



Sammode
Technical lighting since 1927



explosive environments

Lighting

CLASSIFICATION OF THE ZONES

GAS AND VAPOURS	DUST	PRESENCE OF EXPLOSIVE ATMOSPHERE
ZONE 0	ZONE 20	
Category 1G	Category 1D	Permanent
ZONE 1	ZONE 21	
Category 2G	Category 2D	Occasional
ZONE 2	ZONE 22	
Category 3G	Category 3D	Accidental

PROTECTION METHODS

Increased safety “e”: the electrical equipment is designed to ensure the total absence of any source of inflammation, inside or outside the unit. Temperature class is based on the temperature of the hottest point of the complete unit (inside and outside) and not just the case.

Protection “n”: the electrical equipment is designed to ensure the total absence of any external source of inflammation (spark, hot surface) in normal operation.
Temperature class is based on the maximum temperature of the external surface of the case. This protection is generally reserved for zones 2 or 22.

Lighting

in ATEX areas

Sammode, recognised provider of specialised lighting for ATEX environments, is expanding its range by offering more robust and durable solutions. In addition to providing lighting satisfying our clients' increasingly complex requirements and conditions of use, we will introduce you to our range of general lighting for normal and harsh environments, as well as our floodlights and self-contained luminaires.

PRODUCT GUIDE	Luminaire	Gas		Dust	
		Zone 1	Zone 2	Zone 21	Zone 22
GENERAL LIGHTING					
Normal environments	KEPLER		x	x	x
	LAMARCK	x	x	x	x
Harsh environments	DAVY		x	x	x
	HOPKINS	x	x	x	x
FLOODLIGHT					
	HUYGENS SILO			x	x
SELF-CONTAINED					
	HOPKINS SC	x	x	x	x

DEFINITION

NORMAL ENVIRONMENTS

Installations in normal environments are exposed to:

- the risk of shocks
- the risk of flooding or splashing
- UV radiation
- etc.

HARSH ENVIRONMENTS

These environments are characterised by:

- strong and continuous vibration
- pollution from hydrocarbons and fats
- corrosion due to salt spray
- abrasion
- etc.





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40 mm



70 mm



100 mm



133 mm

ZONES 2, 21 AND 22 - EASY MAINTENANCE - 1 T8 LAMP

KEPLER 100

EASY MAINTENANCE IMPERVIOUS TUBULAR LIGHT FITTING FOR EXPLOSIVE ENVIRONMENTS

TUBULAR

Increased mechanical resistance

Easy to clean

Limited dirt accumulation

360° orientation

IMPERVIOUS (IP68)

Absolute imperviousness

No internal dust accumulation

Maximum light output

Adapted for pressure cleaning

EASY MAINTENANCE

Easy opening and closing with just one screw

Relamping without need to remove the gear tray

DURABLE

High resistance to corrosion and external aggression

Robustness of the housing, quality of the materials and components: long-term investment

DESCRIPTION

HOUSING

- Ø100 mm coextruded polycarbonate/PMMA diffuser for outdoor lighting and chemically aggressive environments
- 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

- White powder coated steel sheet gear tray, indexed in rotation and lockable
- Hot cathode electronic gear unit (EEI A2)
- Industrial electronic ballast for difficult environments available
- Internal wiring with silicone isolation braided with glass fibre

REFLECTORS

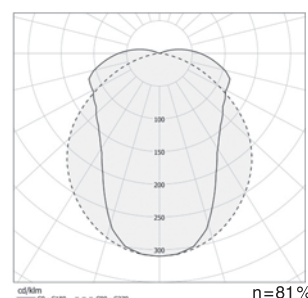
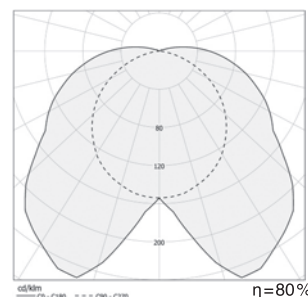
- White powder-coated gear tray acting as a reflector for general diffused lighting
- Range of technical reflectors in mirror finish aluminium sheeting available

INSTALLATION - MAINTENANCE

- Off-load opening in an explosive environment
- Connection to a 3x2,5mm² terminal block fixed to the removable end cap
- 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: remove the end-cap and slide the guided gear tray (patented system)

PHOTOMETRY

- 1• Model with extensive reflector
- 2• Model with intensive reflector



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

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



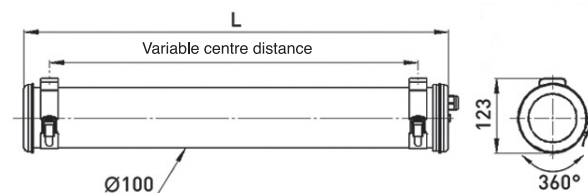
ZONES 2, 21 AND 22

CE 0080

II 3G Ex nA IIC T4 Gc

II 2D Ex tb IIIC T80°C Db IP68





MAIN REFERENCES – ELECTRONIC BALLAST VERSION

POWER	DESIGNATION	CODE	OPTICS	L(mm)	WEIGHT(kg)
Version without reflector					
1x18W	KEP100 118E G13 POME 113	1940 0160		708	2,7
1x36W	KEP100 136E G13 POME 113	1940 0170		1318	4,2
1x58W	KEP100 158E G13 POME 113	1940 0180		1618	5,3
Version with intensive reflector					
1x18W	KEP100 118E G13 POME 113 RI	1940 0190		708	2,7
1x36W	KEP100 136E G13 POME 113 RI	1940 0200		1318	4,2
1x58W	KEP100 158E G13 POME 113 RI	1940 0210		1618	5,3
Version with extensive reflector					
1x18W	KEP100 118E G13 POME 113 RE	1940 0220		708	2,7
1x36W	KEP100 136E G13 POME 113 RE	1940 0230		1318	4,2
1x58W	KEP100 158E G13 POME 113 RE	1940 0240		1618	5,3

MAIN REFERENCES – INDUSTRIAL ELECTRONIC BALLAST VERSION

POWER	DESIGNATION	CODE	OPTICS	L(mm)	WEIGHT(kg)
Version without reflector					
1x36W	KEP100 136I G13 POME 113	1940 0250		1318	4,2
1x58W	KEP100 158I G13 POME 113	1940 0260		1618	5,3
Version with intensive reflector					
1x36W	KEP100 136I G13 POME 113 RI	1940 0270		1318	4,2
1x58W	KEP100 158I G13 POME 113 RI	1940 0280		1618	5,3
Version with extensive reflector					
1x36W	KEP100 136I G13 POME 113 RE	1940 0290		1318	4,2
1x58W	KEP100 158I G13 POME 113 RE	1940 0300		1618	5,3

OPTIONS

DESCRIPTION	OPTION CODE	DESCRIPTION	OPTION CODE
CABLE ENTRIES		FINISHINGS	
1 or 2 cable glands in black polyamide		End caps and fixing straps in 316L stainless steel	MR
Cable Ø: 8-13 mm	113/213	FIXINGS	
Cable Ø: 10-15 mm	116/216	Reinforced bolt-fitted fixing straps	BRS
1 cable gland in black polyamide and 1 blind plug (Hole Ø : 20 mm)		Fixing straps with HSHC screw*	BAV
Cable Ø: 8-13 mm	113-1B	Reinforced bolt-fitted fixing straps with HSHC screw*	BRV
Cable Ø: 10-15 mm	116-1B	(*Tamper-resistant Torx screw on request)	
1 or 2 cable glands in nickel-coated brass		ACCESSORIES	
Ø câble : 5-14 mm	113LN/213LN	Protective covers	
GEAR UNIT		Fixing for columns	
5-point terminal block for phase balancing	C5P		

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



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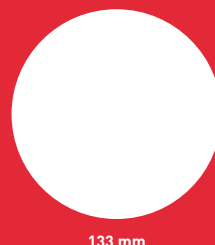
40 mm



70 mm



100 mm



133 mm

ZONES 2, 21 AND 22 - EASY MAINTENANCE - 2 T8 LAMPS

KEPLER 133

EASY MAINTENANCE IMPERVIOUS TUBULAR LIGHT FITTING FOR EXPLOSIVE ENVIRONMENTS

TUBULAR

Increased mechanical resistance

Easy to clean

Limited dirt accumulation

360° orientation

IMPERVIOUS (IP68)

Absolute imperviousness

No internal dust accumulation

Maximum light output

Adapted for pressure cleaning

EASY MAINTENANCE

Easy opening and closing with just one screw

Relamping without need to remove the gear tray

DURABLE

High resistance to corrosion and external aggression

Robustness of the housing, quality of the materials and components: long-term investment

DESCRIPTION

HOUSING

- Ø133 mm coextruded polycarbonate/PMMA diffuser for outdoor lighting and chemically aggressive environments
- 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

- White powder coated steel sheet gear tray, indexed in rotation and lockable
- Hot cathode electronic gear unit (EEI A2)
- Industrial electronic ballast for difficult environments available
- Internal wiring with silicone isolation braided with glass fibre

REFLECTORS

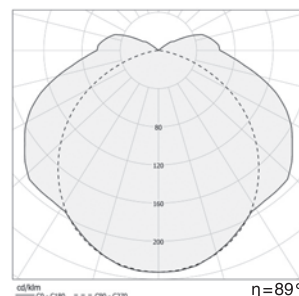
- White powder-coated gear tray acting as a reflector for general diffused lighting
- Range of technical reflectors in mirror finish aluminium sheeting available

INSTALLATION - MAINTENANCE

- Off-load opening in an explosive environment
- Connection to a 3x2,5mm² terminal block fixed to the removable end cap
- 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: remove the end-cap and slide the guided gear tray (patented system)

PHOTOMETRY

1• Model with extensive reflector



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

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



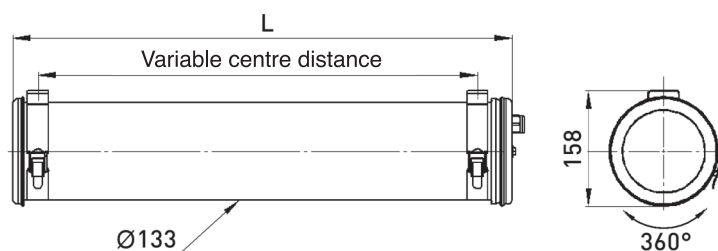
ZONES 2, 21 AND 22

CE 0080

II 3G Ex nA IIC T4 Gc

II 2D Ex tb IIIC T80°C Db IP68





MAIN REFERENCES – ELECTRONIC BALLAST VERSION

POWER	DESIGNATION	CODE	OPTICS	L(mm)	WEIGHT(kg)
Version without reflector					
2x18W	KEP133 218E G13 POME 113	1942 0250		745	2,9
2x36W	KEP133 236E G13 POME 113	1942 0260		1355	4,5
2x58W	KEP133 258E G13 POME 113	1942 0270		1655	5,3
Version with intensive reflector					
2x18W	KEP133 218E G13 POME 113 RE	1942 0280		745	2,9
2x36W	KEP133 236E G13 POME 113 RE	1942 0290		1355	4,5
2x58W	KEP133 258E G13 POME 113 RE	1942 0300		1655	5,3

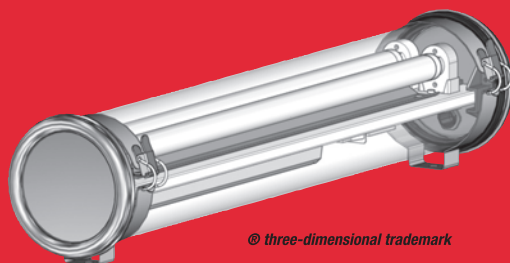
MAIN REFERENCES – INDUSTRIAL ELECTRONIC BALLAST VERSION

POWER	DESIGNATION	CODE	OPTICS	L(mm)	WEIGHT(kg)
Version without reflector					
2x36W	KEP133 236I G13 POME 113	1942 0310		1355	4,5
2x58W	KEP133 258I G13 POME 113	1942 0320		1655	5,3
Version with intensive reflector					
2x36W	KEP133 236I G13 POME 113 RE	1942 0330		1355	4,5
2x58W	KEP133 258I G13 POME 113 RE	1942 0340		1655	5,3

OPTIONS

DESCRIPTION	OPTION CODE	DESCRIPTION	OPTION CODE
CABLE ENTRIES		FINISHINGS	
1 or 2 cable glands in black polyamide		End caps and fixing straps in 316L stainless steel	MR
Cable Ø: 8-13 mm	113/213	FIXINGS	
Cable Ø: 10-15 mm	116/216	Reinforced bolt-fitted fixing straps	BRS
1 cable gland in black polyamide and 1 blind plug (Hole Ø : 20 mm)		Fixing straps with HSHC screw*	BAV
Cable Ø: 8-13 mm	113-1B	Reinforced bolt-fitted fixing straps with HSHC screw*	BRV
Cable Ø: 10-15 mm	116-1B	(*Tamper-resistant Torx screw on request)	
1 or 2 cable glands in nickel-coated brass		ACCESSORIES	
Ø câble : 5-14 mm	113LN/213LN	Protective covers	
GEAR UNIT		Fixing for columns	
5-point terminal block for phase balancing	C5P		

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



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40 mm



70 mm



100 mm



133 mm

ZONES 1, 2, 21 AND 22 - EASY MAINTENANCE - 1 OR 2 T8 LAMPS

LAMARCK 133

EASY MAINTENANCE IMPERVIOUS TUBULAR LIGHT FITTING FOR EXPLOSIVE ENVIRONMENTS

TUBULAR

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

IMPERVIOUS (IP68)

Absolute imperviousness
No internal dust accumulation
Maximum light output
Adapted for pressure cleaning

EASY MAINTENANCE

Easy opening and closing with just one screw
Relamping without need to remove the gear tray

DURABLE

High resistance to corrosion and external aggression
Robustness of the housing, quality of the materials and components:
long-term investment

ELECTRICAL CLASS	CLASS 1
FIRE RESISTANCE	650°C
PROTECTION	IP68
SHOCK RESISTANCE	IK10
OPERATING TEMPERATURE	-20°C TO 40°C



ZONES 1, 2, 21 AND 22

CE 0080

II 2G Ex e mb IIC T4 Gb

II 2D Ex tb IIIC T65°C Db IP68

DESCRIPTION

HOUSING

- Ø133 mm coextruded polycarbonate/PMMA diffuser for outdoor lighting and chemically aggressive environments
- 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

- White powder coated steel sheet gear tray, indexed in rotation and lockable
- Electronic gear unit with increased safety
- Gear unit with EOL (end of life) function
- Internal wiring with silicone isolation braided with glass fibre

REFLECTORS

- White powder-coated gear tray acting as a reflector for general diffused lighting
- Range of technical reflectors in mirror finish aluminium sheeting available

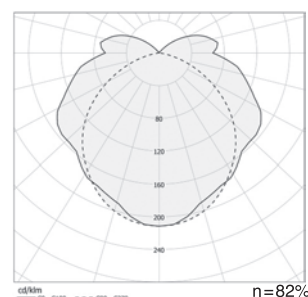
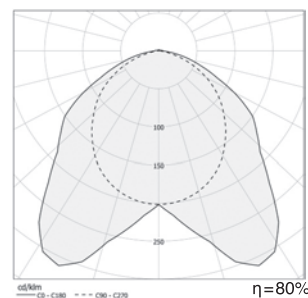
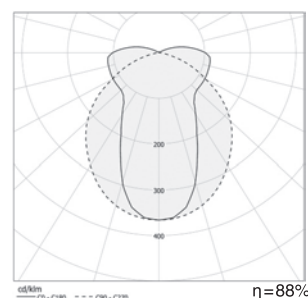
INSTALLATION - MAINTENANCE

- Opening without voltage in an explosive environment
- Connection to 3x2,5 mm² disconnectable 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: remove the end-cap and slide the guided gear plate out (patented system)



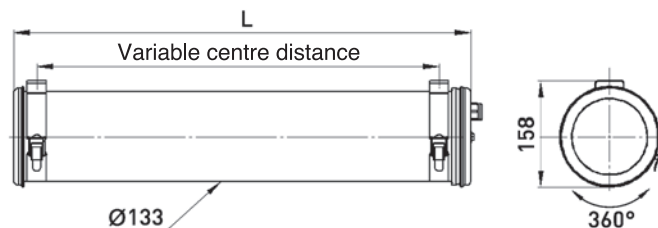
PHOTOMETRY

- 1• 1-T8-lamp with intensive reflector
- 2• 1-T8-lamp model with extensive reflector
- 3• 2-T8-lamp model with extensive reflector



PROTECTION AGAINST EXPLOSION



- Protection: increased safety
- Compliant with the ATEX 94/9/EC directive and standards EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-18, EN 60079-31



MAIN REFERENCES - 1-LAMP MODEL

POWER	DESIGNATION	CODE	OPTICS	L (mm)	WEIGHT (kg)
Version without reflector					
1x18W	LAM133 118E G13 POME 113	1931 0340		745	3,7
1x36W	LAM133 136E G13 POME 113	1931 0350		1355	5,7
1x58W	LAM133 158E G13 POME 113	1931 0360		1655	6,3
Version with intensive reflector					
1x18W	LAM133 118E G13 POME 113 RI	1931 0370		745	3,7
1x36W	LAM133 136E G13 POME 113 RI	1931 0380		1355	5,7
1x58W	LAM133 158E G13 POME 113 RI	1931 0390		1655	6,3
Version with extensive reflector					
1x18W	LAM133 118E G13 POME 113 RE	1931 0400		745	3,7
1x36W	LAM133 136E G13 POME 113 RE	1931 0410		1355	5,7
1x58W	LAM133 158E G13 POME 113 RE	1931 0420		1655	6,3

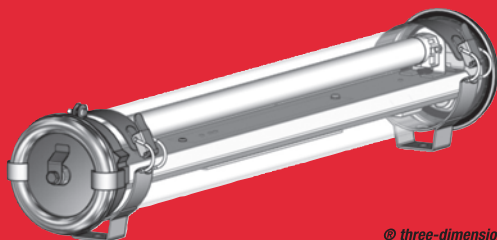
MAIN REFERENCES - 2-LAMP MODEL

POWER	DESIGNATION	CODE	OPTICS	L (mm)	WEIGHT (kg)
Version without reflector					
2x18W	LAM133 218E G13 POME 113	1932 0570		745	3,9
2x36W	LAM133 236E G13 POME 113	1932 0580		1355	5,9
2x58W	LAM133 258E G13 POME 113	1932 0590		1655	6,8
Version with extensive reflector					
2x18W	LAM133 218E G13 POME 113 RE	1932 0600		745	3,9
2x36W	LAM133 236E G13 POME 113 RE	1932 0610		1355	5,9
2x58W	LAM133 258E G13 POME 113 RE	1932 0620		1655	6,8

OPTIONS

DESCRIPTION	OPTION CODE	DESCRIPTION	OPTION CODE
CABLE ENTRIES		FINISHINGS	
1 or 2 cable glands in black polyamide		End caps and fixing straps in 316L stainless steel	MR
Cable Ø: 8-13 mm	113/213	FIXINGS	
Cable Ø: 10-15 mm	116/216	Reinforced bolt-fitted fixing straps	BRS
1 cable gland in black polyamide and 1 blind plug (Ø 20mm)		Fixing straps with HSHC screw*	BAV
Cable Ø: 8-13 mm	113-1B	Reinforced bolt-fitted fixing straps with HSHC screw*	BRV
Cable Ø: 10-15 mm	116-1B	(*Tamper-resistant Torx screw on request)	
1 or 2 cable glands in nickel-coated brass		ACCESSORIES	
Cable Ø: 5-14 mm	113LN/213LN	Protective covers	
OPTICS		Fixing for columns	
Reflector	R		
Level reflector (1-lamp versions)	RN		
GEAR UNIT			
5-point terminal block for phase balancing	C5P		

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



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40 mm



70 mm



100 mm



133 mm

ZONES 2, 21 AND 22 - REINFORCED RESISTANCE- BOROSILICATE GLASS - 1 LAMP T8

DAVY 100

IMPERVIOUS LIGHT FITTING FOR DIFFICULT EXPLOSIVE ENVIRONMENTS

TUBULAR

Increased mechanical resistance

Easy to clean

Limited dirt accumulation

360° orientation

IMPERVIOUS (IP68)

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

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

- White powder coated steel sheet gear tray
- Hot cathode electronic gear unit (EEI A2)
- Industrial electronic ballast for difficult environments available
- Internal wiring with silicone isolation braided with glass fibre

REFLECTORS

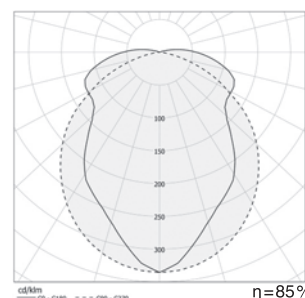
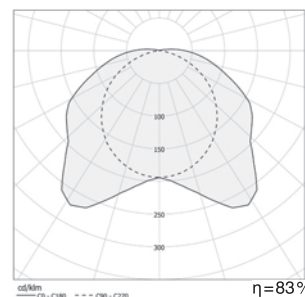
- White powder-coated gear tray acting as a reflector for general diffused lighting
- Range of technical reflectors in mirror finish aluminium sheeting available

INSTALLATION - MAINTENANCE

- Off-load opening in an explosive environment
- Connection to a 3x2,5mm² terminal block fixed to the removable end cap
- 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: remove the end-cap, unlock and extract the gear tray

PHOTOMETRY

- 1• Model with extensive reflector
- 2• Model with intensive reflector



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

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



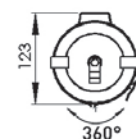
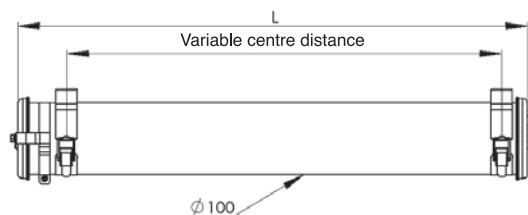
ZONES 2, 21 AND 22

CE 0080

II 3G Ex nA IIC T4 Gc

II 2D Ex tb IIIC T80°C Db IP68





MAIN REFERENCES – ELECTRONIC BALLAST VERSION

POWER	DESIGNATION	CODE	OPTICS	L(mm)	WEIGHT(kg)
Version without reflector					
1x18W	DAV100 118E G13 PY 113 BRS	1981 0311		697	3,7
1x36W	DAV100 136E G13 PY 113 BRS	1981 0321		1307	6,0
1x58W	DAV100 158E G13 PY 113 BRS	1981 0331		1607	7,6
Version with intensive reflector					
1x18W	DAV100 118E G13 PY 113 RI BRS	1981 0341		697	3,7
1x36W	DAV100 136E G13 PY 113 RI BRS	1981 0351		1307	6,0
1x58W	DAV100 158E G13 PY 113 RI BRS	1981 0361		1607	7,6
Version with extensive reflector					
1x18W	DAV100 118E G13 PY 113 RE BRS	1981 0371		697	3,7
1x36W	DAV100 136E G13 PY 113 RE BRS	1981 0381		1307	6,0
1x58W	DAV100 158E G13 PY 113 RE BRS	1981 0391		1607	7,6

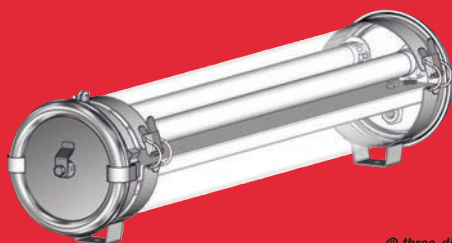
MAIN REFERENCES – INDUSTRIAL ELECTRONIC BALLAST VERSION

POWER	DESIGNATION	CODE	OPTICS	L(mm)	WEIGHT(kg)
Version without reflector					
1x36W	DAV100 136I G13 PY 113 BRS	1981 0401		1307	6,0
1x58W	DAV100 158I G13 PY 113 BRS	1981 0411		1607	7,6
Version with intensive reflector					
1x36W	DAV100 136I G13 PY 113 RI BRS	1981 0421		1307	6,0
1x58W	DAV100 158I G13 PY 113 RI BRS	1981 0431		1607	7,6
Version with extensive reflector					
1x36W	DAV100 136I G13 PY 113 RE BRS	1981 0441		1307	6,0
1x58W	DAV100 158I G13 PY 113 RE BRS	1981 0451		1607	7,6

OPTIONS

DESCRIPTION	OPTION CODE	DESCRIPTION	OPTION CODE
CABLE ENTRIES		DIFFUSERS	
1 or 2 cable glands in black polyamide		Coex. polycarbonate/PMMA diffuser	POME
Cable Ø: 8-13 mm	113/213	FINISHINGS	
Cable Ø: 10-15 mm	116/216	End caps and fixing straps in 316L stainless steel	MR
1 cable gland in black polyamide and 1 blind plug (Hole Ø : 20 mm)		FIXINGS	
Cable Ø: 8-13 mm	113-1B	Reinforced bolt-fitted fixing straps with HSHC screw* (*Tamper-resistant Torx screw on request)	BRV
Cable Ø: 10-15 mm	116-1B	ACCESSORIES	
1 or 2 cable glands in nickel-coated brass		Protective covers	
Ø câble : 5-14 mm	113LN/213LN	Fixing for columns	
GEAR UNIT			
5-point terminal block for phase balancing	C5P		

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



© three-dimensional trademark



40 mm



70 mm



100 mm



133 mm

ZONES 2, 21 AND 22 - REINFORCED RESISTANCE- BOROSILICATE GLASS - 2 LAMPS T8

DAVY 133

IMPERVIOUS LIGHT FITTING FOR DIFFICULT EXPLOSIVE ENVIRONMENTS

TUBULAR

Increased mechanical resistance

Easy to clean

Limited dirt accumulation

360° orientation

IMPERVIOUS (IP68)

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

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

- White powder coated steel sheet gear tray
- Hot cathode electronic gear unit (EEI A2)
- Industrial electronic ballast for difficult environments available
- Internal wiring with silicone isolation braided with glass fibre

REFLECTORS

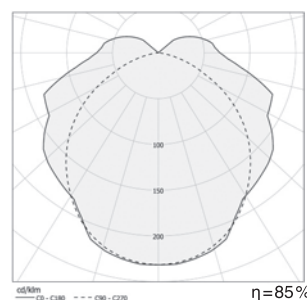
- White powder-coated gear tray acting as a reflector for general diffused lighting
- Range of technical reflectors in mirror finish aluminium sheeting available

INSTALLATION - MAINTENANCE

- Off-load opening in an explosive environment
- Connection to a 3x2,5mm² terminal block fixed to the removable end cap
- 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: remove the end-cap, unlock and extract the gear tray

PHOTOMETRY

1• Model with extensive reflector



$\eta=85\%$

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

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



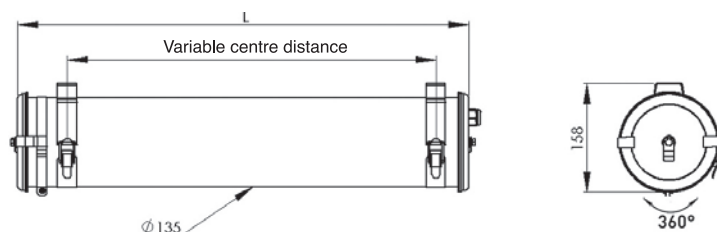
ZONES 2, 21 AND 22

CE 0080

II 3G Ex nA IIC T4 Gc

II 2D Ex tb IIIC T80°C Db IP68





MAIN REFERENCES – ELECTRONIC BALLAST VERSION

POWER	DESIGNATION	CODE	OPTICS	L(mm)	WEIGHT(kg)
Version without reflector					
2x18W	DAV133 218E G13 PY 113 BRS	1982 0211		677	5,0
2x36W	DAV133 236E G13 PY 113 BRS	1982 0221		1287	9,1
2x58W	DAV133 258E G13 PY 113 BRS	1982 0231		1587	10,8
Version with extensive reflector					
2x18W	DAV133 218E G13 PY 113 RE BRS	1982 0241		677	5,0
2x36W	DAV133 236E G13 PY 113 RE BRS	1982 0251		1287	9,1
2x58W	DAV133 258E G13 PY 113 RE BRS	1982 0261		1587	10,8

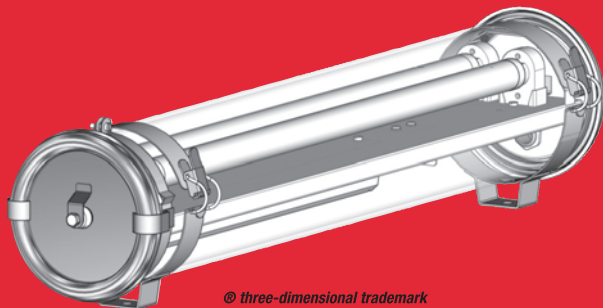
MAIN REFERENCES – INDUSTRIAL ELECTRONIC BALLAST VERSION

POWER	DESIGNATION	CODE	OPTICS	L(mm)	WEIGHT(kg)
Version without reflector					
2x36W	DAV133 236I G13 PY 113 BRS	1982 0271		1287	9,1
2x58W	DAV133 258I G13 PY 113 BRS	1982 0281		1587	10,8
Version with extensive reflector					
2x36W	DAV133 236I G13 PY 113 RE BRS	1982 0291		1287	9,1
2x58W	DAV133 258I G13 PY 113 RE BRS	1982 0301		1587	10,8

OPTIONS

DESCRIPTION	OPTION CODE	DESCRIPTION	OPTION CODE
CABLE ENTRIES		DIFFUSERS	
1 or 2 cable glands in black polyamide		Coex. polycarbonate/PMMA diffuser	POME
Cable Ø: 8-13 mm	113/213	FINISHINGS	
Cable Ø: 10-15 mm	116/216	End caps and fixing straps in 316L stainless steel	MR
1 cable gland in black polyamide and 1 blind plug (Hole Ø : 20 mm)		FIXINGS	
Cable Ø: 8-13 mm	113-1B	Reinforced bolt-fitted fixing straps with HSHC screw*	BRV
Cable Ø: 10-15 mm	116-1B	(*Tamper-resistant Torx screw on request)	
1 or 2 cable glands in nickel-coated brass		ACCESSORIES	
Ø câble : 5-14 mm	113LN/213LN	Protective covers	
GEAR UNIT		Fixing for columns	
5-point terminal block for phase balancing	C5P		

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



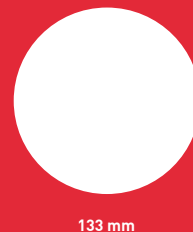
40 mm



70 mm



100 mm



133 mm

ZONES 1, 2, 21 AND 22 - REINFORCED RESISTANCE - BOROSILICATE GLASS 1 OR 2 T8 LAMPS

HOPKINS 133

IMPERVIOUS EMERGENCY LIGHT FITTING FOR DIFFICULT EXPLOSIVE ENVIRONMENTS

TUBULAR

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

IMPERVIOUS (IP68)

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

DESCRIPTION

HOUSING

- Ø133 mm borosilicate glass diffuser for corrosive environments
- Also available in coextruded polycarbonate/PMMA for outdoor lighting and chemically aggressive environments
- 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 cables entries for looping-in (2 cable glands with stopper plug or 1 cable gland and 1 blind plug at the same cap)

GEAR TRAY

- White powder coated steel sheet gear tray
- Electronic gear unit with increased safety
- Gear unit with EOL (end of life) function
- Internal wiring with silicone isolation braided with glass fibre

REFLECTORS

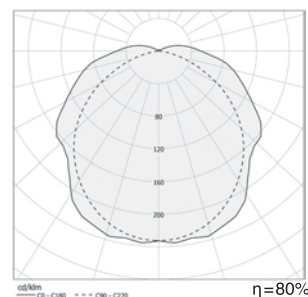
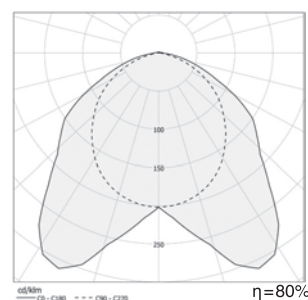
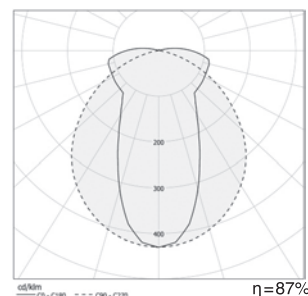
- White powder-coated gear tray acting as a reflector for general diffused lighting
- Range of technical reflectors in mirror finish aluminium sheeting available

INSTALLATION - MAINTENANCE

- Off-load opening in an explosive environment
- Connection to the gear tray via a 3x4mm² detachable and lockable 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

PHOTOMETRY

- 1• 1-T8-lamp model with intensive reflector
- 2• 1-T8-lamp model with extensive reflector
- 3• 2-T8-lamp model with extensive reflector



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



ZONES 1, 2, 21 AND 22

CE 0080

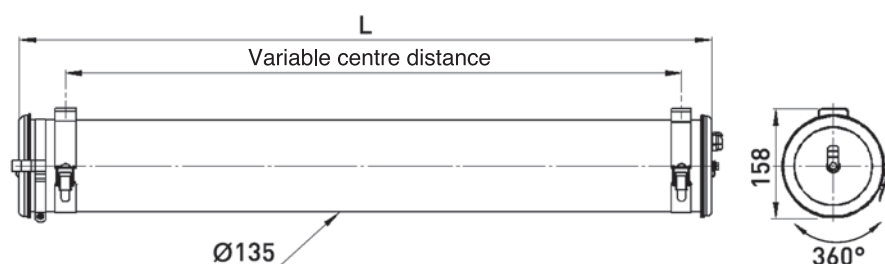
II 2G Ex e mb IIC T4 Gb

II 2D Ex tb IIIC T65°C Db IP68



PROTECTION AGAINST EXPLOSION

- Protection: increased safety
- Compliant with the ATEX 94/9/EC directive and standards
EN 60079-0, EN 60079-1,
EN 60079-7, EN 60079-18,
EN 60079-31



MAIN REFERENCES - 1-LAMP MODEL

POWER	DESIGNATION	CODE	OPTICS	L(mm)	WEIGHT(kg)
Version without reflector					
1x18W	HOP133 118E G13 PY 113 BRS	1963 0011		745	5,9
1x36W	HOP133 136E G13 PY 113 BRS	1963 0021		1355	10,4
1x58W	HOP133 158E G13 PY 113 BRS	1963 0031		1655	11,9
Version with intensive reflector					
1x18W	HOP133 118E G13 PY 113 RI BRS	1963 0051		745	5,9
1x36W	HOP133 136E G13 PY 113 RI BRS	1963 0061		1355	10,4
1x58W	HOP133 158E G13 PY 113 RI BRS	1963 0071		1655	11,9
Version with extensive reflector					
1x18W	HOP133 118E G13 PY 113 RE BRS	1963 0081		745	5,9
1x36W	HOP133 136E G13 PY 113 RE BRS	1963 0091		1355	10,4
1x58W	HOP133 158E G13 PY 113 RE BRS	1963 0101		1655	11,9

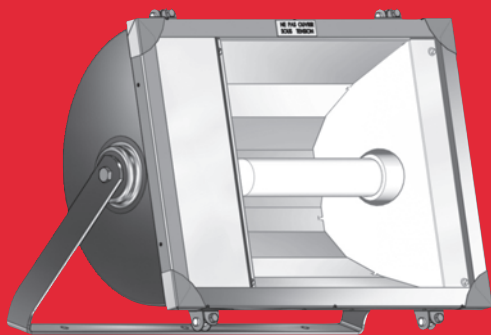
MAIN REFERENCES - 2-LAMP MODEL

POWER	DESIGNATION	CODE	OPTICS	L(mm)	WEIGHT(kg)
Version without reflector					
2x18W	HOP133 218E G13 PY 113 BRS	1964 0011		745	6,1
2x36W	HOP133 236E G13 PY 113 BRS	1964 0021		1355	10,6
2x58W	HOP133 258E G13 PY 113 BRS	1964 0031		1655	12,4
Version with extensive reflector					
2x18W	HOP133 218E G13 PY 113 RE BRS	1964 0161		745	6,1
2x36W	HOP133 236E G13 PY 113 RE BRS	1964 0041		1355	10,6
2x58W	HOP133 258E G13 PY 113 RE BRS	1964 0171		1655	12,4

OPTIONS

DESCRIPTION	OPTION CODE	DESCRIPTION	OPTION CODE
DIFFUSERS		GEAR UNIT	
Coex. polycarbonate/PMMA diffuser	POME	5-point terminal block for phase balancing	C5P
CABLE ENTRIES		FINISHINGS	
1 or 2 cable glands in black polyamide		End caps and fixing straps in 316L stainless steel	MR
Cable Ø: 8-13 mm	113/213	FIXINGS	
Cable Ø: 10-15 mm	116/216	Reinforced bolt-fitted fixing straps	BRS
1 cable gland in black polyamide and 1 blind plug		(*Tamper-resistant Torx screw on request)	
Cable Ø: 8-13 mm	113-1B	ACCESSORIES	
Cable Ø: 10-15 mm	116-1B	Protective covers	
1 or 2 cable glands in nickel-coated brass		Fixing for columns	
Cable Ø: 5-14 mm	113LN/213LN		
OPTICS			
Reflector	R		
Level reflector (1-lamp versions)	RN		

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



ZONES 21 AND 22 - 1 HPS E40 LAMP

HUYGENS SILO

IMPERVIOUS STAINLESS STEEL FLOODLIGHT WITH SYMMETRICAL OPTIC

ROBUST

High resistance to corrosion and external aggression

IMPERVIOUSNESS (IP65)

No internal dust accumulation
Maximum light output

DURABLE

316L stainless steel model adapted to use in an industrial or marine environment

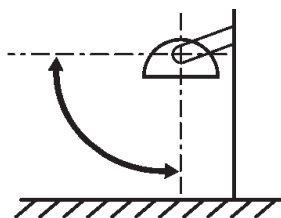
ELECTRICAL CLASS CLASS 1
PROTECTION IP65
OPERATING TEMPERATURE -20°C TO 40°C



ZONES 21 and 22

CE 0080

II 2D Ex tb IIIC T138°C Db IP65



Operating position



DESCRIPTION

MATERIALS

- 304L stainless steel housing and protective frame
- Double cover, internal tempered safety glass and external polycarbonate protection (incompatible with metal halide lamps)
- Silicone gasket
- Stainless steel 304L fixing bracket
- Cable entry with inverted nickel-coated brass cable gland

GEAR TRAY

- Model with integrated gear unit for clear, tubular, high-pressure sodium lamps

REFLECTORS

- Symmetric optics in mirror finish aluminium
- Versions also available in extensive (RE), semi-intensive (RSI) or intensive (RI) lighting

INSTALLATION – MAINTENANCE

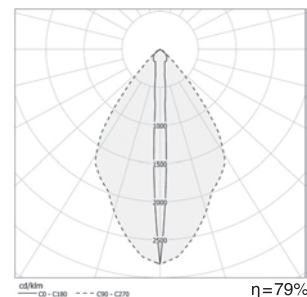
- Easy to open the front side with the integrated pressure compensation diaphragm (avoids the suction effect)
- Connection to 3x2.5 mm² terminal block
- Electric power cable: Ø of 7.5 to 13 mm
- Protection with internal cutout
- Fixing at three points using a stainless steel bracket
- Standard projector model for wall mounting (~90° orientation)

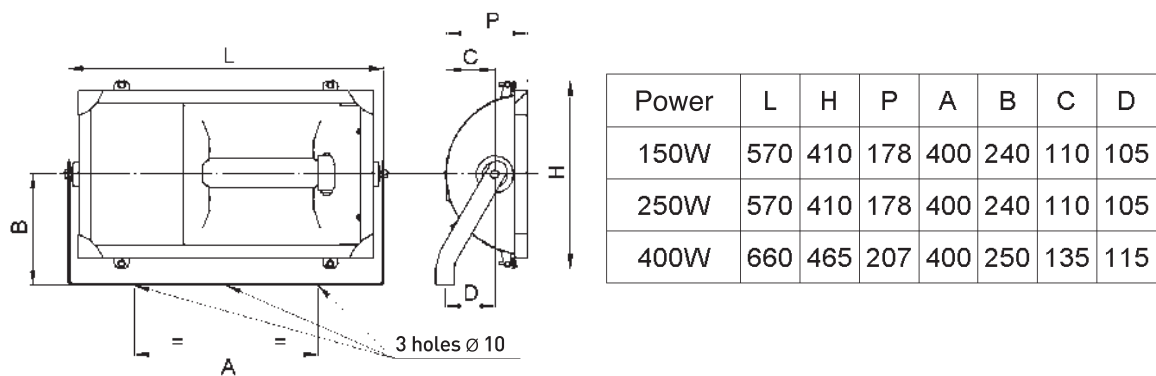
PROTECTION AGAINST EXPLOSION

Compliant with ATEX directive 94/9/EC and standards EN 60079-0, EN 60079-31

PHOTOMETRY

- 1• Extensive reflector
- 2• Semi-intensive reflector
- 3• Intensive reflector



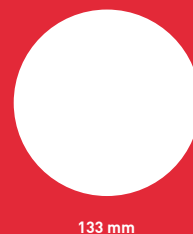
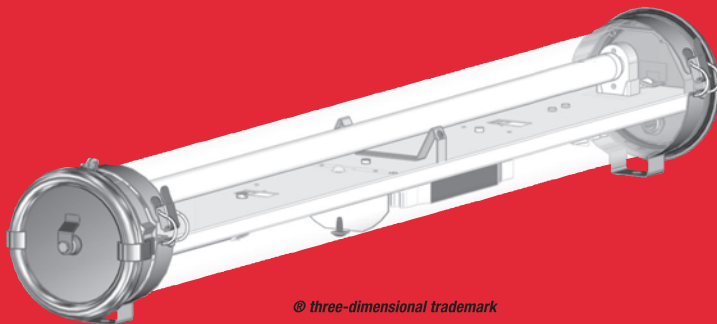


MAIN REFERENCES

POWER	DESIGNATION	CODE	WEIGHT(KG)
150W	HUY3-D 150 SHP E40 113 RE	1913 0010	13
250W	HUY3-D 250 SHP E40 113 RE	1913 0020	13,5
400W	HUY4-D 400 SHP E40 113 RE	1914 0010	18

OPTIONS

DESCRIPTION	OPTION CODE	DESCRIPTION	OPTION CODE
OPTICS		FINISHINGS	
Extensive reflector	RE	316L stainless steel quality	MR
Semi-intensive reflector	RSI		
Intensive reflector	RI		



ZONES 1, 2, 21 AND 22 - REINFORCED RESISTANCE - BOROSILICATE GLASS - 1 OR 2 T8 LAMPS

HOPKINS 133 SC

IMPERVIOUS EMERGENCY POWER BACK-UP LIGHT FITTING FOR DIFFICULT EXPLOSIVE ENVIRONMENTS

TUBULAR

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

IMPERVIOUS (IP68)

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 corrosion
Single piece casing, material and components selected to ensure long-term investment

DESCRIPTION

HOUSING

- Ø135 mm borosilicate glass diffuser for corrosive environments
- Also available in crystal quality polycarbonate with anti-UV treatment and excellent shock resistance
- 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

- White powder coated steel sheet gear tray
- Electronic gear unit with increased safety with emergency power lighting of 1 or 3 hours
- Gear unit with EOL (end of life) function and automatic built-in test system
- Internal wiring with silicone isolation braided with glass fibre

REFLECTORS

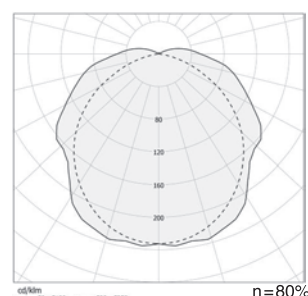
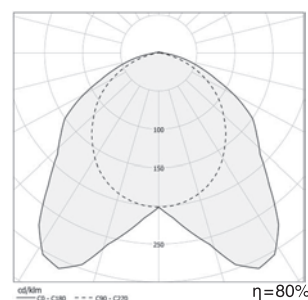
- White powder-coated gear tray acting as a reflector for general diffused lighting
- Range of technical reflectors in mirror finish aluminium sheeting available

INSTALLATION - MAINTENANCE

- Off-load opening in an explosive environment
- Connection to the gear tray via a 4x4mm² detachable and lockable 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

PHOTOMETRY

- 1• 1-T8-lamp model with extensive reflector
- 2• 2-T8 lamp model with extensive reflector



PROTECTION AGAINST EXPLOSION

- Protection: increased safety
- Compliant with the ATEX 94/9/EC directive and standards EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-18, EN 60079-31

REPLACEMENT LICHTING

- Autonomy 1h or 3h
- Automatic test system integrated
- Compliant with the standard EN 60 598-2-22

ELECTRICAL CLASS	CLASS 1
FIRE RESISTANCE	
Polycarbonate	960°C
Borosilicate glass	non-flammable
PROTECTION	IP68
SHOCK RESISTANCE	
Polycarbonate	IK10
Borosilicate glass	IK07
OPERATING TEMPERATURE	0°C TO 30°C



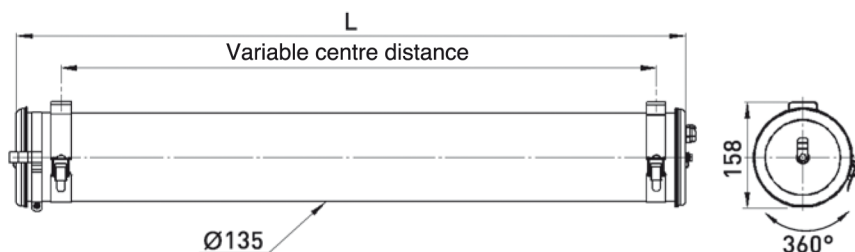
ZONES 1, 2, 21 AND 22

CE 0080

II 2G Ex d e mb IIC T4 Gb

II 2D Ex tb IIIC T65°C Db IP68





MAIN REFERENCES - 1-LAMP MODEL

		EMERGENCY POWER FLUX				
POWER	DESIGNATION	1 LAMP (lm)	CODE	OPTICS	L(mm)	WEIGHT(kg)
1 HOUR OF EMERGENCY POWER						
1x18W	HOP133 S1H 118E G13 PY 113 BRS	130	19670011		1410	10,3
1x36W	HOP133 S1H 136E G13 PY 113 BRS	230	19670041		1410	10,5
1x58W	HOP133 S1H 158E G13 PY 113 BRS	195	19670061		1800	12,1
3 HOURS OF EMERGENCY POWER						
1x18W	HOP133 S3H 118E G13 PY 113 BRS	100	19670021		1410	10,3
1x36W	HOP133 S3H 136E G13 PY 113 BRS	180	19670051		1410	10,5
1x58W	HOP133 S3H 158E G13 PY 113 BRS	150	19670071		1800	12,1

MAIN REFERENCES - 2-LAMP MODEL

		EMERGENCY POWER FLUX				
POWER	DESIGNATION	1 LAMP (lm)	CODE	OPTICS	L(mm)	WEIGHT(kg)
1 HOUR OF EMERGENCY POWER						
2x18W	HOP133 S1H 218E G13 PY 113 BRS	130	19680041		1410	10,7
2x36W	HOP133 S1H 236E G13 PY 113 BRS	230	19680061		1410	10,7
2x58W	HOP133 S1H 258E G13 PY 113 BRS	195	19680071		1800	12,6
3 HOURS OF EMERGENCY POWER						
2x18W	HOP133 S3H 218E G13 PY 113 BRS	100	19680051		1410	10,7
2x36W	HOP133 S3H 236E G13 PY 113 BRS	180	19680011		1410	10,7
2x58W	HOP133 S3H 258E G13 PY 113 BRS	150	19680081		1800	12,6

OPTIONS

DESCRIPTION	OPTION CODE	DESCRIPTION	OPTION CODE
DIFFUSERS		FINISHINGS	
Polycarbonate diffuser	P0	End caps and fixing straps in 316L stainless steel	MR
CABLE ENTRIES		FIXINGS	
1 or 2 cable glands in black polyamide		Reinforced bolt-fitted fixing straps with HSHC screw*	BRV
Cable Ø: 8-13 mm	113/213	(*Tamper-resistant Torx screw on request)	
Cable Ø: 10-15 mm	116/216	ACCESSORIES	
1 cable gland in black polyamide and 1 blind plug		Protective covers	
Cable Ø: 8-13 mm	113-1B	Fixing for columns	
Cable Ø: 10-15 mm	116-1B		
1 or 2 cable glands in nickel-coated brass			
Cable Ø: 5-14 mm	113LN/213LN		
OPTICS			
Intensive reflector (1 lamp versions)	RI		
Extensive reflector	RE		

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



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