal block
- Attachment with 2 bolt-fitted stainless steel straps with variable centre distance and allowing 360° orientation (available with closure by HSHC screw)
- Maintenance: release the 2 closing screws, remove the end cap and extract the gear
- Electronic components (LED and driver) have a very long lifetime (50,000 hours) and can be easily replaced to extend the life of the luminaire and contribute to the sustainability of the investment and to environmental protection.

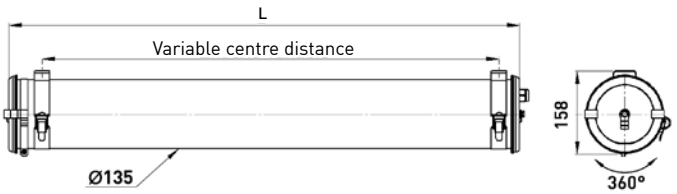
WARRANTY 5 YEARS WARRANTY

## PHOTOMETRY



## PROTECTION AGAINST EXPLOSION

- Protection : Protection « n »
- Compliant with the ATEX 94/9/EC directive and standards IEC 60079-0, IEC 60079-15, IEC 60079-31




## MAIN REFERENCES

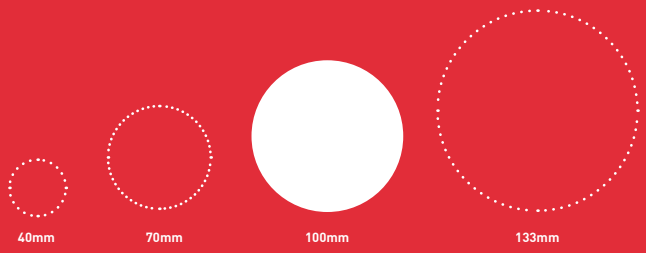
| POWER | FLUX (lm) | DESIGNATION | CODE | OPTICS | COLOUR TEMPERATURE (K) | L (mm) | WEIGHT (kg) |
|---|---|---|---|---|---|---|---|
| **VERSIONS WITH BOROSILICATE GLASS HOUSING** | | | | | | | |
| | | **Equivalent to 2x36W T8** | | | | | |
| **48W** | 5550 | BOY133 23H830 PY 113 | 1984 0010 | | 3000 | 987 | 8,3 |
| **48W** | 5550 | BOY133 23H840 PY 113 | 1984 0020 | | 4000 | 987 | 8,3 |
| | | **Equivalent to 2x58W T8** | | | | | |
| **80W** | 9250 | BOY133 25H830 PY 113 | 1984 0030 | | 3000 | 1587 | 10,5 |
| **80W** | 9250 | BOY133 25H840 PY 113 | 1984 0040 | | 4000 | 1587 | 10,5 |
| **VERSIONS WITH COEXTRUDED POLYCARBONATE / PMMA HOUSING** | | | | | | | |
| | | **Equivalent to 2x36W T8** | | | | | |
| **48W** | 5550 | BOY133 23H830 POME 113 | 1984 0050 | | 3000 | 987 | 4,2 |
| **48W** | 5550 | BOY133 23H840 POME 113 | 1984 0060 | | 4000 | 987 | 4,2 |
| | | **Equivalent to 2x58W T8** | | | | | |
| **80W** | 9250 | BOY133 25H830 POME 113 | 1984 0070 | | 3000 | 1587 | 5,8 |
| **80W** | 9250 | BOY133 25H840 POME 113 | 1984 0080 | | 4000 | 1587 | 5,8 |

## OPTIONS

| DESCRIPTION | OPTION CODE |
|---|---|
| **CABLE ENTRIES** | |
| 1 or 2 cable glands in black polyamide | |
| Cable Ø: 8-13 mm | 113/213 |
| Cable Ø: 10-15 mm | 116/216 |
| **1 cable gland in black polyamide and 1 blind plug (Hole Ø : 20 mm)** | |
| Cable Ø: 8-13 mm | 113-1B |
| Cable Ø: 10-15 mm | 116-1B |
| **1 or 2 cable glands in nickel-coated brass** | |
| Cable Ø : 5-14 mm | 113LN/213LN |
| **GEAR UNITS** | |
| 5-point terminal block for phase balancing C5P | C5P |

| DESCRIPTION | OPTION CODE |
|---|---|
| **FINISHINGS** | |
| End caps and fixing straps in 316L stainless steel | MR |
| **FIXINGS** | |
| Reinforced bolt-fitted fixing straps with HSHC screw* | BRV |
| (*Tamper-resistant Torx screw on request) | |
| **ACCESSOIRES** | |
| Protective covers | |
| Fixing for columns | |

**Option codes to be added or to replace the designation codes of main references, subject to the compatibility of options.**


ZONES 2, 21 AND 22 - INCREASED RESISTANCE - GENERAL LIGHTING -40°C/40°C - LED – 2775 TO 4625 LM

# HUTTON 100

## IMPERVIOUS TUBULAR LUMINAIRE FOR DEMANDING EXPLOSIVE ENVIRONMENTS WITH WIDE OPERATING TEMPERATURE RANGE

**LED TECHNOLOGY**
Low in maintenance
Instantaneous full light output on ignition over the entire temperature range of use
Designed for repeated switching on and off

**TUBULAR**
Increased mechanical resistance
Easy to clean
Limited dirt accumulation
360° orientation

**IMPERVIOUS (IP68/IP69K)**
Absolute imperviousness
No internal dust accumulation
Maximum light output
Adapted for pressure cleaning

**ROBUST**
Mechanical assembly insensitive to external mechanical and/or chemical aggression

**DURABLE**
High resistance to shocks and corrosion
Single piece casing, material and components selected to ensure long-term investment

| | |
|---|---|
| ELECTRICAL CLASS | CLASS 1 |
| FIRE RESISTANCE | |
| Coex. polycarbonate/PMMA | 650°C |
| Borosilicate glass | non-flammable |
| PROTECTION | IP68/IP69K |
| SHOCK RESISTANCE | |
| Coex. polycarbonate/PMMA | IK10 |
| Borosilicate glass | IK07 |
| OPERATING TEMPERATURE | -40°C +40°C |

ZONES 2, 21, 22

CE 0080
II 3G Ex nA IIC T4 Gc
II 2D Ex tb IIIC T80°C Db IP66/IP68

## DESCRIPTION

**HOUSING**
- Ø100 mm diffuser in borosilicate glass for corrosive environments
- Also available in coextruded polycarbonate/PMMA for chemically aggressive environments and outdoor lighting
- End caps 1/2 ring press-formed in 304L stainless steel (316L also available)
- Gaskets moulded in silicone
- Cable entry with cable gland
- Possibility for a model with 2 cable entries for looping-in (2 cable glands with stopper plug or 1 cable gland and 1 blind plug at the same cap)

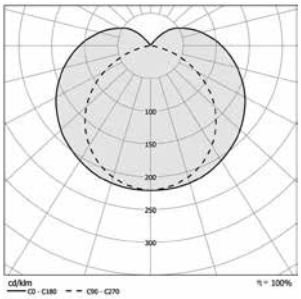
**GEAR TRAY WITH LED**
- White powder coated gear tray
- Light mixing chamber
- Aluminium heat sink
- Optical diffuser
- High-efficiency LED moduls (145 lm/W)

- Service life: 50,000 hours L80/B50
- Colour temperature: 3000 K or 4000 K
- CRI > 80

- Integrated LED-Driver 220-240V 50/60Hz with constant current output, specifically designed for operation over a wide temperature range

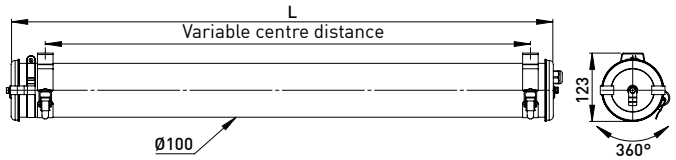
**INSTALLATION - MAINTENANCE**
- Off-load opening in an explosive environment
- Connection to a 3x2,5mm² terminal block
- Attachment with 2 bolt-fitted stainless steel straps with variable centre distance and allowing 360° orientation (available as a reinforced model and/or with closure by HSHC screw)
- Maintenance: release the 2 closing screws, remove the end cap and extract the gear tray
- Electronic components (LED and driver) have a very long lifetime (50,000 hours) and can be easily replaced to extend the life of the luminaire and contribute to the sustainability of the investment and to environmental protection.

## PHOTOMETRY



## PROTECTION AGAINST EXPLOSION

- Protection : Protection « n »
- Compliant with the ATEX 94/9/EC directive and standards IEC 60079-0, IEC 60079-15, IEC 60079-31




## MAIN REFERENCES

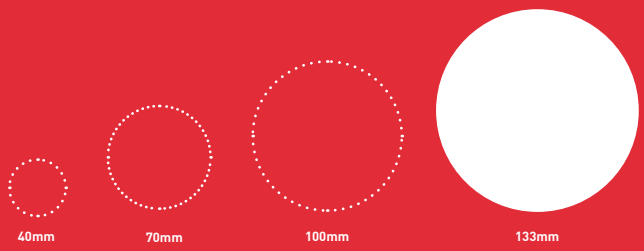
| POWER | FLUX (lm) | DESIGNATION | CODE | OPTICS | COLOUR TEMPERATURE (K) | L (mm) | WEIGHT (kg) |
|---|---|---|---|---|---|---|---|
| **VERSIONS WITH BOROSILICATE GLASS HOUSING** | | | | | | | |
| | | **Equivalent to 1x36W T8** | | | | | |
| **24W** | 2775 | HUT100 13H830 PY 113 | 1985 0050 | | 3000 | 1007 | 5,1 |
| **24W** | 2775 | HUT100 13H840 PY 113 | 1985 0060 | | 4000 | 1007 | 5,1 |
| | | **Equivalent to 1x58W T8** | | | | | |
| **40W** | 4625 | HUT100 15H830 PY 113 | 1985 0070 | | 3000 | 1607 | 7,8 |
| **40W** | 4625 | HUT100 15H840 PY 113 | 1985 0080 | | 4000 | 1607 | 7,8 |
| **VERSIONS WITH COEXTRUDED POLYCARBONATE / PMMA HOUSING** | | | | | | | |
| | | **Equivalent to 1x36W T8** | | | | | |
| **24W** | 2775 | HUT100 13H830 POME 113 | 1985 0090 | | 3000 | 1007 | 3,2 |
| **24W** | 2775 | HUT100 13H840 POME 113 | 1985 0100 | | 4000 | 1007 | 3,2 |
| | | **Equivalent to 1x58W T8** | | | | | |
| **40W** | 4625 | HUT100 15H830 POME 113 | 1985 0110 | | 3000 | 1607 | 4,5 |
| **40W** | 4625 | HUT100 15H840 POME 113 | 1985 0120 | | 4000 | 1607 | 4,5 |

## OPTIONS

| DESCRIPTION | OPTION CODE |
|---|---|
| **CABLE ENTRIES** | |
| 1 or 2 cable glands in black polyamide | |
| Cable Ø: 8-13 mm | 113/213 |
| Cable Ø: 10-15 mm | 116/216 |
| **1 cable gland in black polyamide and 1 blind plug (Hole Ø : 20 mm)** | |
| Cable Ø: 8-13 mm | 113-1B |
| Cable Ø: 10-15 mm | 116-1B |
| **1 or 2 cable glands in nickel-coated brass** | |
| Cable Ø : 5-14 mm | 113LN/213LN |

| DESCRIPTION | OPTION CODE |
|---|---|
| **FINISHINGS** | |
| End caps and fixing straps in 316L stainless steel | MR |
| **FIXINGS** | |
| Reinforced bolt-fitted fixing straps with HSHC screw* | BRV |
| (*Tamper-resistant Torx screw on request) | |
| **ACCESSOIRES** | |
| Protective covers | |
| Fixing for columns | |

**Option codes to be added or to replace the designation codes of main references, subject to the compatibility of options.**


ZONES 2, 21 AND 22 - INCREASED RESISTANCE - GENERAL LIGHTING -40°C/40°C - LED – 5550 TO 9250 LM

# HUTTON 133

## IMPERVIOUS TUBULAR LUMINAIRE FOR DEMANDING EXPLOSIVE ENVIRONMENTS WITH WIDE OPERATING TEMPERATURE RANGE

**LED TECHNOLOGY**
Low in maintenance
Instantaneous full light output on ignition over the entire temperature range of use
Designed for repeated switching on and off

**TUBULAR**
Increased mechanical resistance
Easy to clean
Limited dirt accumulation
360° orientation

**IMPERVIOUS (IP68/IP69K)**
Absolute imperviousness
No internal dust accumulation
Maximum light output
Adapted for pressure cleaning

**ROBUST**
Mechanical assembly insensitive to external mechanical and/or chemical aggression

**DURABLE**
High resistance to shocks and corrosion
Single piece casing, material and components selected to ensure long-term investment

| | |
|---|---|
| ELECTRICAL CLASS | CLASS 1 |
| FIRE RESISTANCE | |
| Coex. polycarbonate/PMMA | 650°C |
| Borosilicate glass | non-flammable |
| PROTECTION | IP68/IP69K |
| SHOCK RESISTANCE | |
| Coex. polycarbonate/PMMA | IK10 |
| Borosilicate glass | IK07 |
| OPERATING TEMPERATURE | -40°C +40°C |

ZONES 2, 21, 22

CE 0080
II 3G Ex nA IIC T4 Gc
II 2D Ex tb IIIC T80°C Db IP66/IP68

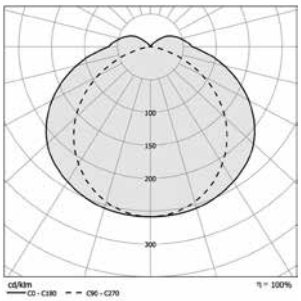
## DESCRIPTION

**HOUSING**
- Ø135 mm diffuser in borosilicate glass for corrosive environments
- Also available in coextruded polycarbonate/PMMA for chemically aggressive environments and outdoor lighting
- End caps 1/2 ring press-formed in 304L stainless steel (316L also available)
- Gaskets moulded in silicone
- Cable entry with cable gland
- Possibility for a model with 2 cable entries for looping-in (2 cable glands with stopper plug or 1 cable gland and 1 blind plug at the same cap)

**GEAR TRAY WITH LED**
- White powder coated gear tray
- Light mixing chamber
- Aluminium heat sink
- Optical diffuser
- High-efficiency LED moduls (145 lm/W)
- Service life: 50,000 hours L80/B50
- Colour temperature: 3000 K or 4000 K
- CRI > 80
- Integrated LED-Driver 220-240V 50/60Hz with constant current output, specifically designed for operation over a wide temperature range

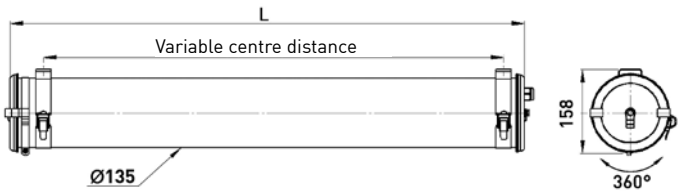
**INSTALLATION - MAINTENANCE**
- Off-load opening in an explosive environment
- Connection to a 3x2,5mm² terminal block
- Attachment with 2 bolt-fitted stainless steel straps with variable centre distance and allowing 360° orientation (available as a reinforced model and/or with closure by HSHC screw)
- Maintenance: release the 2 closing screws, remove the end cap and extract the gear tray
- Electronic components (LED and driver) have a very long lifetime (50,000 hours) and can be easily replaced to extend the life of the luminaire and contribute to the sustainability of the investment and to environmental protection.

## PHOTOMETRY



## PROTECTION AGAINST EXPLOSION

- Protection : Protection « n »
- Compliant with the ATEX 94/9/EC directive and standards IEC 60079-0, IEC 60079-15, IEC 60079-31




## MAIN REFERENCES

| POWER | FLUX (lm) | DESIGNATION | CODE | OPTICS | COLOUR TEMPERATURE (K) | L (mm) | WEIGHT (kg) |
|---|---|---|---|---|---|---|---|
| **VERSIONS WITH BOROSILICATE GLASS HOUSING** | | | | | | | |
| | | **Equivalent to 2x36W T8** | | | | | |
| **48W** | 5550 | HUT133 23H830 PY 113 | 1986 0010 |  | 3000 | 987 | 8,5 |
| **48W** | 5550 | HUT133 23H840 PY 113 | 1986 0020 | | 4000 | 987 | 8,5 |
| | | **Equivalent to 2x58W T8** | | | | | |
| **80W** | 9250 | HUT133 25H830 PY 113 | 1986 0030 |  | 3000 | 1587 | 10,5 |
| **80W** | 9250 | HUT133 25H840 PY 113 | 1986 0040 | | 4000 | 1587 | 10,5 |
| **VERSIONS WITH COEXTRUDED POLYCARBONATE / PMMA HOUSING** | | | | | | | |
| | | **Equivalent to 2x36W T8** | | | | | |
| **48W** | 5550 | HUT133 23H830 POME 113 | 1986 0050 |  | 3000 | 987 | 4,4 |
| **48W** | 5550 | HUT133 23H840 POME 113 | 1986 0060 | | 4000 | 987 | 4,4 |
| | | **Equivalent to 2x58W T8** | | | | | |
| **80W** | 9250 | HUT133 25H830 POME 113 | 1986 0070 |  | 3000 | 1587 | 5,8 |
| **80W** | 9250 | HUT133 25H840 POME 113 | 1986 0080 | | 4000 | 1587 | 5,8 |

## OPTIONS

| DESCRIPTION | OPTION CODE |
|---|---|
| **CABLE ENTRIES** | |
| 1 or 2 cable glands in black polyamide | |
| Cable Ø: 8-13 mm | 113/213 |
| Cable Ø: 10-15 mm | 116/216 |
| **1 cable gland in black polyamide and 1 blind plug (Hole Ø : 20 mm)** | |
| Cable Ø: 8-13 mm | 113-1B |
| Cable Ø: 10-15 mm | 116-1B |
| **1 or 2 cable glands in nickel-coated brass** | |
| Cable Ø : 5-14 mm | 113LN/213LN |

| DESCRIPTION | OPTION CODE |
|---|---|
| **FINISHINGS** | |
| End caps and fixing straps in 316L stainless steel | MR |
| **FIXINGS** | |
| Reinforced bolt-fitted fixing straps with HSHC screw* | BRV |
| (*Tamper-resistant Torx screw on request) | |
| **ACCESSOIRES** | |
| Protective covers | |
| Fixing for columns | |

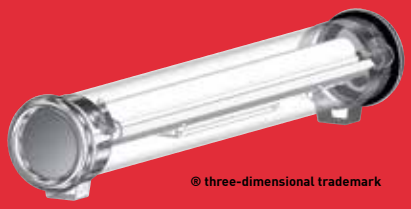
**Option codes to be added or to replace the designation codes of main references, subject to the compatibility of options.**

# Task lighting

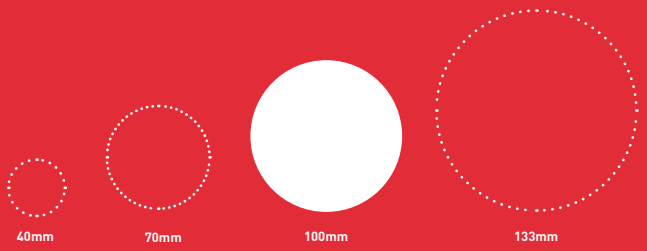
Thanks to their small size, these products can be fitted in confined spaces and easily pointed at the area to be lit. They offer the best compromise between size and the right amount of light.

## Selection guide

| | Product | Flux | Glass diffuser | Coextruded diffuser |
|---|---|---|---|---|
| **TASK LIGHTING** | | | | |
| Normal environments | Jamin 100 | 1850lm | | x |
| Harsh environments | Boyle 100 | 1850lm | x | x |
| Low temperatures -40°C | Hutton 100 | 1850lm | x | x |



® three-dimensional trademark




## ZONES 2, 21 AND 22 - EASY MAINTENANCE - TASK LIGHTING -20°C/40°C - LED – 1850 LM

# JAMIN 100

## EASY MAINTENANCE COMPACT IMPERVIOUS TUBULAR LIGHT FITTING FOR EXPLOSIVE ENVIRONMENTS

**LED TECHNOLOGY**
Low in maintenance
Instantaneous full light output on ignition over the entire temperature range of use
Designed for repeated switching on and off

**TUBULAR**
Increased mechanical resistance
Easy to clean
Limited dirt accumulation
360° orientation

**IMPERVIOUS (IP68/IP69K)**
Absolute imperviousness
No internal dust accumulation
Maximum light output
Adapted for pressure cleaning

**EASY MAINTENANCE**
Easy opening and closing with just one screw

**DURABLE**
High resistance to shocks and corrosion
Single piece casing, material and components selected to ensure long-term investment

| | |
|---|---|
| ELECTRICAL CLASS | CLASS 1 |
| FIRE RESISTANCE | 650°C |
| PROTECTION | IP68/IP69K |
| SHOCK RESISTANCE | IK10 |
| OPERATING TEMPERATURE | -20°C +40°C |

ZONES 2, 21, 22

CE 0080
II 3G Ex nA IIC T4 Gc
II 2D Ex tb IIIC T80°C Db IP66/IP68

## DESCRIPTION

**HOUSING**
- Ø100 mm coextruded polycarbonate/ PMMA diffuser for chemically aggressive environments environments and outdoor lighting
- End caps 1/2 ring press-formed in 304L stainless steel (316L also available)
- Gaskets moulded in EPDM
- Cable entry with cable gland
- Possibility for a model with 2 cable entries for looping-in (2 cable glands with stopper plug or 1 cable gland and 1 blind plug at the same cap)

**GEAR TRAY WITH LED**
- Gear tray in white powder coated steel
- Light mixing chamber
- Aluminium heat sink
- Optical diffuser
- High-efficiency LED moduls (145 lm/W)

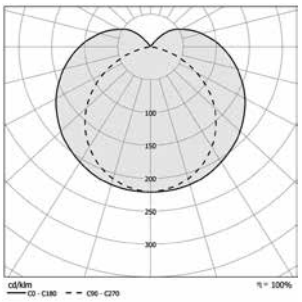
- Service life: 50,000 hours L80/B50
- Colour temperature: 3000 K or 4000 K
- CRI > 80

- Integrated LED-Driver 220-240V 50/60Hz with constant current output

**INSTALLATION - MAINTENANCE**
- Off-load opening in an explosive environment
- Connection to a 3x2,5mm² terminal block
- Attachment with 2 bolt-fitted stainless steel straps with variable centre distance and allowing 360° orientation (available with closure by HSHC screw)
- Maintenance: remove the end-cap and slide the guided gear tray (patented system)
- Electronic components (LED and driver) have a very long lifetime (50,000 hours) and can be easily replaced to extend the life of the luminaire and contribute to the sustainability of the investment and to environmental protection.

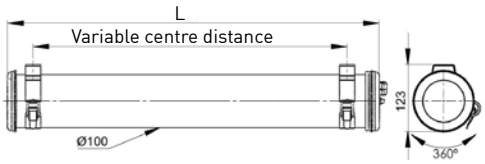
WARRANTY 5 YEARS WARRANTY

## PHOTOMETRY



## PROTECTION AGAINST EXPLOSION

- Protection : Protection « n »
- Compliant with the ATEX 94/9/EC directive and standards IEC 60079-0, IEC 60079-15, IEC 60079-31




## MAIN REFERENCES

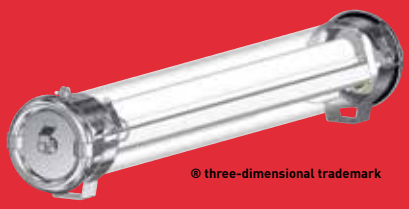
| POWER | FLUX (lm) | DESIGNATION | CODE | OPTICS | COLOUR TEMPERATURE (K) | L (mm) | WEIGHT (kg) |
|---|---|---|---|---|---|---|---|
| **VERSIONS WITH COEXTRUDED POLYCARBONATE / PMMA HOUSING** | | | | | | | |
| **16W** | 1850 | JAM100 12H830 POME 113 | 1987 0010 |  | 3000 | 708 | 2,1 |
| **16W** | 1850 | JAM100 12H840 POME 113 | 1987 0020 | | 4000 | 708 | 2,1 |

## OPTIONS

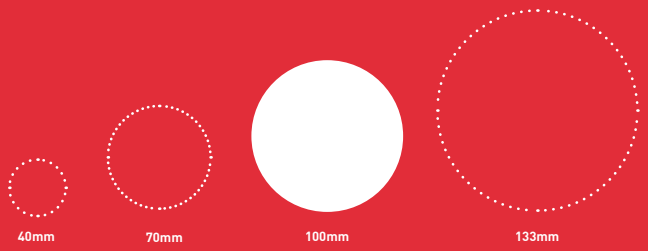
| DESCRIPTION | OPTION CODE |
|---|---|
| **CABLE ENTRIES** | |
| 1 or 2 cable glands in black polyamide | |
| Cable Ø: 8-13 mm | 113/213 |
| Cable Ø: 10-15 mm | 116/216 |
| **1 cable gland in black polyamide and 1 blind plug (Hole Ø : 20 mm)** | |
| Cable Ø: 8-13 mm | 113-1B |
| Cable Ø: 10-15 mm | 116-1B |
| **1 or 2 cable glands in nickel-coated brass** | |
| Cable Ø : 5-14 mm | 113LN/213LN |
| **GEAR UNITS** | |
| 5-point terminal block for phase balancing C5P | C5P |

| DESCRIPTION | OPTION CODE |
|---|---|
| **FINISHINGS** | |
| End caps and fixing straps in 316L stainless steel | MR |
| **FIXINGS** | |
| Reinforced bolt-fitted fixing straps with HSHC screw* | BRV |
| (*Tamper-resistant Torx screw on request) | |
| **ACCESSOIRES** | |
| Protective covers | |
| Fixing for columns | |

**Option codes to be added or to replace the designation codes of main references, subject to the compatibility of options.**



® three-dimensional trademark




## ZONES 2, 21 AND 22 - INCREASED RESISTANCE - TASK LIGHTING -20°C/40°C - LED – 1850 LM

# BOYLE 100

## COMPACT IMPERVIOUS TUBULAR LUMINAIRE FOR DEMANDING EXPLOSIVE ENVIRONMENTS

**LED TECHNOLOGY**
Low in maintenance
Instantaneous full light output on ignition over the entire temperature range of use
Designed for repeated switching on and off

**TUBULAR**
Increased mechanical resistance
Easy to clean
Limited dirt accumulation
360° orientation

**IMPERVIOUS (IP68/IP69K)**
Absolute imperviousness
No internal dust accumulation
Maximum light output
Adapted for pressure cleaning

**ROBUST**
Mechanical assembly insensitive to external mechanical and/or chemical aggression

**DURABLE**
High resistance to shocks and corrosion
Single piece casing, material and components selected to ensure long-term investment

| | |
|---|---|
| ELECTRICAL CLASS | CLASS 1 |
| FIRE RESISTANCE | |
| Coex. polycarbonate/PMMA | 650°C |
| Borosilicate glass | non-flammable |
| PROTECTION | IP68/IP69K |
| SHOCK RESISTANCE | |
| Coex. polycarbonate/PMMA | IK10 |
| Borosilicate glass | IK07 |
| OPERATING TEMPERATURE | -20°C +40°C |

ZONES 2, 21, 22

CE 0080
II 3G Ex nA IIC T4 Gc
II 2D Ex tb IIIC T80°C Db IP66/IP68

## DESCRIPTION

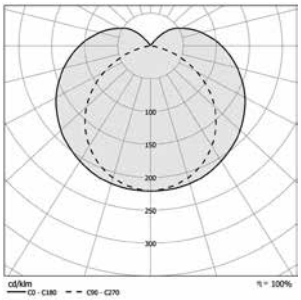
**HOUSING**
- Ø100 mm diffuser in borosilicate glass for corrosive environments
- Also available in coextruded polycarbonate/PMMA for chemically aggressive environments and outdoor lighting
- End caps 1/2 ring press-formed in 304L stainless steel (316L also available)
- Gaskets moulded in EPDM
- Cable entry with cable gland
- Possibility for a model with 2 cable entries for looping-in (2 cable glands with stopper plug or 1 cable gland and 1 blind plug at the same cap)

**GEAR TRAY WITH LED**
- Gear tray in white powder coated steel
- Light mixing chamber
- Aluminium heat sink
- Optical diffuser
- High-efficiency LED moduls (145 lm/W)
- Service life: 50,000 hours L80/B50
- Colour temperature: 3000 K or 4000 K
- CRI > 80
- Integrated LED-Driver 220-240V 50/60Hz with constant current output

**INSTALLATION - MAINTENANCE**
- Off-load opening in an explosive environment
- Connection to a 3x2,5mm² terminal block
- Attachment with 2 bolt-fitted stainless steel straps with variable centre distance and allowing 360° orientation (available with closure by HSHC screw)
- Maintenance: release the 2 closing screws, remove the end cap and extract the gear
- Electronic components (LED and driver) have a very long lifetime (50,000 hours) and can be easily replaced to extend the life of the luminaire and contribute to the sustainability of the investment and to environmental protection.

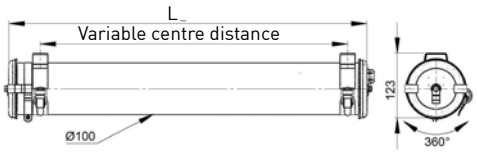
WARRANTY 5 YEARS WARRANTY

## PHOTOMETRY



## PROTECTION AGAINST EXPLOSION

- Protection : Protection « n »
- Compliant with the ATEX 94/9/EC directive and standards IEC 60079-0, IEC 60079-15, IEC 60079-31




## MAIN REFERENCES

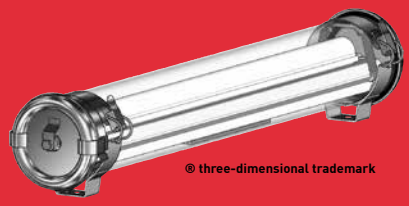
| POWER | FLUX (lm) | DESIGNATION | CODE | OPTICS | COLOUR TEMPERATURE (K) | L (mm) | WEIGHT (kg) |
|---|---|---|---|---|---|---|---|
| **VERSIONS WITH BOROSILICATE GLASS HOUSING** | | | | | | | |
| **16W** | 1850 | BOY100 12H830 PY 113 | 1983 0010 |  | 3000 | 697 | 3,0 |
| **16W** | 1850 | BOY100 12H840 PY 113 | 1983 0020 | | 4000 | 697 | 3,0 |
| **VERSIONS WITH COEXTRUDED POLYCARBONATE / PMMA HOUSING** | | | | | | | |
| **16W** | 1850 | BOY100 12H830 POME 113 | 1983 0030 |  | 3000 | 697 | 2,2 |
| **16W** | 1850 | BOY100 12H840 POME 113 | 1983 0040 | | 4000 | 697 | 2,2 |

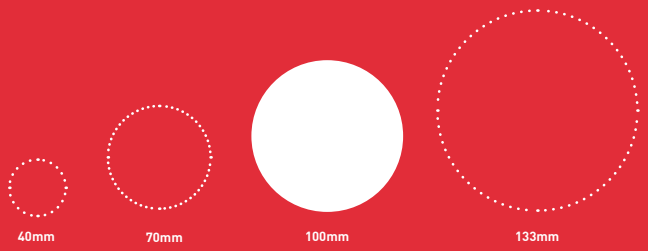
## OPTIONS

| DESCRIPTION | OPTION CODE |
|---|---|
| **CABLE ENTRIES** | |
| 1 or 2 cable glands in black polyamide | |
| Cable Ø: 8-13 mm | 113/213 |
| Cable Ø: 10-15 mm | 116/216 |
| **1 cable gland in black polyamide and 1 blind plug (Hole Ø : 20 mm)** | |
| Cable Ø: 8-13 mm | 113-1B |
| Cable Ø: 10-15 mm | 116-1B |
| **1 or 2 cable glands in nickel-coated brass** | |
| Cable Ø : 5-14 mm | 113LN/213LN |
| **GEAR UNITS** | |
| 5-point terminal block for phase balancing C5P | C5P |

| DESCRIPTION | OPTION CODE |
|---|---|
| **FINISHINGS** | |
| End caps and fixing straps in 316L stainless steel | MR |
| **FIXINGS** | |
| Reinforced bolt-fitted fixing straps with HSHC screw* | BRV |
| (*Tamper-resistant Torx screw on request) | |
| **ACCESSOIRES** | |
| Protective covers | |
| Fixing for columns | |

**Option codes to be added or to replace the designation codes of main references, subject to the compatibility of options.**




ZONES 2, 21 AND 22 - INCREASED RESISTANCE - TASK LIGHTING -40°C/40°C - LED – 1850 LM

# HUTTON 100

## COMPACT IMPERVIOUS TUBULAR LUMINAIRE FOR DEMANDING EXPLOSIVE ENVIRONMENTS WIDE OPERATING TEMPERATURE RANGE

**LED TECHNOLOGY**
Low in maintenance
Instantaneous full light output on ignition over the entire temperature range of use
Designed for repeated switching on and off

**TUBULAR**
Increased mechanical resistance
Easy to clean
Limited dirt accumulation
360° orientation

**IMPERVIOUS (IP68/IP69K)**
Absolute imperviousness
No internal dust accumulation
Maximum light output
Adapted for pressure cleaning

**ROBUST**
Mechanical assembly insensitive to external mechanical and/or chemical aggression

**DURABLE**
High resistance to shocks and corrosion
Single piece casing, material and components selected to ensure long-term investment

| | |
|---|---|
| ELECTRICAL CLASS | CLASS 1 |
| FIRE RESISTANCE | |
| Coex. polycarbonate/PMMA | 650°C |
| Borosilicate glass | non-flammable |
| PROTECTION | IP68/IP69K |
| SHOCK RESISTANCE | |
| Coex. polycarbonate/PMMA | IK10 |
| Borosilicate glass | IK07 |
| OPERATING TEMPERATURE | -40°C +40°C |

ZONES 2, 21, 22

CE 0080
II 3G Ex nA IIC T4 Gc
II 2D Ex tb IIIC T80°C Db IP66/IP68

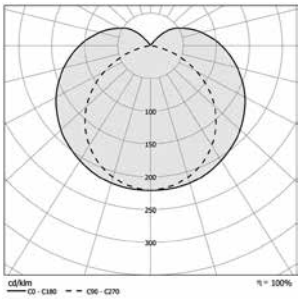
## DESCRIPTION

**HOUSING**
- Ø100 mm diffuser in borosilicate glass for corrosive environments
- Also available in coextruded polycarbonate/PMMA for chemically aggressive environments and outdoor lighting
- End caps 1/2 ring press-formed in 304L stainless steel (316L also available)
- Gaskets moulded in silicone
- Cable entry with cable gland
- Possibility for a model with 2 cable entries for looping-in (2 cable glands with stopper plug or 1 cable gland and 1 blind plug at the same cap)

**GEAR TRAY WITH LED**
- White powder coated gear tray
- Light mixing chamber
- Aluminium heat sink
- Optical diffuser
- High-efficiency LED moduls (140 lm/W)
- Service life: 50,000 hours L80/B50
- Colour temperature: 3000 K or 4000 K
- CRI> 80
- Integrated LED-Driver 220-240V 50/60Hz with constant current output, specifically designed for operation over a wide temperature range

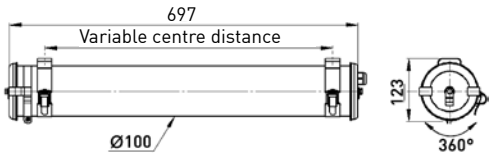
**INSTALLATION - MAINTENANCE**
- Off-load opening in an explosive environment
- Connection to a 3x2,5mm² terminal block
- Attachment with 2 bolt-fitted stainless steel straps with variable centre distance and allowing 360° orientation (available as a reinforced model and/or with closure by HSHC screw)
- Maintenance: release the 2 closing screws, remove the end cap and extract the gear tray
- Electronic components (LED and driver) have a very long lifetime (50,000 hours) and can be easily replaced to extend the life of the luminaire and contribute to the sustainability of the investment and to environmental protection.

## PHOTOMETRY



## PROTECTION AGAINST EXPLOSION

- Protection : Protection « n »
- Compliant with the ATEX 94/9/EC directive and standards IEC 60079-0, IEC 60079-15, IEC 60079-31




## MAIN REFERENCES

| POWER | FLUX (lm) | DESIGNATION | CODE | OPTICS | COLOUR TEMPERATURE (K) | WEIGHT (kg) |
|---|---|---|---|---|---|---|
| **VERSIONS WITH BOROSILICATE GLASS HOUSING** | | | | | | |
| **18W** | 1850 | HUT100 12H830 PY 113 | 1985 0010 |  | 3000 | 3,2 |
| **18W** | 1850 | HUT100 12H840 PY 113 | 1985 0020 | | 4000 | 3,2 |
| **VERSIONS WITH COEXTRUDED POLYCARBONATE / PMMA HOUSING** | | | | | | |
| **18W** | 1850 | HUT100 12H830 POME 113 | 1985 0030 |  | 3000 | 2,4 |
| **18W** | 1850 | HUT100 12H840 POME 113 | 1985 0040 | | 4000 | 2,4 |

## OPTIONS

| DESCRIPTION | OPTION CODE |
|---|---|
| **CABLE ENTRIES** | |
| 1 or 2 cable glands in black polyamide | |
| Cable Ø: 8-13 mm | 113/213 |
| Cable Ø: 10-15 mm | 116/216 |
| **1 cable gland in black polyamide and 1 blind plug (Hole Ø : 20 mm)** | |
| Cable Ø: 8-13 mm | 113-1B |
| Cable Ø: 10-15 mm | 116-1B |
| **1 or 2 cable glands in nickel-coated brass** | |
| Cable Ø : 5-14 mm | 113LN/213LN |

| DESCRIPTION | OPTION CODE |
|---|---|
| **FINISHINGS** | |
| End caps and fixing straps in 316L stainless steel | MR |
| **FIXINGS** | |
| Reinforced bolt-fitted fixing straps with HSHC screw* | BRV |
| (*Tamper-resistant Torx screw on request) | |
| **ACCESSOIRES** | |
| Protective covers | |
| Fixing for columns | |

**Option codes to be added or to replace the designation codes of main references, subject to the compatibility of options.**

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