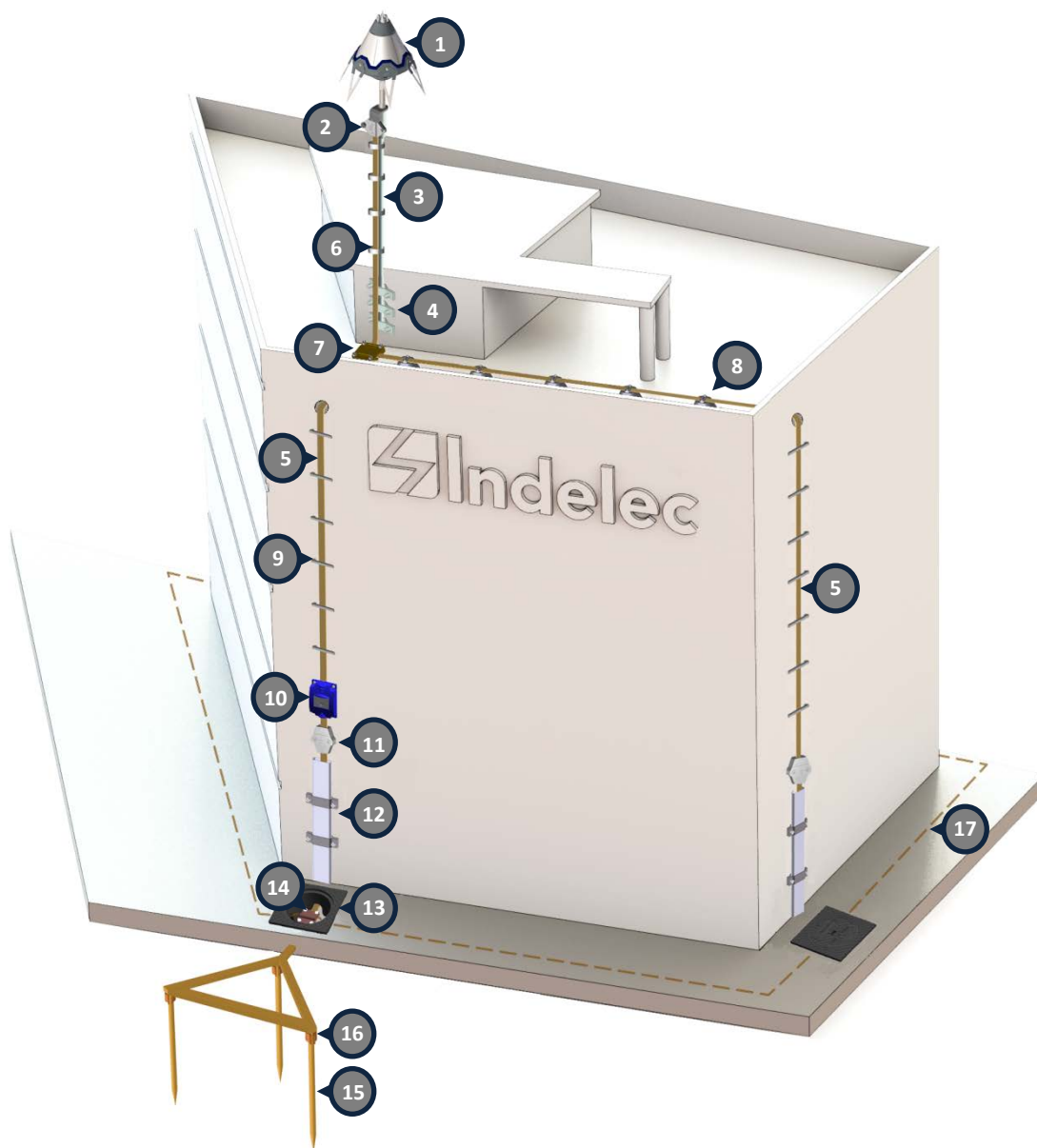


# PREVECTRON®





# ESE Lightning Protection System Typical Installation



- 1 - PREVECTRON® ESE AIR TERMINAL
- 2 - PREVECTRON® TO CONDUCTOR CLAMP
- 3 - ELEVATION MAST
- 4 - MAST BRACKET
- 5 - DOWN CONDUCTORS
- 6 - MAST COLLAR
- 7 - CONDUCTOR CLAMP
- 8 - ROOF CONDUCTOR HOLDER
- 9 - DOWN CONDUCTOR FIXING

- 10 - LIGHTNING FLASH COUNTER
- 11 - TEST CLAMP
- 12 - PROTECTION SHEATH
- 13 - INSPECTION PIT
- 14 - EARTH CLAMP
- 15 - EARTH ROD
- 16 - ROD TO CONDUCTOR CLAMP
- 17 - BUILDING GENERAL EARTHING





# PREVECTRON® 3 S60

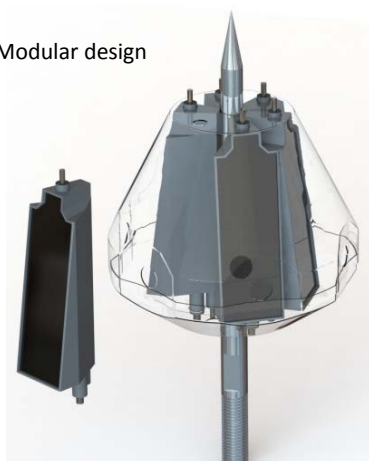
## EARLY STEAMER EMISSION AIR TERMINAL (ESE)

Reference		P1543
Characteristics		
Efficiency	$\Delta T$	60 $\mu s$
Standard deviation ESE / Single Rod	$\sigma$	$\sigma_{PDA} < 0.4 \sigma_{PTS}$
Lightning current withstanding test (10/350 $\mu s$ )	$I_{imp}$	100kA (normative test)
Max. current withstanding test	$I_{max}$	207 kA (Unicamp)
Net Weight	P	3.900 kg
Operating principles		
Detection of download leader		Continuous measuring of electric field gradient ( $\Delta E/\Delta t$ )
Upward streamer development conditions		Patented OPTIMAX® technology optimizing the streamer development conditions
Upward streamer emission		Sparking by High Voltage Impulses
Internal circuits		6 independent and synchronised modules
Central rod		Full electrical continuity 315 mm² section – Nickel plated Copper
Metal housing		Stainless Steel 316, Electromagnetic shielding
On-site testing capabilities		Proprietary tester
Maintenance		Replaceable modules
Warranty		5 years
Mechanical specifications		
Fixing on pole		M20 Thread
Down conductor connection		Specific clamp ref P6500 (included)
Packaging		
Dimensions		438 x 228 x 220 mm
Contents		Prevectron®3, Down conductor clamp, Hex key
Gross Weight		5.650 kg
Environmental sustainability		100% recyclable
Certifications		
NF C 17 102:2011, Annexe C		Bureau Veritas certificate N°6275241/2/1/1
Qualifoudre		Ineris certificate N° N°051166662001
ISO 9001 : 2008		Bureau Veritas certificate N°FR018755-1
CE Marking		Declaration of Conformity N°IND-CE-21092015-A
Underwriter Laboratories (UL)		UL Certified E478687
Rostechnadzor (RTN Russia)		N° RRS 00-05003
Eco -label		AVNIR/In Planet

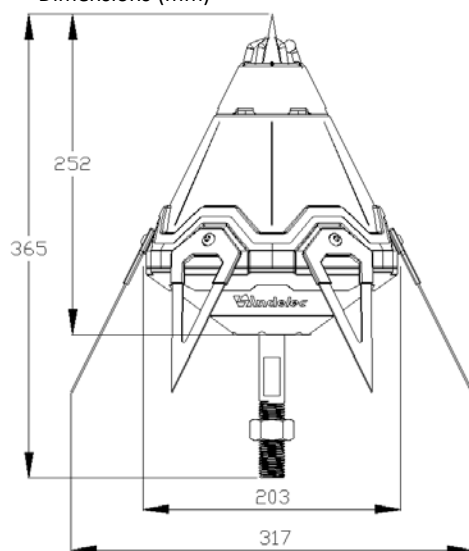
PREVECTRON 3® S60



Modular design



Dimensions (mm)



# PREVECTRON® 3 S50

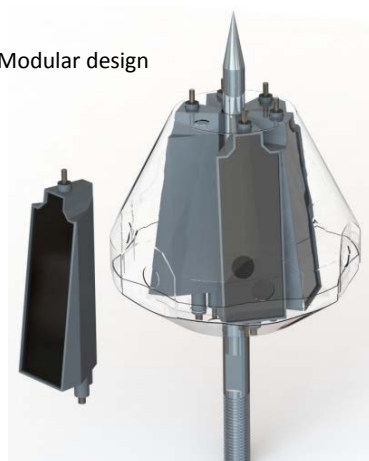
## EARLY STEAMER EMISSION AIR TERMINAL (ESE)

Reference		P1533
Characteristics		
Efficiency	$\Delta T$	50 $\mu s$
Standard deviation ESE / Single Rod	$\sigma$	$\sigma_{PDA} < 0.5 \sigma_{PTS}$
Lightning current withstanding test (10/350 $\mu s$ )	$I_{imp}$	100kA (normative test)
Max. current withstanding test	$I_{max}$	207 kA (Unicamp)
Net Weight	P	3.300 kg
Operating principles		
Detection of download leader		Continuous measuring of electric field gradient ( $\Delta E/\Delta t$ )
Upward streamer development conditions		Patented OPTIMAX® technology optimizing the streamer development conditions
Upward streamer emission		Sparking by High Voltage Impulses
Internal circuits		4 independent and synchronised modules
Central rod		Full electrical continuity 315 mm² section – Nickel plated Copper
Metal housing		Stainless Steel 316, Electromagnetic shielding
On-site testing capabilities		Proprietary tester
Maintenance		Replaceable modules
Warranty		5 years
Mechanical specifications		
Fixing on pole		M20 Thread
Down conductor connection		Specific clamp ref P6500 (included)
Packaging		
Dimensions		438 x 228 x 220 mm
Contents		Prevectron®3, Down conductor clamp, Hex key
Gross Weight		5.050 kg
Environmental sustainability		100% recyclable
Certifications		
NF C 17 102:2011, Annexe C		Bureau Veritas certificate N°6275241/2/1/2
Qualifoudre		Ineris certificate N° N°051166662001
ISO 9001 : 2008		Bureau Veritas certificate N°FR018755-1
CE Marking		Declaration of conformity N°IND-CE-21092015-B
Underwriter Laboratories (UL)		UL Certified E478687
Rostechnadzor (RTN Russia)		N° RRS 00-05003
Eco -label		AVNIR/In Planet

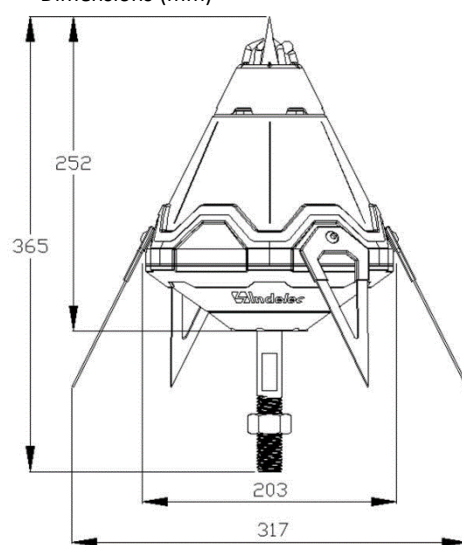
PREVECTRON 3® S50



Modular design



Dimensions (mm)



# PREVECTRON® 3 S40

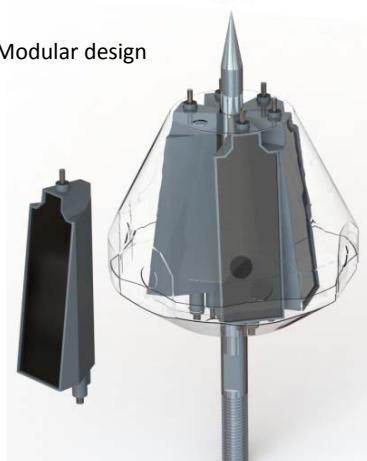
## EARLY STEAMER EMISSION AIR TERMINAL (ESE)

Reference		P1523
Characteristics		
Efficiency	$\Delta T$	40 $\mu s$
Standard deviation ESE / Single Rod	$\sigma$	$\sigma_{PDA} < 0.55 \sigma_{PTS}$
Lightning current withstanding test (10/350 $\mu s$ )	$I_{imp}$	100kA (normative test)
Max. current withstanding test	$I_{max}$	207 kA (Unicamp)
Net Weight	P	3.000 kg
Operating principles		
Detection of download leader		Continuous measuring of electric field gradient ( $\Delta E/\Delta t$ )
Upward streamer development conditions		Patented OPTIMAX® technology optimizing the streamer development conditions
Upward streamer emission		Sparking by High Voltage Impulses
Internal circuits		3 independent and synchronised modules
Central rod		Full electrical continuity 315 mm² section – Nickel plated Copper
Metal housing		Stainless Steel 316, Electromagnetic shielding
On-site testing capabilities		Proprietary tester
Maintenance		Replaceable modules
Warranty		5 years
Mechanical specifications		
Fixing on pole		M20 Thread
Down conductor connection		Specific clamp ref P6500 (included)
Packaging		
Dimensions		438 x 228 x 220 mm
Contents		Prevectron®3, Down conductor clamp, Hex key
Gross Weight		4.750 kg
Environmental sustainability		100% recyclable
Certifications		
NF C 17 102:2011, Annexe C		Bureau Veritas certificate N°6275241/2/1/3
Qualifoudre		Ineris certificate N° N°051166662001
ISO 9001 : 2008		Bureau Veritas certificate N°FR018755-1
CE Marking		Attest report N°IND-CE-21092015-C
Underwriter Laboratories (UL)		UL Certified E478687
Rostechnadzor (RTN Russia)		N° RRS 00-05003
Eco -label		AVNIR/In Planet

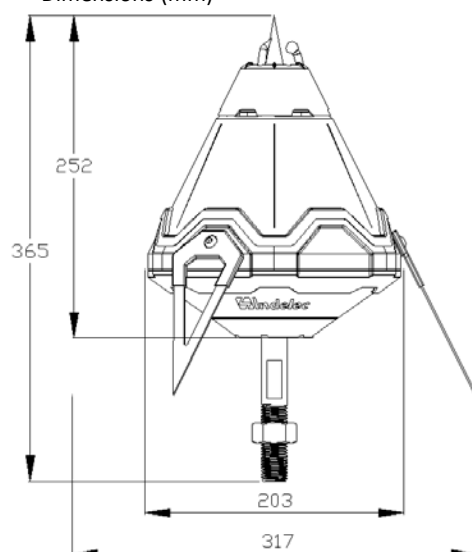
PREVECTRON 3® S40



Modular design



Dimensions (mm)



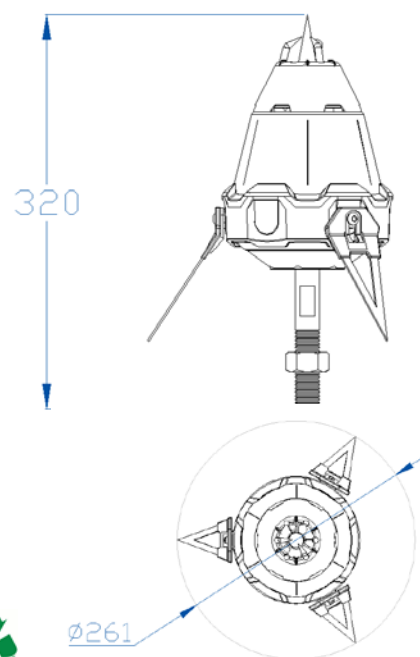
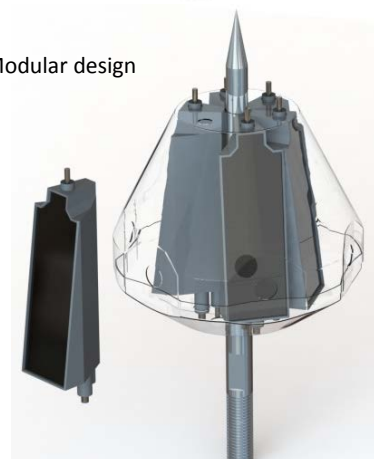
# PREVECTRON® 3Ts 25

## Early Steamer Emission Air terminal

Reference		P1513
Characteristics		
Efficiency	$\Delta T$	25 $\mu s$
Standard deviation ESE / Single Rod	$\sigma$	$\sigma_{PDA} < 0,65 \sigma_{PTS}$
Lightning current withstanding test (10/350 $\mu s$ )	$I_{imp}$	100kA (normative test)
Max. current withstanding test	$I_{max}$	207 kA (Unicamp)
Net Weight	P	2.000 kg
Operating principles		
Detection of download leader	Continuous measuring of electric field gradient ( $\Delta E/\Delta t$ )	
Upward streamer development conditions	Patented OPTIMAX® technology optimizing the streamer development conditions	
Upward streamer emission	Sparking by High Voltage Impulses	
Internal circuits	3 independent and synchronised modules	
Central rod	Full electrical continuity 315 mm² section – Nickel plated Copper	
Metal housing	Stainless Steel 316, Electromagnetic shielding	
On-site testing capabilities	Proprietary tester	
Maintenance	Replaceable modules	
Warranty	5 years	
Mechanical specifications		
Fixing on pole	M20 Thread	
Down conductor connection	Specific clamp ref P6500 (included)	
Packaging		
Dimensions	438 x 228 x 220 mm	
Contents	Prevectron®3, Down conductor clamp, Hex key	
Gross Weight	3.750 kg	
Environmental sustainability	100% recyclable	
Certifications		
NF C 17 102:2011, Annexe C	Bureau Veritas certificate N°6275241/2/1/4	
Qualifoudre	Ineris certificate N° N°051166662001	
ISO 9001 : 2008	Bureau Veritas certificate N°FR018755-1	
CE Marking	Certificate of Conformity N°IND-CE-21092015-D	
Underwriter Laboratories (UL)	UL Certified E478687	
Rostechnadzor (RTN Russia)	N° RRS 00-05003	
Eco -label	AVNIR/In Planet	



Modular design



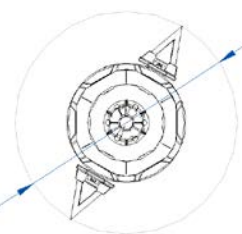
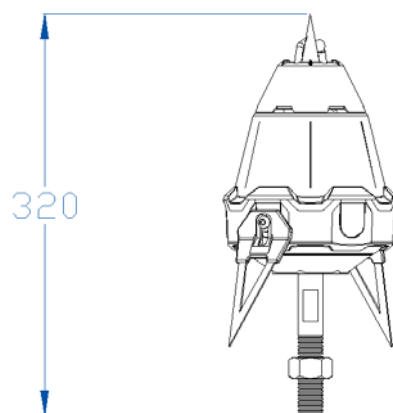
# PREVECTRON® 3Ts 10

## Early Steamer Emission Air terminal

Reference		P1503
Characteristics		
Efficiency	ΔT	10 μs
Standard deviation ESE / Single Rod	σ	σ <sub>PDA</sub> < 0,75 σ <sub>PTS</sub>
Lightning current withstanding test (10/350μs)	I <sub>imp</sub>	100kA (normative test)
Max. current withstanding test	I <sub>max</sub>	207 kA (Unicamp)
Net Weight	P	1.800 kg
Operating principles		
Detection of download leader	Continuous measuring of electric field gradient (ΔE/Δt)	
Upward streamer development conditions	Patented OPTIMAX® technology optimizing the streamer development conditions	
Upward streamer emission	Sparking by High Voltage Impulses	
Internal circuits	2 independent and synchronised modules	
Central rod	Full electrical continuity 315 mm² section – Nickel plated Copper	
Metal housing	Stainless Steel 316, Electromagnetic shielding	
On-site testing capabilities	Proprietary tester	
Maintenance	Replaceable modules	
Warranty	5 years	
Mechanical specifications		
Fixing on pole	M20 Thread	
Down conductor connection	Specific clamp ref P6500 (included)	
Packaging		
Dimensions	438 x 228 x 220 mm	
Contents	Prevectron®3, Down conductor clamp, Hex key	
Gross Weight	3.550 kg	
Environmental sustainability	100% recyclable	
Certifications		
NF C 17 102:2011, Annexe C	Bureau Veritas certificate N°6275241/2/1/5	
Qualifoudre	Ineris certificate N° N°051166662001	
ISO 9001 : 2008	Bureau Veritas certificate N°FR018755-1	
CE Marking	Certificate of Conformity N°IND-CE-21092015-E	
Underwriter Laboratories (UL)	UL Certified E478687	
Rostechnadzor (RTN Russia)	N° RRS 00-05003	
Eco –label	AVNIR/In Planet	



Modular design



Ø261



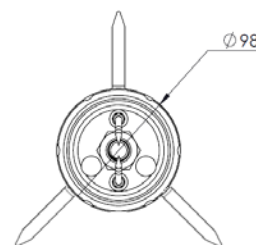
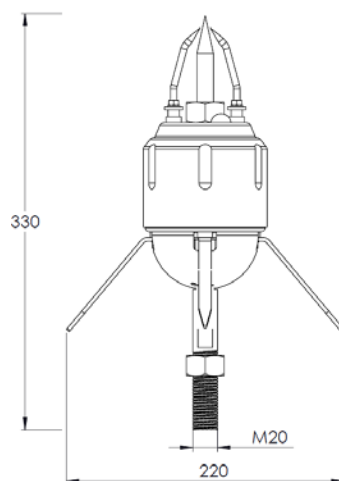


# PREVECTRON® 2 TS3.40 HERITAGE BUILDING EARLY STEAMER EMISSION AIR TERMINAL (ESE)

Reference		P1214
Characteristics		
Efficiency	$\Delta T$	40 $\mu s$
Standard deviation ESE / Single Rod	$\sigma$	$\sigma_{PDA} < 0.8 \sigma_{PTS}$
Lightning current withstanding test (10/350 $\mu s$ )	$I_{imp}$	100kA (normative test)
Net Weight	P	2.268 kg
Operating principles		
Detection of download leader	Continuous measuring of electric field gradient ( $\Delta E/\Delta t$ )	
Upward streamer emission	Sparking by High Voltage Impulses	
Internal circuits	3 independent and redundant circuits	
Central rod	Full electrical continuity 315 mm <sup>2</sup> section – Nickel plated Copper	
Metal housing	Stainless Steel, Electromagnetic shielding	
On-site testing capabilities	Proprietary tester	
Maintenance	Replaceable modules	
Warranty	18 months	
Mechanical specifications		
Fixing on pole	M20 Thread	
Down conductor connection	Specific clamp ref P6500 (included)	
Packaging		
Dimensions	438 x 228 x 220 mm	
Contents	Prevectron®3, Down conductor clamp, Hex key	
Gross Weight	3.138 kg	
Certifications		
NF C 17 102:2011, Annexe C	Bureau Veritas certificate N°2513661/1/7	
Qualifoudre	Ineris certificate N° N°051166662001	
ISO 9001 : 2008	Bureau Veritas certificate N°FR018755-1	



Dimensions (mm)



## Application

Prevectron2 MH on copper Ornament  
Cock « Louis » ref. P10.014



Tester P1290C

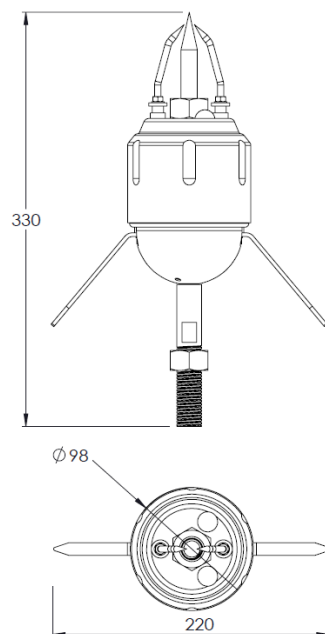


# PREVECTRON® 2 TS2.25 HERITAGE BUILDING EARLY STEAMER EMISSION AIR TERMINAL (ESE)

Reference		P1206C
Characteristics		
Efficiency	$\Delta T$	25 $\mu s$
Standard deviation ESE / Single Rod	$\sigma$	$\sigma_{PDA} < 0.8 \sigma_{PTS}$
Lightning current withstanding test (10/350 $\mu s$ )	$I_{imp}$	100kA (normative test)
Net Weight	P	2.208 kg
Operating principles		
Detection of download leader	Continuous measuring of electric field gradient ( $\Delta E/\Delta t$ )	
Upward streamer emission	Sparking by High Voltage Impulses	
Internal circuits	2 independent and redundant circuits	
Central rod	Full electrical continuity 315 mm <sup>2</sup> section – Nickel plated Copper	
Metal housing	Stainless Steel, Electromagnetic shielding	
On-site testing capabilities	Proprietary tester	
Maintenance	Replaceable modules	
Warranty	18 months	
Mechanical specifications		
Fixing on pole	M20 Thread	
Down conductor connection	Specific clamp ref P6500 (included)	
Packaging		
Dimensions	438 x 228 x 220 mm	
Contents	Prevectron®3, Down conductor clamp, Hex key	
Gross Weight	3.158 kg	
Certifications		
NF C 17 102:2011, Annexe C	Bureau Veritas certificate N°2513661/1/5	
Qualifoudre	Ineris certificate N° N°051166662001	
ISO 9001 : 2008	Bureau Veritas certificate N°FR018755-1	



Dimensions (mm)

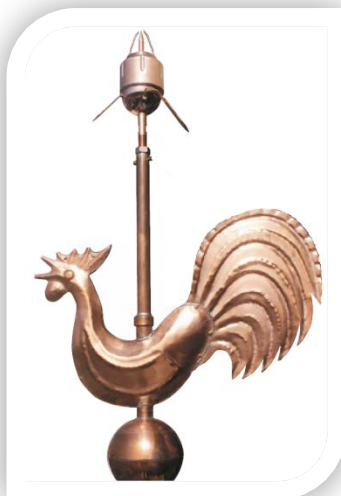


## Application

Prevectron2 MH on copper Ornament Cock « Louis » ref. P10.014



Tester P1290C

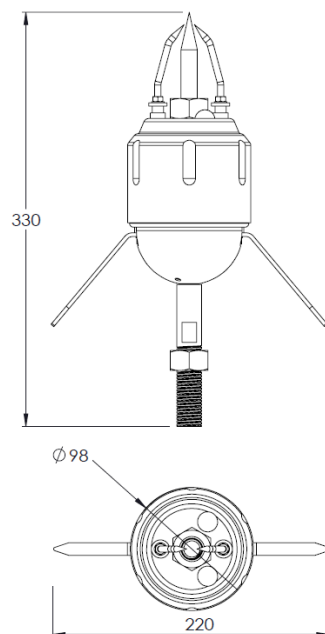


# PREVECTRON® 2 TS2.10 HERITAGE BUILDING EARLY STEAMER EMISSION AIR TERMINAL (ESE)

Reference		P1207
Characteristics		
Efficiency	$\Delta T$	10 $\mu s$
Standard deviation ESE / Single Rod	$\sigma$	$\sigma_{PDA} < 0.8 \sigma_{PTS}$
Lightning current withstanding test (10/350 $\mu s$ )	$I_{imp}$	100kA (normative test)
Net Weight	P	2.182 kg
Operating principles		
Detection of download leader	Continuous measuring of electric field gradient ( $\Delta E/\Delta t$ )	
Upward streamer emission	Sparking by High Voltage Impulses	
Internal circuits	2 independent and redundant circuits	
Central rod	Full electrical continuity 315 mm <sup>2</sup> section – Nickel plated Copper	
Metal housing	Stainless Steel, Electromagnetic shielding	
On-site testing capabilities	Proprietary tester	
Maintenance	Replaceable modules	
Warranty	18 months	
Mechanical specifications		
Fixing on pole	M20 Thread	
Down conductor connection	Specific clamp ref P6500 (included)	
Packaging		
Dimensions	438 x 228 x 220 mm	
Contents	Prevectron®3, Down conductor clamp, Hex key	
Gross Weight	3.116 kg	
Certifications		
NF C 17 102:2011, Annexe C	Bureau Veritas certificate N°2513661/1/4	
Qualifoudre	Ineris certificate N° N°051166662001	
ISO 9001 : 2008	Bureau Veritas certificate N°FR018755-1	



Dimensions (mm)

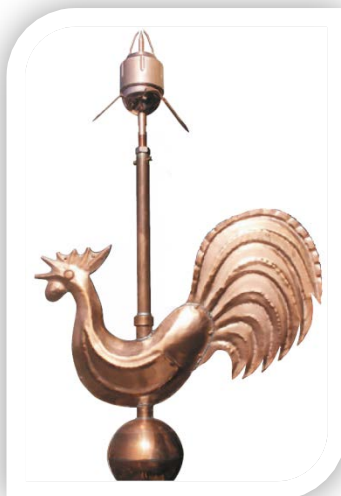


## Application

Prevectron2 MH on copper Ornament  
Cock « Louis » ref. P10.014



Tester P1290C



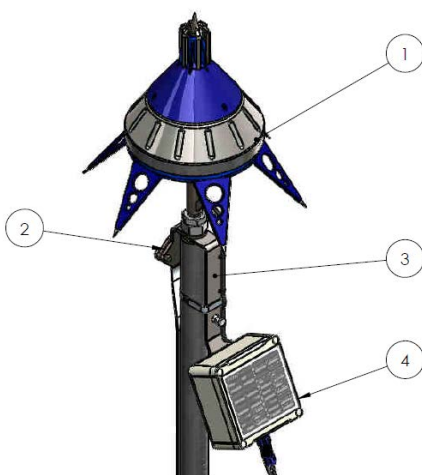
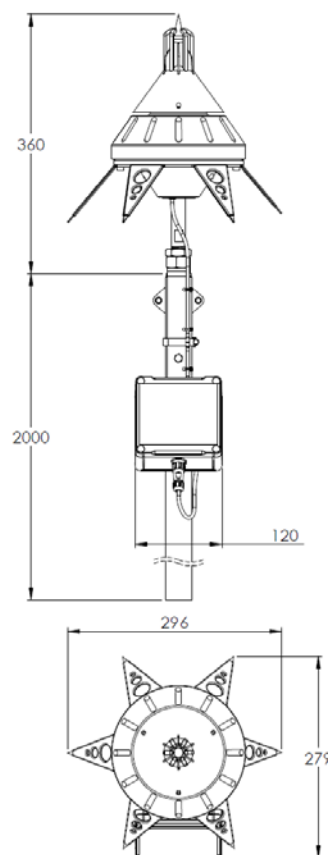


# PREVECTRON® 2 S6.60T SELF-TESTING EARLY STEAMER EMISSION AIR TERMINAL (ESE)

Reference		P1243N
Characteristics		
Efficiency	$\Delta T$	60 $\mu s$
Standard deviation ESE / Single Rod	$\sigma$	$\sigma_{PDA} < 0.8 \sigma_{PTS}$
Lightning impulse current 10/350 $\mu s$ )	$I_{imp}$	100 kA
Operating temperature range	$T^{\circ}$	-40 $^{\circ}C$ +85 $^{\circ}C$
Net Weight	W	6.400 kg
Operating principles		
Detection of download leader		Continuous measuring of electric field gradient ( $\Delta E/\Delta t$ )
Upward streamer emission		Sparking by High Voltage Impulses
Internal circuits		6 independent and redundant circuits
Central rod		Full electrical continuity 315 mm <sup>2</sup> section – Nickel plated Copper
On-site testing capabilities		Remote testing (up to 50m) Remote Tester P1291N
Warranty		18 months
Mechanical specifications		
Fixing on pole		M20 Thread
Down conductor clamp		Specific clamp ref P6500 (included)
Packaging		
Dimensions		500 x 400 x 300 mm
Contents		See table below
Gross Weight		9.100 kg
Certifications		
NF C 17 102:2011, Annex C		Certificate N° 2513661/1/3 - Bureau Veritas
Qualifoudre		Certificate N°05116666200 - Ineris
ISO 9001 : 2008		Certificate N°FR018755-1 - Bureau Veritas



Dimensions (mm)



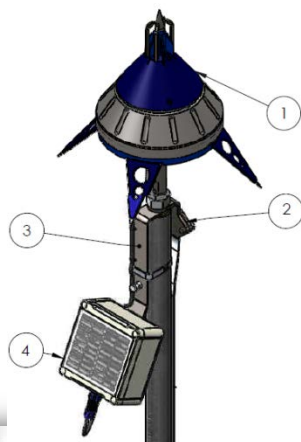
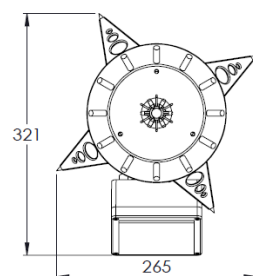
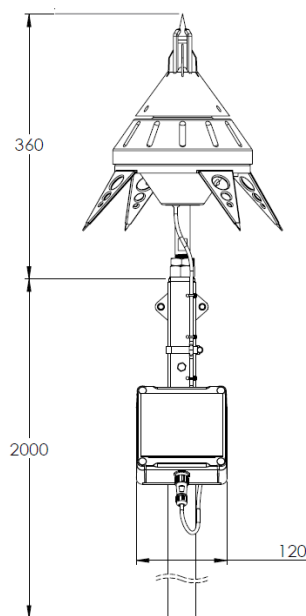
N° Article	Designation	Qty
1	S6.60 Millenium	1
2	Specific Clamp	1
3	Solar panel support	1
4	Solar panel	1

Accessory (not included)  
Remote control unit - P1291N



# PREVECTRON® 2 S4.50T SELF-TESTING EARLY STEAMER EMISSION AIR TERMINAL (ESE)

Reference		P1233N
Characteristics		
Efficiency	ΔT	50 μs
Standard deviation ESE / Single Rod	σ	σ <sub>PDA</sub> < 0.8 σ <sub>PTS</sub>
Lightning impulse current 10/350μs)	I <sub>imp</sub>	100 kA
Operating temperature range	T°	-40 °C +85 °C
Net Weight	W	6.200 kg
Operating principles		
Detection of download leader		Continuous measuring of electric field gradient (ΔE/Δt)
Upward streamer emission		Sparking by High Voltage Impulses
Internal circuits		5 independent and redundant circuits
Central rod		Full electrical continuity 315 mm² section – Nickel plated Copper
On-site testing capabilities		Remote testing (up to 50m) Remote Tester P1291N
Warranty		18 months
Mechanical specifications		
Fixing on pole		M20 Thread
Down conductor clamp		Specific clamp ref P6500 (included)
Packaging		
Dimensions		500 x 400 x 300 mm
Contents		See table below
Gross Weight		8.900 kg
Certifications		
NF C 17 102:2011, Annex C		Certificate N° 2513661/1/3 - Bureau Veritas
Qualifoudre		Certificate N°05116666200 - Ineris
ISO 9001 : 2008		Certificate N°FR018755-1 - Bureau Veritas



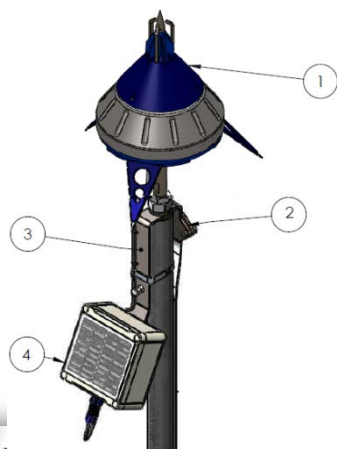
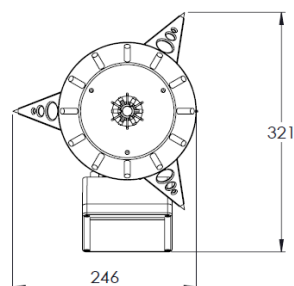
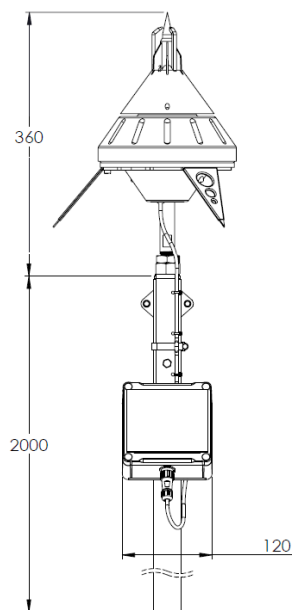
N° Article	Designation	Qty
1	S4.50 Millenium	1
2	Specific Clamp	1
3	Solar panel support	1
4	Solar panel	1

Accessory (not included)  
Remote control unit - P1291N



# PREVECTRON® 2 S3.40T SELF-TESTING EARLY STEAMER EMISSION AIR TERMINAL (ESE)

Reference		P1223N
Characteristics		
Efficiency	$\Delta T$	40 $\mu s$
Standard deviation ESE / Single Rod	$\sigma$	$\sigma_{PDA} < 0.8 \sigma_{PTS}$
Lightning impulse current 10/350 $\mu s$ )	$I_{imp}$	100 kA
Operating temperature range	$T^{\circ}$	-40 $^{\circ}C$ +85 $^{\circ}C$
Net Weight	W	6.100 kg
Operating principles		
Detection of download leader		Continuous measuring of electric field gradient ( $\Delta E/\Delta t$ )
Upward streamer emission		Sparking by High Voltage Impulses
Internal circuits		3 independent and redundant circuits
Central rod		Full electrical continuity 315 mm <sup>2</sup> section – Nickel plated Copper
On-site testing capabilities		Remote testing (up to 50m) Remote Tester P1291N
Warranty		18 months
Mechanical specifications		
Fixing on pole		M20 Thread
Down conductor clamp		Specific clamp ref P6500 (included)
Packaging		
Dimensions		500 x 400 x 300 mm
Contents		See table below
Gross Weight		8.800 kg
Certifications		
NF C 17 102:2011, Annex C		Certificate N° 2513661/1/3 - Bureau Veritas
Qualifoudre		Certificate N°05116666200 - Ineris
ISO 9001 : 2008		Certificate N°FR018755-1 - Bureau Veritas



N° Article	Designation	Qty
1	S3.40 Millenium	1
2	Specific Clamp	1
3	Solar panel support	1
4	Solar panel	1

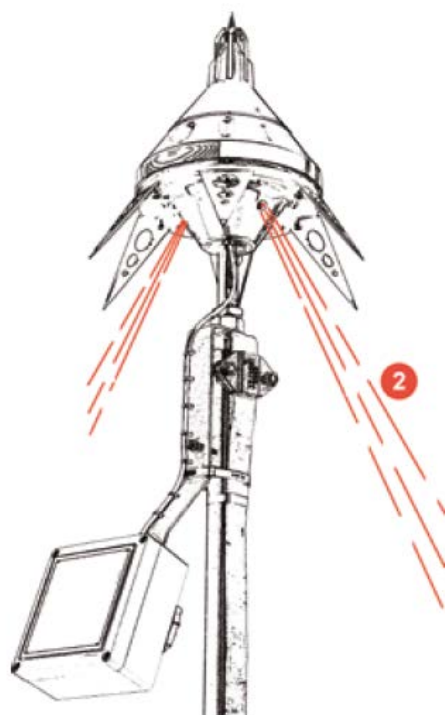
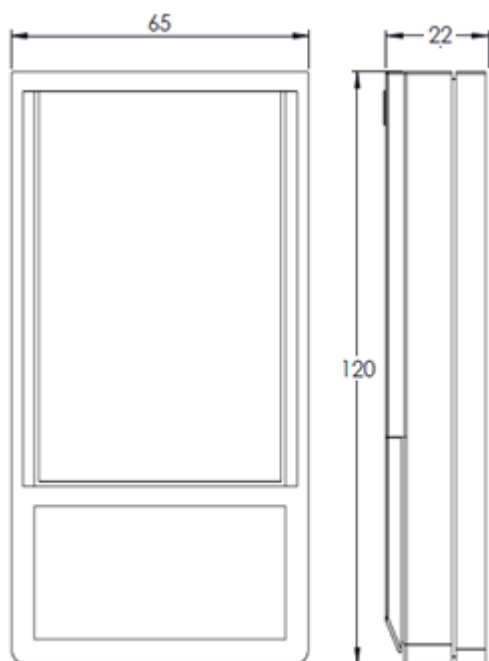
Accessory (not included)  
Remote control unit - P1291N



# PREVECTRON® 2 T Remote Testing Unit

Réf.	P1291N
Weight (kg)	0.480
Application	Remote testing Unit (up to 50 m) of the PREVECTON® 2 T Millenium air terminals.

Dimensions (mm)

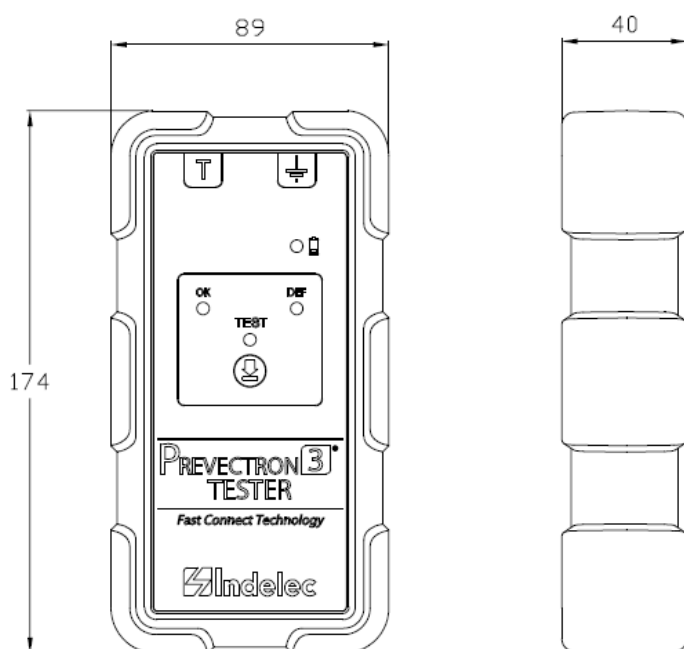


- 1 Activation of the test by the remote control unit
- 2 Flashing of the LEDs

# PREVECTRON® 3 Tester Fast Connect Technology

Réf.	P1590
Weight (kg)	0.415
Application	<p>The tester has been specially designed for a perfect portability for both installation and routing maintenance purposes.</p> <p>It is supplied with isolated cables and transport bag. Thanks to its unique "Fast connect technology", each circuit condition is now tested through a single connection point.</p>
Power	Four 1.5V AA type batteries.

## Dimensions (mm)



## Application



## Contents:

Transport bag with INDELEC logo  
 Indelec « Fast Connect Technology » Tester  
 Yellow cable + crocodile clip (Earth)  
 Black cable + plug (Prevelectron®3 circuits)







# Lightning Protection Systems



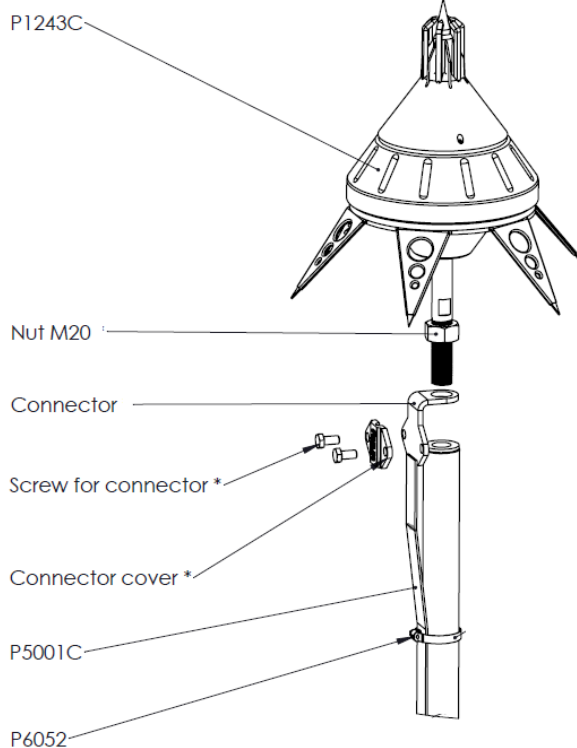
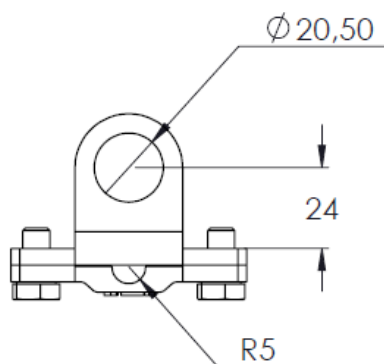
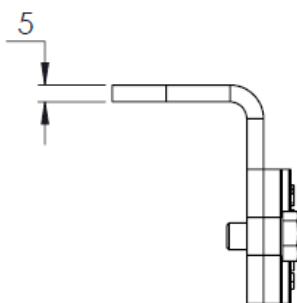
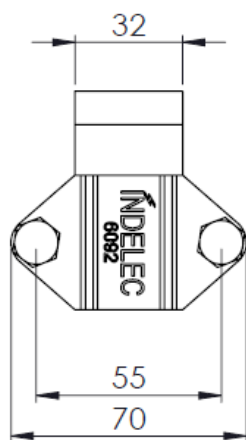




# PREVECTRON® / Down Conductor Adaptor

Ref.	P6500
Material	Tinned copper
Weight (kg)	0.750
Application	Connect down conductor to central rod of PREVECTRON Air Terminal
Standard	EN 62561-1

## Dimensions (mm)

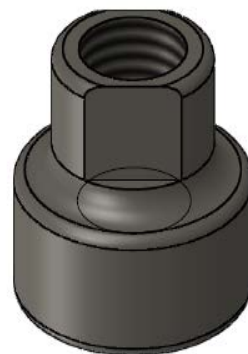


## Application

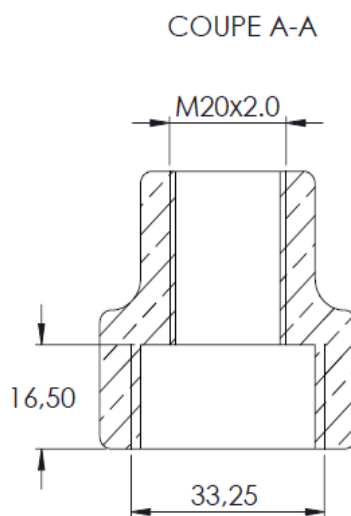
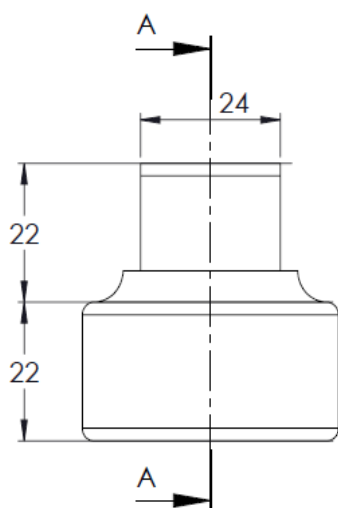
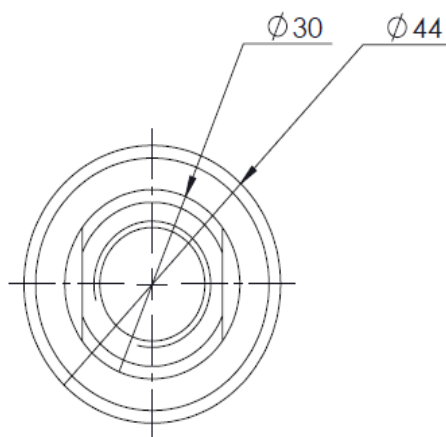
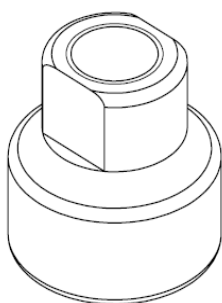


# Adaptor Female M20 / Female G34

Characteristics	C2433
Material	Brass
Weight (kg)	0.220
Application	Fixing PREVECTRON® on a G34 threaded pole



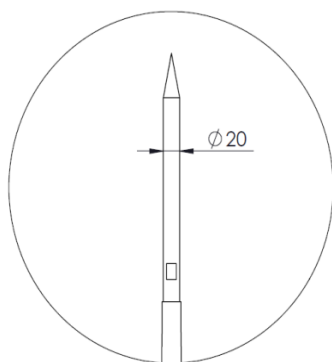
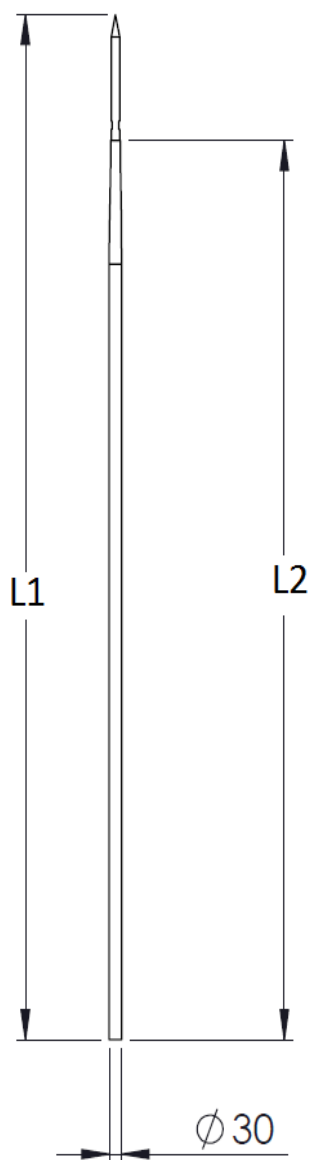
## Dimensions (mm)



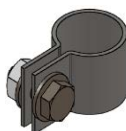
# Single Rods

Characteristics	P1021B	P1022B	P1031C
Material	Chromium plated copper		Stainless steel
L1 ( mm )	2300 mm	1300 mm	2300 mm
L2 ( mm )	2000 mm	1000 mm	2000 mm
Weight (kg)	3.500	2.340	3.000
Connection	With a connecting clamp ref. P3095 / P3096 (not included)		connecting clamp included
Normes	EN 62561-2		

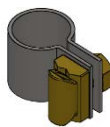
## Dimensions (mm)



## Accessoires



Ref. P3095  
Rod to flat conductor  
connecting clamp



Ref. P3096  
Rod to round conductor  
connecting clamp



Ref. P1021B



Ref. P1022B



Ref. P1031C

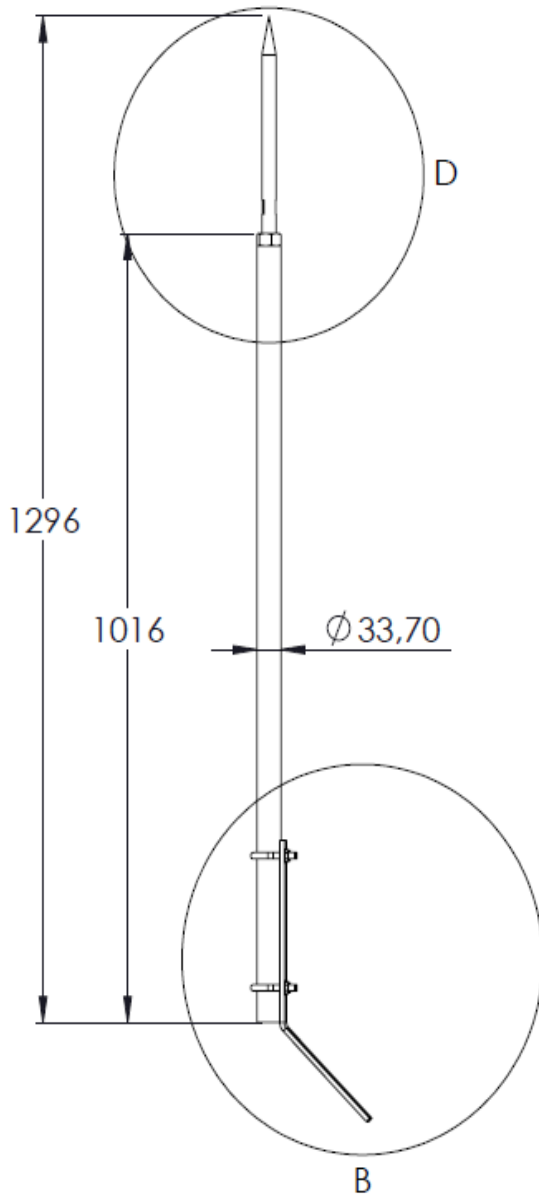


Ref. P1031C  
connecting clamp for flat  
conductor included

# Stainless Steel Air Rod Special Chimney

Characteristics	P1041C
Material	Stainless steel
Weight (Kg)	3.460
Connection	With a connecting clamp ( included)
Application	Protection of industrial chimney
Standard	EN 62561-2

## Dimensions (mm)

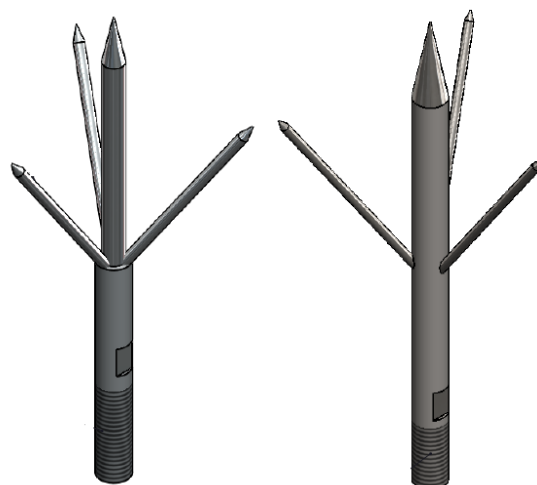


## Application



# Jupiter Multi-Point Air Rod

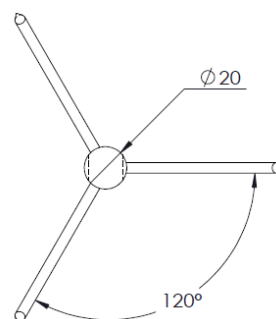
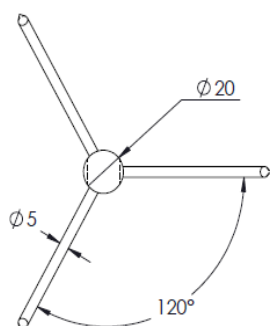
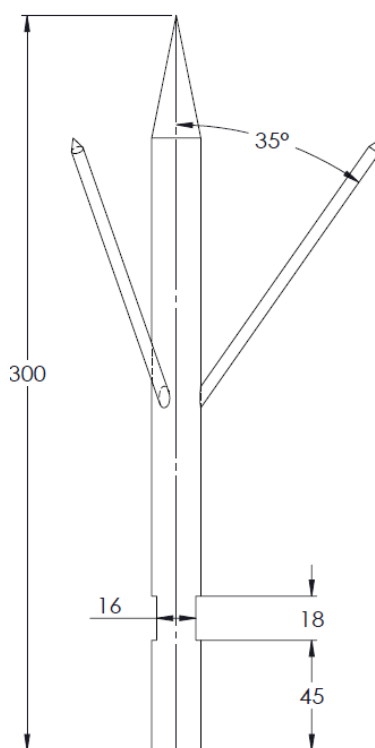
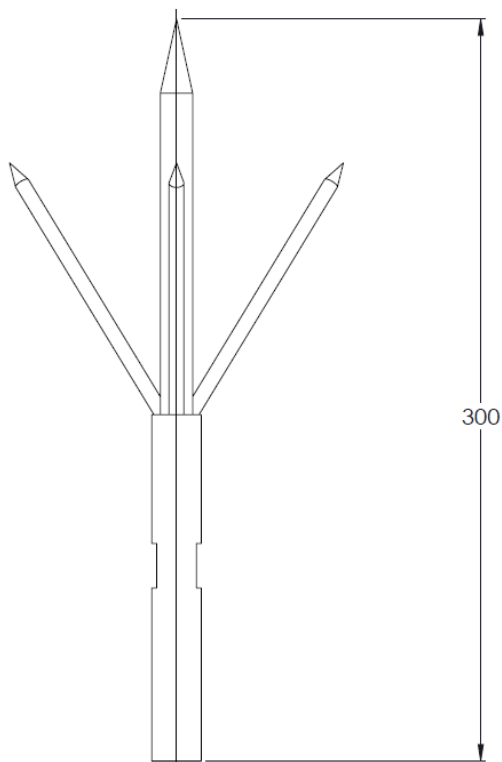
Characteristics	P1052B	P1053C
Material	Chromium plated copper	Stainless steel
Weight (kg)	0.600	0.700
Connection	Thread M20	
Standards	EN 62561-2	



P1052B

P1053C

## Dimensions (mm)



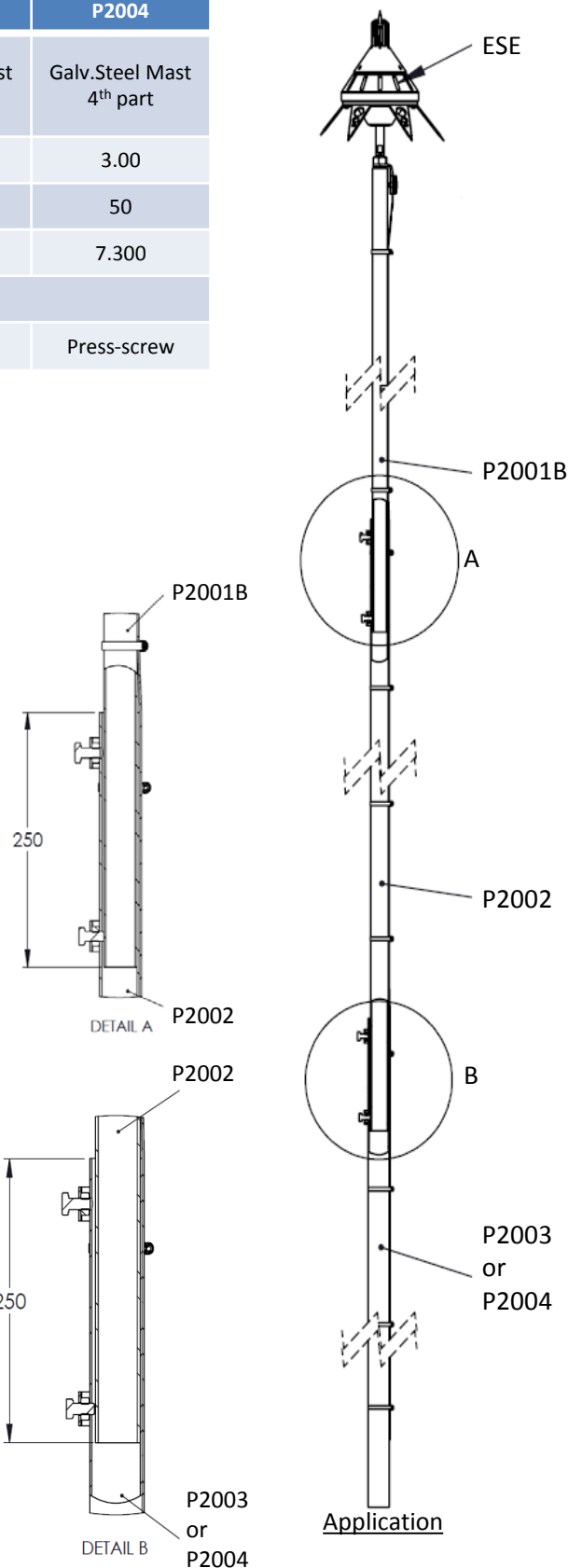
# Galvanized Steel Elevation Mast

Characteristics	P2001B	P2002	P2003	P2004
Description	Galv.Steel Mast 1 <sup>st</sup> part	Galv.Steel Mast 2 <sup>nd</sup> part	Galv.Steel Mast 3 <sup>th</sup> part	Galv.Steel Mast 4 <sup>th</sup> part
Length (m)	2.00	2.00	2.00	3.00
Diameter(mm)	35	42	50	50
Weight (kg)	3.250	5.000	4.700	7.300
Material	Galvanized steel			
Connection	Tapped M20	Press-screw	Press-screw	Press-screw

Made of special «high resistance» steel and galvanized inside and out, Indelec's elevation poles allow the lightning rod (PREVECTRON® E.S.E., Indelec multiple rod or Pointed Air Rod) to be raised by up to 6,5 m without resorting to guy wires.

The telescopic sections are fixed together by two stainless steel press-screws. The lightning rod is screwed at the top of the first section (P2001B).

Assembly	
Mast 3.75m	P2001B + P2002
Mast 5.50m	P2001B + P2002 + P2003
Mast 6.50m	P2001B + P2002 + P2004



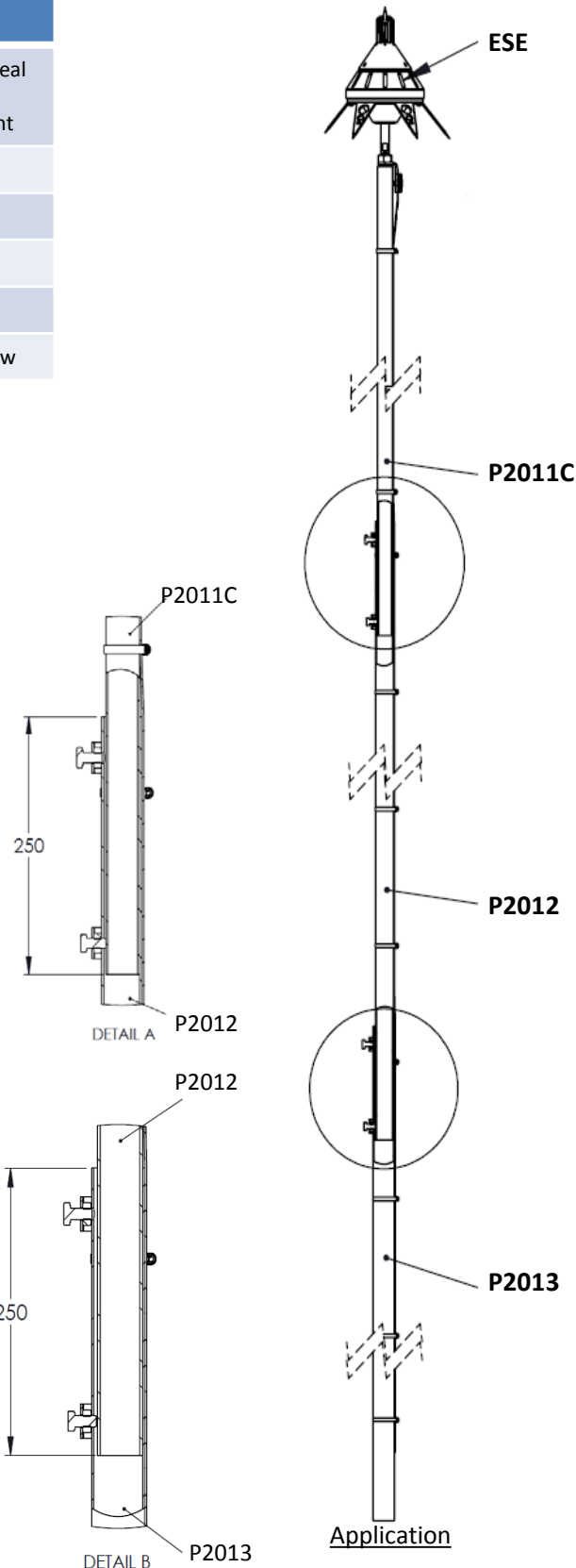
# Stainless Steel Elevation Mast

Characteristics	P2011C	P2012	P2013
Designation	Stainless steal mast 1 <sup>st</sup> element	Stainless steal mast 2 <sup>nd</sup> element	Stainless steal mast 3 <sup>rd</sup> element
Length (m)	2.00	2.00	2.00
Diameter (mm)	33.7	38	42.4
Weight (kg)	3.120	2.500	3.800
Material	Stainless Steel – 304		
Connection	Thread M20	Press-screw	Press-screw

Made of special «high resistance» stainless steel, Indelec's elevation poles enable the lightning rod (PREVECTRON® E.S.E., Indelec multiple rod or Pointed Air Rod) to be raised by up to 5.5 m without resorting to guy wires.

The telescopic sections are fixed together by two stainless steel press-screws with waterproof collars. The lightning rod is screwed at the top of the first section.

Assembly	
Mast 3.75m	P2011C + P2012
Mast 5.50m	P2011C + P2012 + P2013

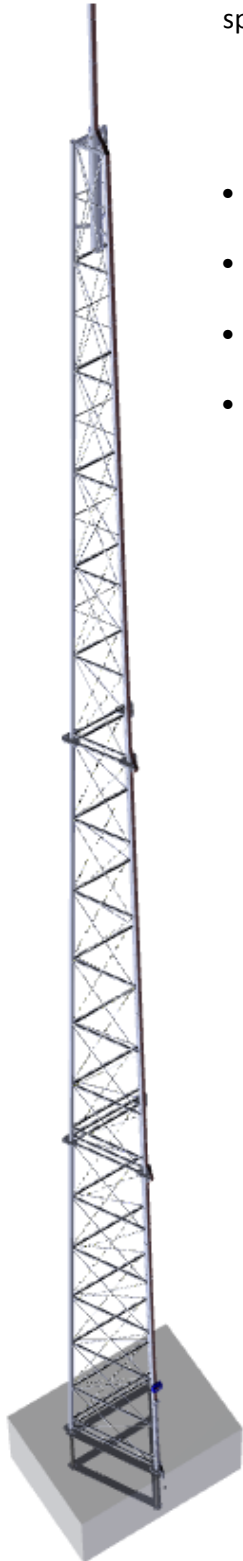


# Range of Steel Towers

Design and manufacturing in France of lattice towers based on your technical specifications:

- ✓ Wind velocity
- ✓ Wind surface
- ✓ Geotechnical characteristics

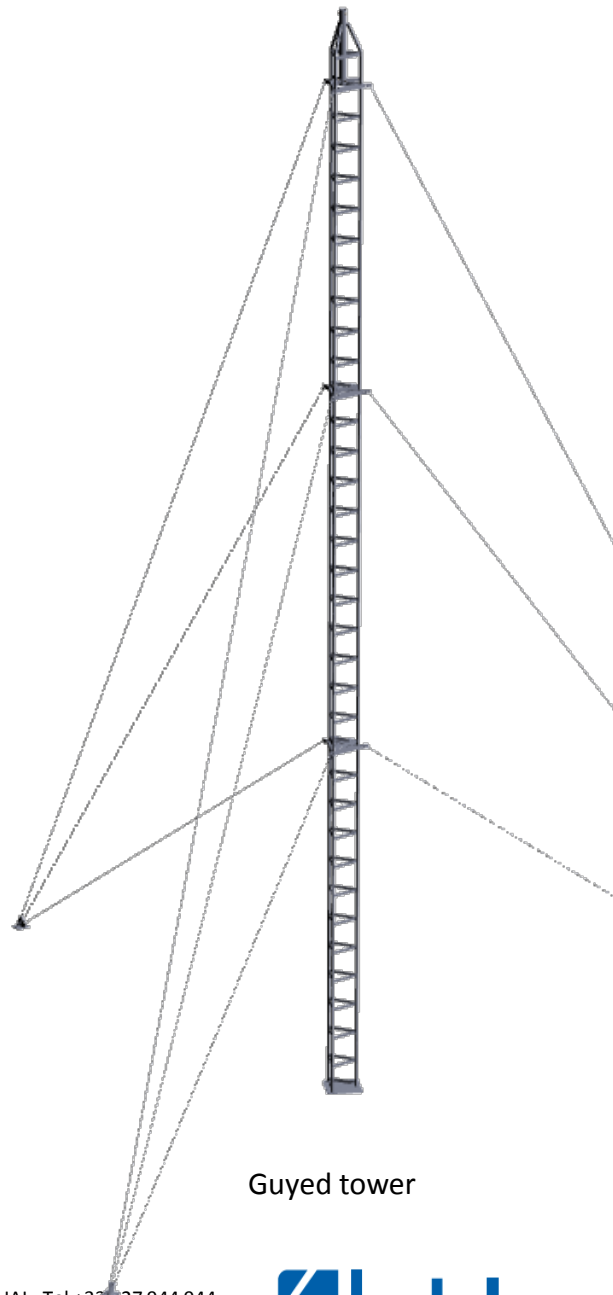
- Self-standing towers up to 36 meters
- Light self-standing masts up to 20 meters
- Guyed towers up to 60 meters
- Lightning conductor elevation masts



Self-standing tower



Light self-standing mast



Guyed tower



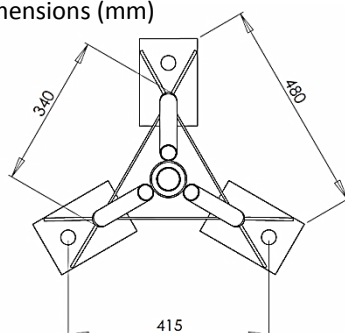
# Light Self Standing Masts (LSM)

Made from light-weight dip-galvanized tubing, in lengths of 3m or 6m bolted together; the Lightning Self Standing Mast is fixed to the ground with a ground bracket sealed in concrete block, on a wall or gable with offset mounting brackets.

The Light Self Standing Mast allows the fixing of lightning conductors (tapped M20) up to 14 meters. No guy wires are necessary if the base is adequate.

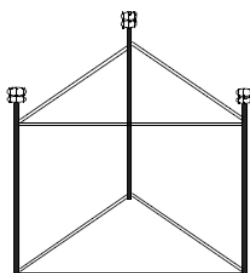
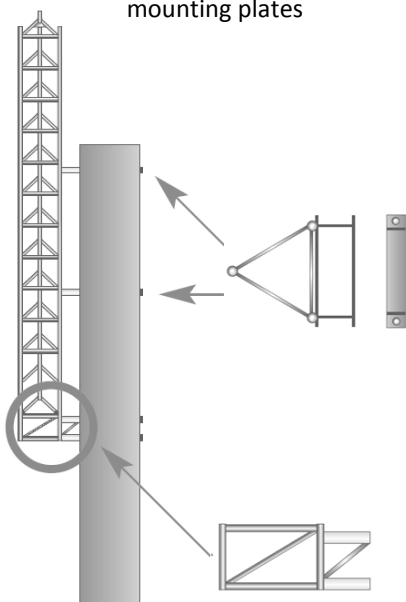
Designation	Ref.	Total Height	Weight
L.S.M. 5	P2051	5 m	36 kg
L.S.M. 11	P2052	11 m	71 kg
L.S.M. 14	P2053	14 m	86 kg
Set of 3 offset mounting brackets	P2054	-	25 kg
Ground bracket	P2055	-	6 kg

Dimensions (mm)

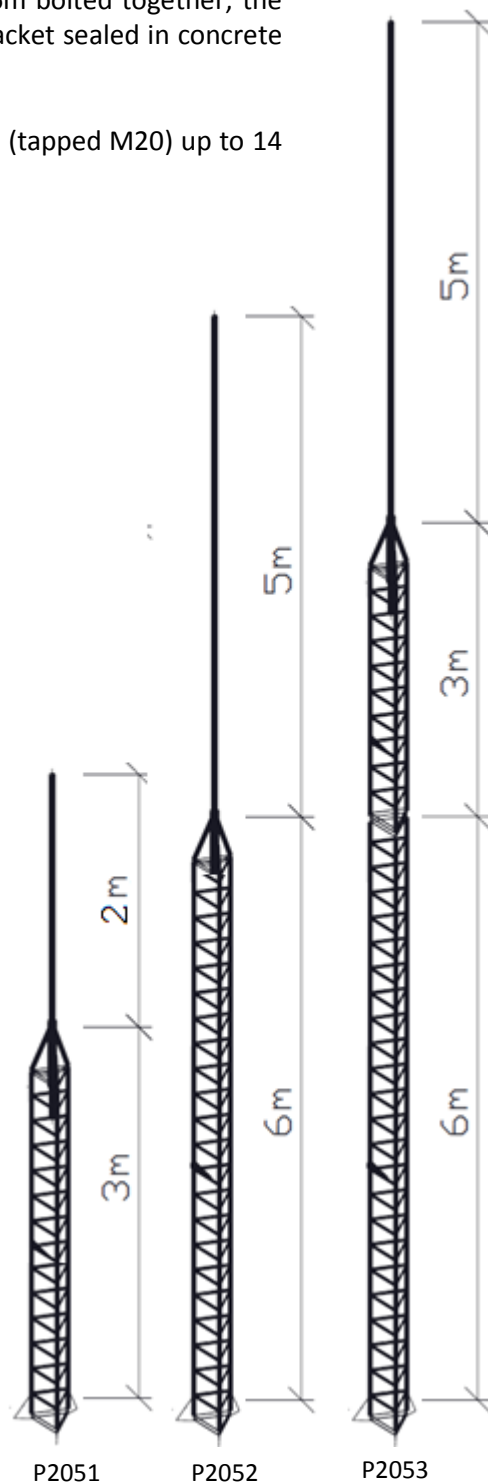


P2054

- 1 Base Offset Mounting Bracket and mounting plate
- 2 Offset Mounting Brackets and mounting plates



P2055



Concrete block dimensions (1.5 bar soil pressure)

P2051	0.8 x 0.8 x 0.8 m <sup>3</sup>
P2052	0.9 x 0.9 x 0.9 m <sup>3</sup>
P2053	1.0 x 1.0 x 1.0 m <sup>3</sup>

# Self Standing Towers

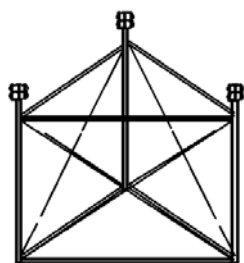
Indelec's self-standing towers are made from high-resistance steel and then dip-galvanized. They allow for lightning rods to be erected up to 36 m for the protection of open areas, for example.

They are supplied in kit form, in 3 or 6 m sections. A metal ground bracket is supplied and should be buried in a solid concrete block (see figures in table below).

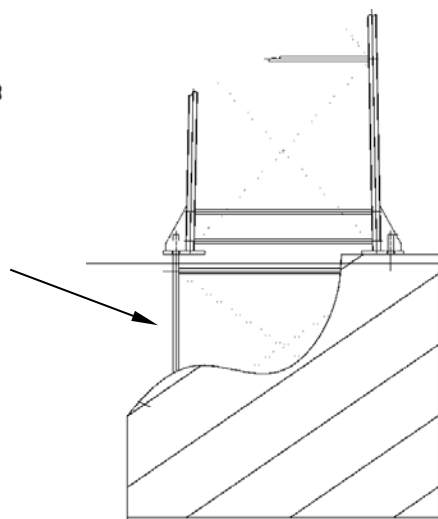
Maximum top surface (Wind zone 2, 112 km/h): 0.25 m<sup>2</sup>.

Upper termination is designed for lightning conductor fixing pole with press screw (max. dia. 50 mm).

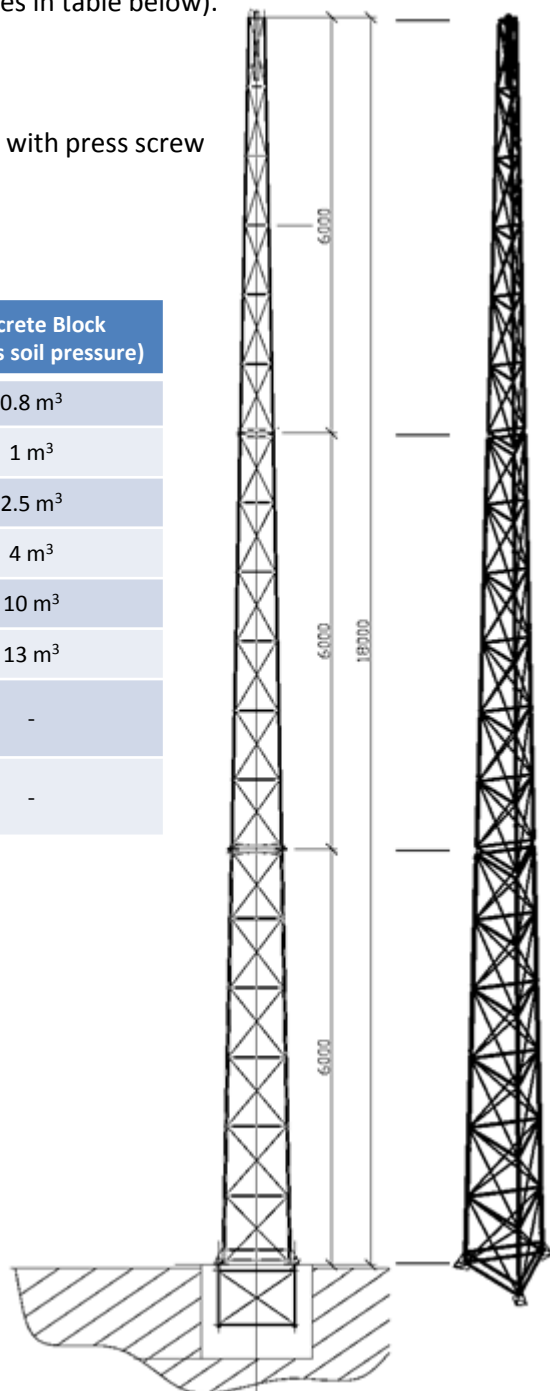
Designation	Ref.	Height	Weight	Concrete Block (1.5 bars soil pressure)
Self Standing Tower	P2061	9 m	99 kg	0.8 m <sup>3</sup>
Self Standing Tower	P2062	12 m	145 kg	1 m <sup>3</sup>
Self Standing Tower	P2063	18 m	262 kg	2.5 m <sup>3</sup>
Self Standing Tower	P2064	24 m	404 kg	4 m <sup>3</sup>
Self Standing Tower	P2065	30 m	590 kg	10 m <sup>3</sup>
Self Standing Tower	P2066	36 m	811 kg	13 m <sup>3</sup>
Lightning conductor fixing pole dia. 50mm	P2067S	6 m	22 kg	-
M20 tapped Lightning conductor fixing pole	P2067P	6 m	22 kg	-



Ground bracket  
(incl. with tower)



Concrete Block



Example : Tower P2063, made of three 6m sections

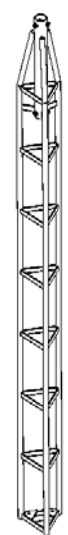
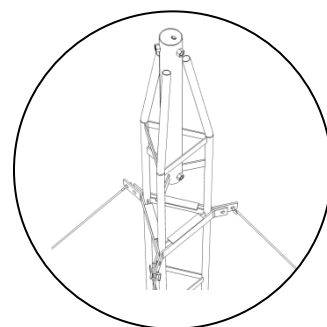
# Guyed Towers

Made from dip-galvanized steel, and designed to receive guy wires, these towers come in 3 m sections, 23 cm wide. The sections are M12 bolted (included) together at the joints and the base can be supplied either with a spike or a flat base section for ground mounting.

Guy wires are needed every 3 or 6 m on three guy anchors fixed at ground level at a distance from the base equal to half the height of the tower.

A lightning rod fixing pole can be installed at the top of the tower (Ref P2001B).

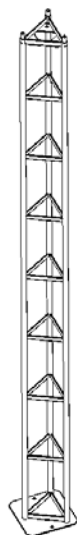
Designation	Ref.	Height	Weight
Upper section	P2070	3 m	12 kg
Mid section	P2071	3 m	10 kg
Base section with spike	P2072	3 m	12 kg
Flat base section	P2073	3 m	12 kg
Stainless steel cable Ø2,4mm –100m coil	P2074	-	2.4 kg
Tensioning kit: 1 turnbuckle, 2 thimbles, 4 steel wire clamps	P2075	-	-
3 guy wires anchor	P2076	-	3 kg
6 guy wires anchor	P2077	-	6 kg



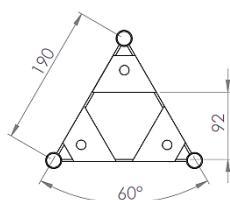
P2070



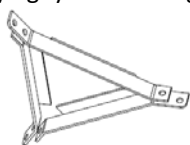
P2071



P2073



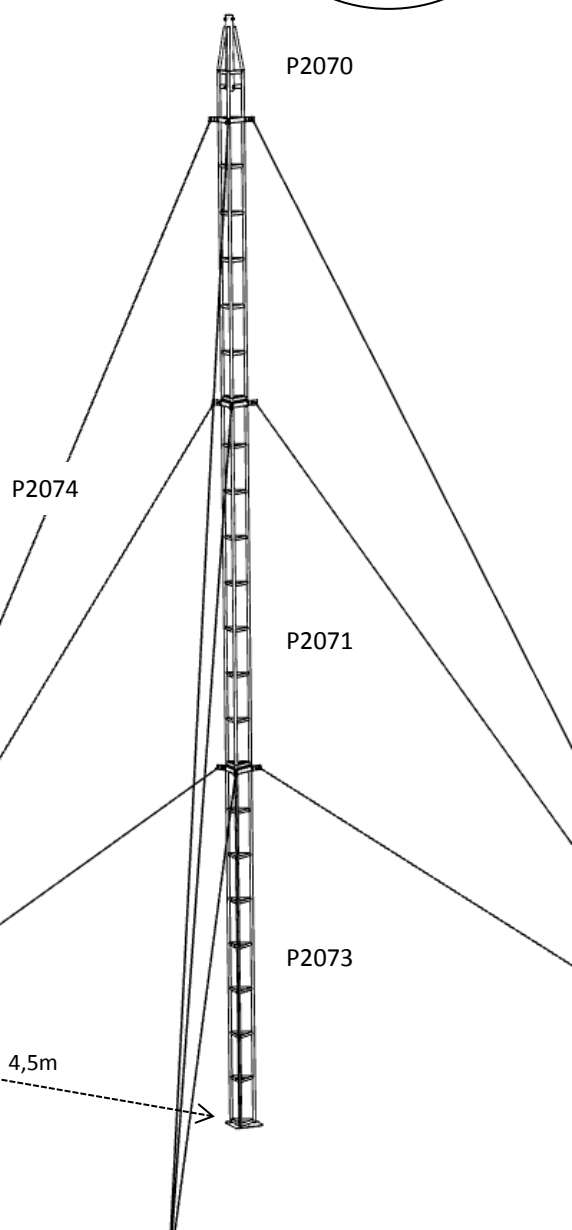
Accessory : guy wires triangle bracket



P2076



P2077



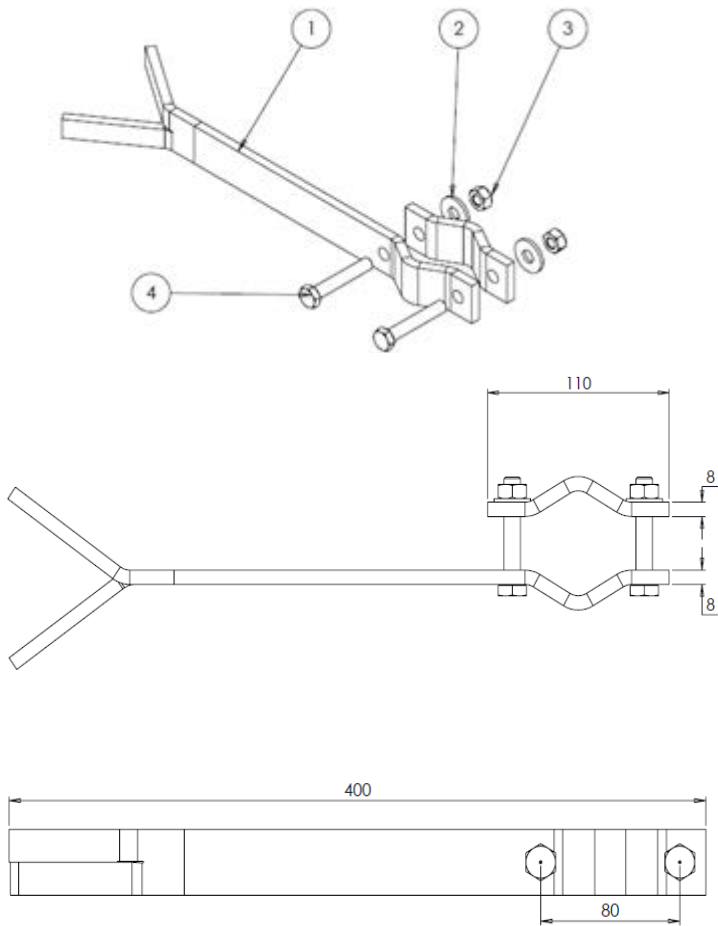
Mounting: 9m tower with guy wires

# Side Mounting Wall Anchor

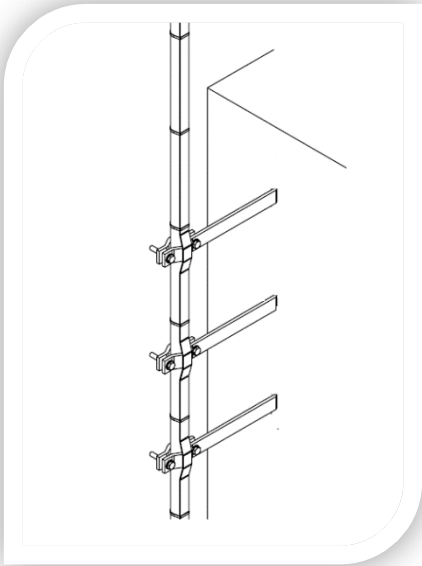
Characteristics	C1924
Material	Galvanized steel
Weight (kg)	1.200
Application	Installation in offset of the support member
Axial offset	230 mm
Accessories	Galvanized Steel Bolts included



## Dimensions (mm)



Description	QTY
Mounting to seal with flange	1
Washer AC ZN – M10 moyenne	2
Screw AC ZN – h M10 –DIN934	2
Screw AC ZN H M10*60 – DIN933	2



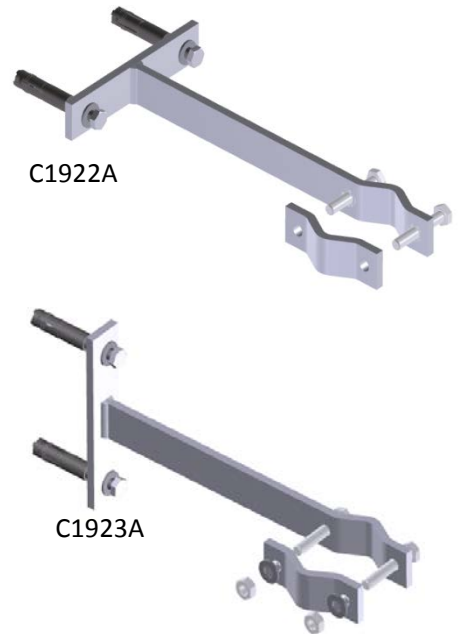
## Application

Mast ≤ 2m : 2 Anchors  
Mast > 2m : 3 Anchors

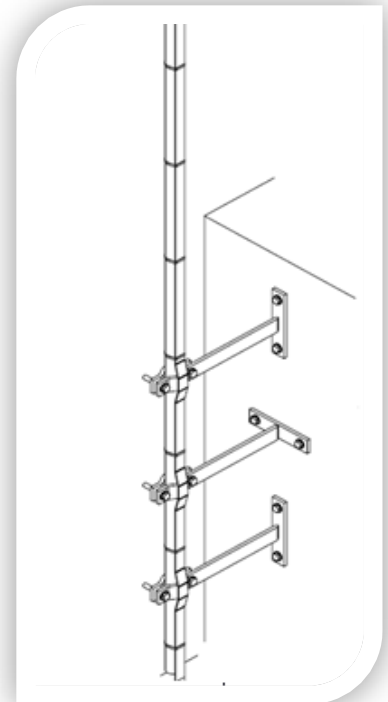
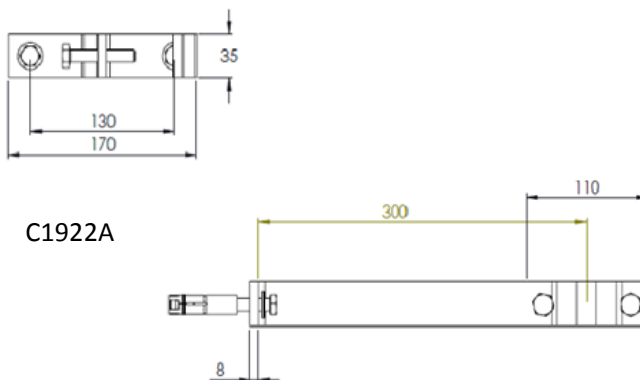
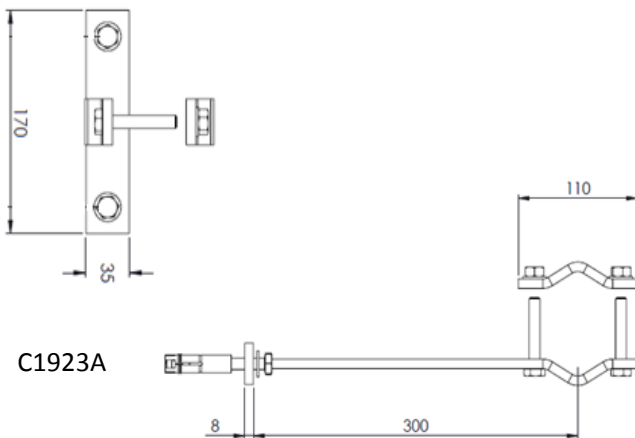


# Side Mounting Bolted Brackets

Characteristics	C1922A	C1923A
Orientation	Horizontal	Vertical
Material	Galvanized steel	
Weight (kg)	1.650	1.700
drilling Ø (mm)	16	
Support max Ø (mm)	50	
Fixing	M10 bolts and iron plugs included	
Offset (mm)	300	
Application	Used to fix a pole on a vertical surface.	



## Dimensions (mm)



## Application

Mast  $\leq$  2m : 1x C1922A + 1x C1923A  
Mast  $>$  2m : 1x C1922A + 2x C1923A

# Wall Mounting Brackets

Characteristics	C1927	C1926
Offset L (mm)	200	100
Material	Hot galvanized iron	
Weight (kg)	0.900	1.100
Drilling Ø (mm)	20	
Max mast Ø (mm)	50	
Application	Used to fix a pole on a vertical surface.	
Fixing	Dip-galvanized steel cast iron plug supplied.	

C1926

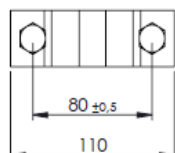
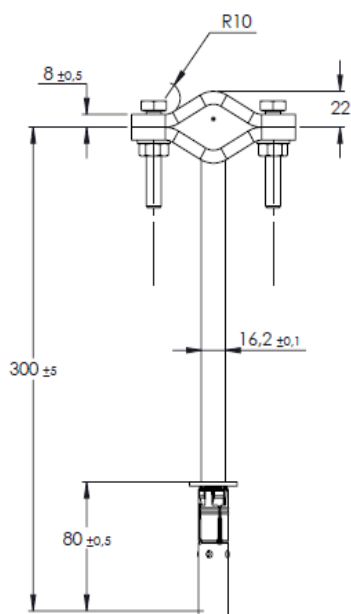


C1927

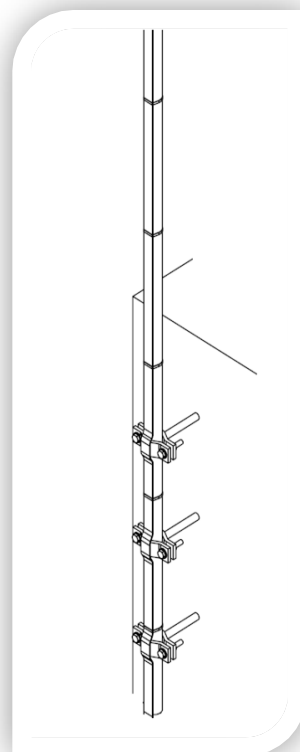
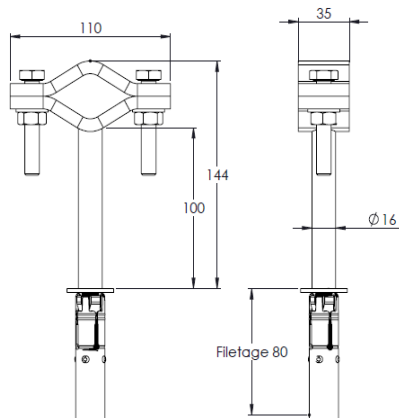


## Dimensions (mm)

C1927



C1926

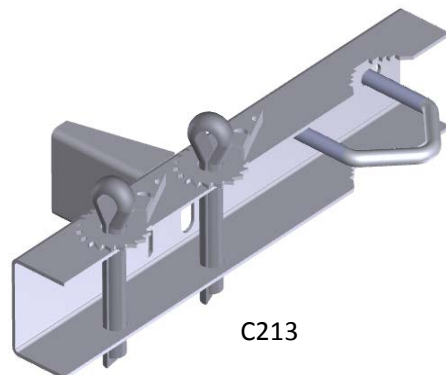


## Application

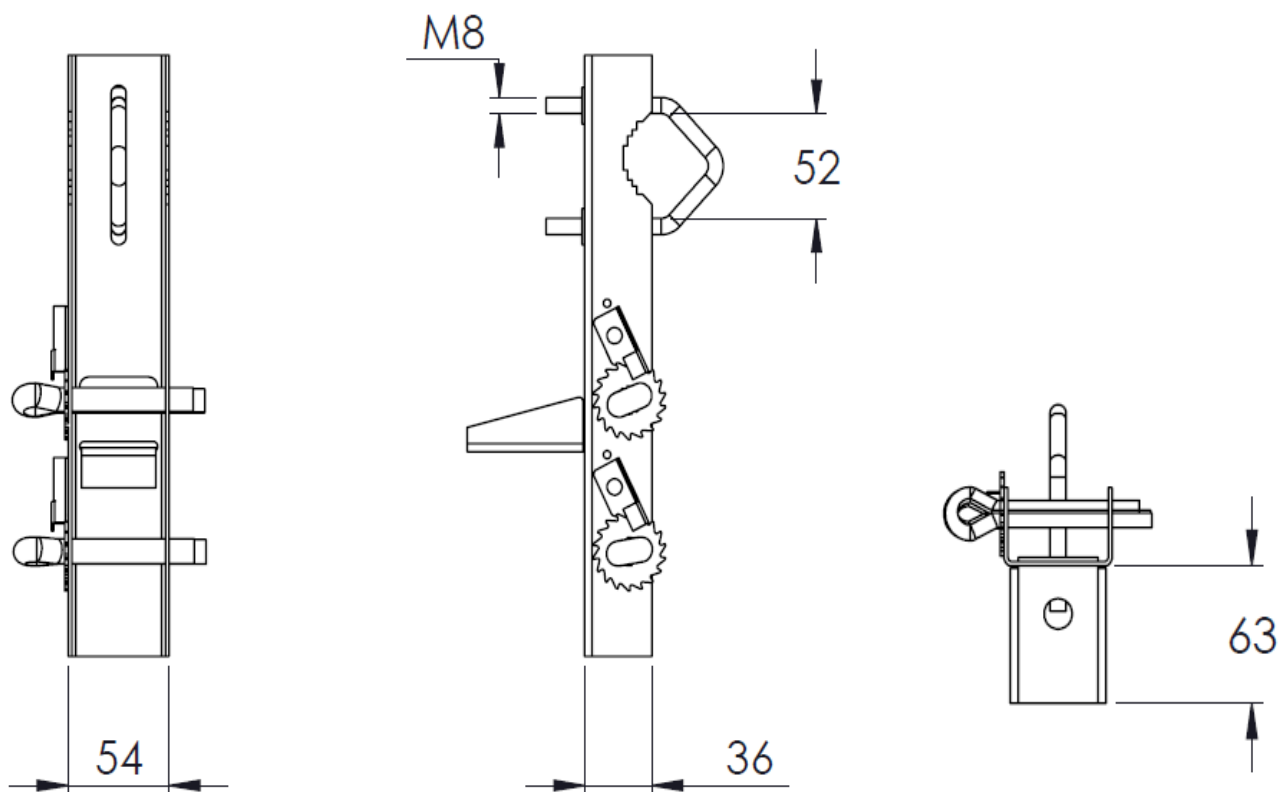
Mast ≤ 2m : 2 Brackets  
Mast > 2m : 3 Brackets

# Hoop Mounting

Characteristics	C213	P3024
Designation	Hoop mounting	Galvanized steel strapping roll 20m
Materiel	Zinc coated steel	Galvanized steel
Weight (kg)	0.820	3.695
Application	For the strapping of a pole to a domestic chimney	



## Dimensions (mm)

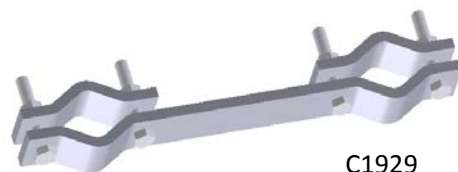


# Offset pipe bracket

Characteristic	C1928	C 1929
Material	Galvanized steel	
Weight (kg)	1.230	1.445
Offset(mm)	140	240
Length L1 (mm)	30	130
Length L2 (mm)	250	350
Ø max (mm)	50	50
Fixing	Galvanized steel bolt included	
Application	Fixing a mast on a vertical structure	

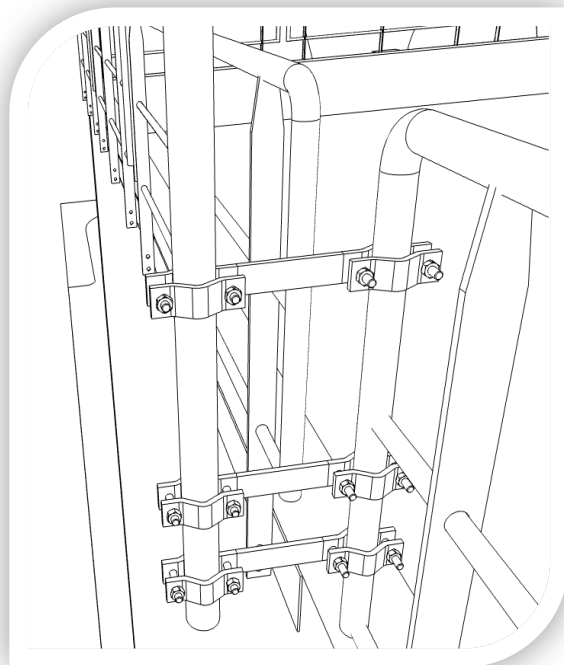
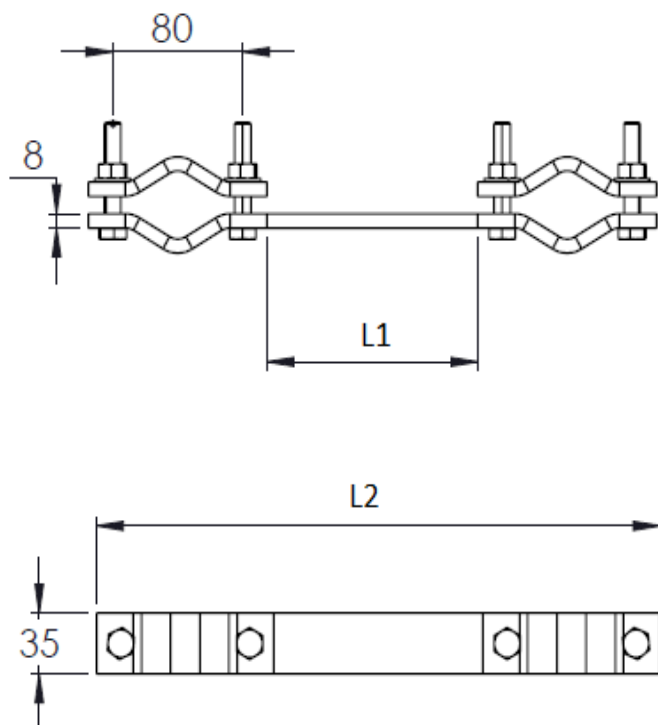


C1928



C1929

## Dimensions (mm)



## Application

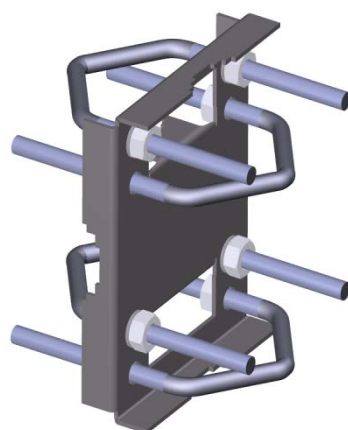
Mast  $\leq$  2m : 2 Brackets

Mast  $>$  2m : 3 Brackets

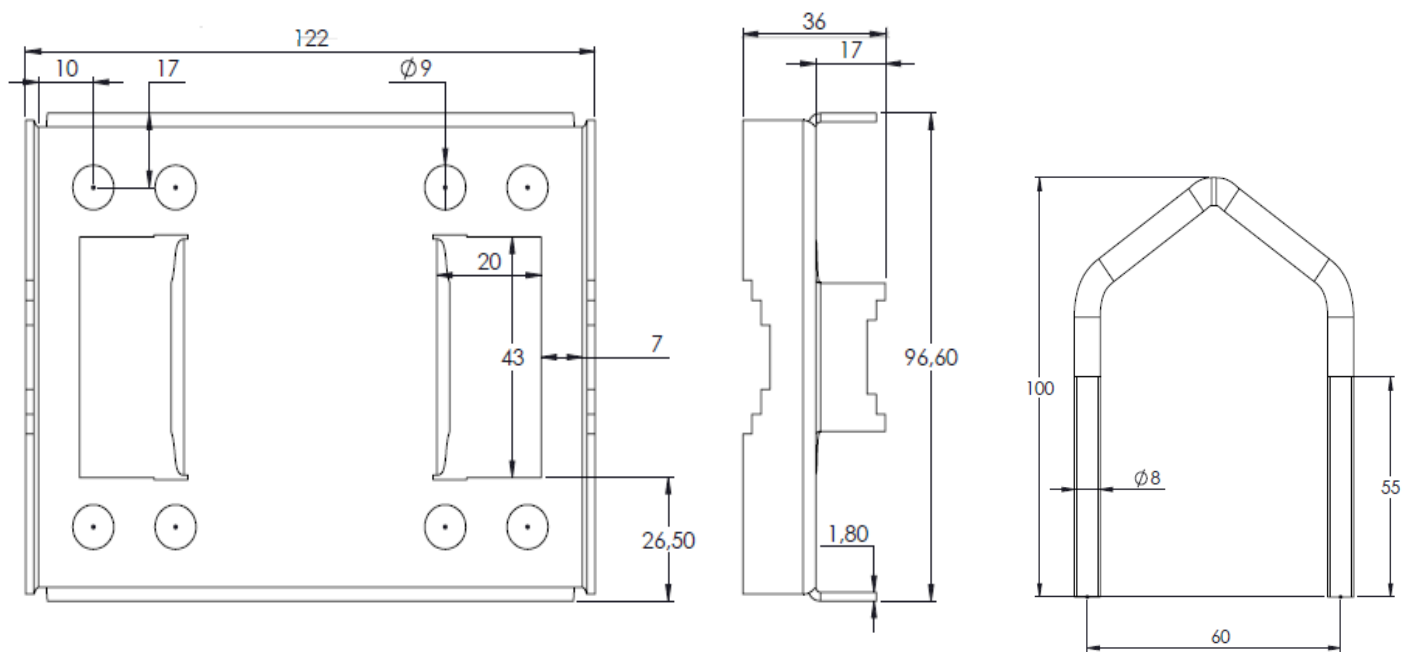


# Multipurpose Fixing Bracket

Characteristics	P3034
Material	Stainless steel
Weight (kg)	0.570
Ø max (mm)	50
Application	Fixing a mast on a vertical or horizontal tubular structure

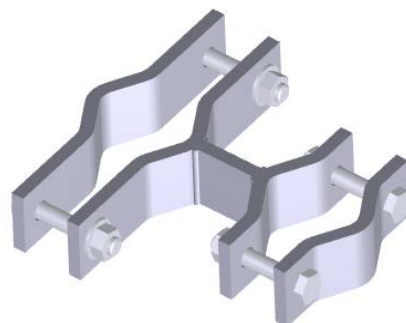


## Dimensions (mm)

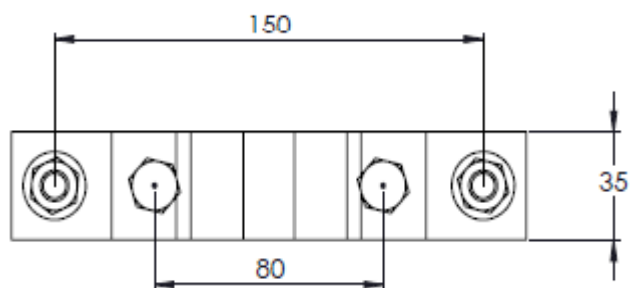
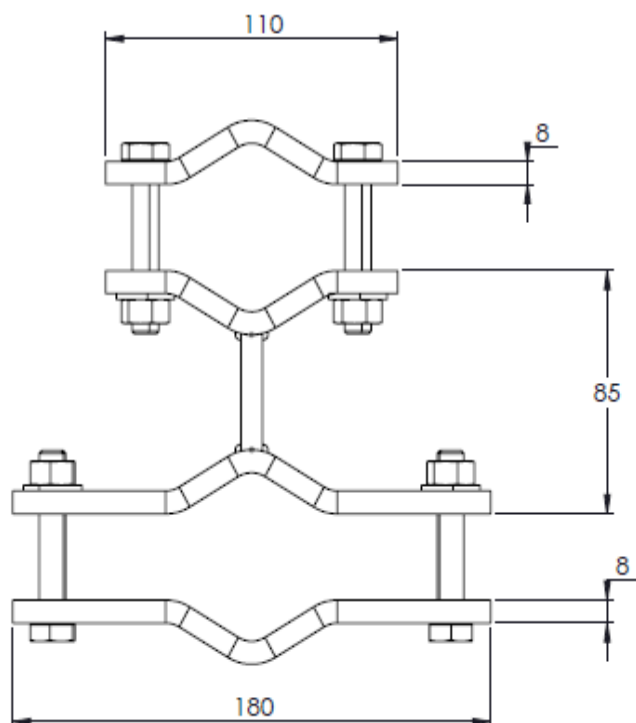


# Offset Pipe Collar « X » type

Characteristics	C1931
Material	Hot galvanized steel
Weight (kg)	1.590
Ø max (mm)	50
Application	Fixing elevation mast on vertical tube



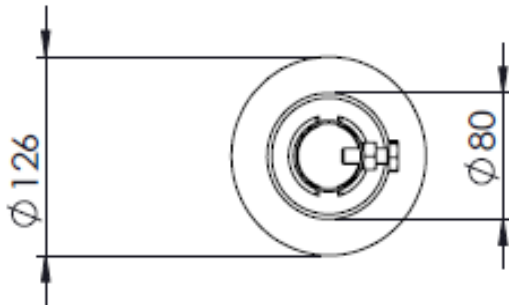
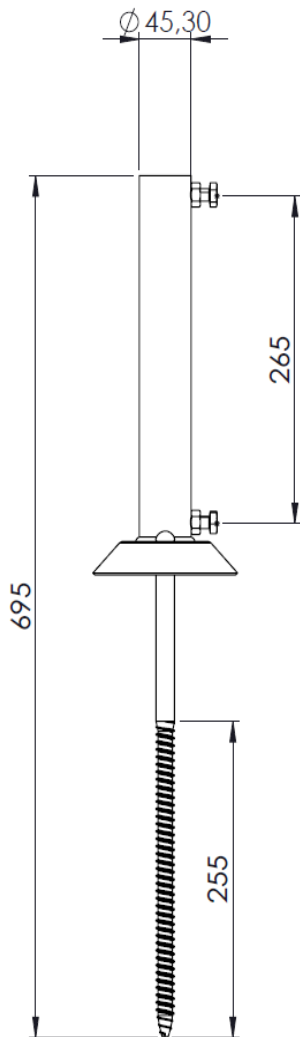
## Dimensions (mm)



# Anchor Cement Mounting

Characteristics	P3042
Material	Hot Galvanized steel
Weight (kg)	1.360
Ø max support	35mm
Application	For lightning rod or elevation pole (2m height max) fixing on a wooden or concrete frame.

## Dimensions (mm)

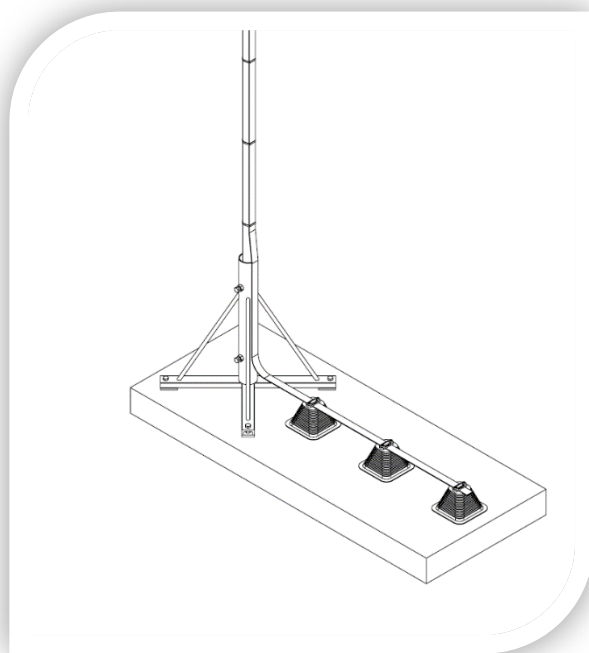
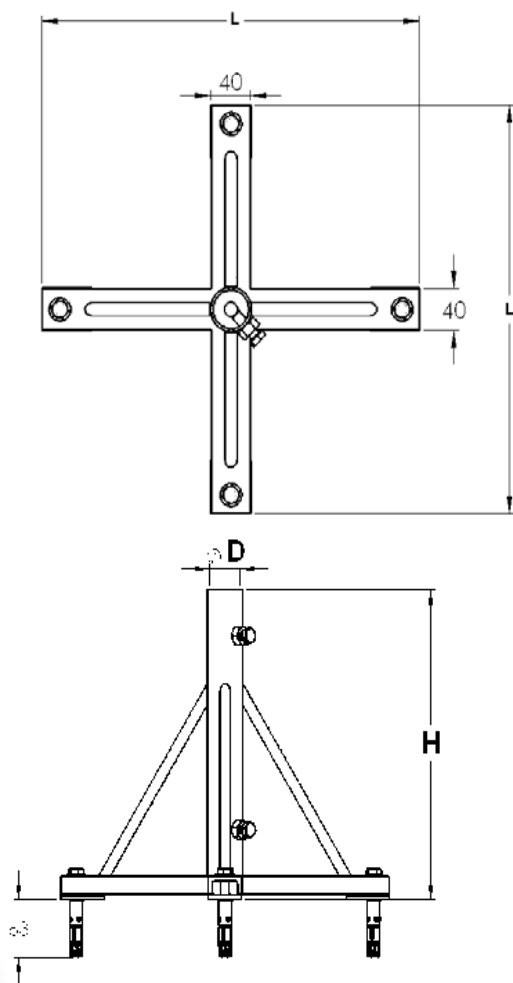


# Mounting Stand for Mast

Characteristics	P3052	P3053
Material	Galvanized steel	
Weight (kg)	4.855	7.515
Height H (mm)	341	503
Center distance (mm)	360	515
Ø max of mast D (mm)	35	50
Length L (mm)	390	560
Fixation	bolt zinc coated steel dowel pin provided Drilling Ø 16mm	
Application	2m max pole fixing on a flat roof without the need of guy wire	5.5m max pole fixing on a flat roof without the need of guy wire



## Dimensions (mm)



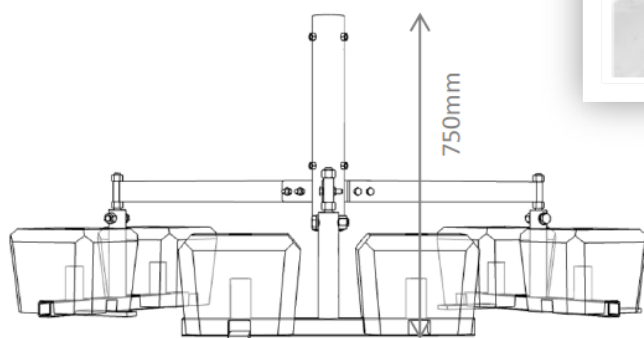
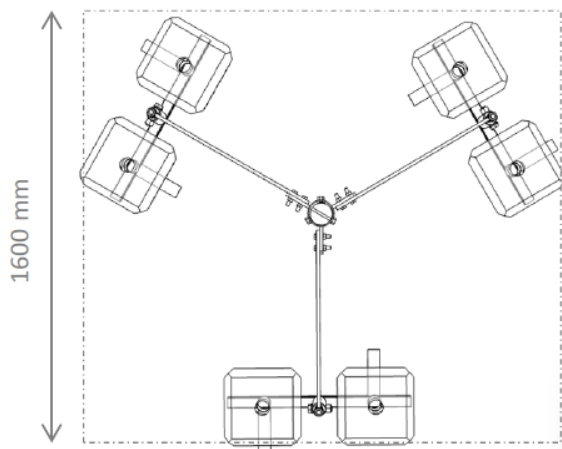
## Application



# Mast Self-Standing Tripod Base

Characteristics	C3678
Material	Galvanized steel
Weight (kg)	25.000 (without concrete bloc)
Ø max of mast(mm)	65
Fixing	By 6 concrete blocks (25 kg not provided)
Tilt	Up to 10°
Application	Fixing a lighting pole on a flat roof without the need of guying wire

## Dimensions (mm)



## Application

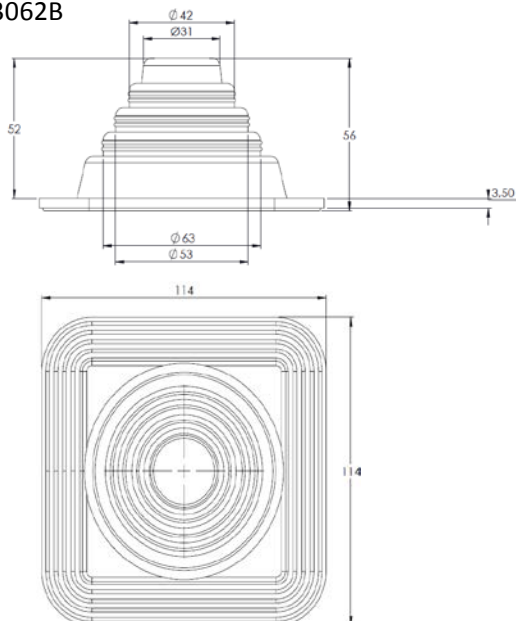


# Waterproofing Collar

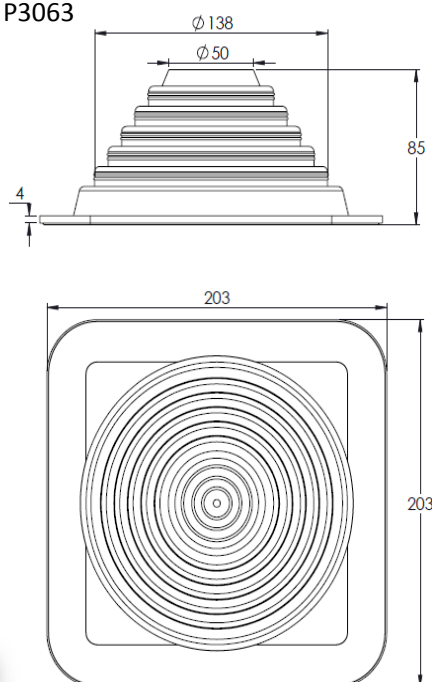
Characteristics.	P3062B	P3063	P3065
Material	Rubber		Zinc
Weight (kg)	0.070	0.200	0.145
Application	Waterproofing on pole		

## Dimensions (mm)

P3062B



P3063



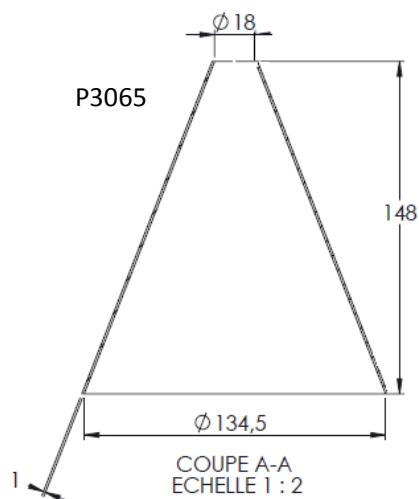
P3062B



P3063



P3065



## Application



# Adapter Sleeve

Characteristics	P3066B	P30637B	P3068A
Material	brass		
Weight (kg)	0.735	1.135	2.295
Height (mm)	100	250	550
Ø max(mm)	200	200	250
Application	Fixing a lightning conductor on a Round or square shaft		



P3066B



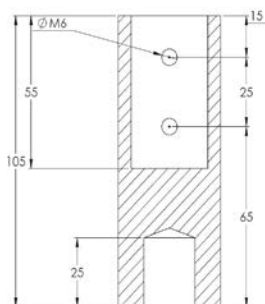
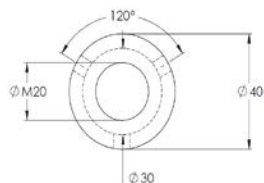
P3067B



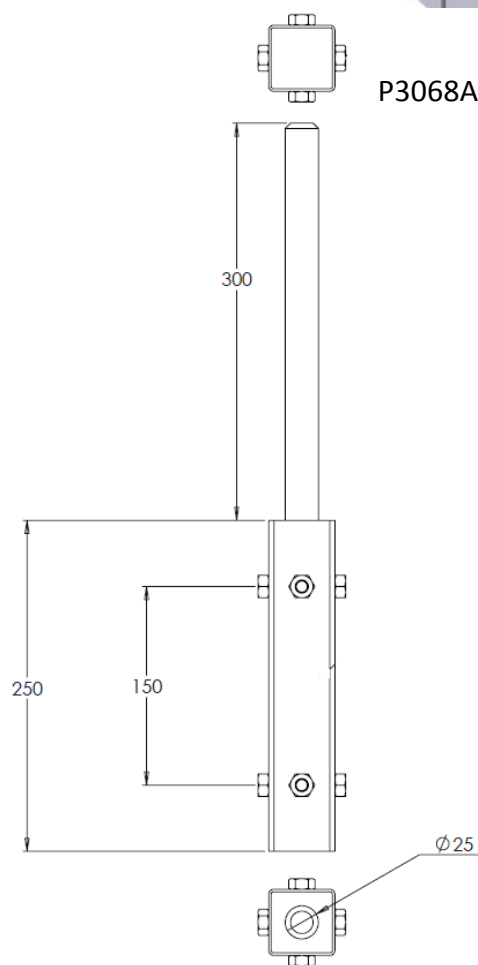
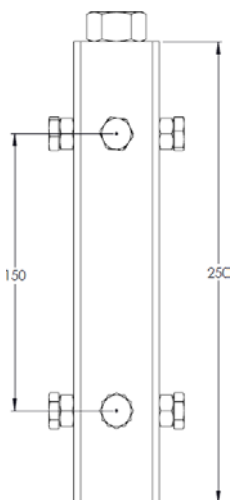
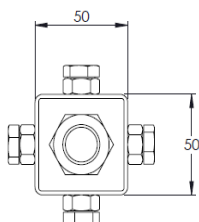
P3068A

## Dimensions (mm)

P3066B

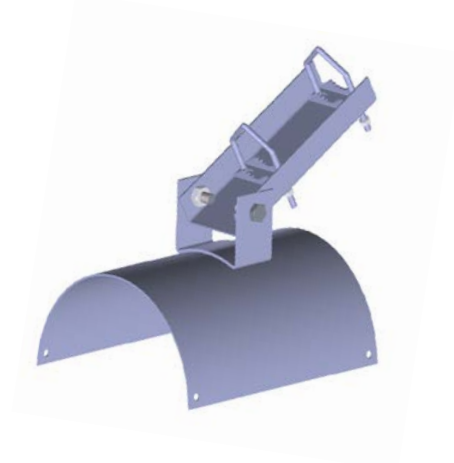


P3067B

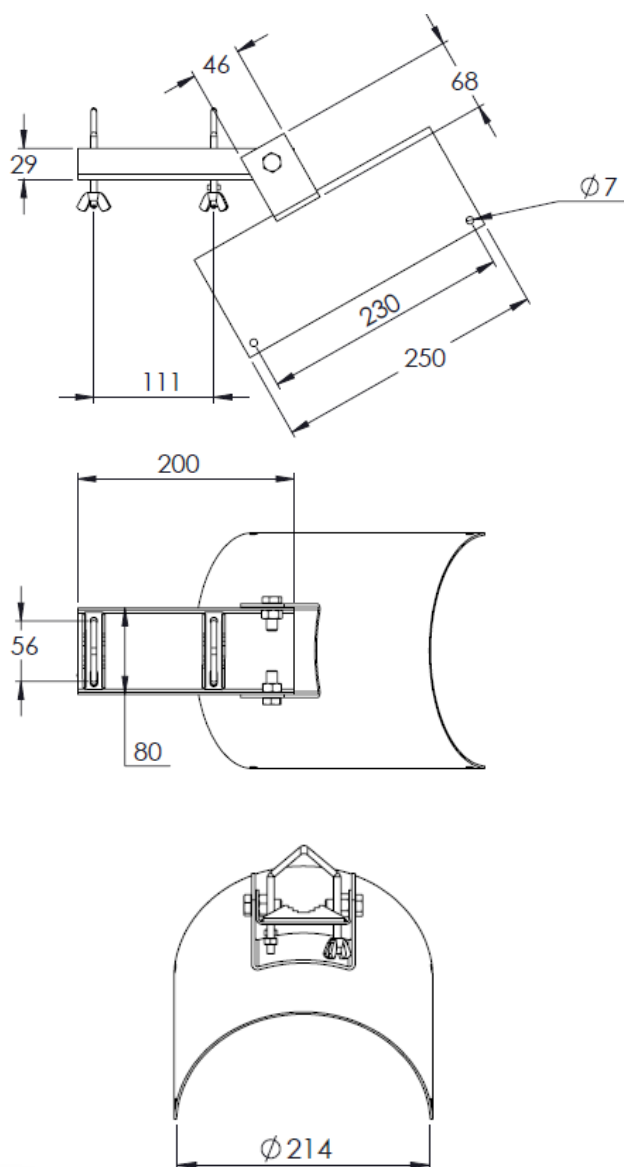


# Pivoting Base

Characteristics	P3081
Material	Dichromate steel
Weight (kg)	2.055
Ø max (mm)	50
Application	Withstanding elevation mast on roof ridge (in complement of guy wiring)



## Dimensions (mm)



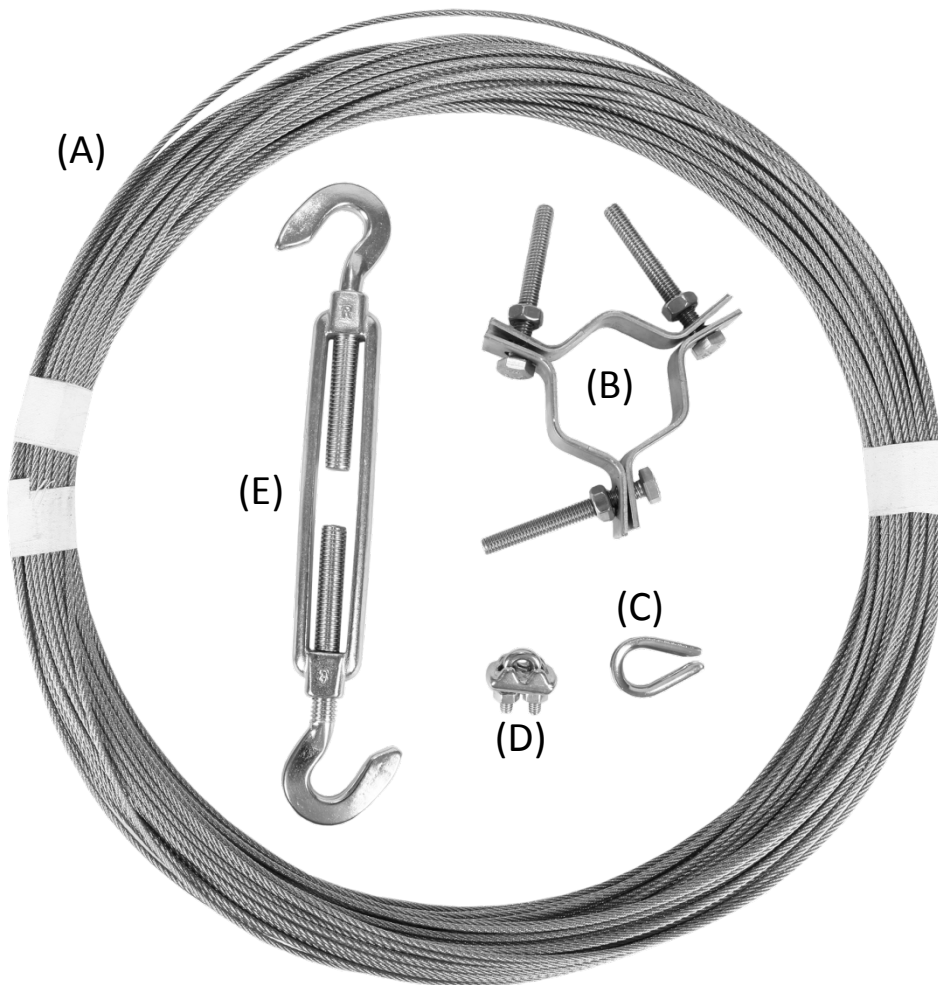
## Application





# Steel Guy Wire Kit

Characteristics	P3082	P3083
Material	Galvanized steel	Stainless steel
Weight (kg)	2.265	2.315
Application	This kit provides all the necessary parts for attaching guy wires to an Indelec 4 section pole. T	
Contents:	50m galvanized steel cable Ø2mm (A) 2 mast collar (B) 12 heart thimbles (C) Cable clips(D) 6 tensioners (E)	



# Tapped Air Rod

Characteristics	P4001	P4002	P4003	P4004
Material	Chromium plated copper		Stainless steel	
Weight (kg)	0.585	1.035	0.520	0.920
Diameter (mm)	18	18	18	18
Length (mm)	300	500	300	500
Fixing	Air rod base (P4050B, P4060), Angle saddle(P4051B, P4061B) or pivot saddle(P4052B)			
Standard	EN 62561-2			



P4001



P4002

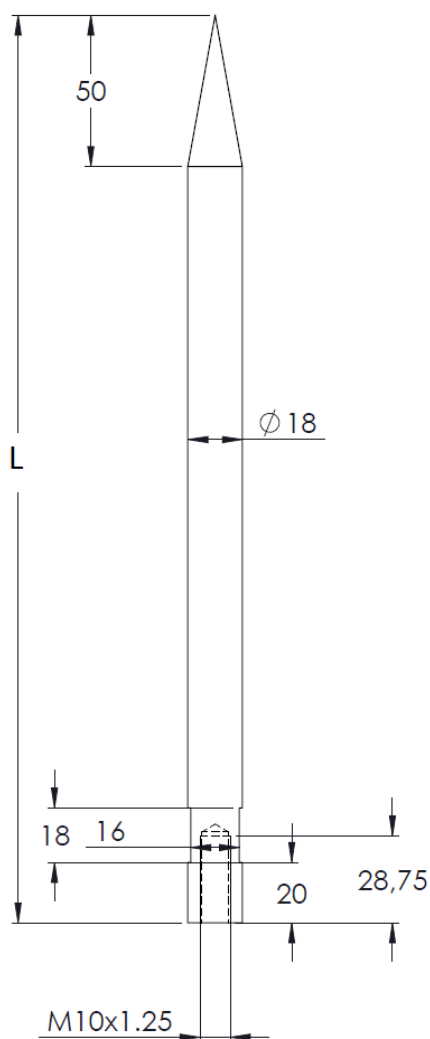


P4003



P4004

## Dimensions (mm)



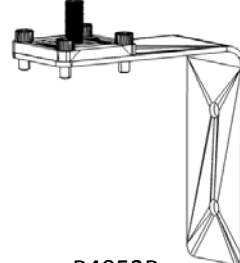
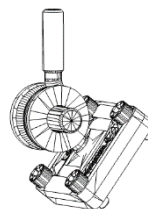
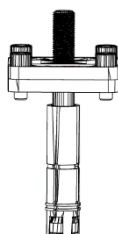
P4050B



P4051B



P4052B



# Threaded Air Rod

Characteristics	P4005C	P4006C
Material	Chromium plated copper	Stainless steel
Weight (kg)	0.720	0.640
Ø (mm)	20	
Height ( mm)	300	300
Fixation	By screwing on a mast (Ref : P2001)	
Standard	EN 62561-2	

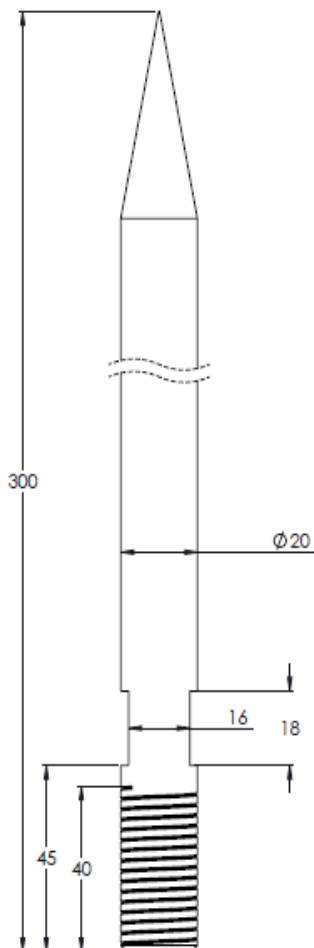
## Dimensions (mm)



P4005C

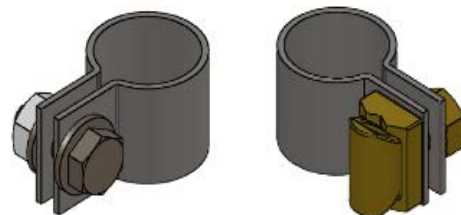


P4006C



# Rod to Conductor Clamp

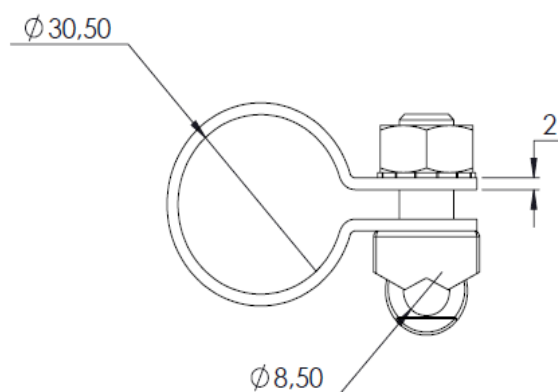
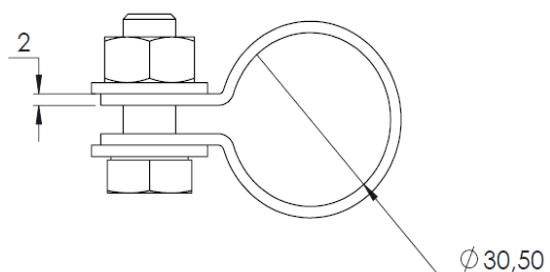
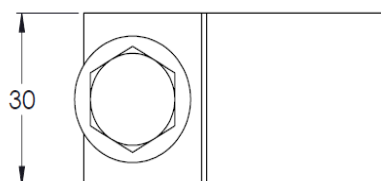
Characteristics	P3095	P3096
Material	Stainless Steel	
Diameter (mm)	30.5	
Application	Flat conductor connection	Round conductor connection



P3096

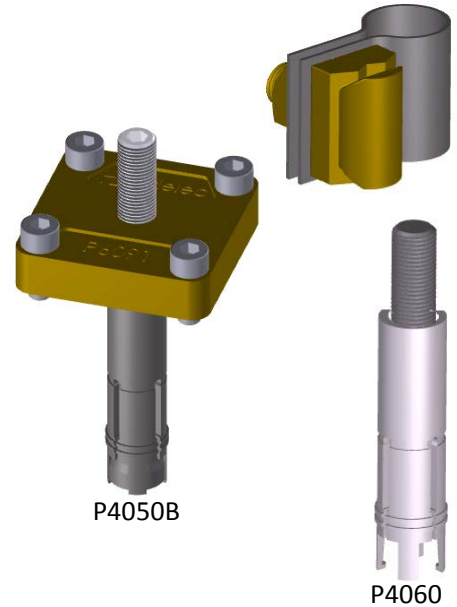
P3095

## Dimensions (mm)



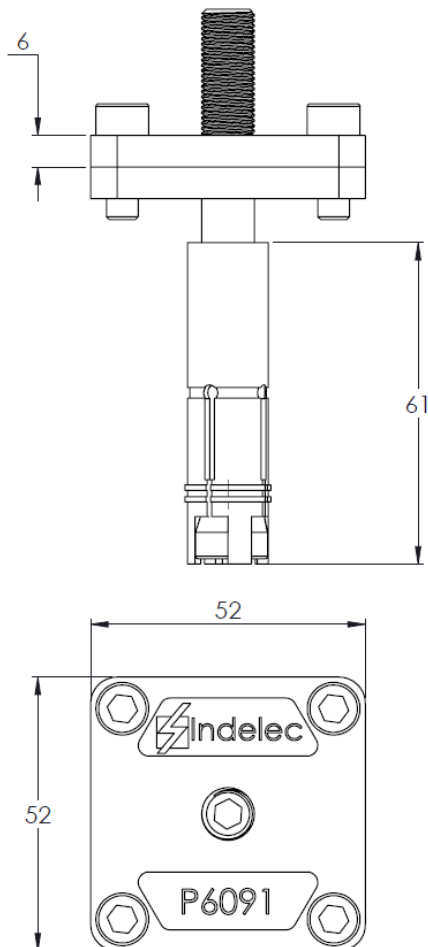
# Air Rod Base

Characteristics	P4050B	P4060
Material	Brass	Copper
Weight (kg)	0.390	0.185
Connection	Flat conductor by clamping between plates	Round conductor by a collar at the base of the air rod
Fixation	Screw and anchor bolts	
Application	Fixation of threaded air rod and connection for tape or round conductor	
Standards	EN 62561-1, EN 62561-4	

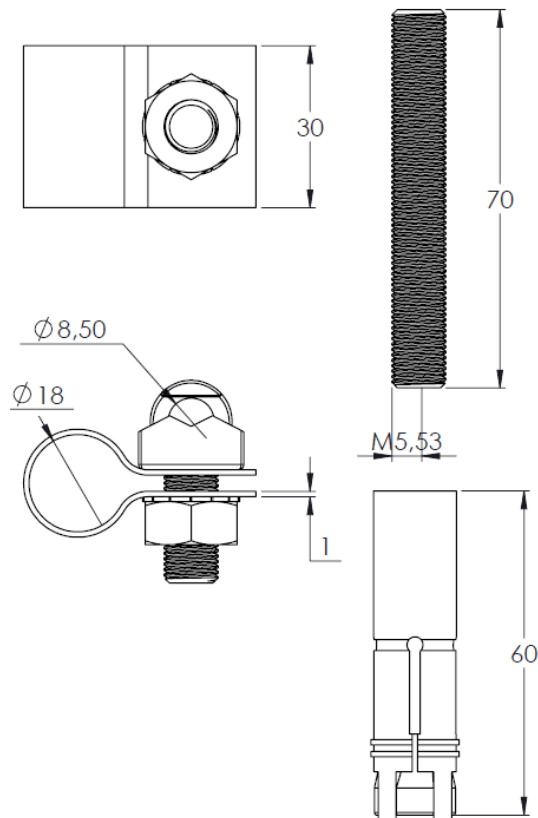


## Dimensions (mm)

P4050B



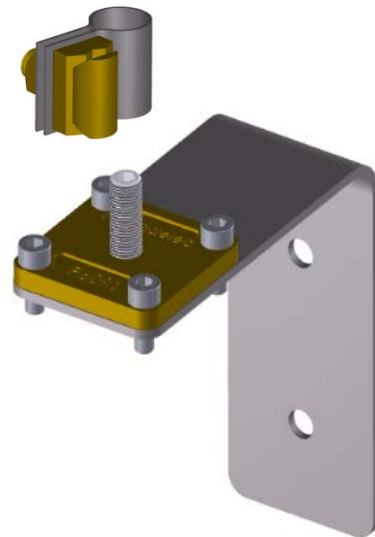
P4060



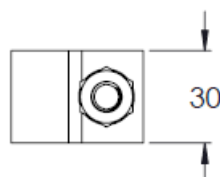
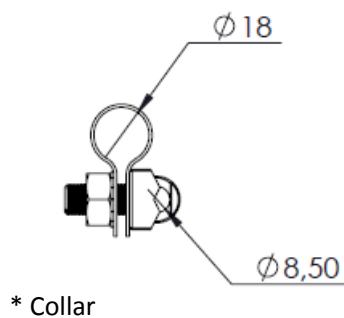
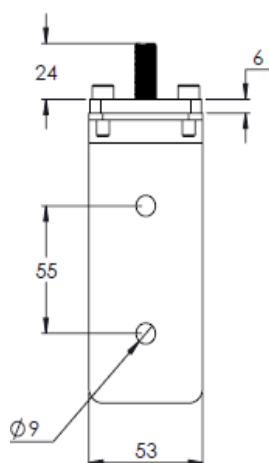
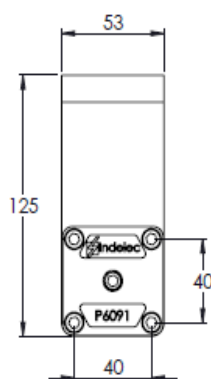
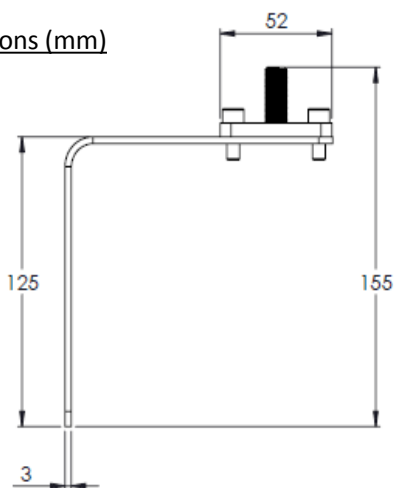
P4060

# Air Rod Angle Saddle

Characteristics	P4051B	P4061B
Material	Stainless steel, brass	
Weight (kg)	0.445	0.550
Conductor	Flat, max 30x2	Round $\varnothing$ max 10 mm
Connection	clamping between the plates	collar to be placed at the base of the tip
Composition	Saddle	Saddle + collar*
Application	Fixing tapped air road In offset on a vertical wall, and connection to round or flat conductor	
Standards	EN 62561-1, EN 62561-4	

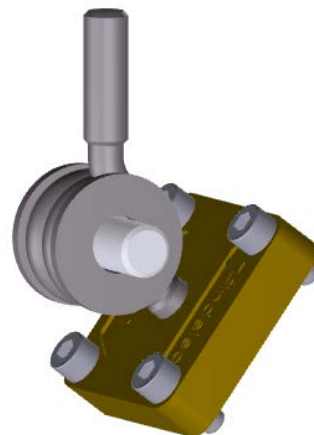


Dimensions (mm)

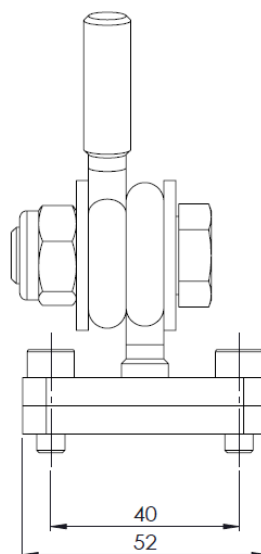
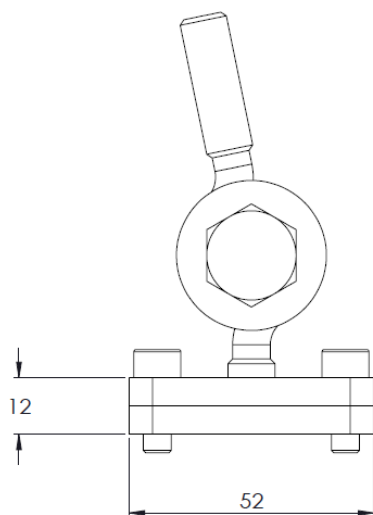
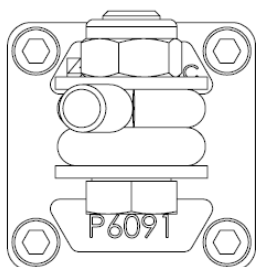


# Pivoting Saddle

Characteristics	P4052B
Material	Stainless steel - brass
Weight (kg)	0.430
Connection	Flat conductor clamped between the plates
Application	Fixing the tip and conductors on an inclined support
Standards	EN 62561-1, EN 62561-4



## Dimensions (mm)

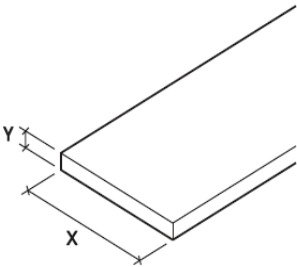


# Conductors

## TAPE CONDUCTORS

### Standard EN 62561-2

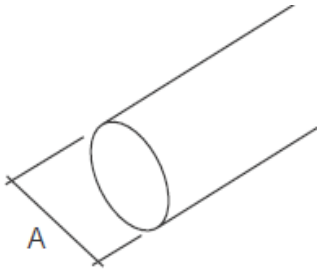
Ref.	Dimensions (X x Y) mm	Material	Weight per meter (kg)	Length
P5001B	27 x 2	Tinned copper	0.500	50m Coil
P5001H	27 x 2	Tinned copper	0.500	70m Coil
P5001X	27 x 2	Tinned copper	0.500	Per meter
P5004	30 x 3	Aluminum	0.230	90m Coil
P5005	30 x 2	Stainless steel AISI 304	0.500	60m Coil
P5006	30 x 3,5	Galvanized steel	0.850	60m Coil



## ROUND CONDUCTORS

### Standard EN 62561-2

Ref.	Diameter (A) mm	Material	Weight per meter (kg)	Length
P5011	8	Tinned copper	0.464	50m Coil
P5012	8	Bare Copper	0.440	70m Coil
P5013	8	Galvanized steel	0.395	Per meter
P5015	10	Aluminium	0.215	90m coil
P5016	8	Stainless steel AISI	0.400	60m coil



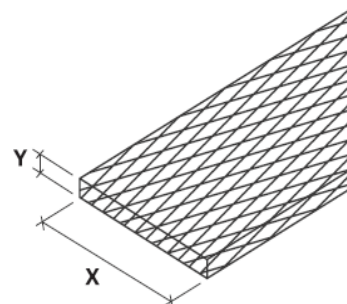


# Flexible Conductors

## COPPER BRAID

### Standard EN 62561-2

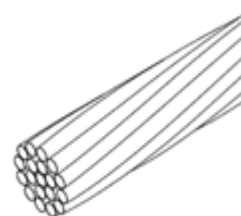
Ref.	Dimensions (X x Y) mm	Section mm <sup>2</sup>	Material	Weight by meter (kg)	Length
P5021	30 x 3,5	50	Tinned copper	0.470	25m Coil
P5025	16 x 2	16	Tinned copper	0.144	50m Coil



## CABLE

### Standard EN 62561-2

Ref.	Section mm <sup>2</sup>	Material	Weight by meter (kg)	Length
C836	50	Raw copper	0.420	Coil 50m



## FLEXIBLE COPPER EARTH BRAID

### Standard EN 62561-2

Ref.	Section mm <sup>2</sup>	Length (L) mm	Ø eyelet (A) mm	Material	Weight (kg)
P5022	50	300	10,5	Tinned copper	0.185
P5023	50	500	10,5	Tinned copper	0.290
P5024	50	1000	10,5	Tinned copper	0.520

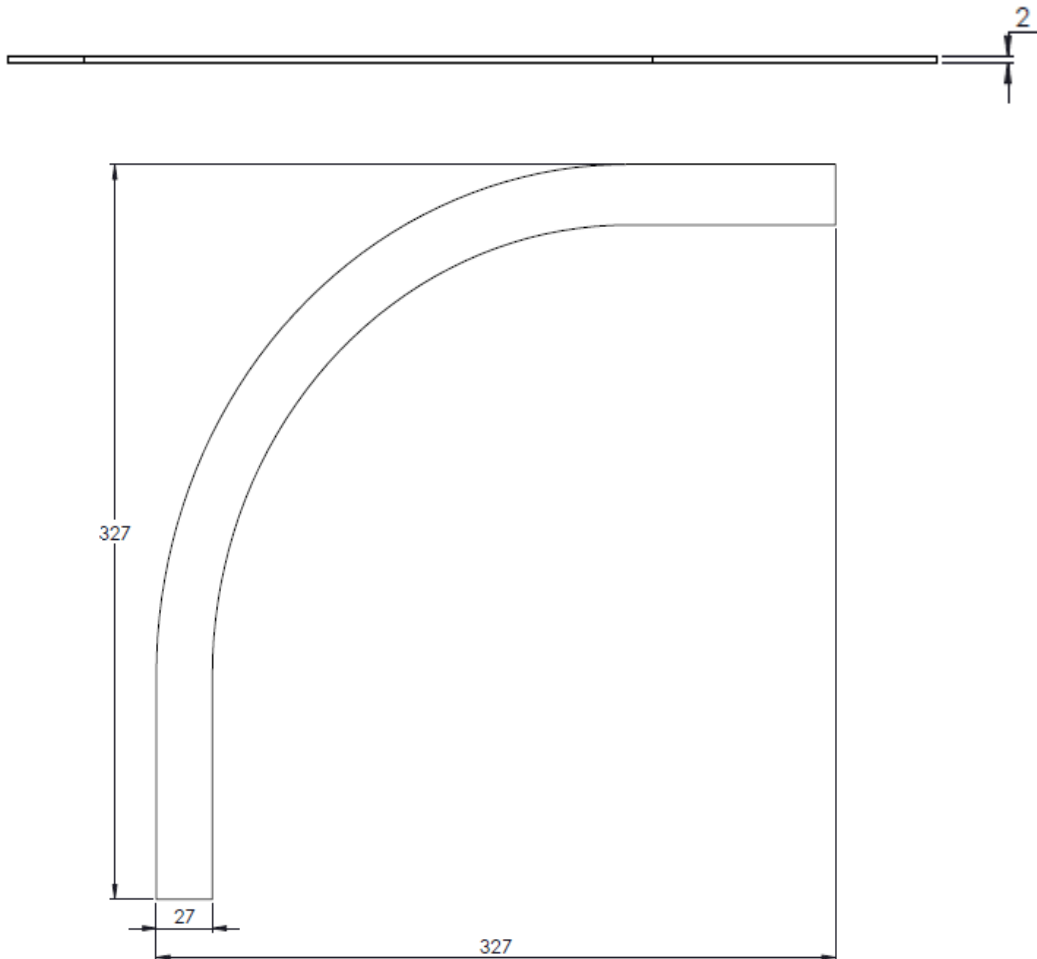


# Tinned Copper Tape Elbow

Characteristics	P5007
Material	Tinned copper
Weight (kg)	0.245
Application	achieve an angle with tape conductor

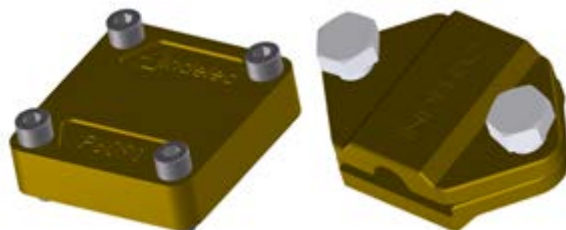


## Dimensions (mm)



# Brass Square Clamp

Characteristics	P6091C	P6092
Material	Brass	
Conductor	Flat	Flat or round
Weight (kg)	0.275	0.205
Application	Connection between conductors	
Standard	EN 62561-1	

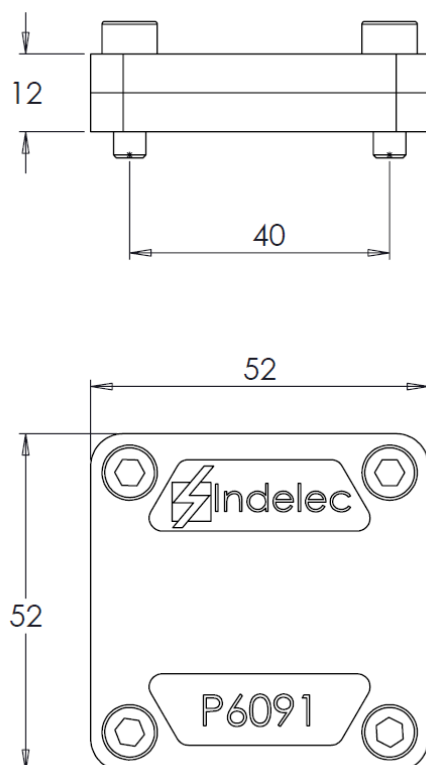


P6091C

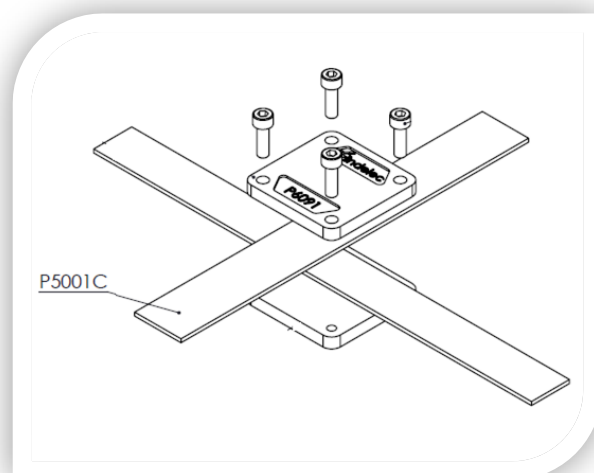
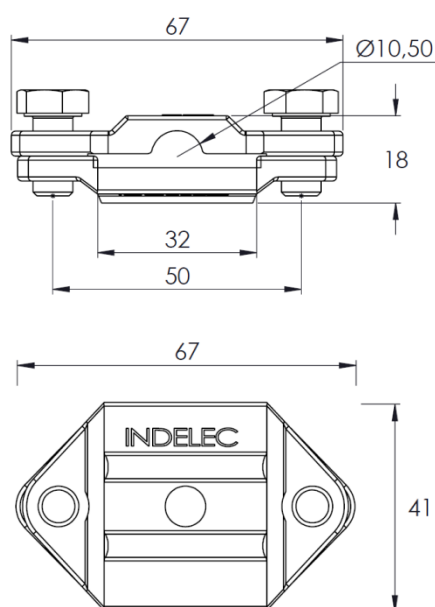
P6092

## Dimensions (mm)

P6091C



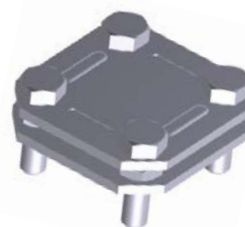
P6092



Application

# Galvanized steel Square Clamp

Characteristics	P6098B	P6099B
Material	Galvanized steel	
Conductor	Tape	Tape or Round
Weight (kg)	0.220	0.250
Application	Connection between 2 tape conductors	Connection between 2 tape or round conductors
Standard	EN 62561-1	



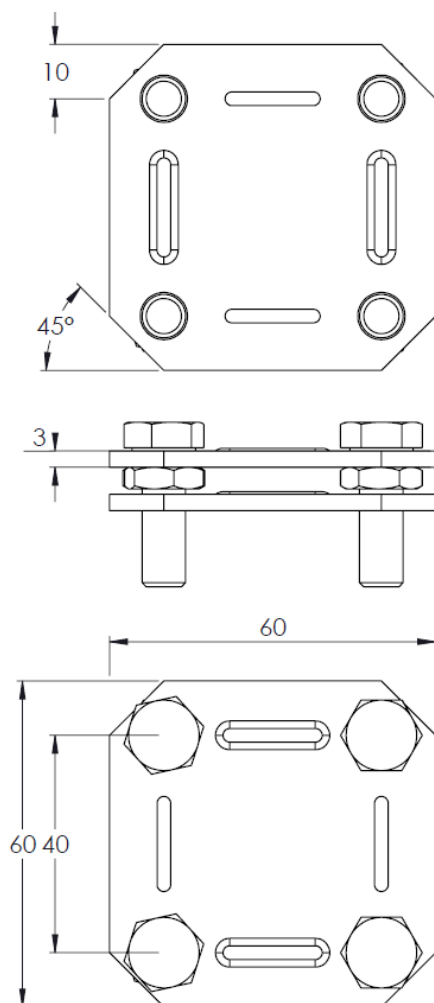
P6098B



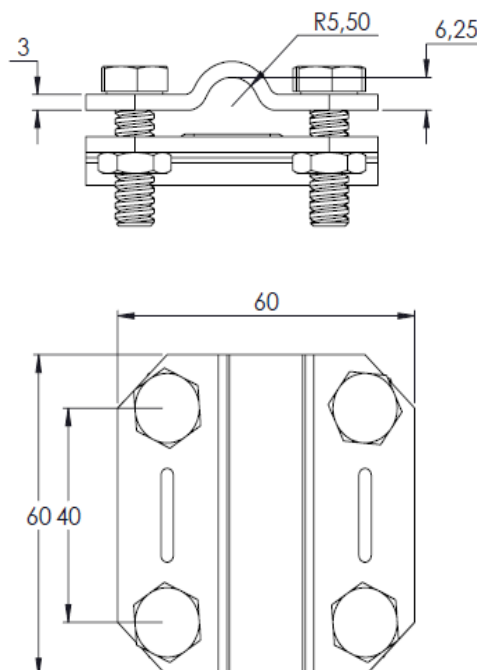
P6099B

## Dimensions (mm)

P6098B

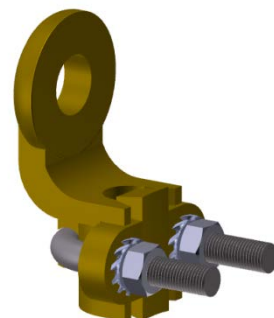


P6099B

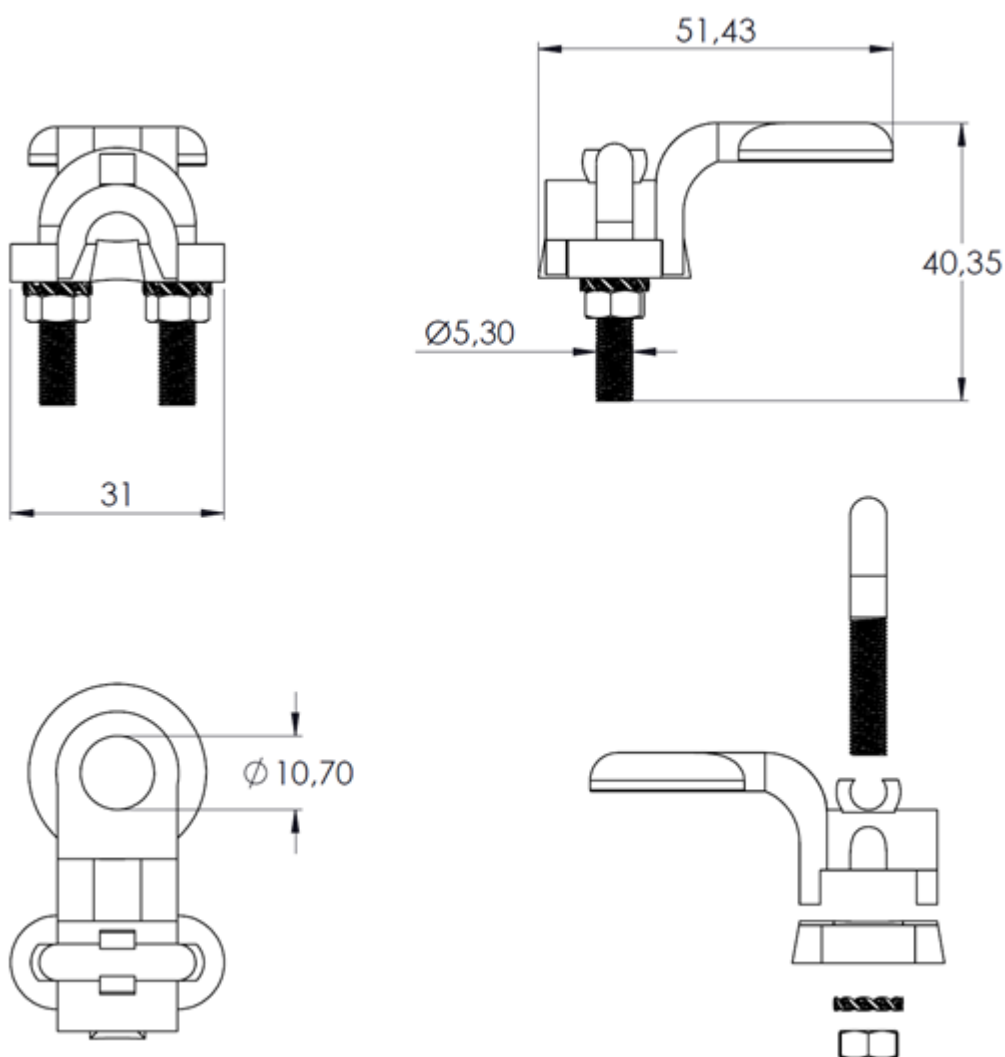


# Brass Socket for Round Conductor

Characteristics	P6096
Material	brass
Weight (kg)	0.075
Application	Connecting round conductor on earth bar
Standard	EN 62561-1

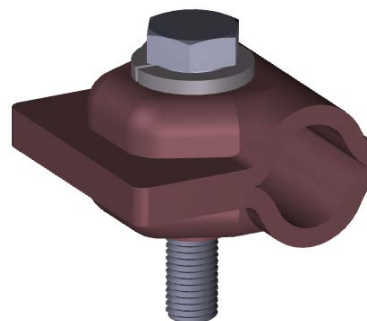


## Dimensions (mm)

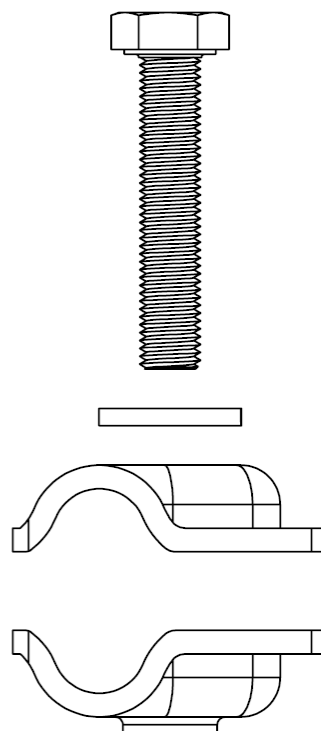
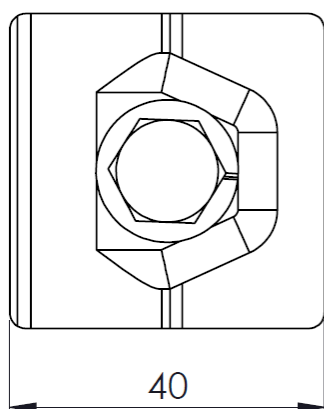
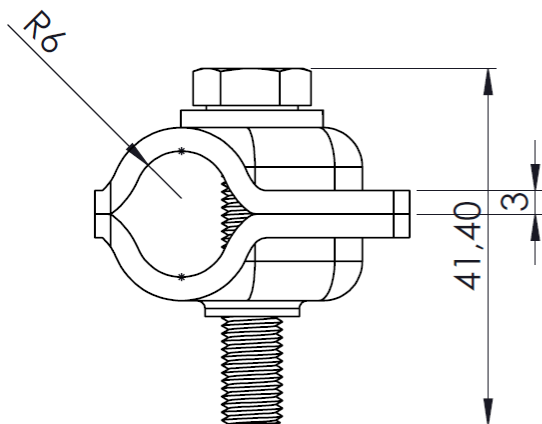


# Multi Purpose Square Clamp for Round Conductor

Characteristics	P6097
Material	Copper
Weight (kg)	0.115
Application	Connecting round conductors (8mm)
Standard	EN 62561-1

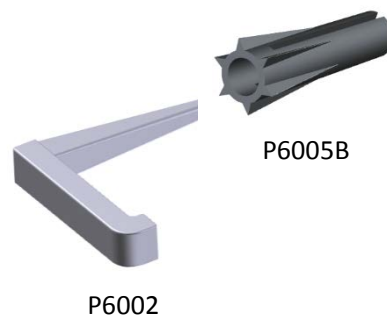


## Dimensions (mm)

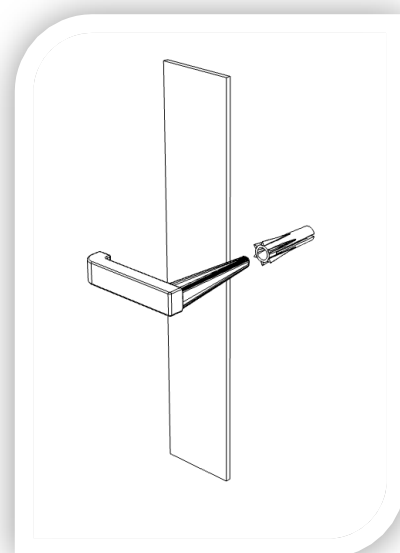
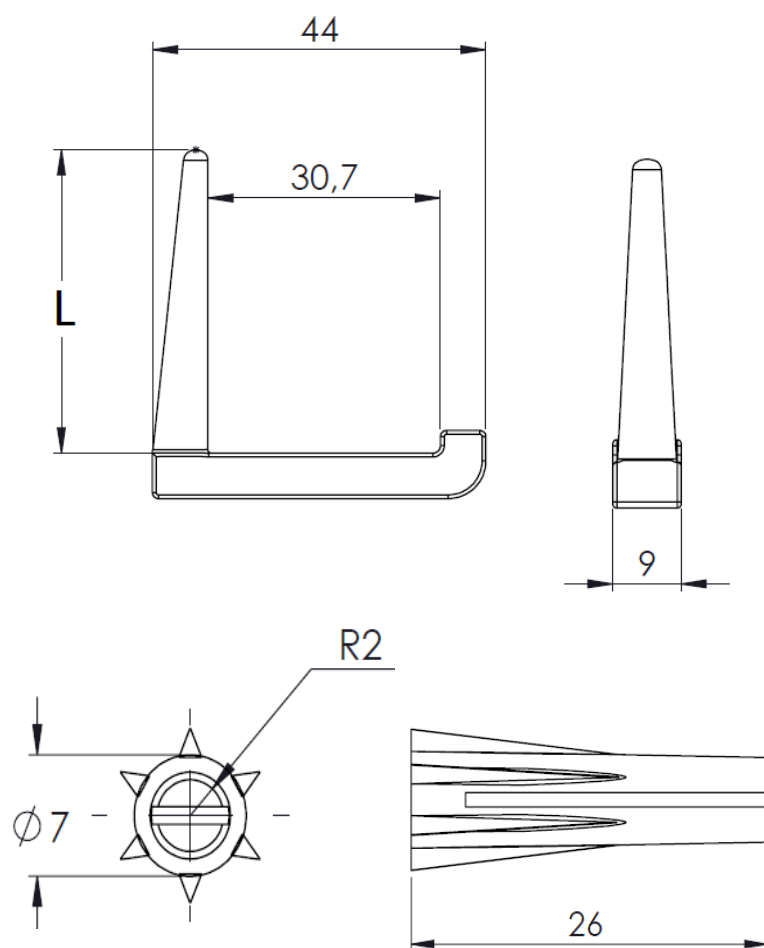


# Galvanized Steel Hook and Lead Plug

Characteristics	P6001	P6002	P6005B
Materiel	Galvanized steel		Lead
Length L (mm)	30	40	26
Weight (kg)	0.015	0.025	0.005
Application	Maintain tape conductor on concrete wall		
Standard	EN 62561-4		



## Dimensions (mm)

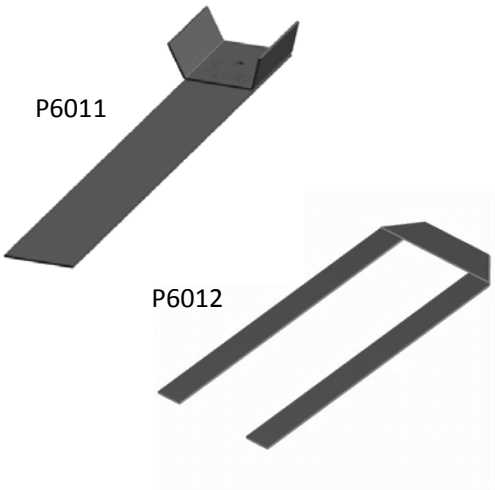


## Application

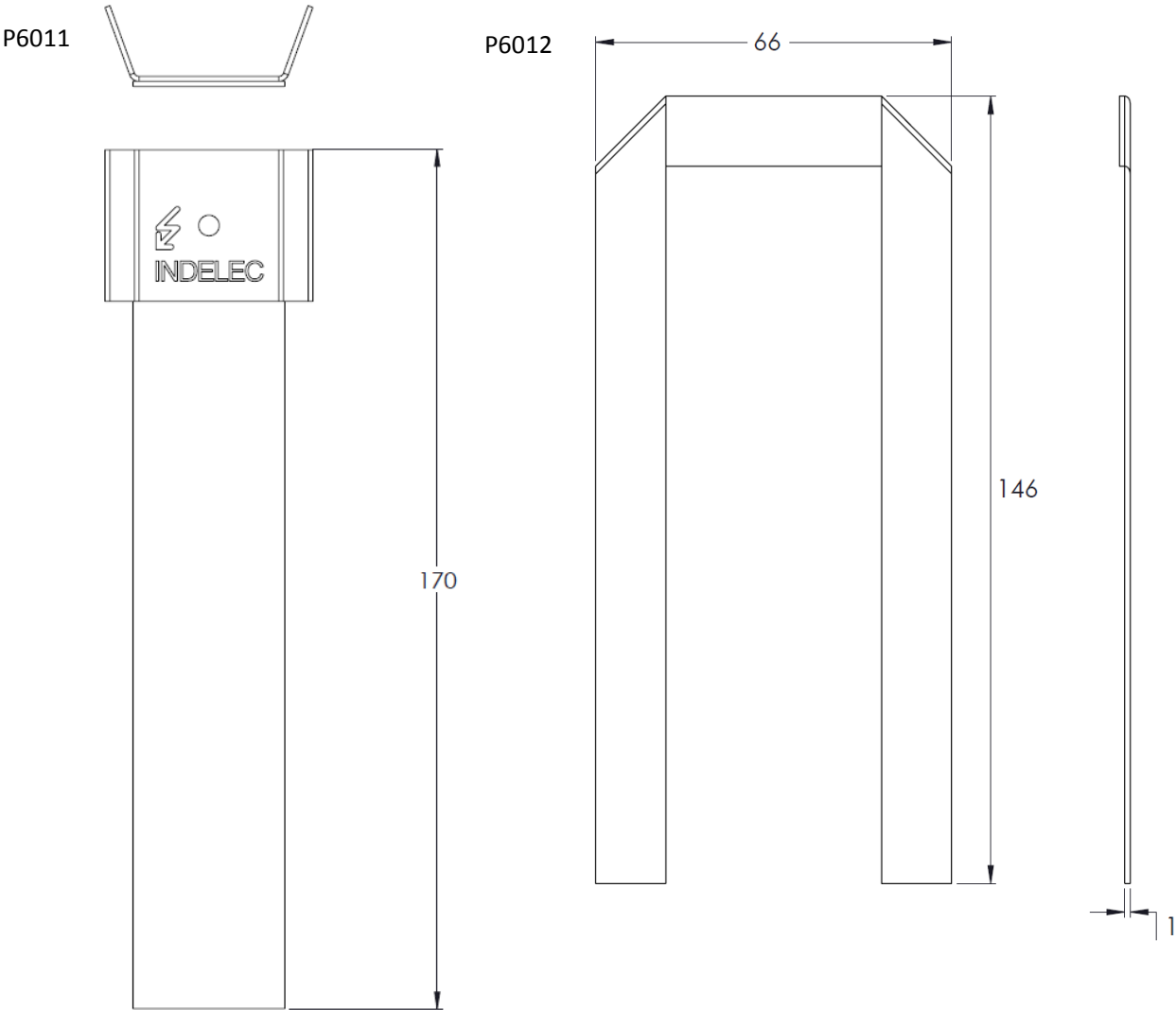
Drilling  $\phi$  of the wall  
7mm

# Slate Holdfast for Tape

Characteristics	P6011	P6012
Material	Tinned copper	
Weight (kg)	0.065	0.030
Thickness (mm)	1	1
Application	Used to fix tape on a tile or slate roof. The mounting is pushed in between two tiles and the two flanges folded back to hold the conductor in place	Used to fix tape on a tile or slate roof. The mounting is pushed in between two slates and the conductor is welded on.
Standard	EN 62561-4	



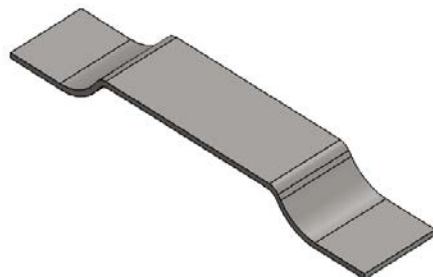
### Dimensions (mm)



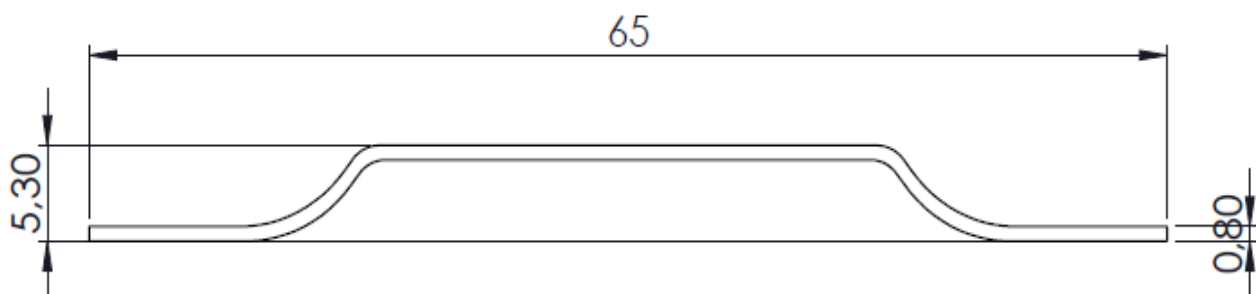


# Tinned Copper Welding Clip

Characteristics	P6021
Material	Tinned copper
Weight (kg)	0.150
Thickness (mm)	1
Application	Used to fix tape on to a metal roof (e.g. zinc or lead). The clip is welded to the roof on either side of the tape.
Standard	EN 62561-4



## Dimensions (mm)

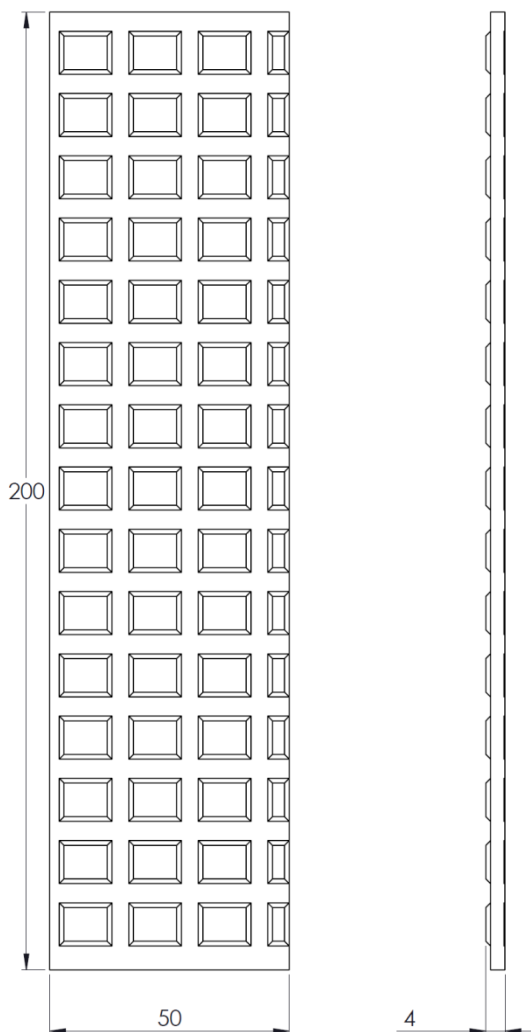


# Heat Weldable Holdfast (x25)

Characteristics	P6031
Material	Aluminum, tar
Weight (kg)	1.320 (pack of 25 pcs)
Packing	25 pieces
Application	Used to fix tape to waterproof roofing felt.

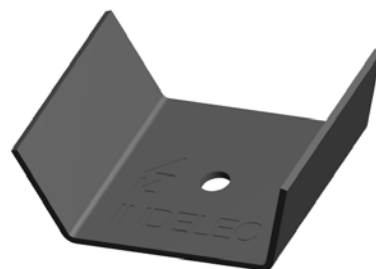


## Dimensions (mm)

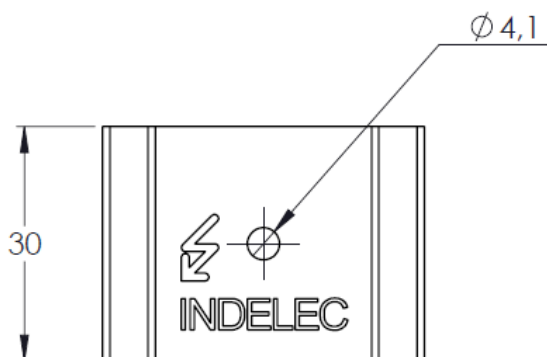
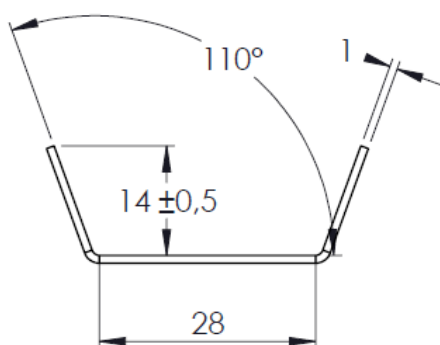


# Tinned Copper DC Tape Clip

Characteristics	P6041
Matter	Tinned copper
Weight (kg)	0.010
Thickness	1mm
Application	The fold-back clip is first fixed to the support wall by means of pop rivets, metal screws or expanding plugs.
Standard	EN 62561-4



## Dimensions (mm)

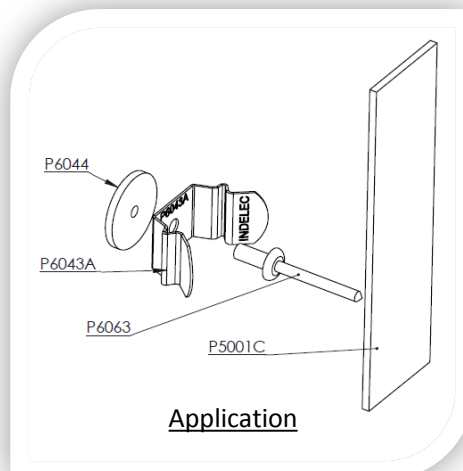
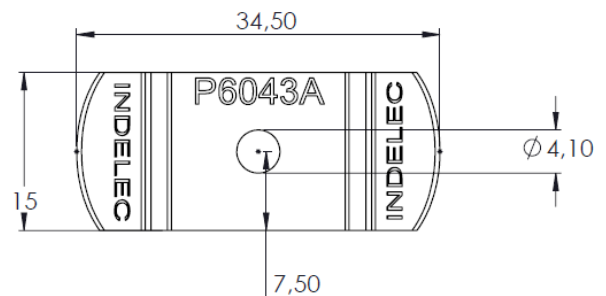
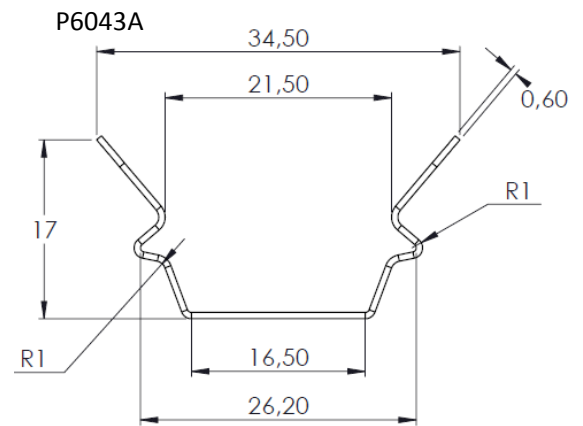
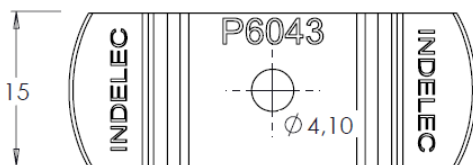
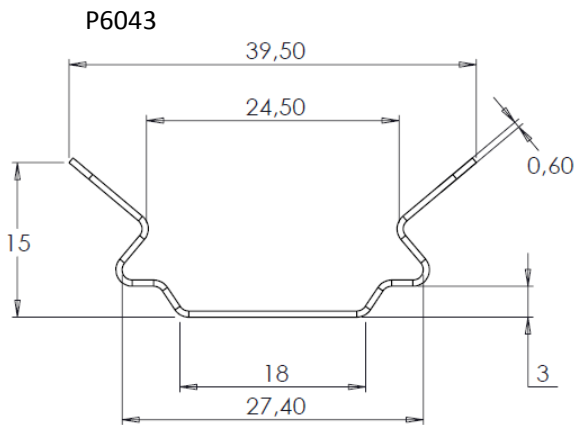


# Stainless Steel Push-In DC Tape Clip

Characteristics	P6043	P6043A
Conductors	tape 30x2 mm	Tape 27x2 mm
Material	Stainless Steel	
Weight (kg)	0.004	
Fixing	By screws, rivets (not included), waterproofing thanks to washer (ref: P6044)	
Application	These clips hold the tape in place and are either pop-riveted or screwed down.	
Standard	EN 62561-4	



## Dimensions (mm)



## Application

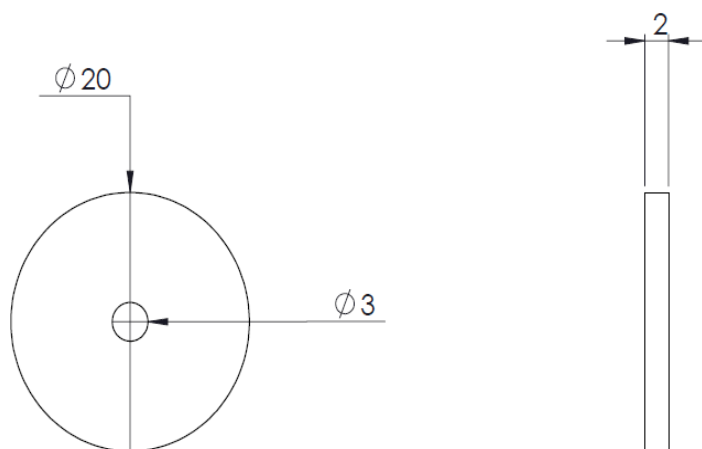


# Rubber Sealing Plain Washer

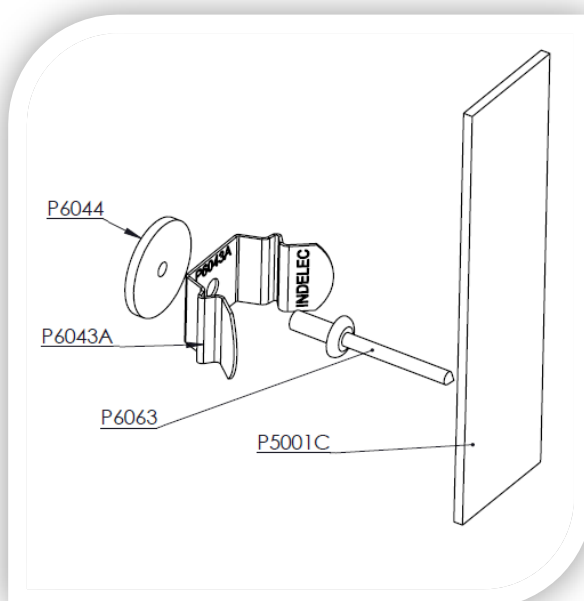
Characteristics	P6044
Material	Rubber
Weight (kg)	
Application	Used with rivets to hold fixings such as clips in place on steel surfaces or cladding panels. The rivets supplied are waterproof.



## Dimensions (mm)

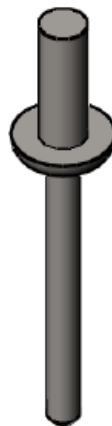


## Application

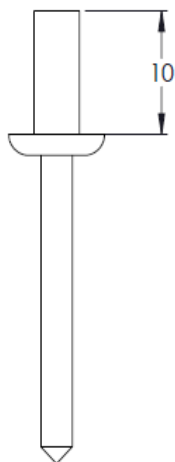


# Waterproof Pop Rivet

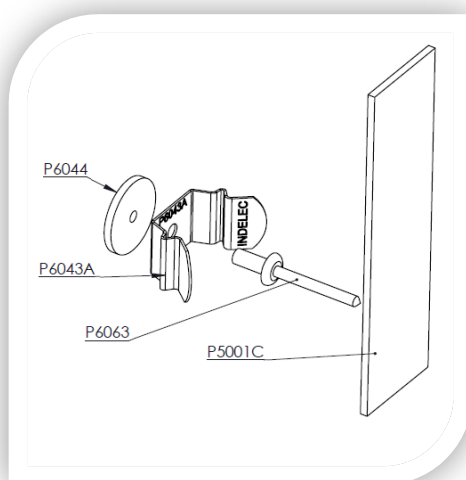
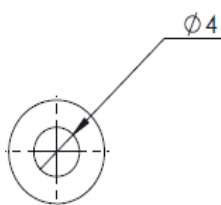
Characteristics	P6061	P6062	P6063
Material	Aluminium	Copper	Stainless steel
Weight (kg)	0.002		
Packing	100 units		
Application	These rivets are used to hold fixings such as clips in place on steel surfaces or cladding panels. The rivets supplied are waterproof.		



## Dimensions (mm)



Rivet Clamping Tool ref. P6064

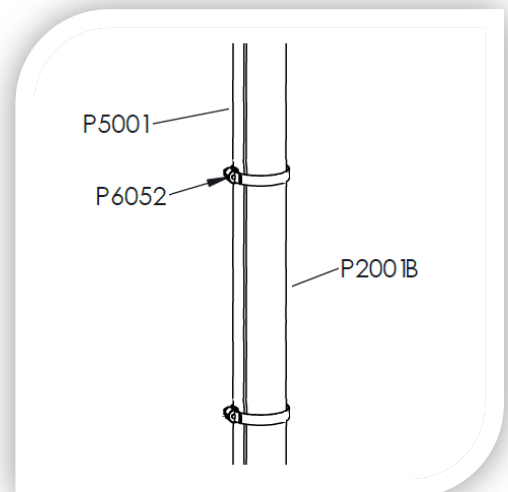
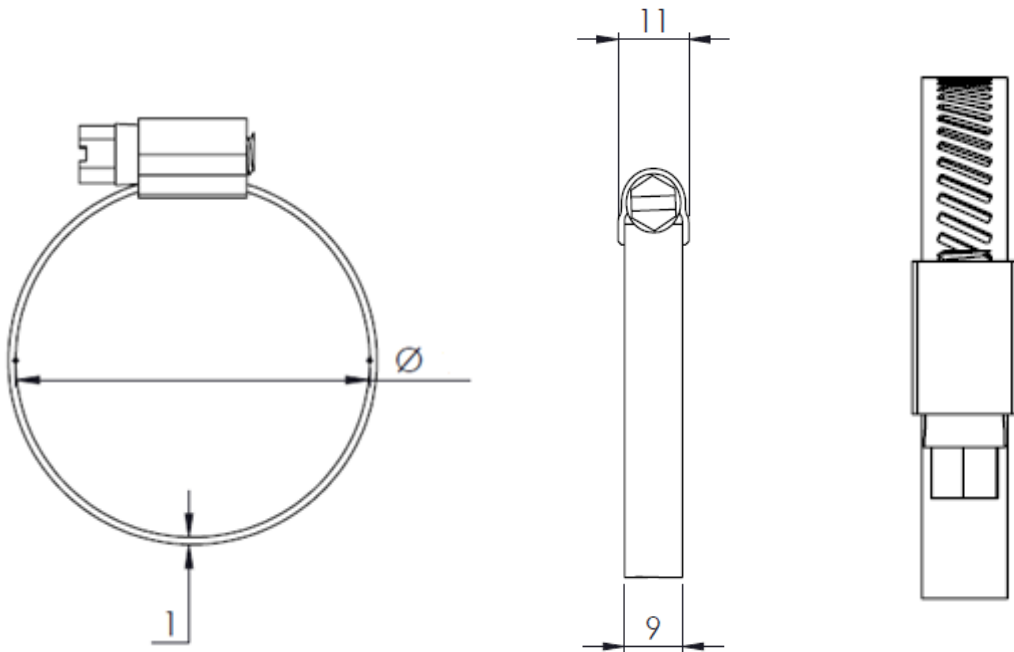


## Application



# Stainless Steel Mast Collar

Characteristics	P6051	P6052	P6053	P6054
Material	Stainless steel			
Weight (kg)	0.020	0.020	0.025	0.025
Ø (mm) min-maxi	32-50	40-60	60-80	70-90
Application	Used to maintain conductor on tube. The collar is held in place by screwing.			
Standard	EN 62561-4			



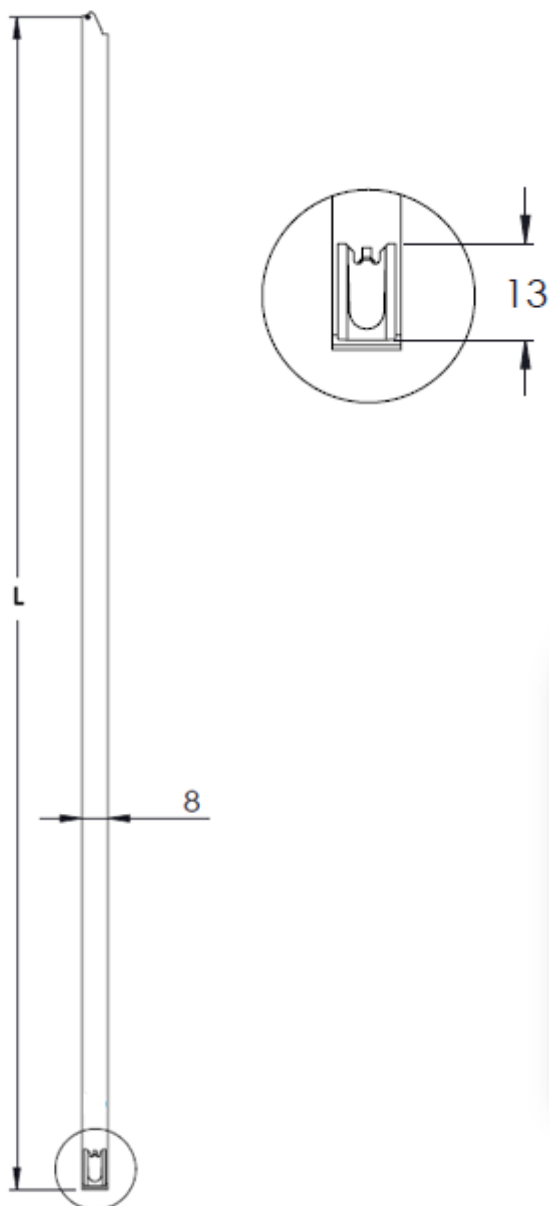
Application

# Stainless Steel Clamping Collar

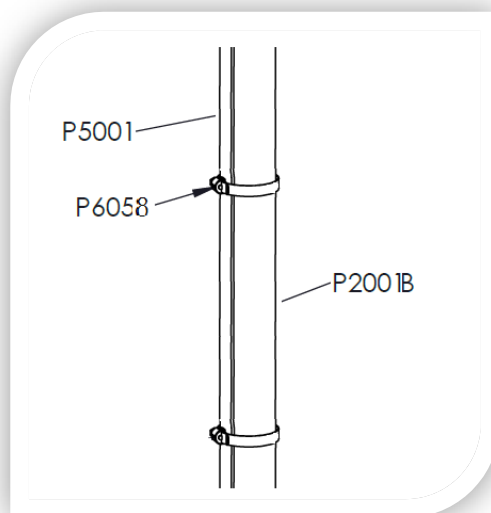
Reference	P6058	P6059
Material	Stainless steel	
Lenght (mm)	360	520
Weight (kg)	0.005	0.010
Application	Down Conductor fixing on tube. Self-locking collar which is permanently tightened around its support thanks dedicated pliers (ref P6060)	
Ø max (mm)	100	150
Normes	EN 62561-4	



## Dimensions (mm)



Collar Pliers ref. P6060



Application



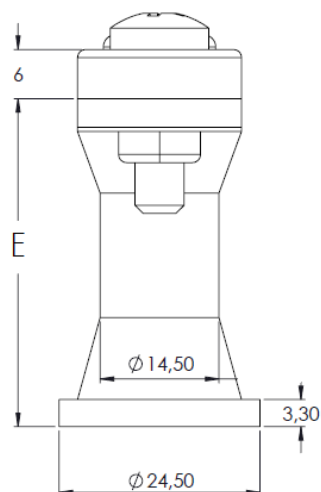
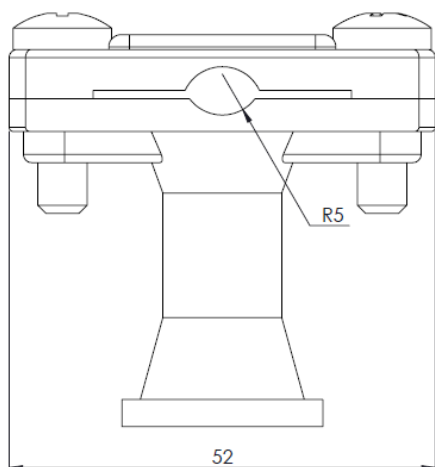
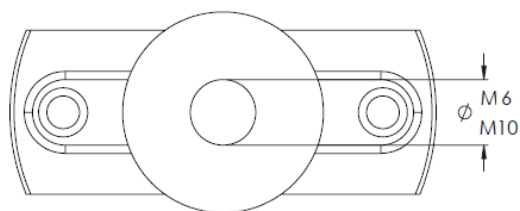
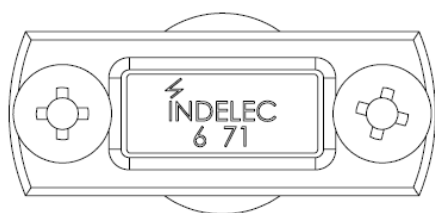


# Non Metallic DC Tape Clip

Characteristics	P6071	P6171	P6271
Material	PVC		
Weight (kg)	0.020	0.025	0.030
Application	Used to fix a flat conductor and provide insulation from the support.		
Offset (mm)	15	40	60
Fixing	To be screwed in place or held by a screw-in bracket (M6 - ref P6071) or M10 (ref P6171 & 6271)		
Standard	EN 62561-4		

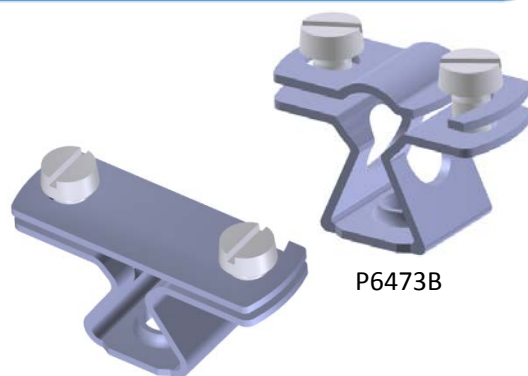


## Dimensions (mm)



# Metallic Holdfasts for Masonry

Caractéristiques	P6371C	P6473B
Mater	Stainless Steel	
Weight (kg)	0.70	
Application	Fixing flat conductor (30x3.5 mm)	Fixing round conductor ( $\varnothing$ 7- 10mm)
Fixing	M8 screw	
Standard	EN 62561-4	

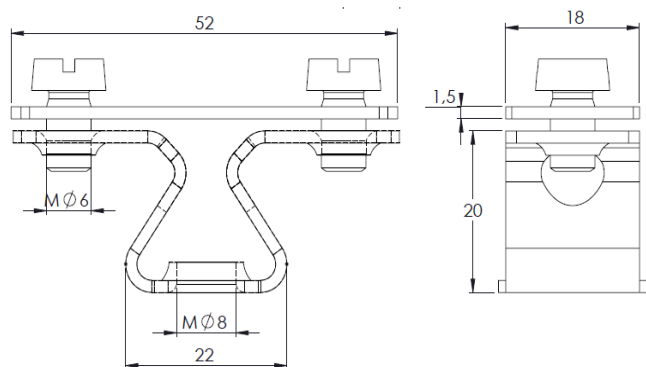


P6371C

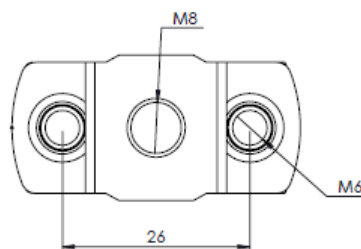
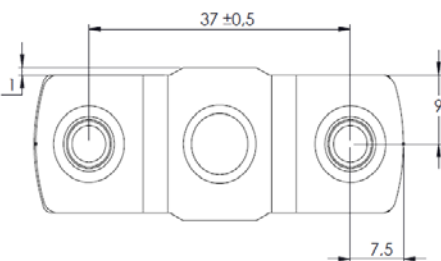
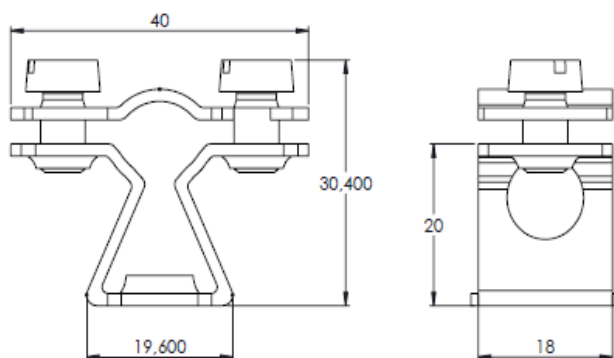
P6473B

## Dimensions (mm)

P6371C



P6473B

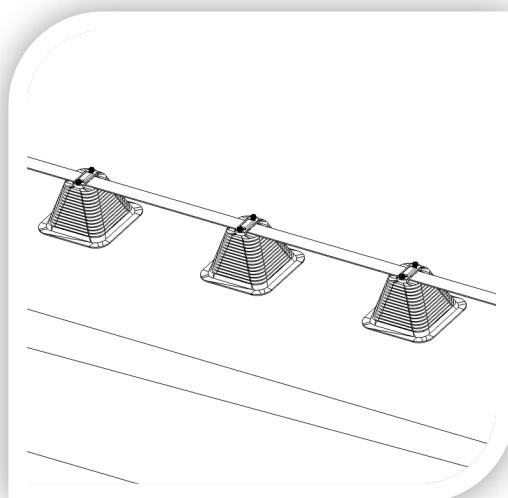
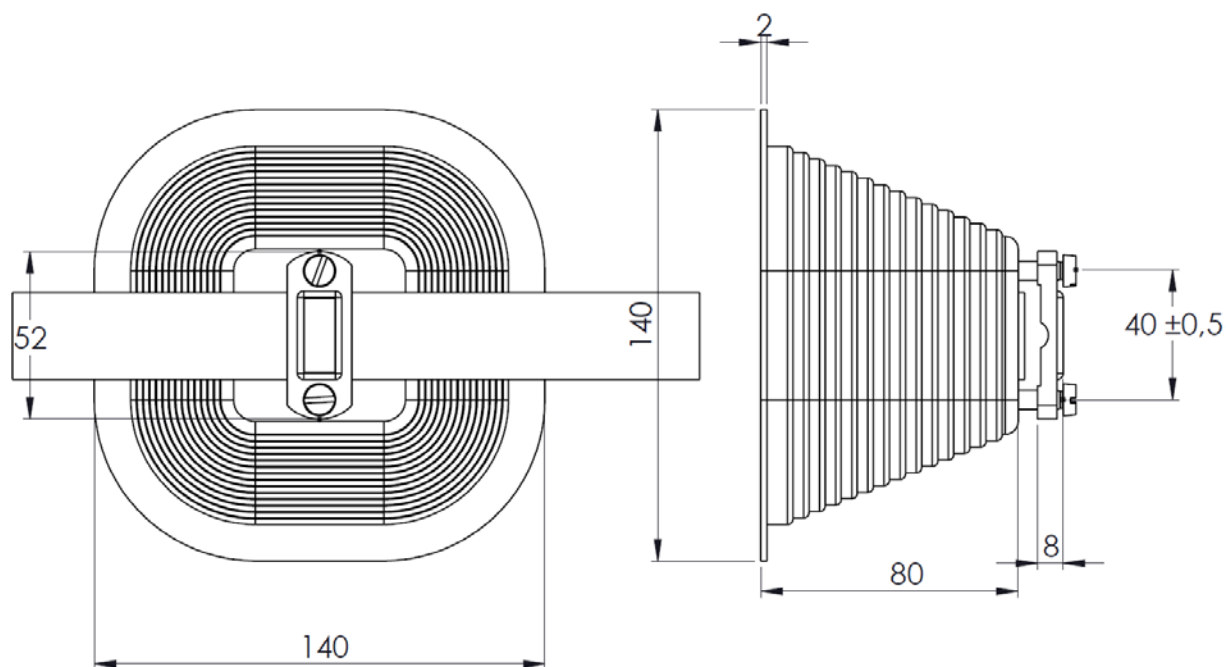


# Pyramid Holdfast

Characteristics	P6081	P6084
Material	Plastic (empty)	Plastic – cement (full)
Weight (kg)	0.100	1.025
Conducteurs	Flat 30 x 3,5 mm maxi – Round Ø 6-10mm	
Application	Conductor support	
Standard	EN 62561-4	



## Dimensions (mm)

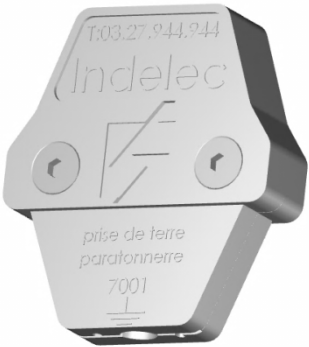


## Application

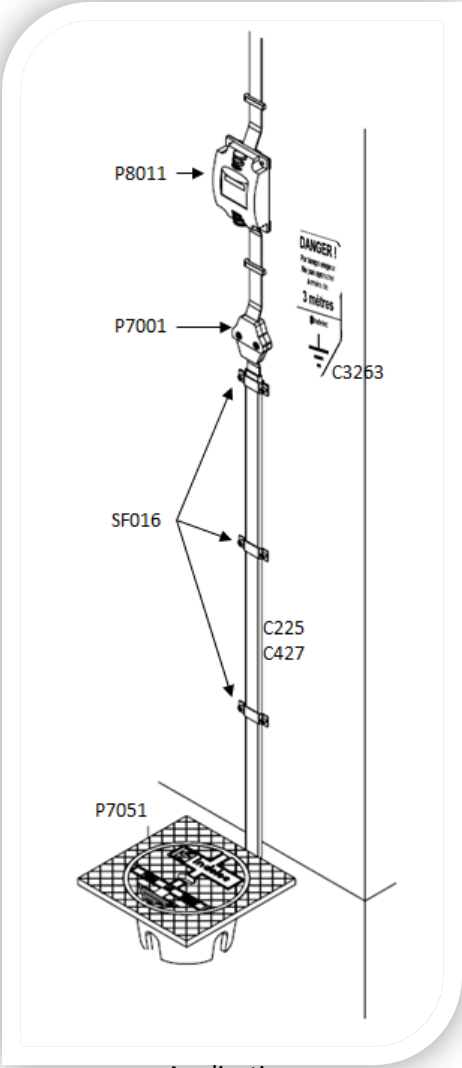
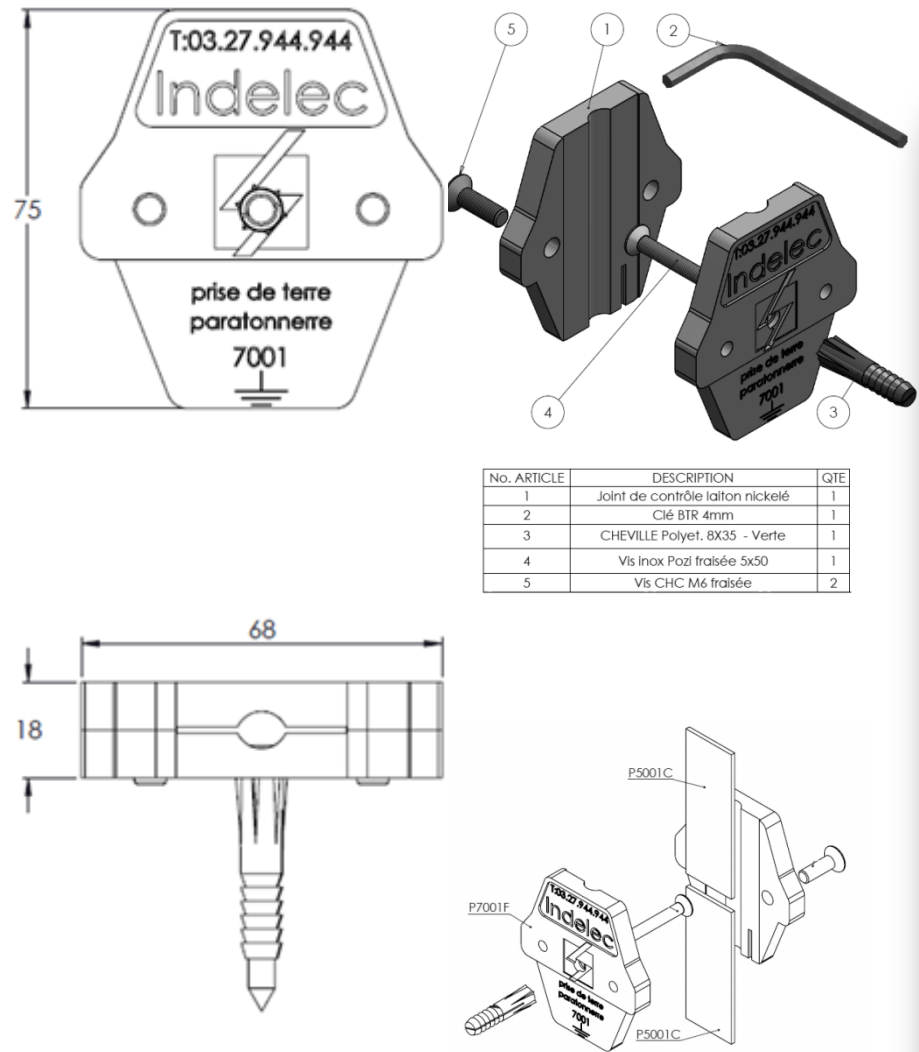


# Test Clamp

Characteristics	P7001F
Matter	Stamped brass
Weight (kg)	0.535
Application	allows the down conductor to be disconnected from the earthing point so that the earth resistance may be measured
Standard	EN 62561-1



Dimensions (mm)



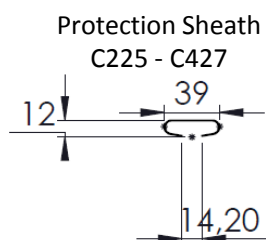
Application



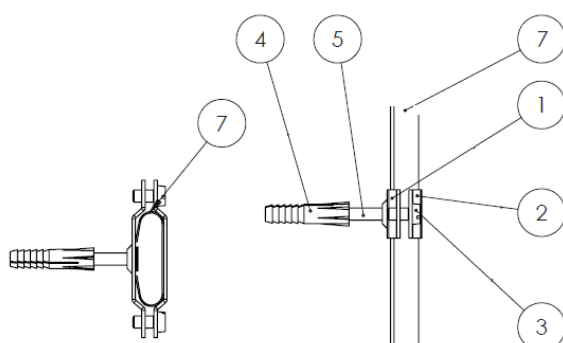
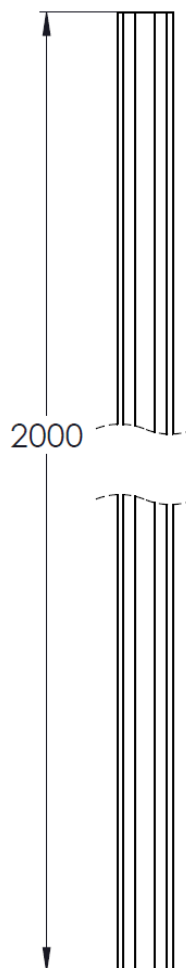
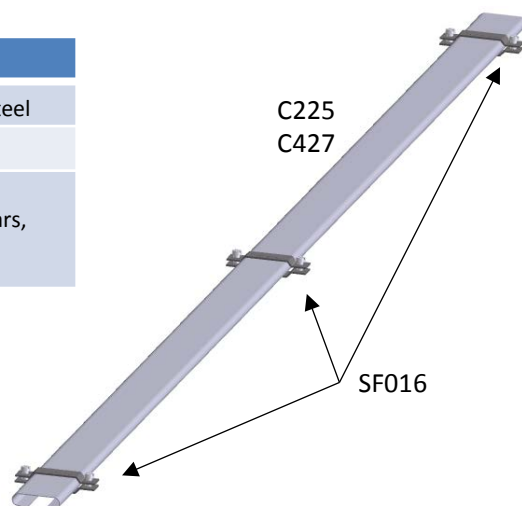
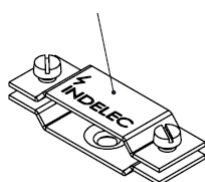
# Protection Sheath for Tape Conductor

Characteristics	C225	C427	SF016
Material	Galvanized steel	Stainless Steel	Stainless Steel
Weight (kg)	0.935	0.935	0.125
Application	Ensures the down conductor is physically shielded from knocks at ground level.		Fixing collars, 3 pieces

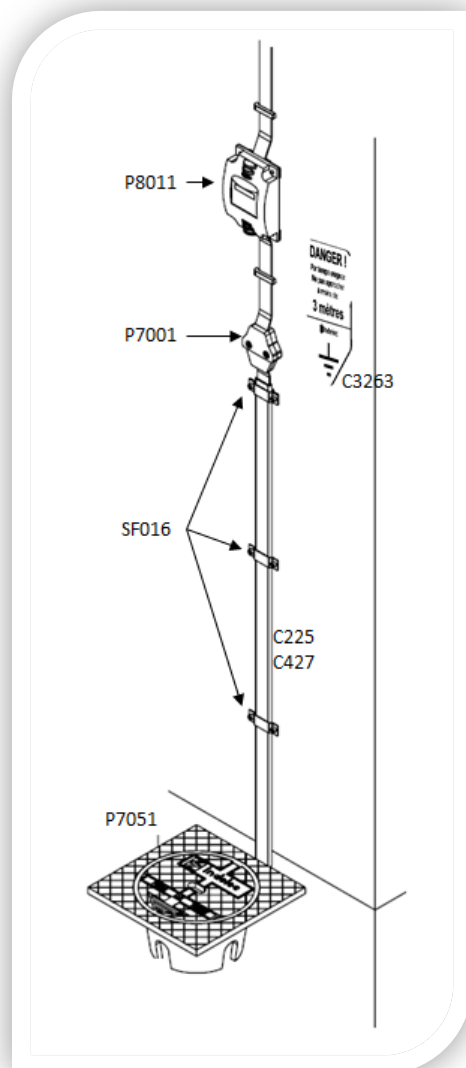
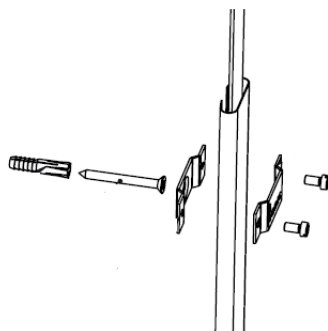
## Dimensions (mm)



Collars (x3)  
SF 016



	DESCRIPTION
1	Embase Collier de Gaine P7013
2	Couvercle collier de gaine P7013
3	Vis inox TCF M5x10 - DIN84
4	CHEVILLE Polyet. 8X35 - Verte
5	VIS INOX A2 - TF POZI - M 5X50 - AGGLO
7	GAINE - L2000MM

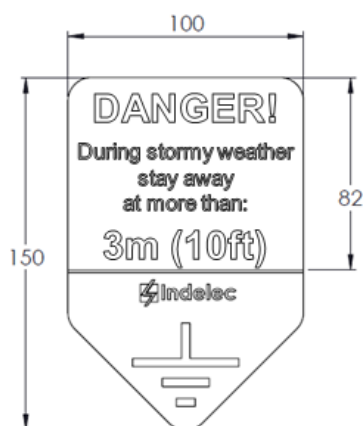
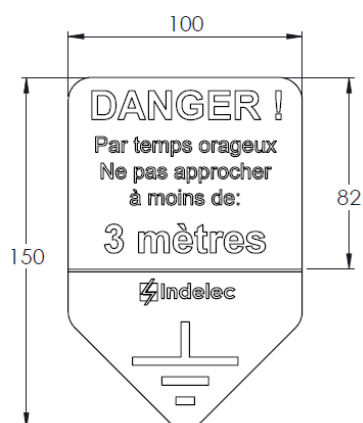


Application

# Information Sign

Characteristics	C3263	C3188	C3263A	C3263B
Material	PVC	Flexible PVC	PVC	
Language	French	French	English	Spanish
Application	Lightning Protection System Information Sign			

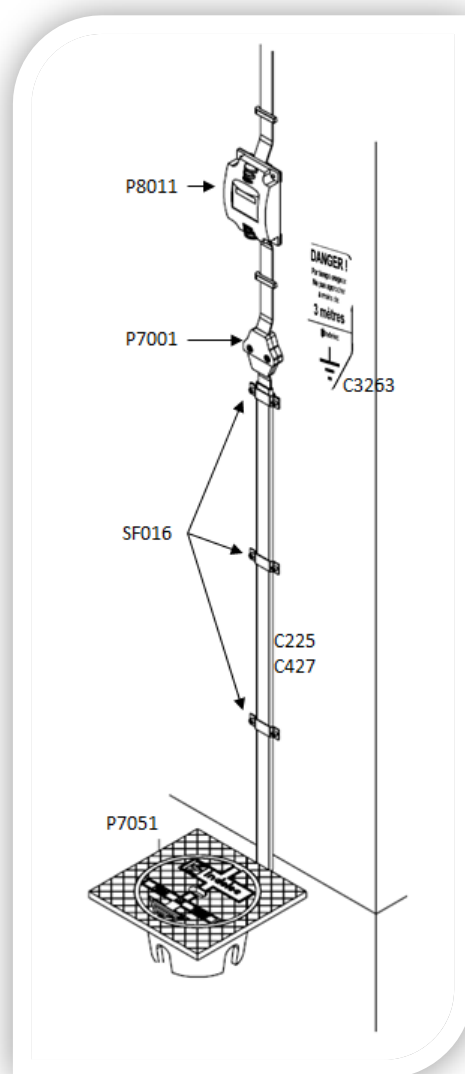
## Dimensions (mm)



C3263

C3263A

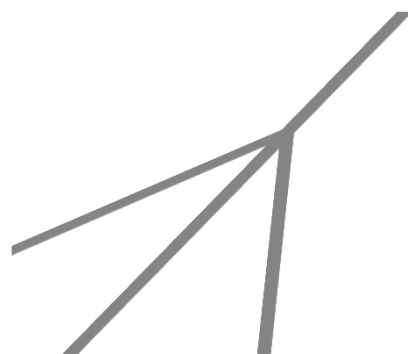
C3263B



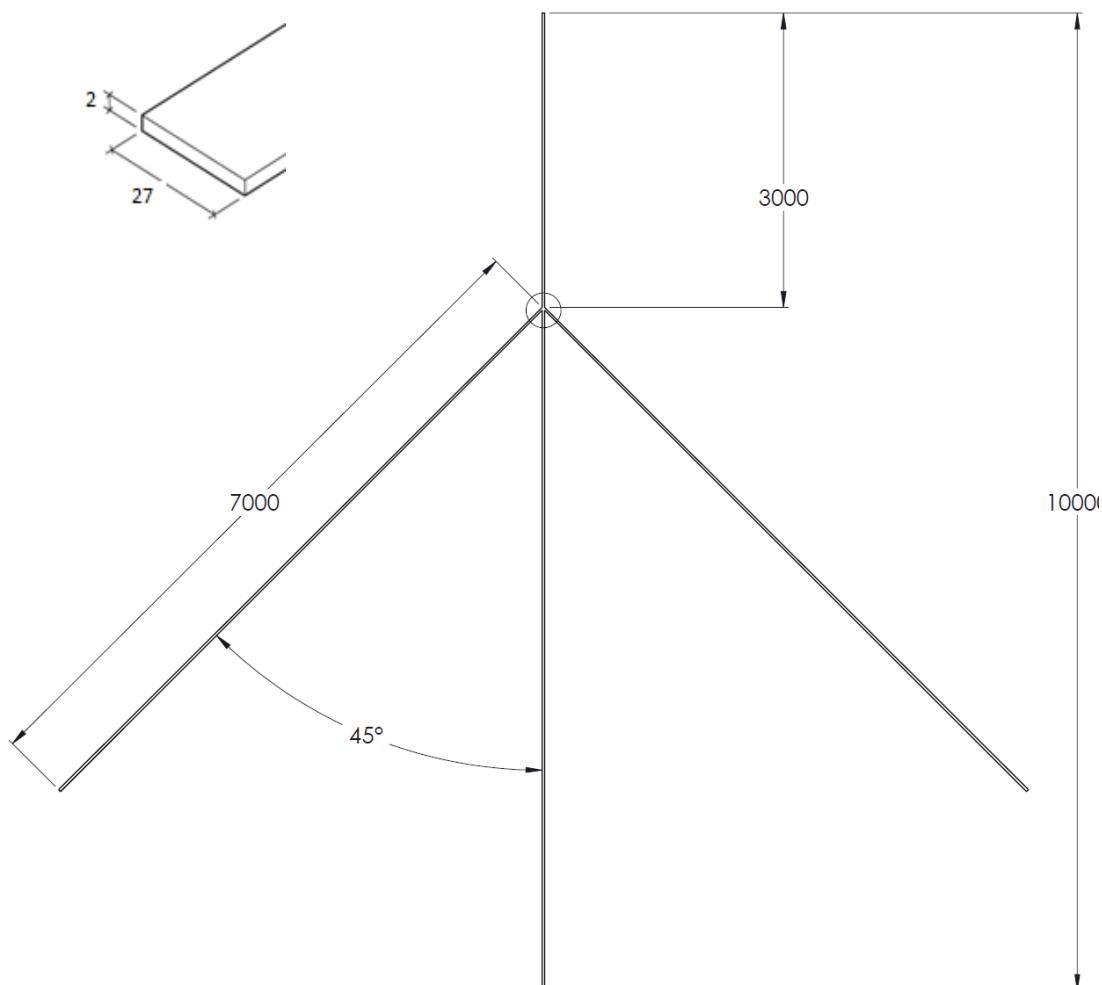
Application

# Factory-Made « Crow Foot » Earthing

Characteristics	P7021
Material	Tinned copper
Weight (kg)	12.000
Application	«Crow-Foot» earthing system consists of three 7- meter prongs angled at 45°and a 3-metre long central prong which is connected to the test clamp. This earthing system is easy to unroll and bury. It avoids mechanical connections which would be prone to corrosion over time

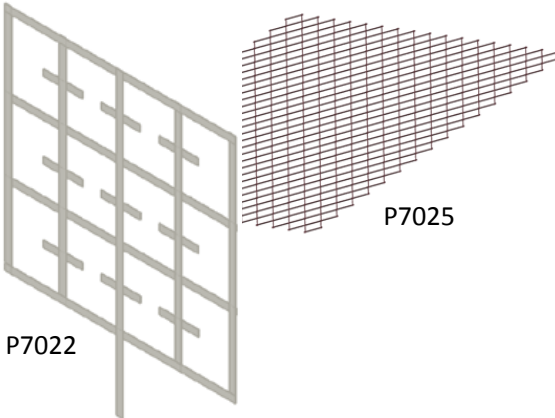


Dir

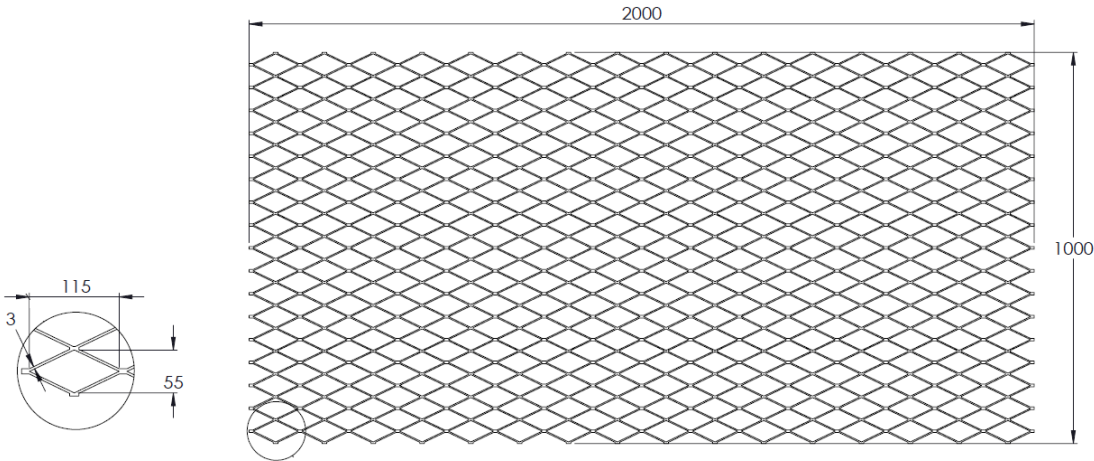
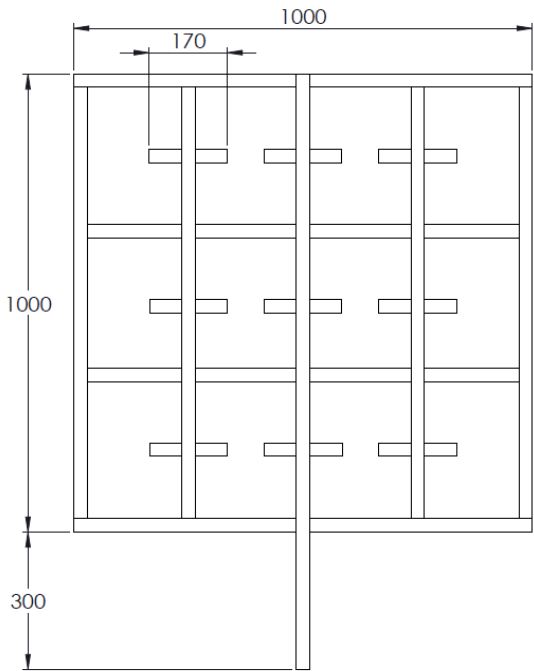


# Tinned Copper Catice Earth mat 1x1m

Characteristics	P7022	P7025
Material	Tinned copper	Copper
Weight (kg)	4.525	5.000
Application	Improving the grounding or when the ground does not allow the insertion rod	



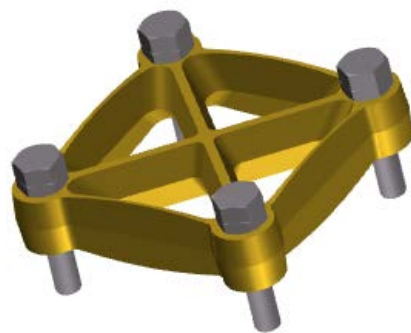
Dimensions (mm)



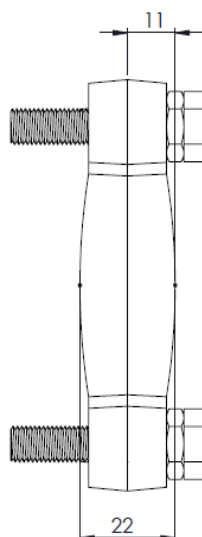
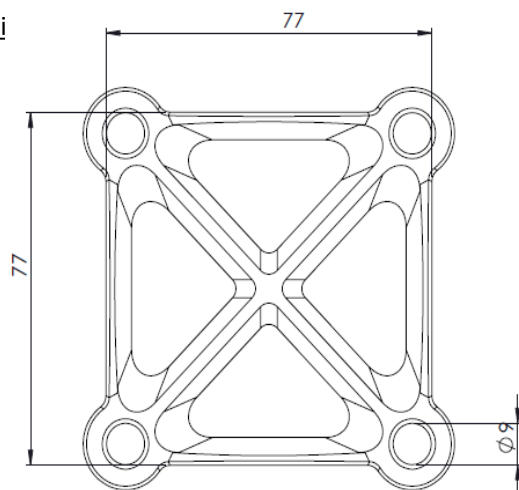


# « Crow Foot » clamp

Characteristics	P7024
Material	Brass
Weight (kg)	0.280
Application	Clamp for "crow-foot" conductors earthing termination interconnection
Standard	EN 62561-1



Dimensi

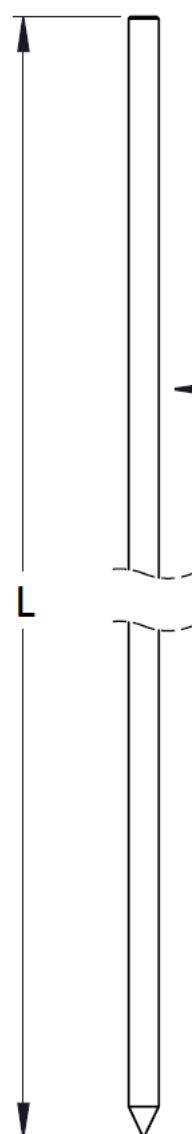


# Pointed Copperbound Earth Rod

Characteristics	P7043	P7033
Material	Stainless Steel S235JR Coating: Copper 254µm	
Length (mm)	2000	
Diameter (mm)	14.3	17.2
Weight (kg)	2.485	3.765
Standard	EN 62561-2	



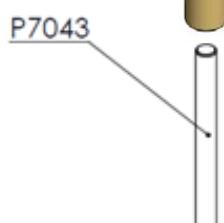
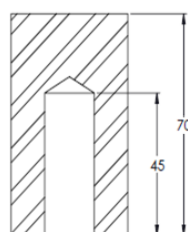
## Dimensions (mm)



### Driving Stud

Réf. P7035 Ø 14,3mm, Weight : 0.200 kg

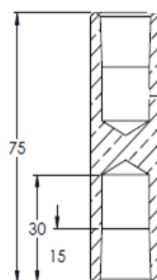
Réf. P7036 Ø 17,2mm, Weight : 0.300 kg



### Coupling Sleeve

Réf. P7037B Ø 14,3mm, Weight: 0.100 kg

Réf. P7038 Ø 17,2mm, Weight : 0,200 kg

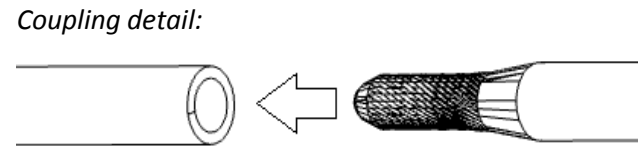
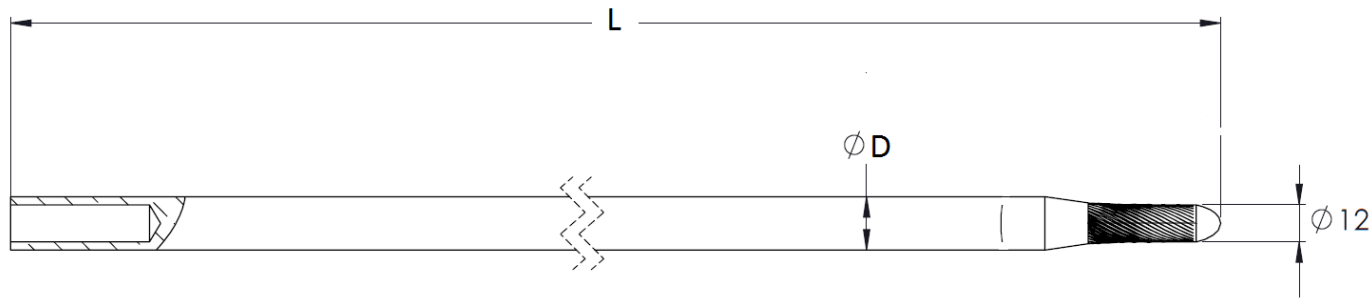


# Self Coupling Earth Rods

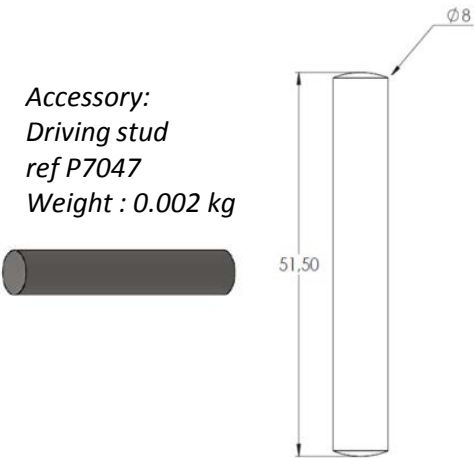
Characteristics	P7040	P7041	P7042
Material	Stainless Steel S235JR Coating: Copper 254µm		
Diameter D (mm)	14.3	14.3	17.2
Lenght L (mm)	2000	1000	1000
Weight (kg)	2.500	1.250	1.765
Standard	EN 62561-2		



Dimensions (mm)



Accessory:  
Driving stud  
ref P7047  
Weight : 0.002 kg

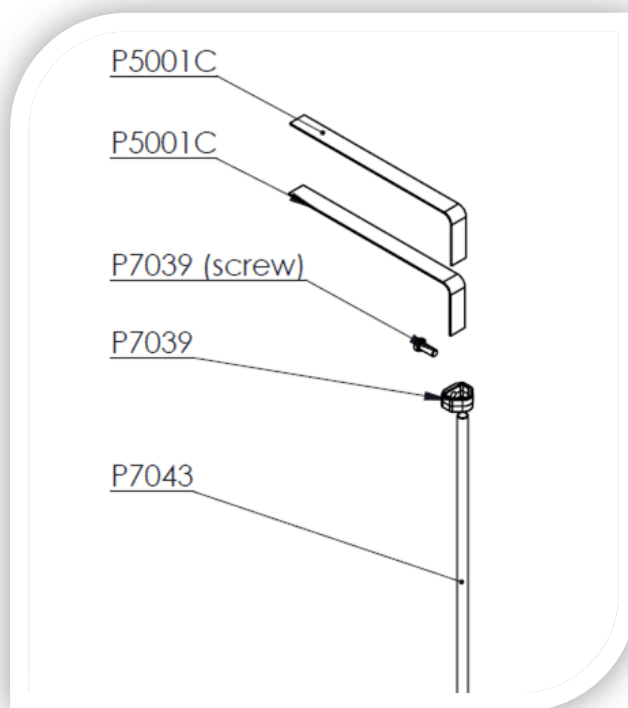
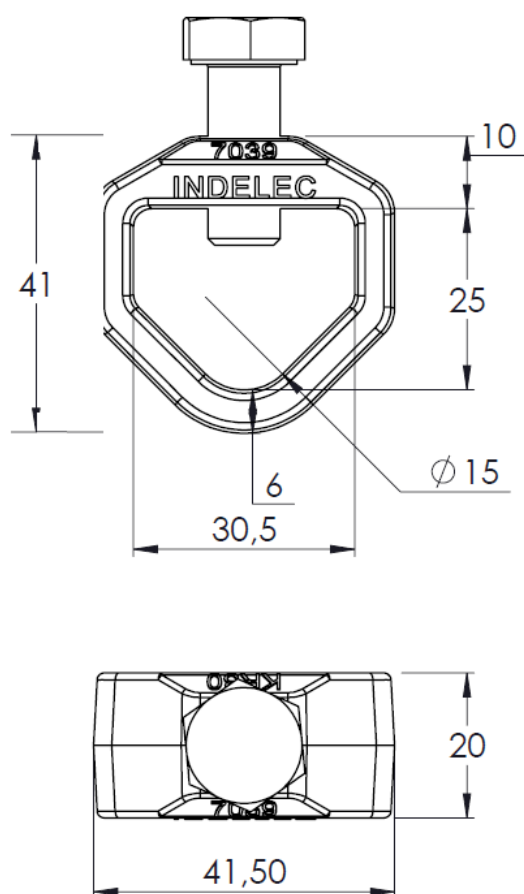


# Rod to Conductor Clamp

Characteristics	P7039
Material	Brass
Weight (kg)	0.120
Application	Connection between conductor and earth rod (max 19mm diam.)
Standard	EN 62561-2



## Dimensions (mm)



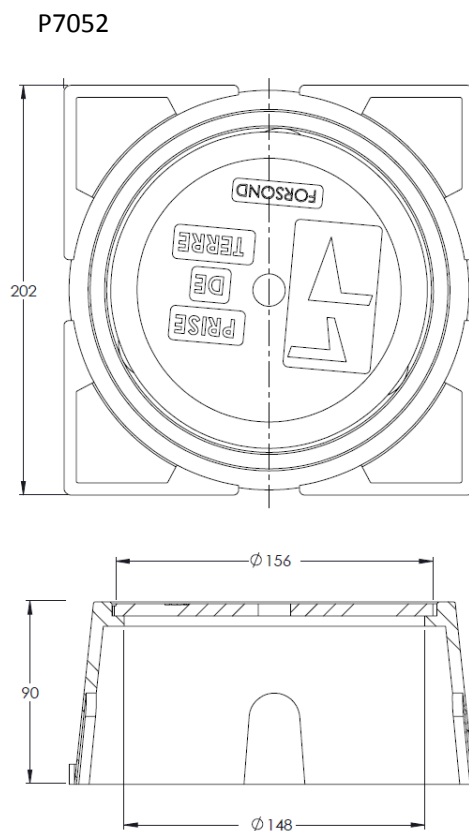
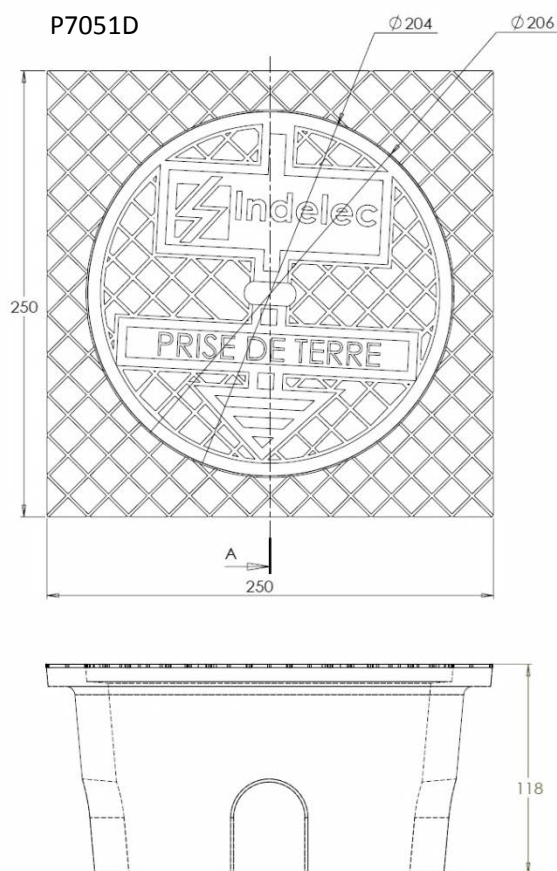
## Application

# Inspection Pit

Characteristics	P7051D	P7052
Material	Cast Iron	PVC
Weight (kg)	8.045	0.440
Application	Allows the inspection of buried conductors	
Standard	EN 62561-5	

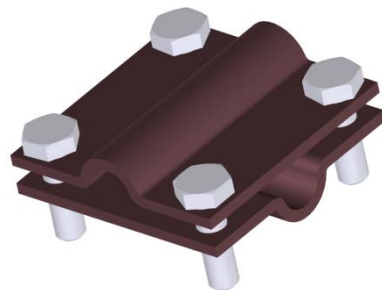


## Dimensions (mm)

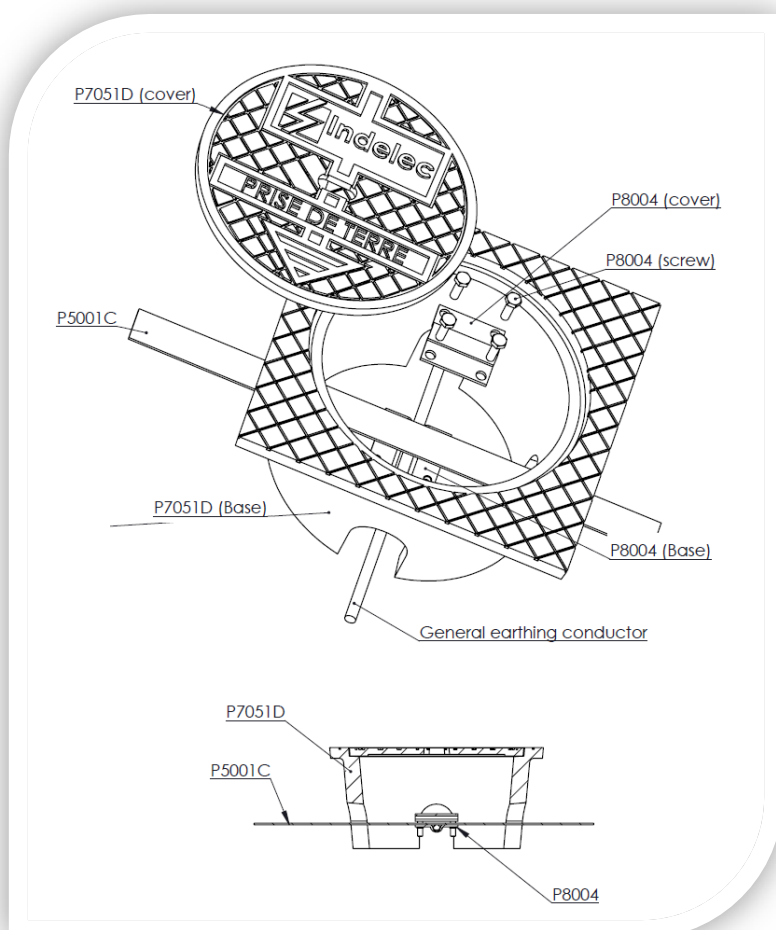
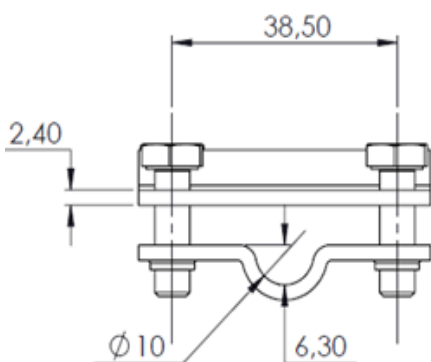
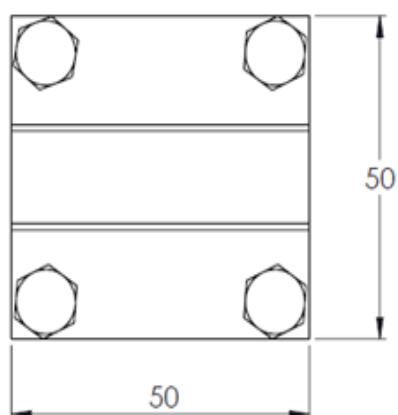


# Earth clamp

Characteristics	P8004
Material	Copper
Weight (Kg)	0.130
Application	Used to fix tape (lightning conductor earthing) to copper cable (mains earth).



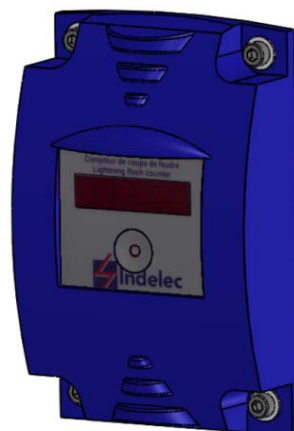
## Dimensions (mm)



## Application

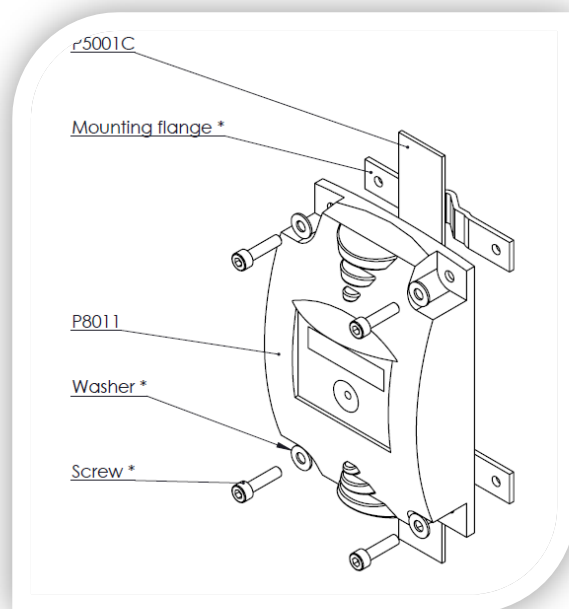
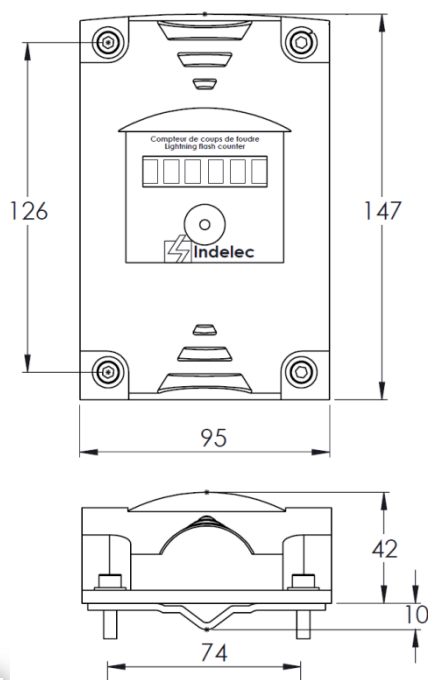
# Digital flash lightning counter

Reference		P8011
Characterics		
Minimal detectable current	$I_d$	1 kA
Maximal detectable Current	$I_{max}$	100 kA
Minimum current sensitivity( $i_d/3$ )	$I_{nd}$	333 A
Protection Class	IP	67
Net Weight	W	0.700 kg
Operating principles		
Display		Digital
Digits		6
Recording		By induction while lightning current pass through down conductor
On-site testing capabilities		Proprietary tester ref. P8015
Maintenance		Replaceable lithium batteries P8017
Warranty		18 months
Mechanical specifications		
Down conductor fixing		Specific clamp (included)
Certifications		
EN 50164-6 Standard		Certificate N° 0002010001A



Lightning Counter Tester  
Ref P8015

## Dimensions (mm)

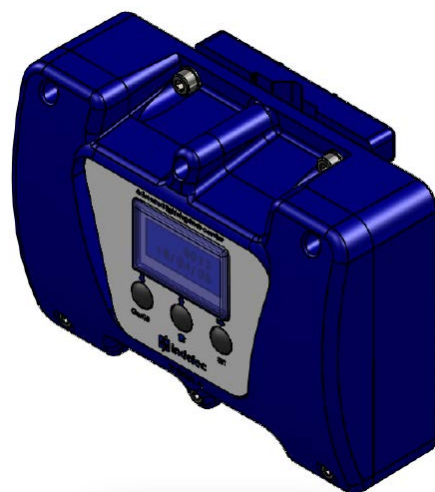


Application



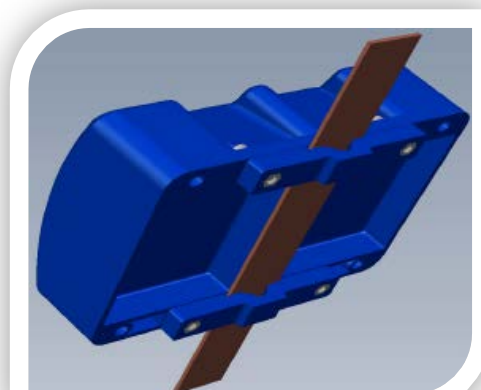
# Digital flash lightning counter

Reference		P 8014
Characteristics		
Minimal detectable current	I <sub>d</sub>	1 kA
Maximal detectable Current	I <sub>max</sub>	100 kA
Minimum current sensitivity(id/3)	I <sub>nd</sub>	333 A
Protection Class	IP	67
Operating temperature range	T°	-20 °C +75 °C
Net Weight	W	0.890 kg
Operating principles		
Display	Digital	
Digital characters	16	
Features	Date of event dd/mm/yy Time of event hh/mm Peak Current (+ / - 10% accuracy) Polarity of current	
Remote information	Optical Silica fiber 50/125 µm SMA	
On-site testing capabilities	Proprietary tester P8015	
Maintenance	Replaceable lithium batteries P80170	
Warranty	18 months	
Mechanical specifications		
Down conductor fixing		Specific clamp (included)
Certifications		
EN 50164-6 Standard		Certificate N° 0002010002A

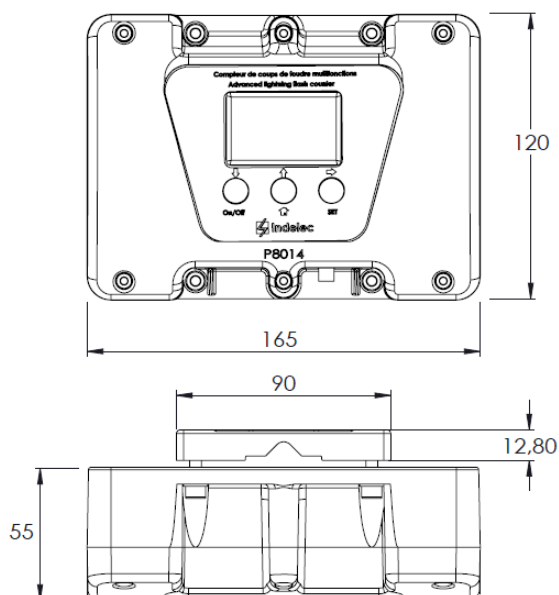


Lightning Flash Counter Tester  
Ref P8015

Optical Fiber Converter for Remote Data  
HERMES ONE réf. P8018



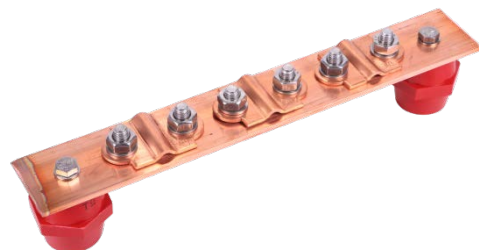
## Dimensions (mm)



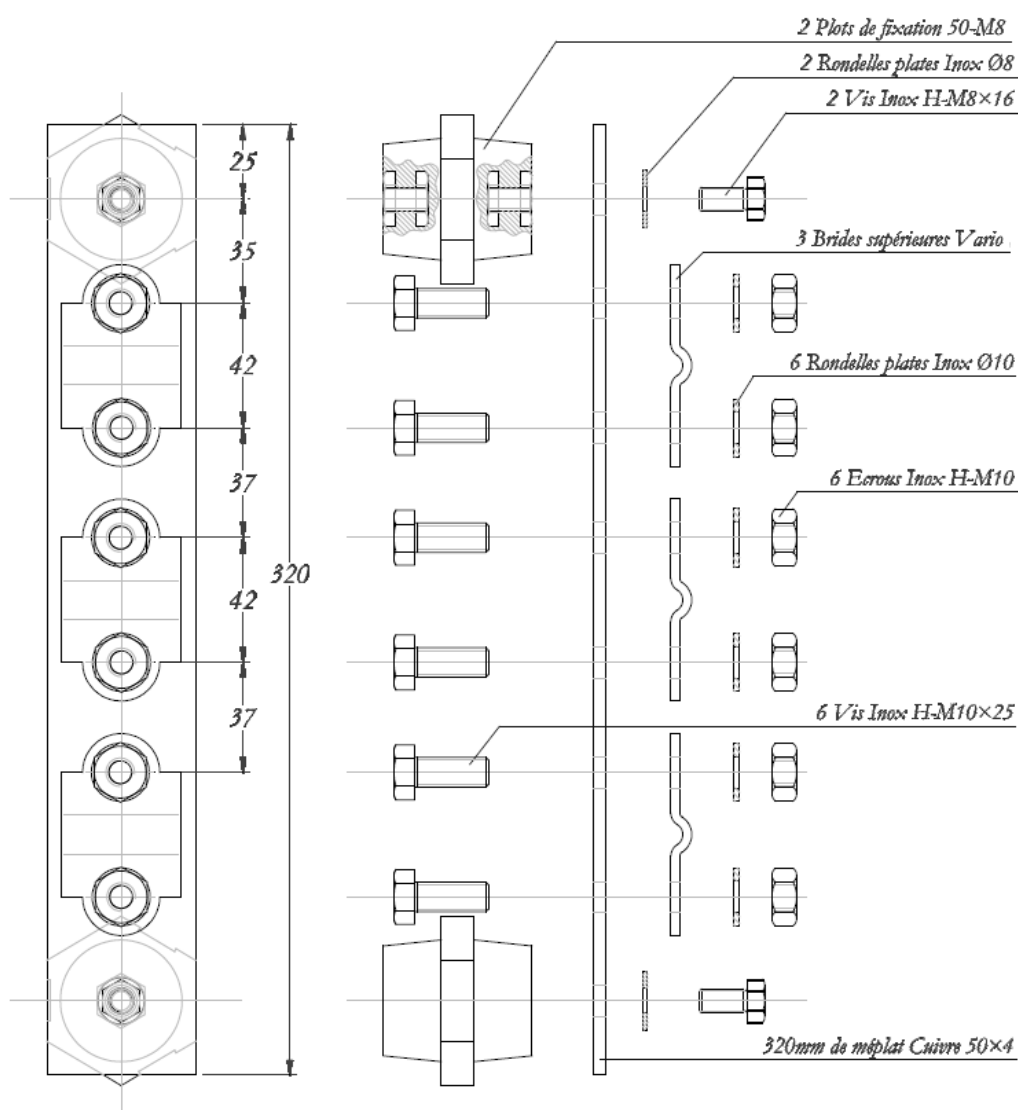


# Copper Earth Bar – 3 way

Characteristics	P7053
Material	Copper
Weight(Kg)	1.25
Application	The earth bar is used to connect different earth conductors or metallic masses together. There are 6 welded bolts (M10) which allow 6 conductors to be connected by lugs (not supplied). There are also 3 back plates allowing 3 separate 30x2 mm tape conductor to be connected without the need for drilling.



## Dimensions (mm)















# Surge Protection

Made  
n  
Safety



# AC SPD

## Type 1 + 2 and 1 + 2 + 3

	Number of pole	Voltage	I <sub>max</sub> by pole	I <sub>imp</sub> by pole	U <sub>p</sub>
<b>TYPE 1 + 2 , Heavy Duty</b>					
 DGU 440	1	230/400V	70 kA	25 kA	1.5 kV
 DGR 440	1	230/400V	100 KA	15kA	1.3 kV
<b>TYPE 1 + 2 , Compact, Puggable module</b>					
 DSU 440	1	230/400V	100 kA	25 kA	1.5 kV
 DSR 440	1	230/400V	50 kA	12,5 kA	1.3 kV
 DMR 440	2	230/400V	50 kA	12,5 kA	1.3 kV
 DTR 440	4	230/400V	50 kA	12,5 kA	1.3 kV
<b>TYPE 1+2+3</b>					
 DGV 440	1	230/400V	70 kA	25 kA	1.5 kV
<b>TYPE 1+2, N-PE</b>					
 DE	1	230/400V	150 kA	50 kA	1.5 kV



# Type 1 + 2 SPD

## DGU 440

### Designation

### Part number

### Electrical characteristics

Technology

Number of pole

Network nominal voltage

Neutral configuration

Max. AC operating system

Temporary Over Voltage (TOV)

Leakage current

Follow current

Impulse current by pole

*Max. withstand 10/350µs*

Nominal discharge current

*15 x 8/20µs impulses*

Max. discharge current

*Max. withstand @ 8/20µs*

Protection level (@In)

Admissible short-circuit current

$U_C$

$U_T$

$I_{pe}$

$I_f$

$I_{imp}$

$I_n$

$I_{max}$  total

$U_p$

$I_{sccr}$

### DGU 440

### P8321H

MOV

One pole (1)

230/400 V

IT – TT - TN C1 mode

TT – TNS C2 mode with DE module for N/PE

440 Vac

580 Vac / 5 s

< 2 mA

None

25 kA

25 kA

140 kA

1,5 kV

50 000 A

### Associated disconnectors

Thermal disconnector

Fuses

Installation ground fault breaker

internal

Fuses type gG – 315 A max.

Type "S" or delayed

### Mechanical characteristics

Connection

Disconnection indicator

Remote signaling of disconnection

Mounting

Operating temperature

Ingress Protection

by screw : 6-35 mm<sup>2</sup> / by bus

mechanical indicator

output on changeover contact

DIN rail 35mm

-40°C / +85°C

IP20



### Standards compliance

IEC 61 643-1 (international) Low voltage SPD – test class I and II

EN 61 643-11 (Europe) Low voltage SPD – test class I and II

NF EN 61 643-11 / UL1449 ed.4

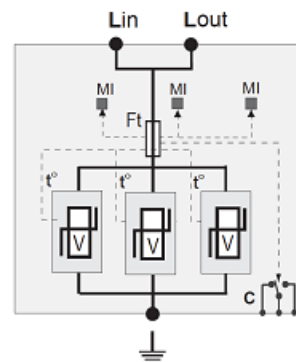
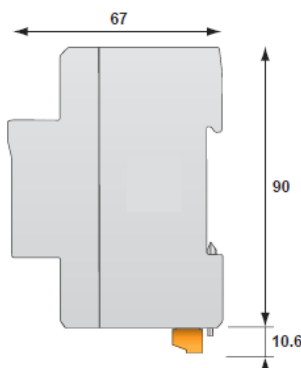
V : High energy MOV

MI : Disconnection indicator

Ft : Thermal fuse

t° : Thermal disconnection mechanism

C : Contact for remote signaling



# Type 1 + 2 SPD

## DGR 440

### Designation

### Part number

### Electrical characteristics

Technology

Number of pole

Network nominal voltage

Neutral configuration

Max. AC operating system

Temporary Over Voltage (TOV)

Leakage current

Follow current

Impulse current by pole

*Max. withstand 10/350 $\mu$ s*

Nominal discharge current

*15 x 8/20 $\mu$ s impulses*

Max. discharge current

*Max. withstand @ 8/20 $\mu$ s*

Protection level (@In)

Admissible short-circuit current

$U_C$

$U_T$

$I_{pe}$

$I_f$

$I_{imp}$

$I_n$

$I_{max}$  total

$U_p$

$I_{sccr}$

### DGR 440

### P8315H

MOV

One pole (1)

230/400 V

IT – TT – TN C1 mode

TT – TNS C2 mode with DE module for N/PE

440 Vac

580 Vac / 5 s

< 1 mA

None

15 kA

15 kA

100 kA

1.3 kV

100 000 A

### Associated disconnectors

Thermal disconnector

Fuses

Installation ground fault breaker

internal

Fuses type gG – 125 A max.

Type "S" or delayed

### Mechanical characteristics

Connection

Disconnection indicator

Remote signaling of disconnection

Mounting

Operating temperature

Ingress Protection

by screw : 6-35mm<sup>2</sup> / by bus

mechanical indicator

output on changeover contact

DIN rail 35mm

-40°C / +85°C

IP20



### Standards compliance

IEC 61 643-1 (international) Low voltage SPD – test class I and II

EN 61 643-11 (Europe) Low voltage SPD – test class I and II

NF EN 61 643-11 / UL1449 ed.4

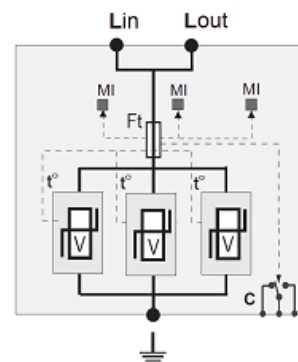
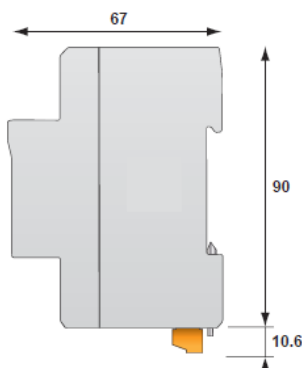
V : High energy MOV

MI : Disconnection indicator

Ft : Thermal fuse

t°: Thermal disconnection mechanism

C : Contact for remote signaling





# Type 1 + 2 SPD

## DSU 440

### Designation

### Part number

### Electrical characteristics

Technology

Number of pole

Network nominal voltage

Neutral configuration

Max. AC operating system

Temporary Over Voltage (TOV)

Leakage current

Follow current

Impulse current by pole

*Max. withstand 10/350µs*

Nominal discharge current

*15 x 8/20µs impulses*

Max. discharge current

*Max. withstand @ 8/20µs*

Protection level (@In)

Admissible short-circuit current

$U_C$

$U_T$

$I_{pe}$

$I_f$

$I_{imp}$

$I_n$

$I_{max}$  total

$U_p$

$I_{sccr}$

**DSU 440**

**P8331H**

MOV

One pole 1

230/400 V

IT – TT - TN C1 mode

TT – TNS C2 mode with DE module for N/PE

440 Vac

580 Vac / 5 s

< 1 mA

None

25 kA

25 kA

100 kA

1.5 kV

25 000 A

### Associated disconnectors

Thermal disconnector

Fuses

Installation ground fault breaker

internal

Fuses type gG – 315 A max.

Type "S" or delayed

### Mechanical characteristics

Connection

Disconnection indicator

Remote signaling of disconnection

Mounting

Operating temperature

Ingress Protection

by screw :4-25mm<sup>2</sup> / by bus

mechanical indicator

output on changeover contact

DIN rail 35mm

-40°C /+85°C

IP20

### Standards compliance

IEC 61 643-1 (international) Low voltage SPD – test class I and II

EN 61 643-11 (Europe) Low voltage SPD – test class I and II

NF EN 61 643-11 / UL1449 ed.4

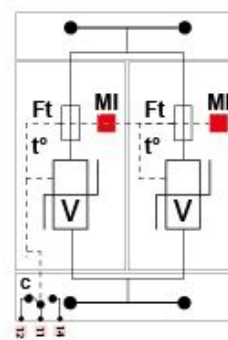
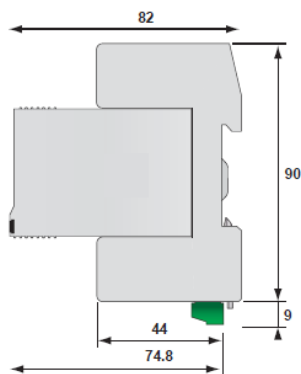
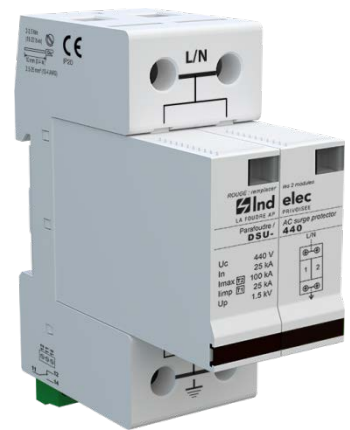
V : High energy MOV

MI : Disconnection indicator

Ft : Thermal fuse

t°: Thermal disconnection mechanism

C : Contact for remote signaling



# Type 1 + 2 SPD

## DSR 440

### Designation

### Part number

### Electrical characteristics

Technology

Number of pole

Network nominal voltage

Neutral configuration

Max. AC operating system

Temporary Over Voltage (TOV)

Leakage current

Follow current

Impulse current by pole

*Max. withstand 10/350 $\mu$ s*

Nominal discharge current

*15 x 8/20 $\mu$ s impulses*

Max. discharge current

*Max. withstand @ 8/20 $\mu$ s*

Protection level (@In)

Admissible short-circuit current

$U_C$

$U_T$

$I_{pe}$

$I_f$

$I_{imp}$

$I_n$

$I_{max}$  total

$U_p$

$I_{sccr}$

### DSR 440

### P8332H

MOV

One pole 1

230/400 V

IT – TT – TN C1 mode

TT – TNS C2 mode with DE module for N/PE

440 Vac

580 Vac / 5 s

< 1 mA

None

12.5 kA

12.5 kA

50 kA

1,3 kV

25 000 A

### Associated disconnectors

Thermal disconnector

Fuses

Installation ground fault breaker

internal

Fuses type gG – 125 A max.

Type "S" or delayed

### Mechanical characteristics

Connection

Disconnection indicator

Remote signaling of disconnection

Mounting

Operating temperature

Ingress Protection

by screw :4-25mm<sup>2</sup> / by bus

mechanical indicator

output on changeover contact

DIN rail 35mm

-40°C /+85°C

IP20

### Standards compliance

IEC 61 643-1 (international) Low voltage SPD – test class I and II

EN 61 643-11 (Europe) Low voltage SPD – test class I and II

NF EN 61 643-11 / UL1449 ed.4

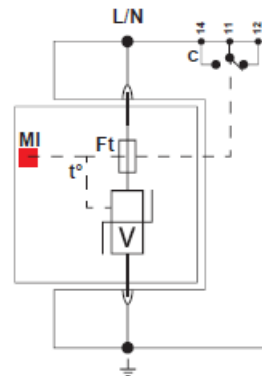
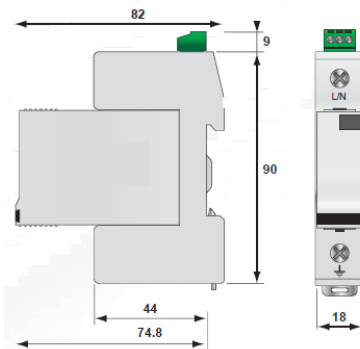
V : High energy MOV

MI : Disconnection indicator

Ft : Thermal fuse

t\*: Thermal disconnection mechanism

C : Contact for remote signaling



# Type 1 + 2 SPD

## DMR 440 – Single phase

### Designation

### Part number

### Electrical characteristics

Technology

Number of pole

Network nominal voltage

Protection mode

Neutral configuration

Max. AC operating system

Temporary Over Voltage (TOV)

Leakage current

Follow current

Impulse current by pole

Max. withstand 10/350µs

Nominal discharge current

15 x 8/20µs impulses

Max. discharge current

Max. withstand @ 8/20µs

Max. discharge current

Max. withstand @ 8/20µs

Protection level (@In)

Admissible short-circuit current

$U_C$

$U_T$

$I_{pe}$

$I_f$

$I_{imp}$

$I_n$

$I_{max}$  total

$I_{max}$

$U_p$

$I_{sccr}$

**DMR 440**

**P8329H**

MOV

2 poles – 1 Ph+N

230v

C1

IT – TT – TNS

440 Vac

580 Vac / 5 s

< 1 mA

None

12.5 kA

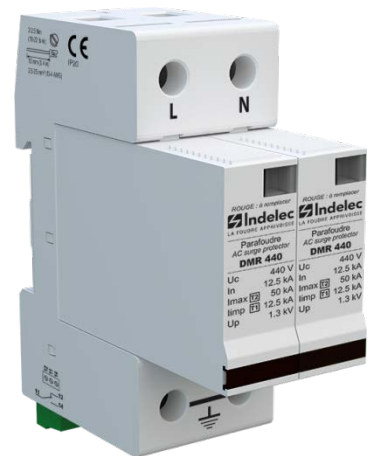
12.5 kA

100kA

50 kA

1.3kV

25 000 A



### Associated disconnectors

Thermal disconnector

Fuses

Installation ground fault breaker

internal

Fuses type gG – 125 A max.

Type "S" or delayed

### Mechanical characteristics

Connection

Disconnection indicator

Remote signaling of disconnection

Mounting

Operating temperature

Ingress Protection

by screw : 4-25mm<sup>2</sup> / by bus

mechanical indicator

output on changeover contact

DIN rail 35mm

-40°C / +85°C

IP20

### Standards compliance

IEC 61 643-1 (international) Low voltage SPD – test class I and II

EN 61 643-11 (Europe) Low voltage SPD – test class I and II

NF EN 61 643-11 / UL1449 ed.4

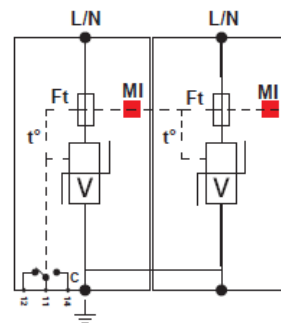
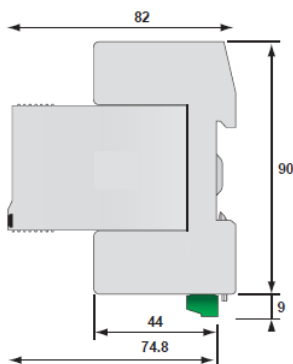
V : High energy MOV

MI : Disconnection indicator

Ft : Thermal fuse

t° : Thermal disconnection mechanism

C : Contact for remote signaling



# Type 1 + 2 SPD

## DTR 440 – 3 Phases + N

### Designation

### Part number

### Electrical characteristics

Technology

Number of pole

Network nominal voltage

Protection mode

Neutral configuration

Max. AC operating system

Temporary Over Voltage (TOV)

Leakage current

Follow current

Impulse current by pole

*Max. withstand 10/350µs*

Nominal discharge current

*15 x 8/20µs impulses*

Max. discharge current

*Max. withstand @ 8/20µs*

Max. discharge current

*Max. withstand @ 8/20µs*

Protection level (@In)

Admissible short-circuit current

$U_C$

$U_T$

$I_{pe}$

$I_f$

$I_{imp}$

$I_n$

$I_{max}$  total

$I_{max}$

$U_p$

$I_{sccr}$

**DTR 440**

**P8330H**

MOV

4 poles – 3 Ph+N

230v

C1

IT – TT – TNS

440 Vac

580 Vac / 5 s

< 1 mA

None

12.5 kA

12.5 kA

200kA

50 kA

1.3kV

25 000 A



### Associated disconnectors

Thermal disconnector

Fuses

Installation ground fault breaker

internal

Fuses type gG – 125 A max.

Type "S" or delayed

### Mechanical characteristics

Connection

Disconnection indicator

Remote signaling of disconnection

Mounting

Operating temperature

Ingress Protection

by screw :4-25mm<sup>2</sup> / by bus

mechanical indicator

output on changeover contact

DIN rail 35mm

-40°C /+85°C

IP20

V : High energy MOV

MI : Disconnection indicator

Ft : Thermal fuse

t\*: Thermal disconnection mechanism

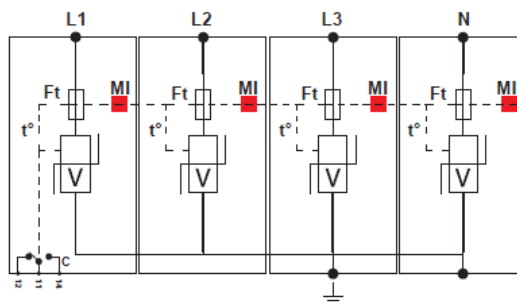
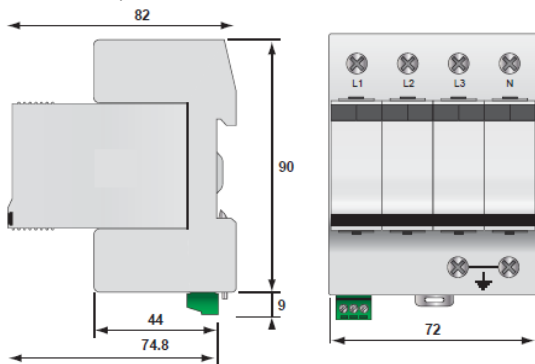
C : Contact for remote signaling

### Standards compliance

IEC 61 643-1 (international) Low voltage SPD – test class I and II

EN 61 643-11 (Europe) Low voltage SPD – test class I and II

NF EN 61 643-11 / UL1449 ed.4



# Type 1 + 2 + 3 SPD

## DGV 440

### Designation

### Part number

### Electrical characteristics

Technology

Number of pole

Network nominal voltage

Neutral configuration

Max. AC operating system

Temporary Over Voltage (TOV)

Leakage current

Follow current

Impulse current by pole

*Max. withstand 10/350µs*

Nominal discharge current

*15 x 8/20µs impulses*

Max. discharge current

*Max. withstand @ 8/20µs*

Max. discharge current

*Max. withstand @ 8/20µs*

Protection level (@In)

Admissible short-circuit current

$U_C$

$U_T$

$I_{pe}$

$I_f$

$I_{imp}$

$I_n$

$I_{max}$  total

$I_{max}$

$U_p$

$I_{sccr}$

### DGV 440

### P8312H

Specific gas discharge tube + MOV

One pole (1)

230v/400v

IT – TT – TNS C1 mode

It – TT – C2 mode with DE module for N/PE

440 Vac

580 Vac / 5 s

None

None

25 kA

25 kA

70kA

20 kV

1.5kV

50 000 A

### Associated disconnectors

Thermal disconnector

Fuses

Installation ground fault breaker

internal

Fuses type gG – 315 A max.

Type "S" or delayed

### Mechanical characteristics

Connection

Disconnection indicator

Remote signaling of disconnection

Mounting

Operating temperature

Ingress Protection

by screw : 6 – 35 mm<sup>2</sup> / by bus

mechanical indicator

output on changeover contact

DIN rail 35mm

-40°C / +85°C

IP20

### Standards compliance

IEC 61 643-1 (international) Low voltage SPD – test class I, II and III

EN 61 643-11 (Europe) Low voltage SPD – test class I, II and III

NF EN 61 643-11 / UL1449 ed.4

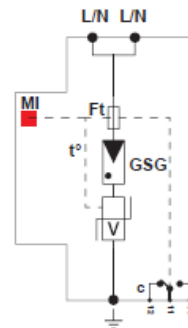
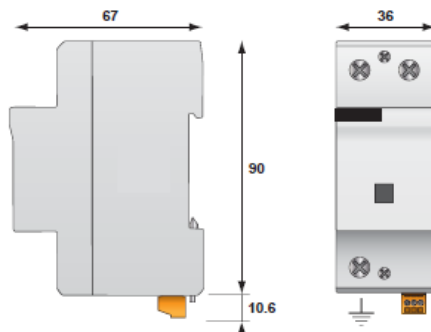
V : High energy MOV

MI : Disconnection indicator

Ft : Thermal fuse

t° : Thermal disconnection mechanism

C : Contact for remote signaling



# Type 1 + 2 SPD N – PE DE

## Designation

### Part number

### Electrical characteristics

Technology

Number of pole

Network nominal voltage

Connection mode

Neutral configuration

Max. AC operating system

Temporary Over Voltage (TOV)

Leakage current

Follow current

Max surge Impulse current by pole

Max. withstand 10/350µs

Nominal discharge current

15 x 8/20µs impulses

Max. discharge current

Max. withstand @ 8/20µs

Max. discharge current

Max. withstand @ 8/20µs

Protection level (@In)

Admissible short-circuit current

$U_C$

$U_T$

$I_{pe}$

$I_f$

$I_{imp}$

$I_n$

$I_{max}$  total

$I_{max}$

$U_p$

$I_{scsr}$

## DE

### P8318H

Specific gas discharge tube

One pole (1)

230v/400v

N-PE C2 mode

TT – TNS

255 Vac

1200V/200ms

None

Yes

100 kA

50 kA

50kA

150 kV

<1.5kV

25 000 A



## Associated disconnectors

Thermal disconnector

Installation ground fault breaker

External

Type "S" or delayed

## Mechanical characteristics

Connection

Mounting

Operating temperature

Ingress Protection

by screw : 6 – 35 mm<sup>2</sup> / by bus

DIN rail 35mm

-40°C / +85°C

IP20

## Standards compliance

IEC 61 643-1 (international) Low voltage SPD – test class I and II

EN 61 643-11 (Europe) Low voltage SPD – test class I and II

NF EN 61 643-11 / UL1449 ed.4

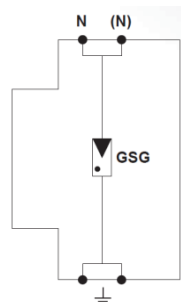
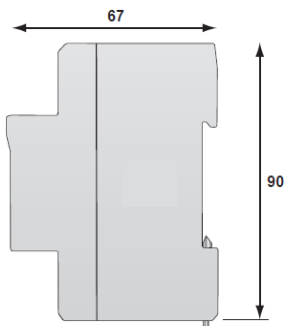
V : High energy MOV

MI : Disconnection indicator

Ft : Thermal fuse

t\*: Thermal disconnection mechanism

C : Contact for remote signaling



# SPD Range

## Type 2 et 2 + 3



	Number of pole	Network	I <sub>max</sub> by pole	I <sub>n</sub>	U <sub>p</sub>
TYPE 2 , Compact, pluggable module					
DMT 440	2	230/400V	40 kA	20 kA	1.8 kV
DTT 440	4	230/400V	40 kA	20 kA	1.8 kV
DMX 440	2	230/400V	15 kA	5 kA	1.3 kV
DTX 440	4	230/400V	15 kA	5 kA	1.3 kV
TYPE 2+3, Compact, monobloc					
DMZ 255	2	230V	10 kA	5 kA	1.5 kV







# Type 2 SPD

## DMT , DTT 440

### Designation

### Part number

### Electrical characteristics

Technology

Number of pole

Network nominal voltage

Protection mode

Neutral configuration

Max. AC operating system

Temporary Over Voltage (TOV)

Leakage current

Nominal discharge current

15 x 8/20μs impulses

Max. discharge current

Max. withstand @ 8/20μs

Max. discharge current

Max. withstand @ 8/20μs

Protection level (@In)

Admissible short-circuit current

$U_C$

$U_T$

$I_{pe}$

$I_n$

$I_{max}$  total

$I_{max}$

$U_p$

$I_{sccr}$

### DMT 440

### P8322H

MOV

2 poles (Ph+N)

230v

C1

IT-TT-TN

440Vac

580 Vac / 5s

<1 ma

20kA

80kA

40KA

1.8kV

10 000 A

### DTT 440

### P8323H

MOV

4 poles-(3Ph + N)

230/400v

C1

IT-TT-TN

440 Vac

580 Vac / 5s

<1 ma

20KA

160kA

40KA

1.8 kv

10 000 A



DMT 440



DTT 440

### Associated disconnectors

Thermal disconnector

Fuses

Installation ground fault breaker

internal

Fuses type gG – 50 A max.

Type "S" or delayed

### Mechanical characteristics

Connection

Disconnection indicator

Remote signaling of disconnection

Mounting

Operating temperature

Ingress Protection

by screw :1.5-10mm<sup>2</sup> (L /N), 2.5-25 mm<sup>2</sup> (PE)

mechanical indicator

output on changeover contact

DIN rail 35mm

-40°C /+85°C

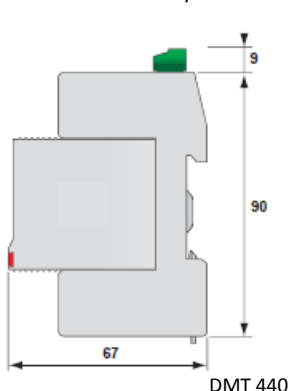
IP20

### Standards compliance

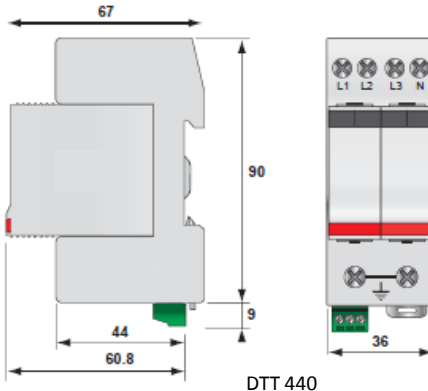
IEC 61 643-1 (international) Low voltage SPD – test class I and II

EN 61 643-11 (Europe) Low voltage SPD – test class I and II

NF EN 61 643-11 / UL1449 ed.4



DMT 440



DTT 440

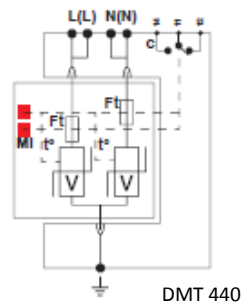
V : High energy MOV

MI : Disconnection indicator

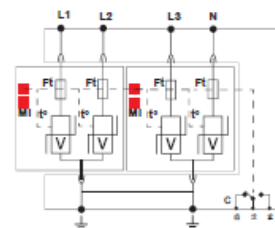
Ft : Thermal fuse

t°: Thermal disconnection mechanism

C : Contact for remote signaling



DMT 440



DTT 440

# Type 2 SPD

## DMX , DTX 440

### Designation

### Part number

### Electrical characteristics

Technology

Number of pole

Network nominal voltage

Protection mode

Neutral configuration

Max. AC operating system

Temporary Over Voltage (TOV)

Leakage current

Nominal discharge current

15 x 8/20μs impulses

Max. discharge current

Max. withstand @ 8/20μs

Max. discharge current

Max. withstand @ 8/20μs

Protection level (@In)

Admissible short-circuit current

$U_C$

$U_T$

$I_{pe}$

$I_n$

$I_{max}$  total

$I_{max}$

$U_p$

$I_{scrr}$

### DMX 440

### P8324H

MOV

2 poles (Ph+N)

230v

C1

IT-TT-TN

440Vac

580 Vac / 5s

<1 ma

5 KA

30 KA

15 KA

1.3kv

10 000 A

### DTX 440

### P8325H

MOV

4 poles-(3Ph + N)

230/400v

C1

IT-TT-TN

440 Vac

580 Vac / 5s

<1 ma

5 KA

60 KA

15 KA

1.3 kv

10 000 A



DMX 440



DTX 440

### Associated disconnectors

Thermal disconnector

Fuses

Installation ground fault breaker

internal

Fuses type gG – 20 A max.

Type "S" or delayed

### Mechanical characteristics

Connection

Disconnection indicator

Remote signaling of disconnection

Mounting

Operating temperature

Ingress Protection

by screw : 1.5-10mm<sup>2</sup> (L / N), 2.5-25 mm<sup>2</sup> (PE)

mechanical indicator

output on changeover contact

DIN rail 35mm

-40°C / +85°C

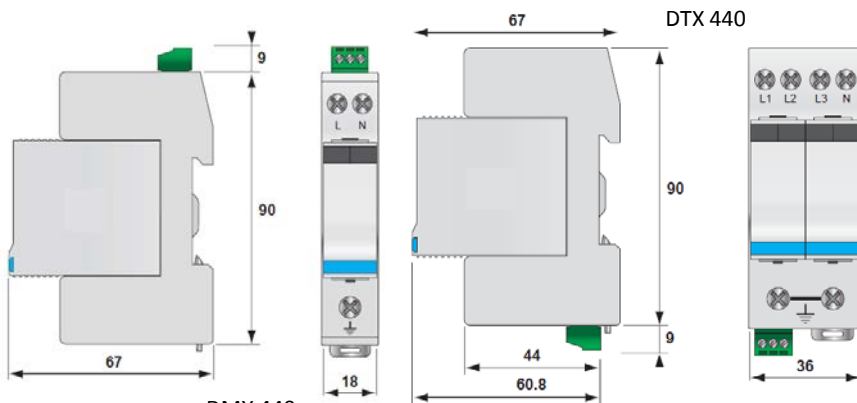
IP20

### Standards compliance

IEC 61 643-1 (international) Low voltage SPD – test class I and II

EN 61 643-11 (Europe) Low voltage SPD – test class I and II

NF EN 61 643-11 / UL1449 ed.4



DMX 440

DTX 440

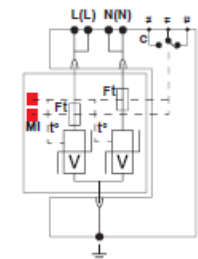
V : High energy MOV

MI : Disconnection indicator

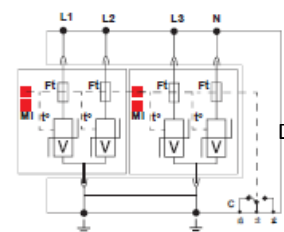
Ft : Thermal fuse

t°: Thermal disconnection mechanism

C : Contact for remote signaling



DMX 440



DTX 440



# Type 2 + 3 SPD

## DMZ 255 Single phase

### Designation

### Part number

### Electrical characteristics

Technology

Number of pole

Network nominal voltage

Protection mode

Neutral configuration

Max. AC operating system

Temporary Over Voltage (TOV)

Leakage current

Follow current

Nominal Impulse current

*Max. withstand 10/350µs*

Nominal discharge current

*15 x 8/20µs impulses*

Max. discharge current

*Max. withstand @ 8/20µs*

Protection level (@In)

Admissible short-circuit current

$U_C$

$U_T$

$I_{pe}$

$I_f$

$I_n$

$I_n$

$I_{max}$

$U_p$

$I_{sccr}$

### DMZ 255

### P8326H

Specific gas discharge tube

2 – Ph+N

230v

C2

IT - TT – TNS

255 Vac

335 V / 5 s

<1mA

Without

5 kA

30 kA

15 KA

1.5kV (L/PE or N/PE) 1 kV (L/N)

10 000 A

### Associated disconnectors

Thermal disconnector

Fuses

Installation ground fault breaker

internal

Fuses type gG – 20 A max.

Type "S" or delayed

### Mechanical characteristics

Connection

Disconnection indicator

Remote signaling of disconnection

Mounting

Operating temperature

Ingress Protection

by screw : 2.5mm<sup>2</sup> max

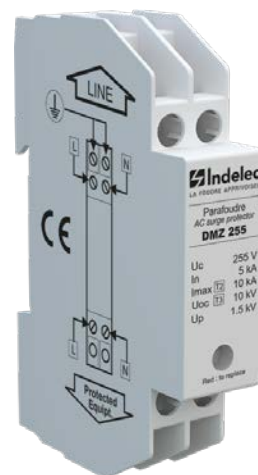
LED indicator

output on changeover contact

DIN rail 35mm

-40°C / +85°C

IP20



### Standards compliance

IEC 61 643-1 (international) Low voltage SPD – test class II and III

EN 61 643-11 (Europe) Low voltage SPD – test class II and II I

NF EN 61 643-11 / UL1449 ed.4

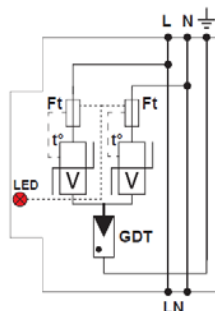
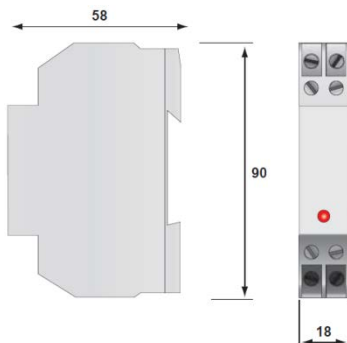
V : High energy MOV

MI : Disconnection indicator

Ft : Thermal fuse

t°: Thermal disconnection mechanism

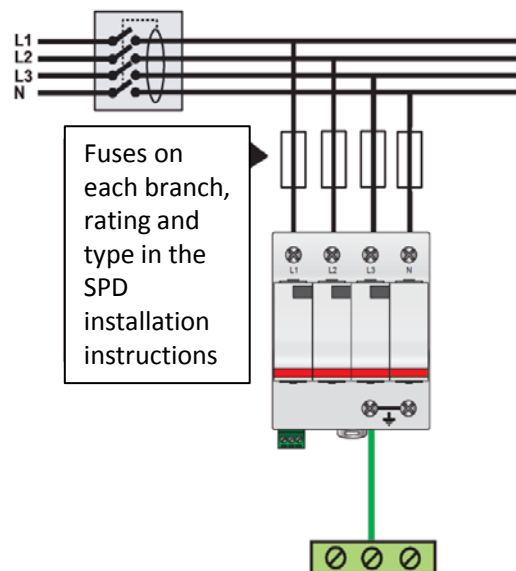
C : Contact for remote signaling



# Fuses for Surge Protection Device

To comply with standards and safety, the AC surge protectors must be protected against a possible end of life in short-circuit: the user must install on each SPD branch, a protection against short-circuit current (fuses or breaker). The rating of this fuses is given by the SPD manufacturer in the product datasheet or installation instructions. The choice of this rating depends of 2 criteria:

- Withstand of the short-circuit current test in the IEC 61643-1 standard: the fuse must cut safely the short-circuit current before a harsh destruction of the SPD.
- Withstand of the discharge currents ( $I_n$  or  $I_{imp}$ ): the fuse must be able to conduct the discharge current of the SPD without blowing.



INDELEC selected fuses and DIN rail holders to fit with his SPD range. The fuses equipped with failure indicators to check easily their opening and the holders can be supplied with or without contact for remote signal of fuse status .

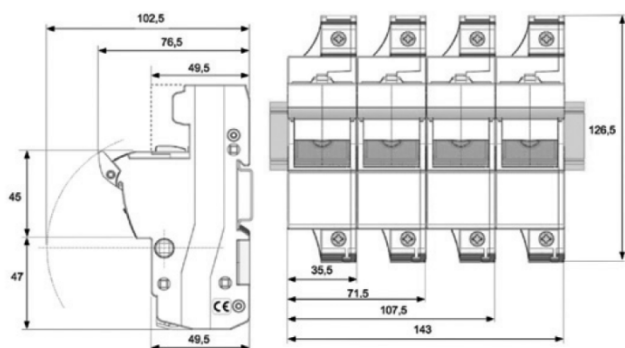
Surge protector	associated fuses caliber
DGU 440 DSU 440 DGV 440	315 A gG
DSR 440 DMR 440 DTR 440	125 A gG
DMT 440 DTT 440	50 A gG
DMX 440 DTX 440	20 A gG

# Gg cylindrical Fuses & Fuse holder

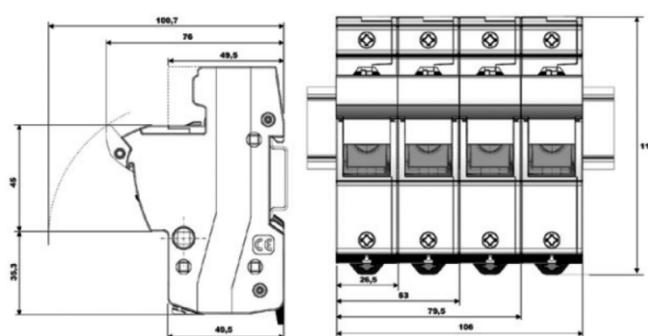
- Modular fuse holder
- DIN Rail Mounting
- Microswitch for fusion signaling
- Equipped with gG cylindrical fuses with striker



Caliber	Designation	Part number
125 A	Fuse holder 22x58 1PH+N + fuses 125 A gG	P8927
	Fuse holder 22x58 3PH+N + fuses 125 A gG	P8925
50 A	Fuse holder 14x51 1PH+N + fuses 50A gG	P8905
	Fuse holder 14x51 3PH+N + fuses 50 A gG	P8907
20 A	Fuse holder 14x51 1PH+N + fuses 25A gG	P8908
	Fuse holder 14x51 3PH+N + fuses 25 A gG	P8900



Fuse holder 22x58



fuse holder 14x51

# Knife type (NH2) Fuse – NH2 Fuse Holder

- Set of fuse holder bases, dividers, partition walls, terminal cover and cover
- NH fuse bases (NH) gG class with high breaking capacity (HPC)

Designation	Part number
NH2 fuses gG 315A	P8943
1PH+N NH2 Fuse Holder*	P8930
3PH NH2 Fuse Holder*	P8931
3PH+N NH2 Fuse Holder*	P8932
Microswitch 1 pole	P8941
Extractor handle	P8940

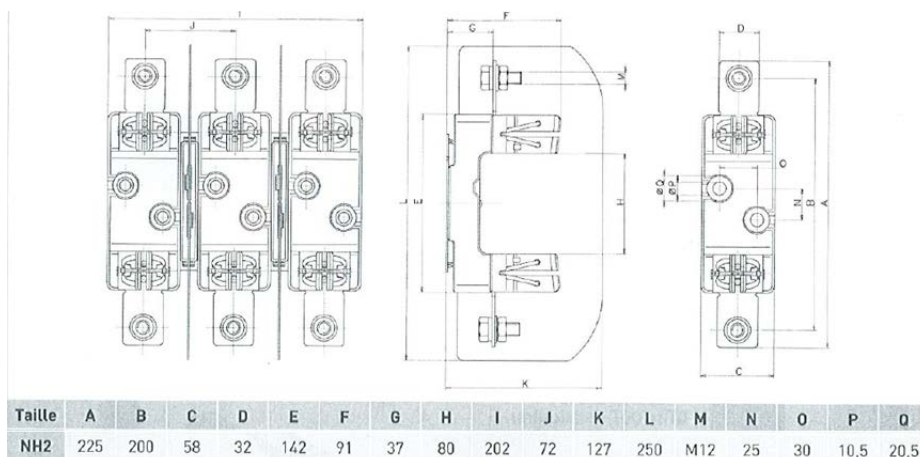


P8941

P8940



\* Delivered without T2 fuse





# Surge Protection Cabinets

Surge protection cabinets are dedicated to 230 / 400V Low Voltage Network (single phase or 3 phases+N).

These cabinets are based on the use of Indelec modular SPD. The implementation of these cabinets do not require any additional device, they are equipped with Surge protection device and relevant external protection fuses.

Several configurations are possible.



- Pre-wired cabinet type 1 and 2
- metallic or plastic box
- Waterproof
- Protection in common mode and differential
- Compliant to IEC / EN 61643-11



# Surge protection device

## Type 2, Direct Current

### Specifications

Designation		DS220 12Vdc	DS220 24Vdc	DS230 48Vdc	DS240 75 V dc	DS240 110 Vdc
Part number		C3318	C3319	C3320	C3502	C3503
nominal voltageDC	Un	12 Vdc	24Vdc	48Vdc	75Vdc	150Vdc
maximal voltage DC	Uc	24Vdc	38Vdc	65Vdc	100Vdc	125Vdc
Nominal discharge current	In	10kA	10kA	15kA	20kA	20kA
Maximal discharge current	Imax	20kA	20kA	30kA	40kA	40kA
Protection level	Up	250V	250V	300V	390V	500V

#### Associated disconnectors

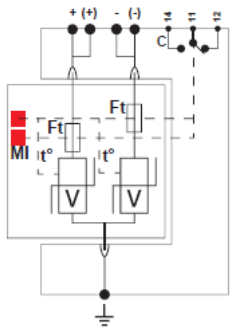
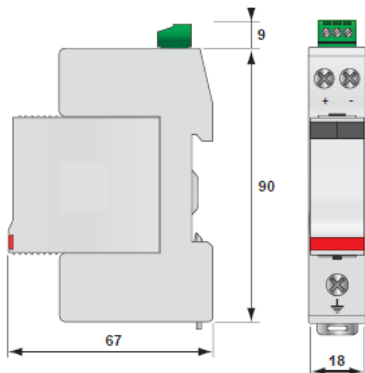
Thermal disconnector	internal
Protection Fuses (if required)	Fuses type gG – 20 A (12 V cc à 48 V cc) Fuses type gG - 50A (75Vdc à 110Vdc.

#### Mechanical characteristics

Connection	by screw 1.5 à 10 mm² maxi (active conductors)
Disconnection indicator	2 mechanical indicators
Mounting	DIN rail 35mm
Operating temperature	-40°C /+85°C
Ingress Protection	IP20
Plastic	Thermoplastique UL94-V0

#### Standards compliance

CEI 61 643-1 international Low Voltage SPD - Test class II  
EN 61 643-11 Europe parafoudres basse tension – Essais classe II



V : High energy MOV  
MI : Disconnection indicator  
Ft : Thermal fuse  
t\* : Thermal disconnection mechanism  
C : Contact for remote signaling





### Specifications

Designation					
Protection 1 paire + blindage	DLA 150Vdc	DLA 48Vdc	DLA 24Vdc	DLA 12Vdc	DLA 6Vdc
Protection 2 paires + blindage	DLA2 150Vdc	DLA2 48Vdc	DLA2 24Vdc	DLA2 12Vdc	DLA2 6Vdc
Part number	P82960 P82970	P82961 P82971	P82962 P82972	P82963 P82973	P82964 P82974
Network	RTC-ADSL SDL-SHDSL	RNIS-T0 Ligne 48V	LS 4-20mA	RS232 RS485	RS422
Nominal voltage (Un)	150 V	48V	24V	12V	6V
Voltage max (Uc)	170V	53V	28V	15V	8V
Current max. (Il)	300 mA	300 mA	300 mA	300 mA	300 mA
Impulse current (Iimp) on wave 10/350 $\mu$ s -	5kA	5kA	5kA	5kA	5kA
Nominal impulse current (In) On wave 8/20 $\mu$ s -	5kA	5kA	5kA	5kA	5kA
Max. discharge current I <sub>max</sub> On wave 8/20 $\mu$ s -1 choc	20kA	20kA	20kA	20kA	20kA
Protection level In (Up)	220V	70V	40V	30V	20V
frequency max.	> 10 MHz	> 3 MHz	> 3 MHz	> 3 MHz	> 3 MHz

### Mechanical characteristics

Connection

Mounting

Operating temperature

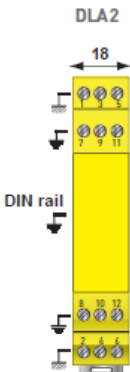
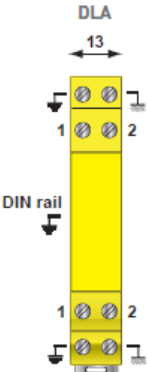
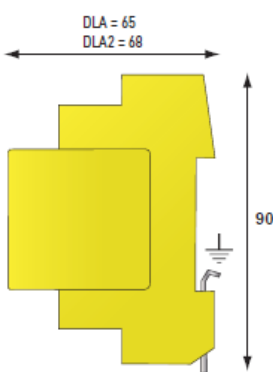
Plastic

by screw 0.4 – 1.5 mm<sup>2</sup> max

DIN rail 35mm

-40°C /+85°C

Thermoplastique UL94-V0



# SPD Ethernet network

## Specifications

Designation	RJ45 Ethernet Cat 5E	RJ45 Ethernet Cat 6	RJ45 Ethernet POE
Part number	P8615	P8616	C3470
Network	Ethernet	Ethernet Cat 6	Power over Ethernet
Data rate max.	1000Mbps	1000Mbps	10Mbit/s
Voltagemax. signal	8Vdc	6Vdc	60Vdc - 650mA
Configuration	4 pairs + shielded + earth	4 pairs + earth	8 wires + shielded
Nominal discharge current $I_n : 8/20\mu s$			
Phase / Phase	<500A	<100A	<500A
Phase / Earth	2000A	100A	2000A

### Mechanical characteristics

Connection	RJ45 armored
Disconnection indicator	2 mechanical indicators
Earth connexion	Bornier vis, Rail DIN or mounting flange(CAT 5E et POE) / Ground wire(Cat6)
Box Material	Metal (Cat5E et POE), plastic (Cat6)

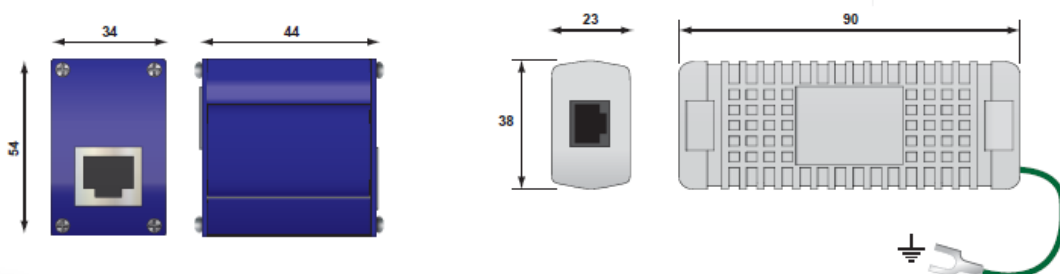


### Standards compliance

CEI 61 643-1 international Low Voltage SPD - Test class II  
EN 61 643-11 Europe Low Voltage SPD - Test class II

### NOTE

SPD RJ 11 and RJ 45 are also available on request specifically for telecommunications applications RTC or ADSL, ISDN



# Coaxial SPD

## HF – 4GHz

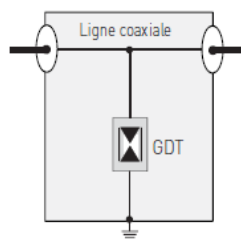
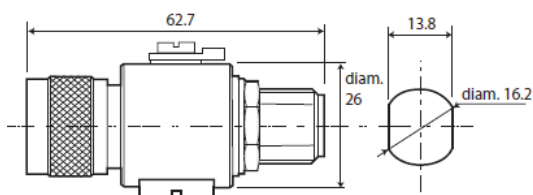


- SPDcoaxial 4 GHz
- Low insertion loss
- Waterproof IP65
- Specific gas discharge tube removable
- DC-pass
- Bidirectionnel

### Specifications

Designation	Coaxial – 25W	Coaxial – 190W	Coaxial – 780W
Part #	P8613	P8612C	P8614
Fréquency	DC – 4 GHz	DC – 4 GHz	DC – 4 GHz
Insertion loss	< 0.2 dB	< 0.2 dB	< 0.2 dB
Return Loss	> 20 dB	> 20 dB	> 20 dB
Stationary wave rate	< 1.2 : 1	< 1.2 : 1	< 1.2 : 1
Discharge current (8/20 µs)	20kA	20kA	20kA
Protection level Up	< 600V	< 600V	< 1000V
Power max.	25W	190W	780W
Current max.	10A	10A	10A
Impedance	50 ohms	50 ohms	50 ohms
Connection	Séries (bi-directionnelle)		
mechanical characteristics			
connectivity	N, BNC, F, TNC, SMA		
Ground connection	vis M6, traversée de paroi, bride		
Ingress Protection	IP65		
Operating Temperature	-40°C à +85°C		

PBAX09-N/MF  
(exemple)



GDT: Parasurtension bipolaire

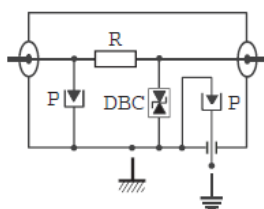
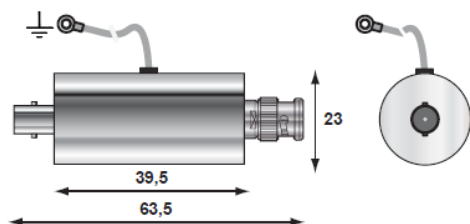
# CCTV SPD



- Coaxial SPD 70 MHz
- Low insertion loss
- easy mounting

## Specifications

Designation	CCTV SPD
Part number	P8603
Frequency	DC – 70 MHz
Insertion loss	< 0.6 dB
Return Loss	> 20 dB
Stationary wave rate	< 1.2 : 1
Discharge current(8/20 $\mu$ s) max. Imax in wave 8/20 $\mu$ s	10kA
Powermax.	100W
Current max.	6A
Impedance	50 ohms
Mechanical characteristics	
connectivity	BNC, F
Ground connection	par fil
Ingress Protection	IP65
Operating Temperature	-40°C à +85°C



P : Eclateur à gaz bipolaire  
DBC : Diode basse capacité  
R : Résistance

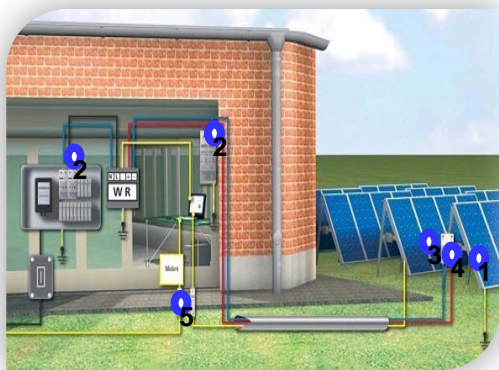
# SPD on request

## Telecoms



A range of surge protectors Telecom by:

- the kind of line
- site configuration (number of lines to protect)
- the type of installation (wall casing, DIN rail, distribution ...) and the kind of connection (wrapped, CAD, screw ...)



Surge protection device Type 1 and 2 installed between the photovoltaic panels and the inverter - DC up to 1250Vdc.



## SPD plug box

Several versions:

Telecom / TV

Indicators of operating voltage

General switch

Compliant with IEC 61643-1

Option "Master / Slave"

- I<sub>max</sub> from 80 to 200 kA (8/20  $\mu$ s)
- Protection mode Common and Differential
- 200 kA current Admissible shortcut
- Multi-redundant circuit for each phase?
- Signaling and fault Remote signaling
- Filtering function EMI / RFI
- Convenience with Casing NEMA standards 4/12 and UL 1449 3ed. and IEC 61643-1







# Obstructions Lights

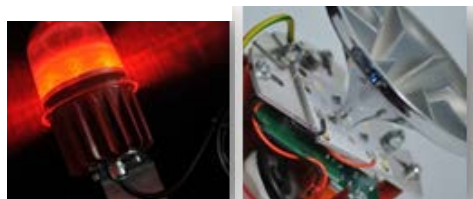






# Low Intensity LED

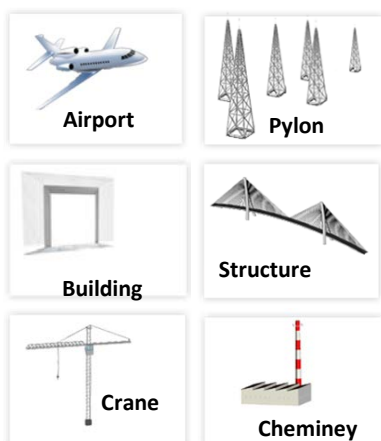
## LBIA TYPE A > 10 Cd – 230V AC



### Regulations:

- OACI, STAC N° 2010A012
- CE

### Scope of application:



### Description:

The LBIA is based on multi-LEDs technology. Dedicated to a night beaoning, it is a long life beacon (100 000 hours), very strong, with a low consumption (3w).

The LBIA can be provided with photocell for an automatic switch ON/OFF, and a dry contact for failure alarm.

The LBIA can be solar power supplied for an environmentally friendly system.

It has been designed for an easy installation.

### Advantages :

- Long life time > 10 years
- Multi – LEDs
- Low consumption < 3W
- Lightning protection
- Auto test cycling when the photocell is integrated
- No maintenance
- 2 year warranty

### Applications :

Rules concerning aircraft beaoning are established by the ICAO

Low intensity beacons can be installed on structures up to 45 meters.

According to the rules, an uninterruptible power supply cabinet has to be installed to insure a 12 hour beaoning in case of power supply failure.

### Models

Model	Voltage	Photocell	Dry contact
LBIA00MC	110-240V AC	Not included	Not included
LBIA01MC	110-240V AC	Not included	Included
LBIA11MC	110-240V AC	Included	Included

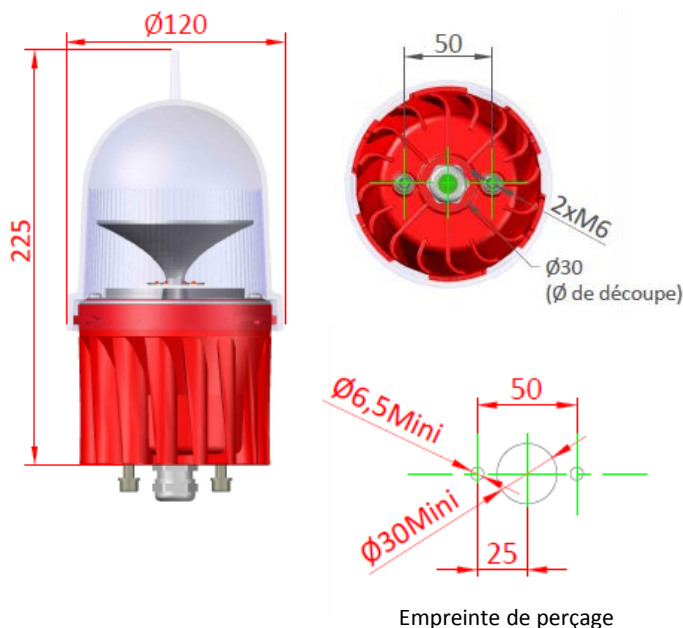
# Low Intensity LED

## LBIA TYPE A > 10 Cd – 230V AC

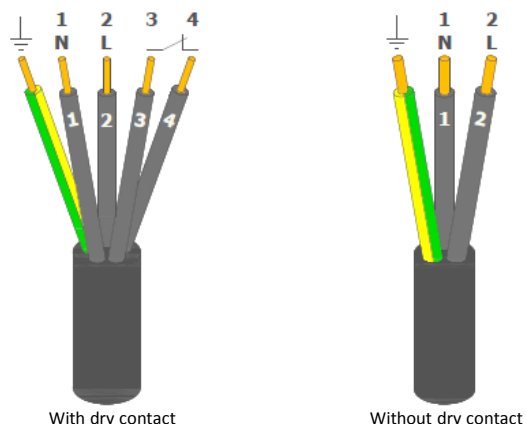
### Characteristics

<b>Luminous</b>	
Luminous source	LEDs
Colour	Red
Horizontal beam	360°
Vertical beam	10°
Luminous intensity	>10 Cd
MTBF	100 000 Hours
<b>Electrics</b>	
Voltage	110 à 240V AC
Lightning protection	Integrated
Functioning temperature	-55°C to +55°C
Consumption	<3 Watts
Current Imax	10mA
Protection class	IP68
Cable	2 meters
<b>Mechanicals</b>	
Body material	Aluminium
Lens material	Polycarbonate with peak against birds
Fixation	Screw M6
Height	225mm
Wight	120mm
Weight	<1.5 Kg
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1 CEI60364, NF C15-100 EN60529
OACI	Annexe 14, Volume I, Chapter 6
<b>Warranty</b>	
	2 years
Quality	ISO 9001 ; 2008
<b>Options</b>	
	Photocell integrated
	Dry contact for failure alarm integrated

### Dimensions :



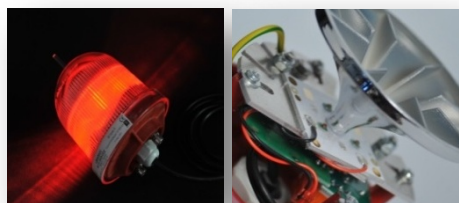
### Wiring



### Available accessories for installation

- Stainless steel mounting
- Driving box
- Power supply
- Safety power supply
- Solar kit

# Low Intensity LED LBIA TYPE A > 10 Cd – DC



## **Description:**

The LBIA is based on multi-LEDs technology. Dedicated to a night beaconing, it is a long life beacon (100 000 hours), very strong, with a low consumption (<3w).

The LBIA can be provided with photocell for an automatic switch ON/OFF, and a dry contact for failure alarm.

The LBIA can be solar power supplied for an environmentally friendly system.

It has been designed for an easy installation.

## **Advantages :**

- Long life time > 10 years
- Multi – LEDs
- Low consumption < 3W
- Lightning protection
- Auto test cycling when the photocell is integrated
- No maintenance
- 2 year warranty

## **Applications :**

Rules concerning aircraft beaconing are established by the ICAO

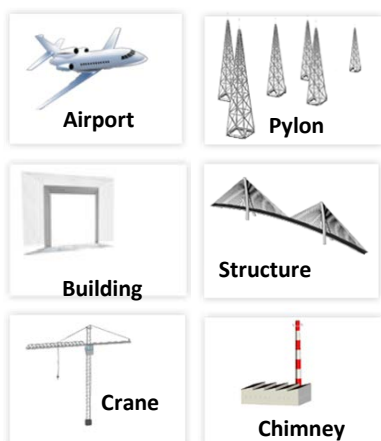
Low intensity beacons can be installed on structures up to 45 meters.

According to the rules, an uninterruptible power supply cabinet has to be installed to insure a 12 hour beaconing in case of power supply failure.

## **Regulations:**

- OACI, STAC N° 2010A012
- CE

## **Scope of application**



## **Models**

Model	Voltage	Photocell	Dry contact
LBIA00CC	12 to 48V DC	Not included	Not included
LBIA01AC	24V DC	Not included	Included
LBIA11AC	24V DC	Included	Included
LBIA01BC	48V DC	Not included	Included
LBIA11BC	48V DC	Included	Included



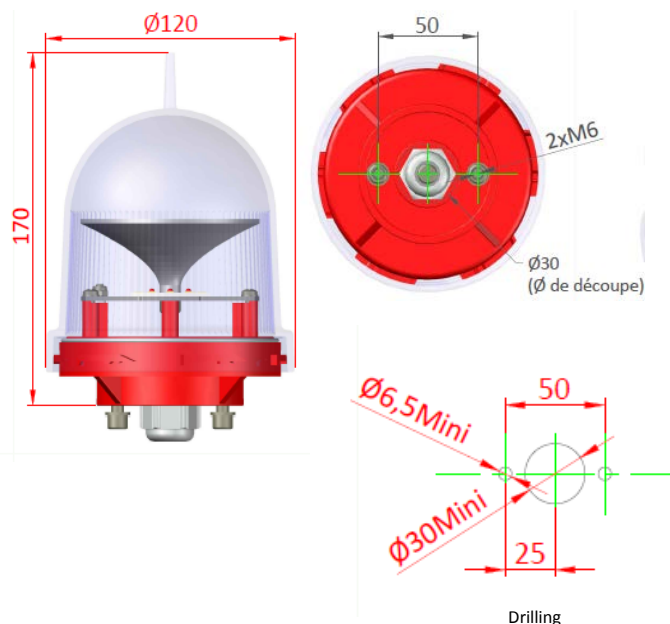
# Low Intensity LED

## LBIA TYPE A > 10 Cd – DC

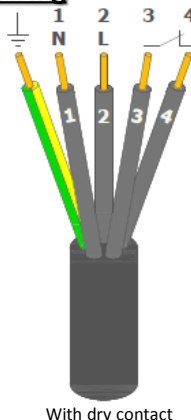
### Characteristics

<b>Luminous</b>	
Luminous source	LEDs
Colour	Red
Horizontal beam	360°
Vertical beam	10°
Luminous intensity	>10 Cd
MTBF	100 000 Hours
<b>Electrics</b>	
Voltage	12, 24, 48V DC
Lightning protection	Integrated
Functioning temperature	-55°C to +55°C
Consumption	<3 Watts
Current Imax	To 12V : I=200mA To 24V : I=700mA To 48V : I=400mA
Protection class	IP68
Cable	2 meters
<b>Mechanical</b>	
Body material	Composite
Lens material	Polycarbonate with peak against birds
Fixation	M6 screw (included)
Height	170mm
Width	120mm
Screw spacing	50mm
Weight	<1 Kg
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1 CEI60364, NF C15-100 EN60529
OACI	Annexe 14, Volume I, Chapter 6
<b>Warranty</b>	
	2 years
Quality	ISO 9001 ; 2008
<b>Options</b>	
	Photocell integrated
	Dry contact for failure alarm integrated

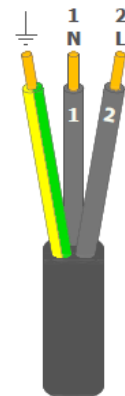
### Dimensions :



### Wiring



With dry contact



Without dry contact

### Available accessories for installation

- Stainless steel mounting
- Driving box
- Power supply
- UPS system
- Solar kit

# Low Intensity LED

## LBIA TYPE B > 10 Cd – Zamac Box



### Description:

The LBIB is a light with multi-LEDs technology. Dedicated to a night beaoning, it is a long life time system (100 000 hours), very strong with a low consumption (<3w).

The LBIB can be solar power supplied for an environmentally friendly system.

The specific design of the box is the most convenient solution on the market for installation: mounting frame is a part of the box and the light position could be adjusted in the suitable position.

### Advantages :

- Long life time > 10 years
- Multi – LEDs
- Low consumption < 3W
- Lightning protection
- Auto test cycling when the photocell is integrated
- No maintenance
- 2 year warranty

### Applications :

Rules concerning aircraft beaoning are established by the ICAO

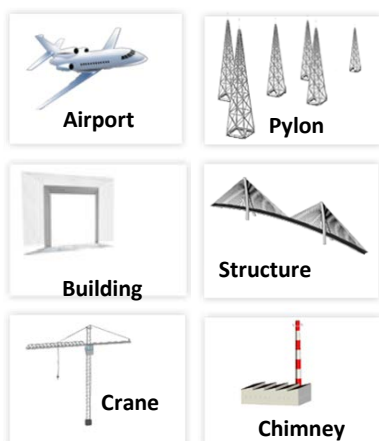
Low intensity beacons can be installed on structures up to 45 meters.

According to the rules, an uninterruptible power supply cabinet has to be installed to insure a 12 hour beaoning in case of power supply failure.

### Regulations:

- OACI, STAC N° 2010A012
- CE

### Scope of application:



### Models

Model	Voltage	Photocell	Dry contact
LBIA11AZ	24V DC	Included	Included
LBIA11BZ	48V DC	Included	Included
LBIA11MZ	110-240V AC	Included	Included



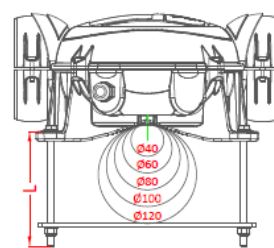
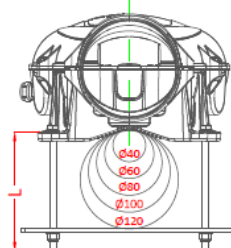
# Low Intensity LED

## LBIA TYPE B > 10 Cd – Zamac Box

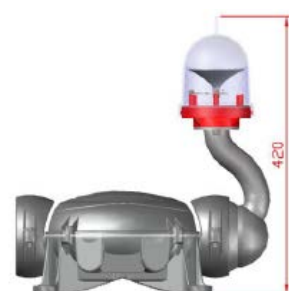
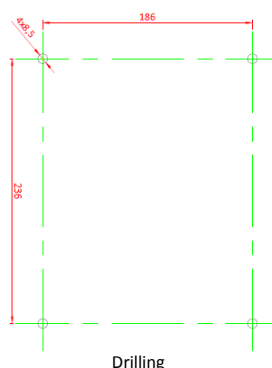
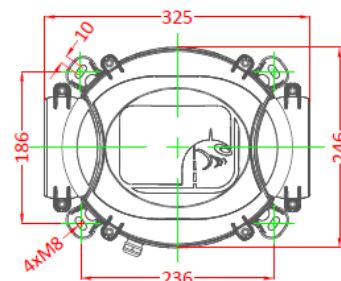
### Characteristics

<b>Luminous</b>	
Luminous source	LEDs
Colour	Red
Horizontal beam	360°
Vertical beam	10°
Luminous intensity	>10 Cd
MTBF	100 000 Hours
<b>Electrics</b>	
Voltage	24, 48V DC / 110-240V AC
Lightning protection	Integrated
Functioning temperature	-55°C to +55°C
Consumption	<3 Watts
Current Imax	To 24V : I=66mA
	To 48V : I=40mA
	To 230V : I=10mA
Protection class	IP68
Cable	2 meters
<b>Mechanicals</b>	
Box material	Zamac
Body lamp material	Composite
Lens material	Polycarbonate with peak against birds
Fixation	M8 screw
Height	420mm
Weight	<5 Kg
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1
	CEI60364, NF C15-100
	EN60529
OACI	Annexe 14, Volume I, Chapter 6
Warranty	2 years
Quality	ISO 9001 ; 2008

### Dimensions :



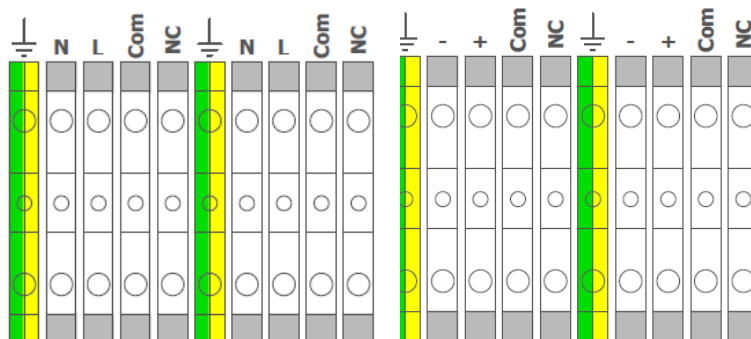
SCREW LENGTH	
Ø :	L :
Ø40	50
Ø60	70
Ø80	90
Ø100	110
Ø120	130



### Wiring

230V CA

24V, 48V CC



### Available accessories for installation

- Power supply
- Safety power supply
- Solar kit



# Low Intensity LED LBIA TYPE A > 10 Cd – Twiny



## Description:

The TWINY is a one block beacon, equipped with the exclusive redundant system. For a safety installation, its automatic test is launched every day. With the LEDs technology, it offers performances in terms of life time (100 000 hours), robustness and consumption (<3W).

The LBIA TWINY can be solar power supplied for an environmentally friendly system.

The specific design of the box is the most convenient solution on the market for installation: mounting frame is a part of the box and the light position could be adjusted in the suitable position.

## Advantages :

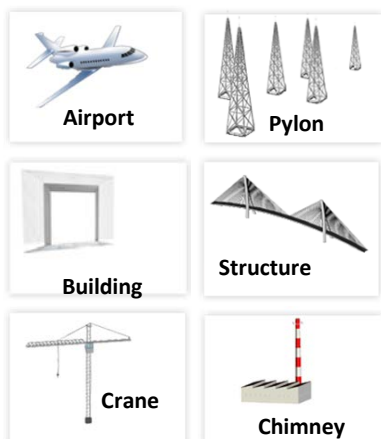
- Long life time > 10 years
- Multi – LEDs
- Low consumption < 3W
- Lightning protection
- Automatics test checks the well-functioning of the both lights
- No maintenance
- 2 year warranty



## Regulations:

- OACI, STAC N° 2010A020
- CE
- FAA Compliant L810

## Scope of application:



## Applications :

Rules concerning aircraft beaconing are established by the ICAO

Low intensity beacons can be installed on structures up to 45 meters.

According to the rules, an uninterruptible power supply cabinet has to be installed to insure a 12 hour beaconing in case of power supply failure.

## Models

Model	Voltage	Photocell	Dry contact
LBIATWCB	48V DC	Included	Included
LBIATWMB	110-240V AC	Included	Included



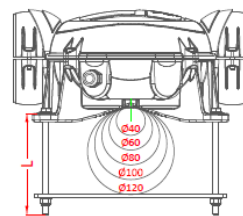
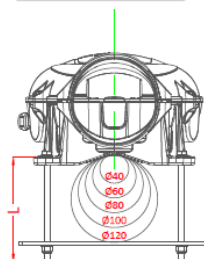
# Low Intensity LED

## LBIA TYPE A > 10 Cd – Twiny

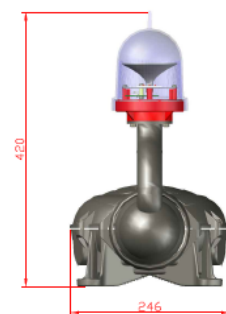
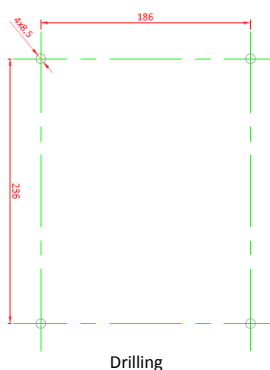
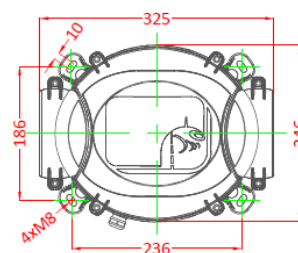
### Characteristics

<b>Luminous</b>	
Luminous source	LEDs
Colour	Red
Horizontal beam	360°
Vertical beam	10°
Luminous intensity	>10 Cd
MTBF	100 000 Hours
<b>Electrics</b>	
Voltage	48V DC / 110-240V AC
Lightning protection	Integrated
Functioning temperature	-55°C to +55°C
Consumption	<3 Watts
Current Imax	To 48V : I=40mA To 230V : I=10mA
Protection class	IP68
<b>Mechanicals</b>	
Box material	Zamac
Body lamp material	Composite
Lens material	Polycarbonate with bird spike
Fixation	M8 screw
Height	420mm
Weight	<5 Kg
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1 CEI60364, NF C15-100 EN60529
OACI	Annexe 14, Volume I, Chapter 6
<b>Warranty</b>	
Quality	2years ISO 9001 ; 2008

### Dimensions :



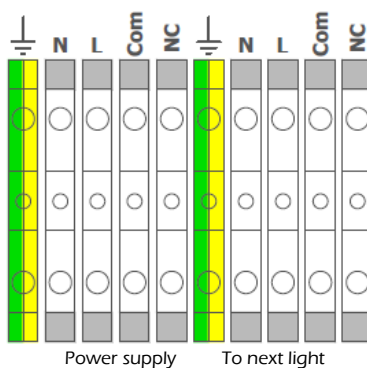
SCREW LENGTH	
Ø :	L :
Ø40	50
Ø60	70
Ø80	90
Ø100	110
Ø120	130



### Wiring

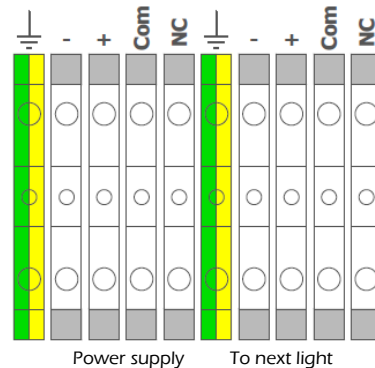
110-240 V AC

48V DC



Power supply

To next light



Power supply

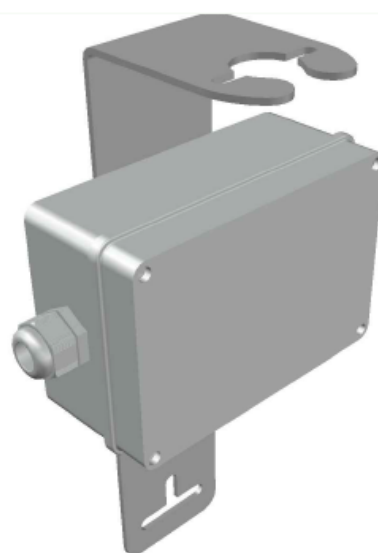
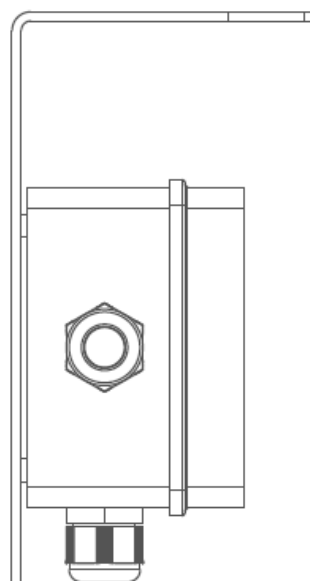
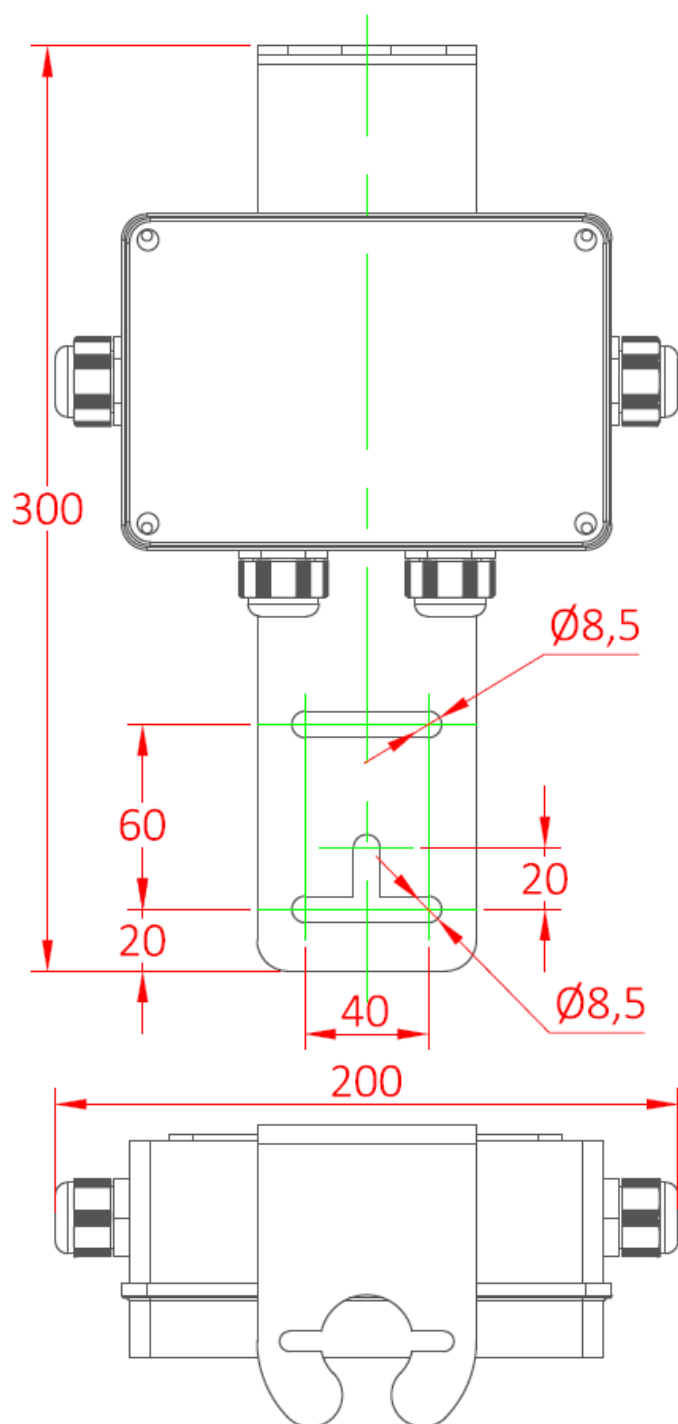
To next light

### Available accessories for installation

- Power supply
- Safety power supply
- Solar kit

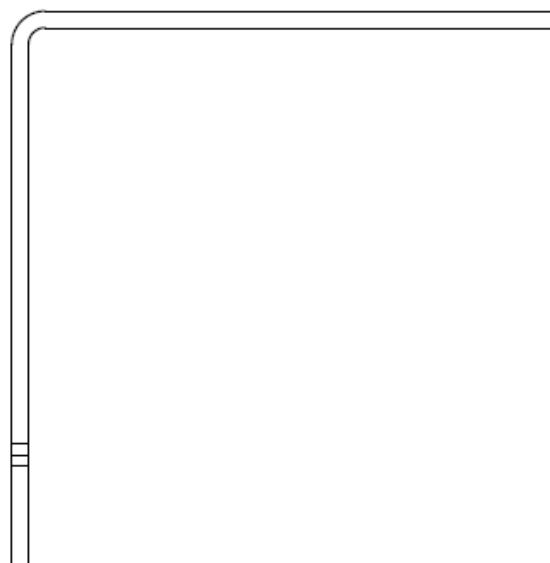
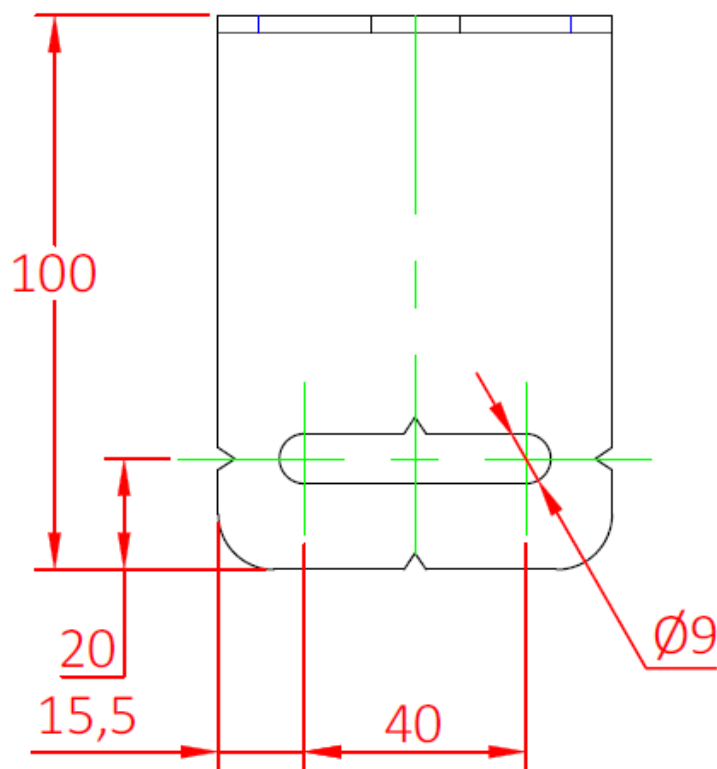
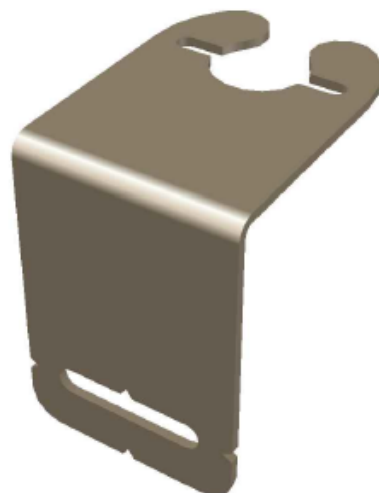
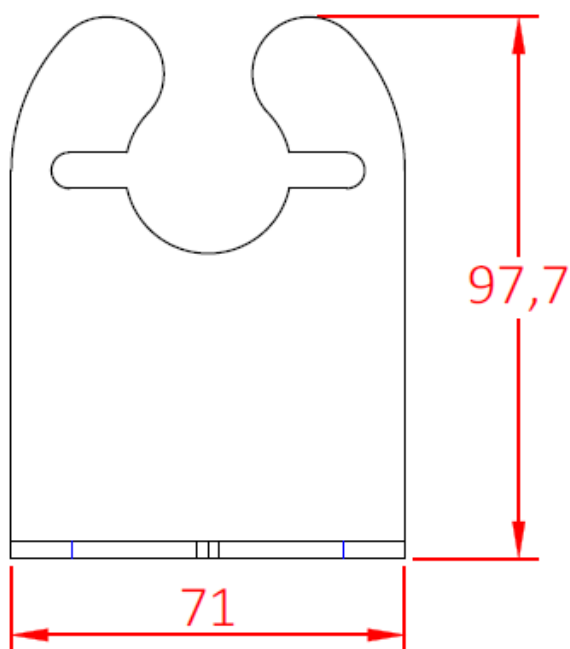


# Mounting Bracket Junction Box

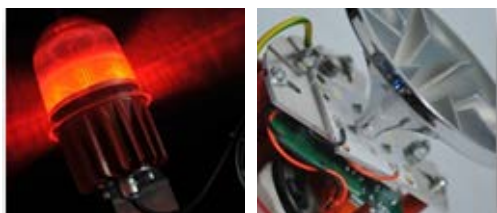


**Application:**  
LBIA Lights on bracket

# Mounting bracket 100 mm



# Low intensity LED LBIB TYPE B >32 Cd – DC



## Description:

The LBIB is based on multi-LEDs technology. Dedicated to a night beaconing, it is a long life beacon (100 000 hours), very strong with a long consumption (<6w).

The LBIB can be provided with photocell for an automatic switch ON/OFF, and a dry contact for failure alarm.

The LBIB can be solar power supplied for an environmentally friendly system.

It has been designed for an easy installation.

## Advantages :

- Long life time > 10 years
- Multi – LEDs
- Low consumption < 6W
- Lightning protection
- Auto test cycling when the photocell is integrated
- No maintenance
- 2 year warranty

## Applications :

Rules concerning aircraft beaconing are established by the ICAO

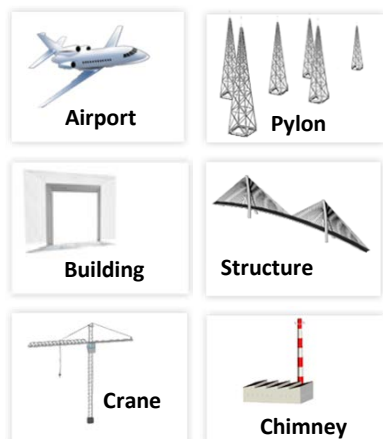
Low intensity beacons can be installed on structures up to 45 meters.

According to the rules, an uninterruptible power supply cabinet has to be installed to insure a 12 hour beaconing in case of power supply failure.

## Regulations:

- OACI, STAC N° 2010A020
- CE
- FAA Compliant L810

## Scope of application:



## Models

Model	Voltage	Photocell	Dry contact
LBIB00DC	24 à 48V DC	Not included	Not included
LBIB01AC	24V DC	Not included	Included
LBIB11AC	24V DC	Included	Included
LBIB01BC	48V DC	Not included	Included
LBIB11BC	48V DC	Included	Included

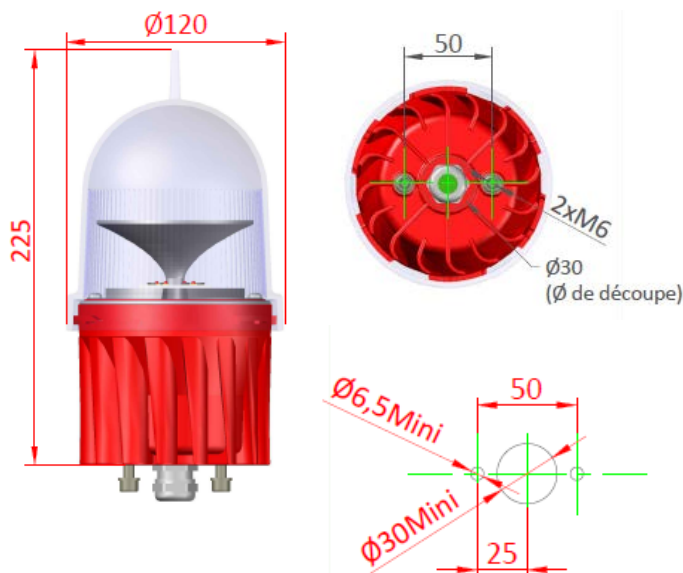
# Low intensity LED

## LBIB TYPE B >32 Cd – DC

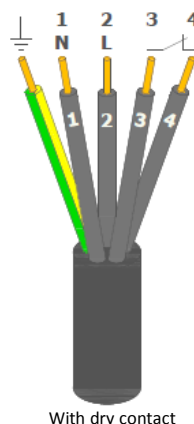
### Characteristics

Luminous	
Luminous source	LEDs
Colour	Red
Horizontal beam	360°
Vertical beam	10°
Luminous intensity	>32 Cd
MTBF	100 000 Hours
Electrics	
Voltage	24, 48V DC
Lightning protection	Integrated
Functioning temperature	-55°C to +55°C
Consumption	<6 Watts
Current Imax	To 24V : I=200mA To 48V : I=110mA
Protection class	IP68
Cable	2 meters
Mechanicals	
Body material	Aluminium
Lens material	Polycarbonate with peak against birds
Fixation	M6 screw (included)
Height	225mm
Width	120mm
Weight	<1.5 Kg
Environment	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
Certifications	
CE	EN60947-1 CEI60364, NF C15-100 EN60529
OACI	Annexe 14, Volume I, Chapter 6
Quality	ISO 9001 ; 2008
FAA	Compliant L-810
Warranty	
Options	Photocell integrated Dry contact for failure alarm integrated

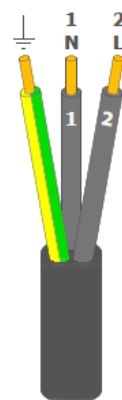
### Dimensions :



### Wiring



With dry contact

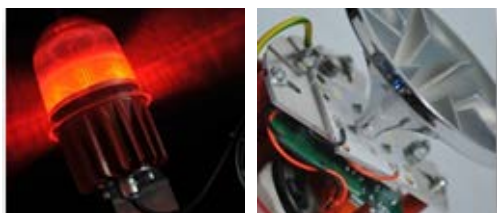


Without dry contact

### Available accessories for installation

- Stainless steel mounting
- Driving box
- Power supply
- UPS system
- Solar kit

# Low intensity LED LBIB TYPE B >32 Cd – AC



## Description:

The LEDEOBIB is based on multi-LEDs technology. Dedicated to a night beaconing, it is a long life beacon (100 000 hours), very strong with a long consumption (<6w).

The LEDEOBIB can be provided with photocell for an automatic switch ON/OFF, and a dry contact for failure alarm.

The LEDEOBIB can be solar power supplied for an environmentally friendly system.

It has been designed for an easy installation.

## Advantages :

- Long life time > 10 years
- Multi – LEDs
- Low consumption < 6W
- Lightning protection
- Auto test cycling when the photocell is integrated
- No maintenance
- 2 year warranty

## Applications :

Rules concerning aircraft beaconing are established by the ICAO

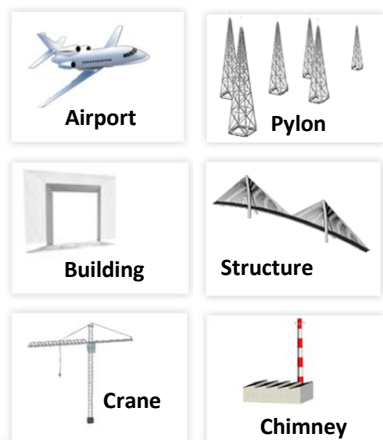
Low intensity beacons can be installed on structures up to 45 meters.

According to the rules, an uninterruptible power supply cabinet has to be installed to insure a 12 hour beaconing in case of power supply failure.

## Regulations:

- OACI, STAC N° 2010A020
- CE
- FAA Compliant L810

## Scope of application:



## Models

Model	Voltage	Photocell	Dry contact
LBIB00MC	110 - 240V CA	Not included	Not included
LBIB01MC	110 - 240V CA	Not included	Included
LBIB11MC	110 - 240V CA	Included	Included



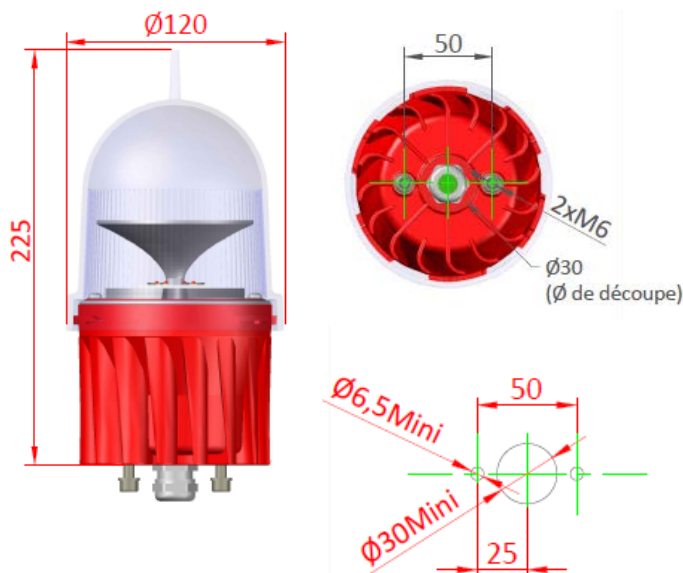
# Low intensity LED

## LBIB TYPE B > 32 Cd – AC

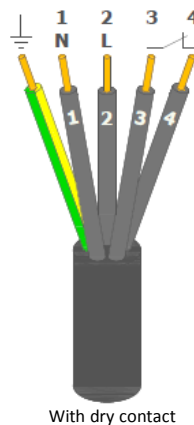
### Characteristics

<b>Luminous</b>	
Luminous source	LEDs
Colour	Red
Horizontal beam	360°
Vertical beam	10°
Luminous intensity	>32 Cd
MTBF	100 000 Hours
<b>Electrics</b>	
Voltage	110 à 230V CA
Lightning protection	Integrated
Functioning temperature	-55°C to +55°C
Consumption	<6 Watts
Current Imax	I=23mA
Protection class	IP68
Cable	2 meters
<b>Mechanicals</b>	
Body material	Aluminium
Lens material	Polycarbonate with bird spike
Fixation	Screw M6 (included)
Height	225mm
Width	120mm
Weight	<1.5 Kg
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1 CEI60364, NF C15-100 EN60529
OACI	Annexe 14, Volume I, Chapter 6
Quality	ISO 9001 ; 2008
FAA	Compliant L-810
<b>Warranty</b>	
Options	2years Photocell integrated Dry contact for failure alarm integrated

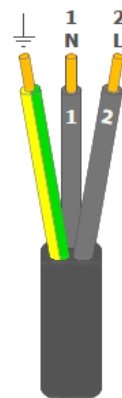
### Dimensions :



### Wiring



With dry contact



Without dry contact

### Available accessories for installation

- Stainless steel mounting
- Driving box
- Power supply
- UPS system
- Solar kit

# Low Intensity LED

## LBIB TYPE B > 32 Cd – Zamac Box



### Description:

The LBIB is a light with multi-LEDs technology. Dedicated to a night beaconing, it is a long life time system (100 000 hours), very strong with a low consumption (<6w).

The LBIB can be solar power supplied for an environmentally friendly system.

The specific design of the box is the most convenient solution on the market for installation: mounting frame is a part of the box and the light position could be adjusted in the suitable position.

### Advantages :

- Long life time > 10 years
- Multi – LEDs
- Low consumption < 6W
- Lightning protection
- Auto test cycling when the photocell is integrated
- No maintenance
- 2 year warranty

### Applications :

Rules concerning aircraft beaconing are established by the ICAO

Low intensity beacons can be installed on structures up to 45 meters.

According to the rules, an uninterruptible power supply cabinet has to be installed to insure a 12 hour beaconing in case of power supply failure.

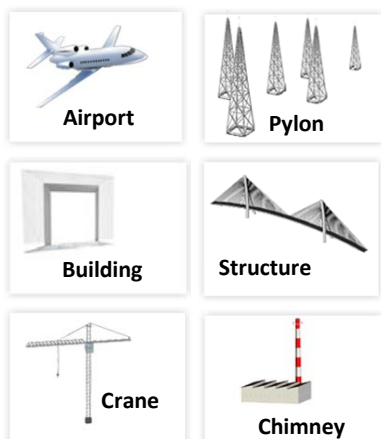
### Models

Model	Voltage	Photocell	Dry contact
LBIB11AZ	24V DC	Included	Included
LBIB11BZ	48V DC	Included	Included
LBIB11MZ	110-240V AC	Included	Included

### Règlementations:

- OACI, STAC N° 2010A020
- CE
- FAA Compliant L810

### Scope of application:





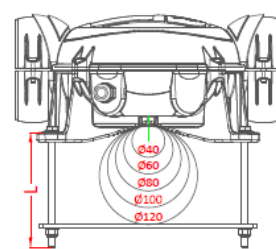
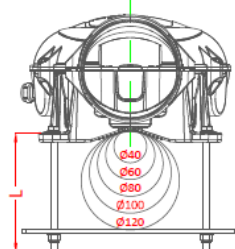
# Low Intensity LED

## LBIB TYPE B > 32 Cd – Zamac Box

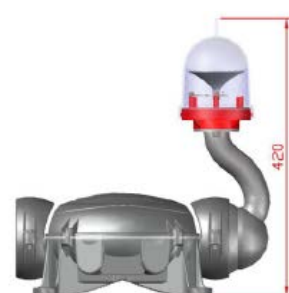
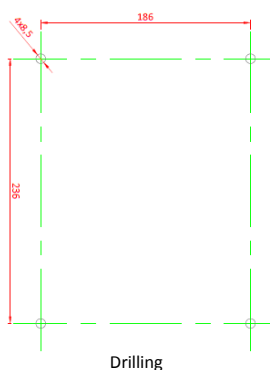
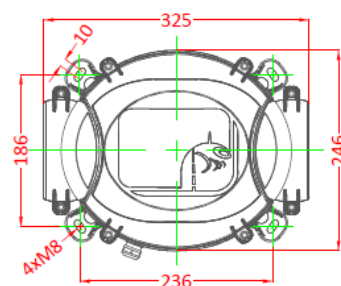
### Characteristics

<b>Luminous</b>	
Luminous source	LEDs
Colour	Red
Horizontal beam	360°
Vertical beam	10°
Luminous intensity	>32 Cd
MTBF	100 000 Hours
<b>Electrics</b>	
Voltage	24, 48V DC / 110-240V AC
Lightning protection	Integrated
Functioning temperature	-55°C to +55°C
Consumption	<6 Watts
Current Imax	A 24V : I=210mA
	A 48V : I=130mA
	A 230V : I= 230mA
Protection class	IP68
<b>Mechanicals</b>	
Box material	Zamac
Body of light material	Aluminium
Lens material	Polycarbonate with bird spike
Fixation	M8 screw
Height	477mm
Weight	<7 Kg
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
OACI	Annexe 14, Volume I, Chapter 6
CE	EN60947-1
	CEI60364, NF C15-100
	EN60529
Warranty	2 years*
FAA	Compliant L-810
Quality	ISO 9001 ; 2008

### Dimensions :



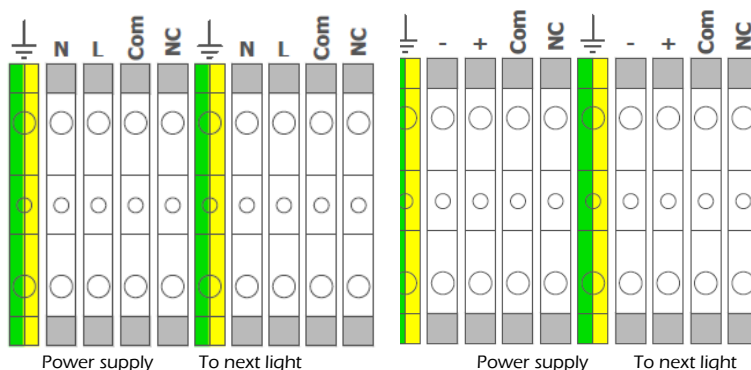
SCREW LENGTH	
Ø :	L :
Ø40	50
Ø60	70
Ø80	90
Ø100	110
Ø120	130



### Wiring

230V CA

24V, 48V CC



### Available accessories for installation

- Power supply
- Safety power supply
- Solar kit



# Low Intensity LED LBIB TYPE B > 32 Cd – Twiny



## Description:

The TWINY is a one block beacon, equipped with the exclusive redundant system. For a safety installation, its automatic test is launched every day. With the LEDs technology, it offers performances in terms of life time (100 000 hours), robustness and consumption (<6W).

The LBIB TWINY can be solar power supplied for an environmentally friendly system.

The specific design of the box is the most convenient solution on the market for installation: mounting frame is a part of the box and the light position could be adjusted in the suitable position.

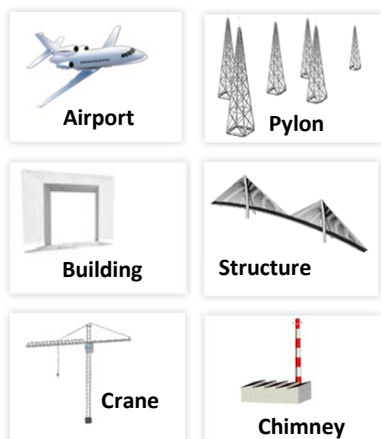
## Advantages :

- Long life time > 10 years
- Multi – LEDs
- Low consumption < 6W
- Lightning protection
- Delta Box exclusive self-test included with photocell
- No maintenance
- 2 year warrant
- Zamac box with epoxy powder painting

## Regulation:

- OACI, STAC N° 2010A020
- CE
- FAA Compliant L-810

## Scope of application:



## Applications :

Rules concerning aircraft beaconing are established by the ICAO

Low intensity beacons can be installed on structures up to 45 meters.

According to the rules, an uninterruptible power supply cabinet has to be installed to insure a 12 hour beaconing in case of power supply failure.

## Models

Model	Voltage	Photocell	Dry contact
LBIBTWCB	48V DC	Included	Included
LBIBTWMB	110-240V AC	Included	Included

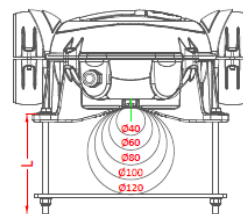
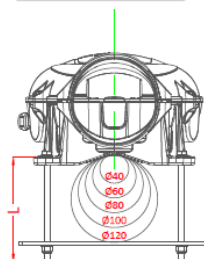
# Low Intensity LED

## LBIB TYPE B > 32 Cd – Twiny

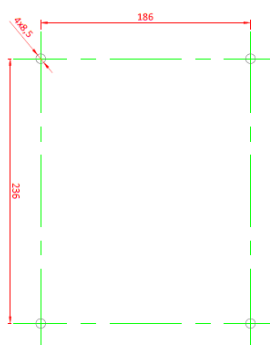
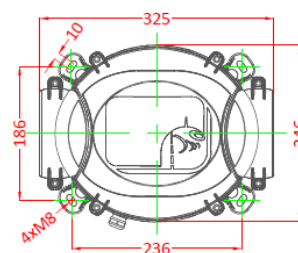
### Characteristics

<b>Luminous</b>	
Luminous source	LEDs
Colour	Red
Horizontal beam	360°
Vertical beam	10°
Luminous intensity	>32 Cd
MTBF	100 000 Hours
<b>Electrics</b>	
Voltage	48V DC / 110-240V AC
Lightning protection	Integrated
Functioning temperature	-55°C to +55°C
Consumption	<6 Watts
Current Imax	To 48V : I=40mA To 230V : I=10mA
Protection class	IP68
<b>Mechanicals</b>	
Box material	Zamac
Body lamp material	Aluminum
Lens material	Polycarbonate with bird spike
Fixation	M8 screw
Height	477mm
Weight	<8 Kg
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
OACI	Annexe 14, Volume I, Chapter 6
CE	EN60947-1 CEI60364, NF C15-100 EN60529
Warranty	2 years
Quality	ISO 9001 ; 2008

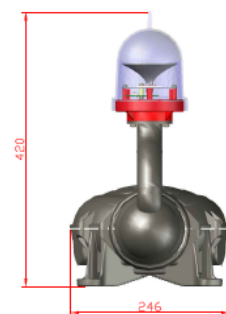
### Dimensions :



SCREW LENGTH	
Ø :	L :
Ø40	50
Ø60	70
Ø80	90
Ø100	110
Ø120	130



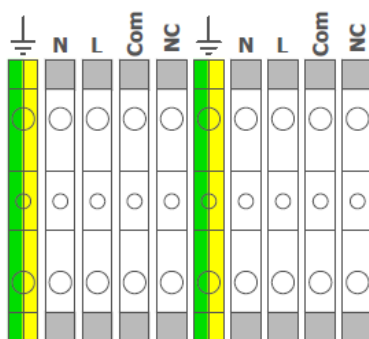
Drilling



### Wiring

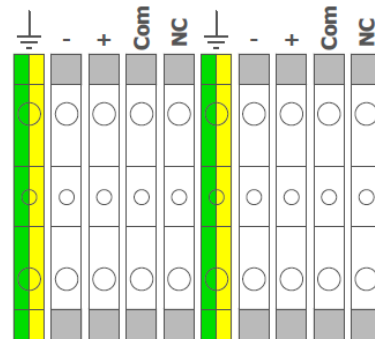
230V CA

24V, 48V CC



Power supply

To next light



Power supply

To next light

### Available accessories for installation

- Power supply
- Safety power supply
- Solar kit

# Medium Intensity LED LMIA Type A – White Flash



## Description:

The LMIA is a medium intensity light with multi-LEDs technology, developed with an aluminium design for a natural fresh cooling system. Dedicated to a day and night white flash beaconing, it is a long life system (100 000 Hours), very strong with a low consumption (20w up to 90w).

The LMIA is provided with photocell for an automatic switch ON/OFF, and a dry contact for failure alarm.

Moreover, it can be solar power supplied.

It has been designed for an easy installation.

## Advantages :

- Wired synchronization integrated, optical fiber, GPS and TCPIP available
- Long life time > 10 years
- Multi – LEDs
- Average consumption < 45W
- Lightning protection
- Automatics test sequence included with photocell
- No maintenance
- 2 year warranty
- Zamac box with epoxy powder painting
- Connection plug IP68, in option

## Applications :

Rules concerning aircraft beaconing are established by the ICAO

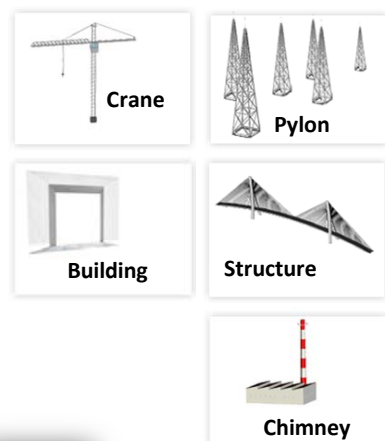
Medium intensity lights can be installed on structures up to 150 meters high. Beyond 90 meters, it is necessary to plan several levels of lights.

According to the rules, an uninterruptible power supply cabinet has to be installed to assure a 12 hour beaconing in case of power supply failure.

## Regulations:

- OACI, STAC N° 2010A022
- CE
- FAA Compliant L865

## Scope of application:



## Models

Model	Voltage	Photocell	Dry contact
LMIA00BB*	48V DC	Not included	Not included
LMIA11BB	48V DC	Included	Included
LMIA00MB*	110-240V AC	Not included	Not included
LMIA11MB	110-240V AC	Included	Included

\*To be installed with a safebox or a solar power supply or or GPS

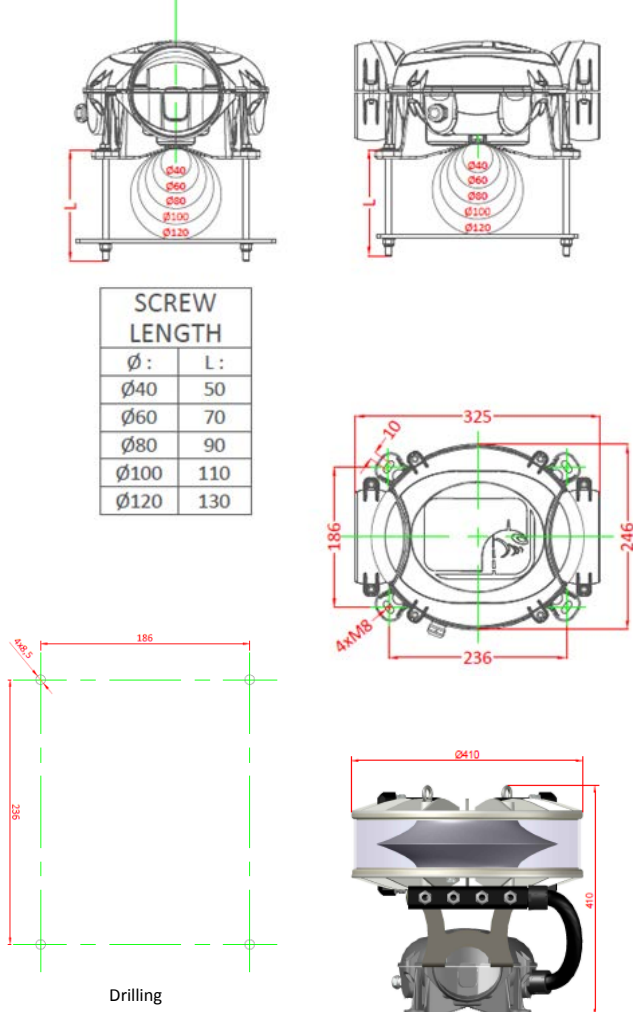
# Medium Intensity LED

## LMIA Type A – White Flash

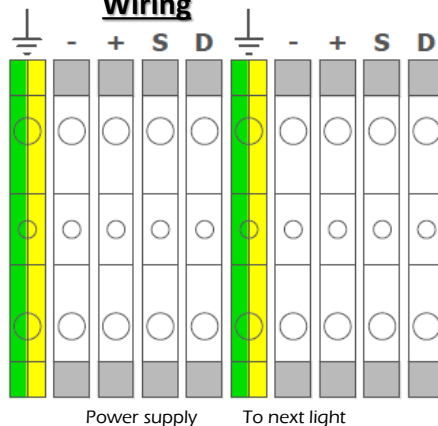
### Characteristics

<b>Luminous</b>	
Luminous source	LEDs
Colour	White flash
Horizontal beam	360°
Vertical beam	3°
Luminous intensity	20 000 Cd Day 2 000 Cd Night
Flash frequency	20 to 60 fpm
MTBF	100 000 Hours
<b>Electrics</b>	
Voltage	48V DC / 110-240V AC
Lighting protection	Integrated
Functioning temperature	-55°C to +55°C
Consumption max	<45 Watts at 20 fpm
Courant I <sub>max</sub>	To 48V: I=4200mA To 230V: I=900mA
Protection class	IP68
<b>Mechanicals</b>	
Box material	Zamac
Body lamp material	Aluminium
Lens material	Polycarbonate
Mounting	M8 screw
Height	410mm
Width	410mm
Weight	17 Kg
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1 CEI60364, NF C15-100 EN60529
OACI	Annexe 14, Volume I, Chapter 6
FAA	Compliant L-865
Quality	ISO 9001 ; 2008
<b>Options</b>	
Photocell integrated	
Dry contact for failure alarm integrated	

### Dimensions :



### Wiring



### Available accessories for installation

- Power supply
- UPS system
- Solar kit

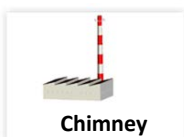
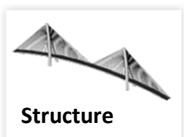
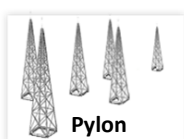
# Medium Intensity LED LMIB Type B – Red Flash



## Regulations:

- OACI, STAC N° 2013A045
- CE
- FAA Compliant L864

## Scope of application:



## Description:

The LMIA is a medium intensity light with multi-LEDs technology, developed with an aluminium design for a natural fresh cooling system. Dedicated to a day and night white flash beaconing, it is a long life system (100 000 Hours), very strong with a low consumption (20w).

The LMIA is provided with photocell for an automatic switch ON/OFF, and a dry contact for failure alarm.

Moreover, it can be solar power supplied.

It has been designed for an easy installation.

## Advantages :

- Wired synchronization integrated, optical fiber, GPS and TCPIP available
- Long life time > 10 years
- Multi – LEDs
- Low consumption < 20W
- Lightning protection
- Delta Box exclusive self test included with photocell
- No maintenance
- 2 year warranty
- Zamac box with epoxy powder painting
- Connection plug IP68, in option

## Applications :

Rules concerning aircraft beaconing are established by the ICAO

Medium intensity lights can be installed on structures up to 150 meters high. Beyond 90 meters, it is necessary to plan several levels of lights.

According to the rules, an uninterruptible power supply cabinet has to be installed to assure a 12 hour beaconing in case of power supply failure.

## Models

Model	Voltage	Photocell	Dry contact
LMIB00BB*	48V DC	Not included	Not included
LMIB11BB	48V DC	Included	Included
LMIB00MB*	110-240V AC	Not included	Not included
LMIB11MB	110-240V AC	Included	Included

\*to installed with Safebox or solar power supply or GPS

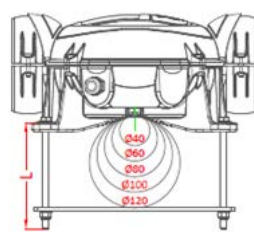
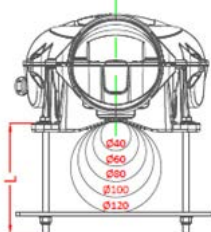


# Medium Intensity LED LMIB Type B – Red Flash

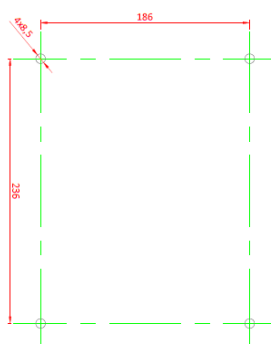
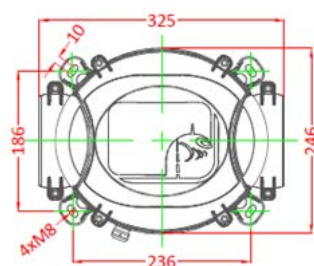
## Characteristics

<b>Luminous</b>	
Luminous source	LEDs
Colour	Red flash
Horizontal beam	360°
Vertical beam	3°
Luminous intensity	2 000 Cd
Flash frequency	20 to 60 fpm
MTBF	100 000 Hours
<b>Electrics</b>	
Voltage	48V DC / 110-240V AC
Lightning protection	Integrated
Functioning temperature	-55°C to +55°C
Medium consumption	<20 Watts to 20 fpm
Current Imax	To 48V : I=1300mA To 230V : I=300mA
Protection class	IP68
<b>Mechanicals</b>	
Box material	Zamac
Body lamp material	Aluminium
Lens material	Polycarbonate
Mounting	M8 screw
Height	365mm
Width	410mm
Weight	16 Kg
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1 CEI60364, NF C15-100 EN60529
OACI	Annexe 14, Volume I, Chapter 6
FAA	Compliant L-864
Quality	ISO 9001 ; 2008
<b>Warranty</b>	2 years
<b>Options</b>	Photocell Dry contact for failure alarm

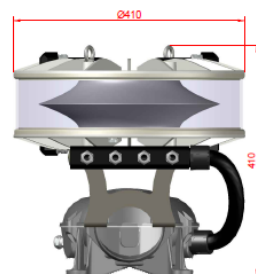
## Dimensions :



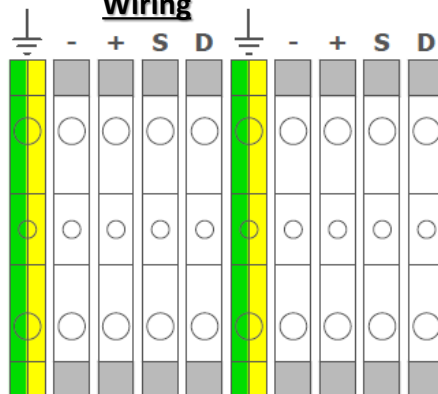
SCREW LENGTH	
Ø :	L :
Ø40	50
Ø60	70
Ø80	90
Ø100	110
Ø120	130



Drilling



## Wiring



Power supply

To next light

## Available accessories for installation

- Power supply
- UPS system
- Solar kit

# Medium Intensity LED

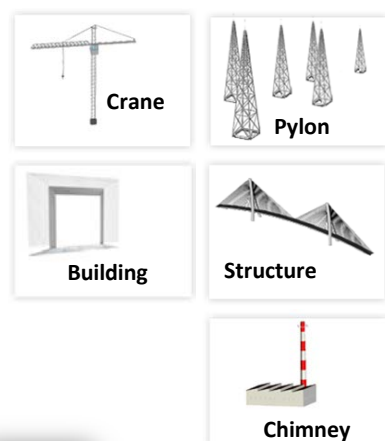
## LMIC Type C – Red Steady



### Regulations:

- OACI, STAC N° 2013A045
- CE
- FAA Compliant L-864

### Scope of application:



### Description:

The LMIB is a medium intensity light with multi-LEDs technology, developed with an aluminium design for a natural fresh cooling system. Dedicated to a day and night red flash beaconing, it is a long life system (100 000 Hours), very strong with a low consumption (50w).

The LMIB is provided with photocell for an automatic switch ON/OFF, and a dry contact for failure alarm.

Moreover, it can be solar power supplied.

It has been designed for an easy installation.

### Advantages :

- Wired synchronization integrated, optical fiber, GPS and TCPIP available
- Long life time > 10 years
- Multi – LEDs
- Low consumption < 50W
- Lightning protection
- Delta Box exclusive self test included with photocell
- No maintenance
- 2 year warranty
- Zamac box with epoxy powder painting
- Connection plug IP68, in option

### Applications :

Rules concerning aircraft beaconing are established by the ICAO

Medium intensity lights can be installed on structures up to 150 meters high. Beyond 90 meters, it is necessary to plan several levels of lights.

According to the rules, an uninterruptible power supply cabinet has to be installed to assure a 12 hour beaconing in case of power supply failure.

### Models

Model	Voltage	Photocell	Dry contact
LMIC00BB*	48V DC	Not included	Not included
LMIC11BB	48V DC	Included	Included
LMIC00MB*	110-240V AC	Not included	Not included
LMIC11MB	110-240V AC	Included	Included

\*to installed with Safebox or solar power supply or GPS

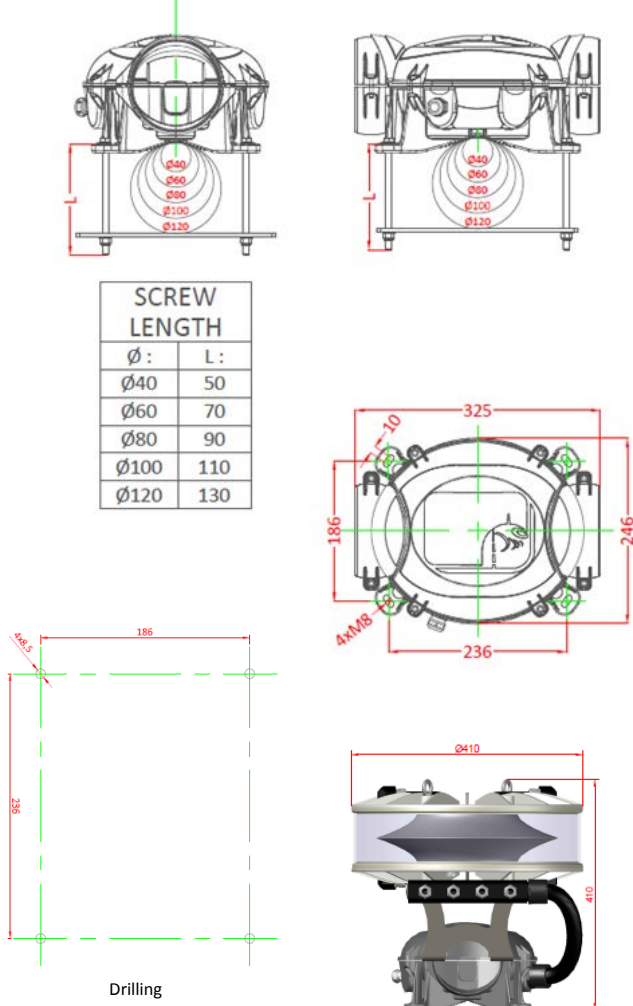
# Medium Intensity LED

## LMIC Type C – Red Steady

### Characteristics

<b>Luminous</b>	
Luminous source	LEDs
Colour	Red steady burning
Horizontal beam	360°
Vertical beam	3°
Luminous intensity	2 000 Cd
MTBF	100 000 Hours
<b>Electrics</b>	
Voltage	48V DC / 110-240V AC
Lightning protection	Integrated
Functioning temperature	-55°C to +55°C
Medium consumption	<50 Watts
Current Imax	To 48V : I=1350mA To 230V : I=300mA
Protection class	IP68
<b>Mechanicals</b>	
Body material	Zamac
Body lamp material	Aluminium
Lens material	Polycarbonate
Mounting	M8 screw
Height	365mm
Width	410mm
Weight	16 Kg
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1 CEI60364, NF C15-100 EN60529
OACI	Annexe 14, Volume I, Chapter 6
FAA	Compliant L-864
Quality	ISO 9001 ; 2008
<b>Warranty</b>	2 years
<b>Options</b>	Photocell Dry contact for failure alarm

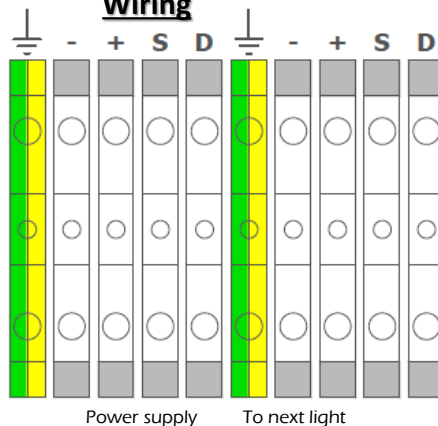
### Dimensions :



### Available accessories for installation

- Power supply
- UPS system
- Solar kit

### Wiring





# Medium Intensity LED

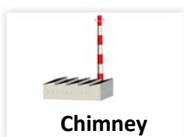
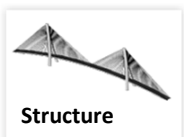
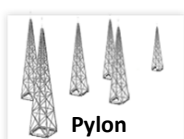
## LMIAB Type A&B – White Flash and Red Flash



### Regulations:

- OACI, STAC N° 2013A045
- CE
- FAA Compliant L-864 /L-865

### Scope of application:



### Description:

The LMIAB is a medium intensity light with multi-LEDs technology, developed with an aluminium design for a natural fresh cooling system. Dedicated to a day white flash and night red beaconing, it is a long life system (100 000 Hours), very strong with a low consumption (90w).

Photocell and dry contact can be provided either in the light or deported in a system of control (Safety power supply, control panel).

Moreover, it can be solar power supplied.

It has been designed for an easy installation.

### Advantages :

- Wired synchronization integrated, optical fiber, GPS and TCPIP available
- Long life time > 10 years
- Multi – LEDs
- Low consumption < 90W
- Lightning protection
- Delta Box exclusive self test included with photocell
- No maintenance
- 2 year warranty
- Zamac box with epoxy powder painting
- Connection plug IP68, in option

### Applications :

Rules concerning aircraft beaconing are established by the ICAO

Medium intensity lights can be installed on structures up to 150 meters high. Beyond 90 meters, it is necessary to plan several levels of lights.

According to the rules, an uninterruptible power supply cabinet has to be installed to assure a 12 hour beaconing in case of power supply failure.

### Models

Model	Voltage	Photocell	Dry contact
LMIC00BB*	48V DC	Not included	Not included
LMIC11BB	48V DC	Included	Included
LMIC00MB*	110-240V AC	Not included	Not included
LMIC11MB	110-240V AC	Included	Included

\*to installed with Safebox or solar power supply or GPS

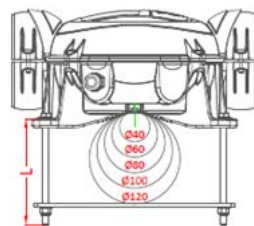
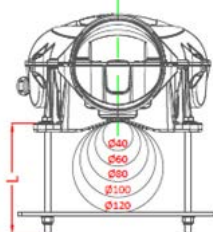
# Medium Intensity LED

## LMIAB Type A&B – White Flash and Red Flash

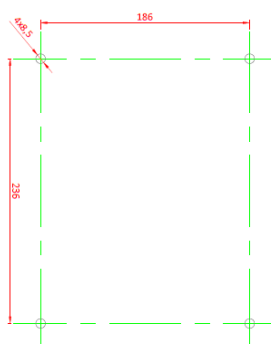
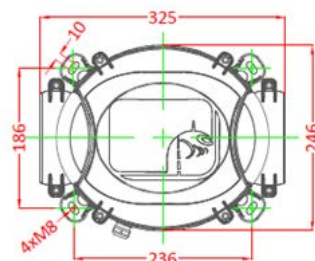
### Characteristics

<b>Luminous</b>	
Luminous source	LEDs
Colour	White flash (Day) Red flash (Night)
Horizontal beam	360°
Vertical beam	3°
Luminous intensity	20 000 Cd (Day, white) 2 000 Cd (Night, red)
Flash frequency	20 to 60 fpm
MTBF	100 000 Hours
<b>Electrics</b>	
Voltage	48V DC / 110-240V AC
Lightning protection	Integrated
Functioning temperature	-55°C to +55°C
Consumption	<90 Watts
Current Imax (day mode)	To 48V : I=4200mA To 230V : I=900mA
Current Imax (night mode)	To 48V : I=1300mA To 230V : I=300mA
Protection class	IP68
<b>Mechanicals</b>	
Box material	Zamac
Body lamp material	Aluminium
Lens material	Polycarbonate
Mounting	M8 screw
Height	410mm
Width	410mm
Weight	18 Kg
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1 CEI60364, NF C15-100 EN60529
ICAO	Annexe 14, Volume I, Chapter 6
FAA	Compliant L-865 / L-864
Quality	ISO 9001 ; 2008
Warranty	2 years
Options	Photocell Dry contact for failure alarm

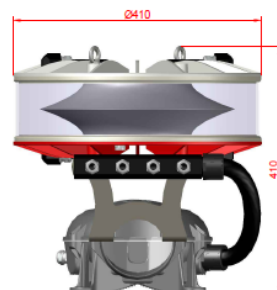
### Dimensions :



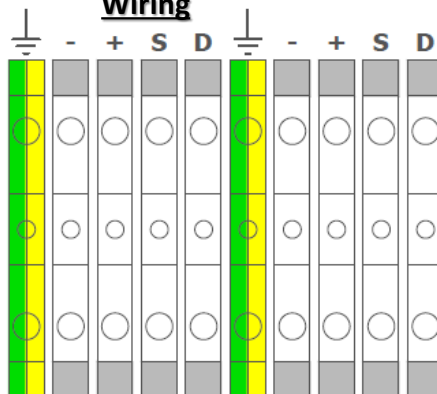
SCREW LENGTH	
Ø :	L :
Ø40	50
Ø60	70
Ø80	90
Ø100	110
Ø120	130



Drilling



### Wiring



Power supply

To next light

### Available accessories for installation

- Power supply
- UPS system
- Solar kit

# Medium Intensity LED - LMIAC Type A&C

## – White Flash and night Steady Red beconing



### Description:

The LMIAB is a medium intensity light with multi-LEDs technology. Dedicated to a day and night white flash beaconing, it is a long life system (100 000 Hours), very strong with a low consumption (90w).

Photocell and dry contact can be provided either in the light or deported in a system of control (Safety power supply, control panel).

Moreover, it can be solar power supplied.

It has been designed for an easy installation.

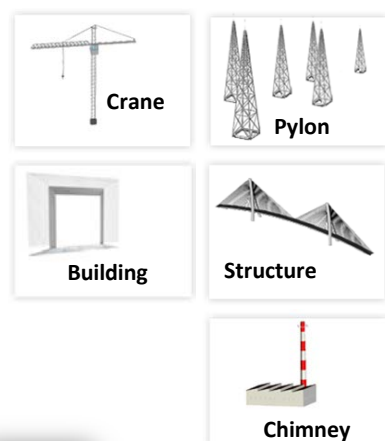
### Advantages :

- Wired synchronization integrated, optical fiber, GPS and TCPIP available
- Long life time > 10 years
- Multi – LEDs
- Low consumption < 90W
- Lightning protection
- Delta Box exclusive self test included with photocell
- No maintenance
- 2 year warranty
- Zamac box with epoxy powder painting
- Connection plug IP68, in option

### Regulations:

- OACI, STAC N° 2010A022/2013A045
- CE
- FAA Compliant L864/L-865

### Scope of application:



### Applications :

Rules concerning aircraft beaconing are established by the ICAO

Medium intensity lights can be installed on structures up to 150 meters high. Beyond 90 meters, it is necessary to plan several levels of lights.

According to the rules, an uninterruptible power supply cabinet has to be installed to assure a 12 hour beaconing in case of power supply failure.

### Models

Model	Voltage	Photocell	Dry contact
LMIAC00BB*	48V DC	Not included	Not included
LMIAC11BB	48V DC	Included	Included
LMIAC00MB*	110-240V AC	Not included	Not included
LMIAC11MB	110-240V AC	Included	Included

\*to installed with Safebox or solar power supply or GPS

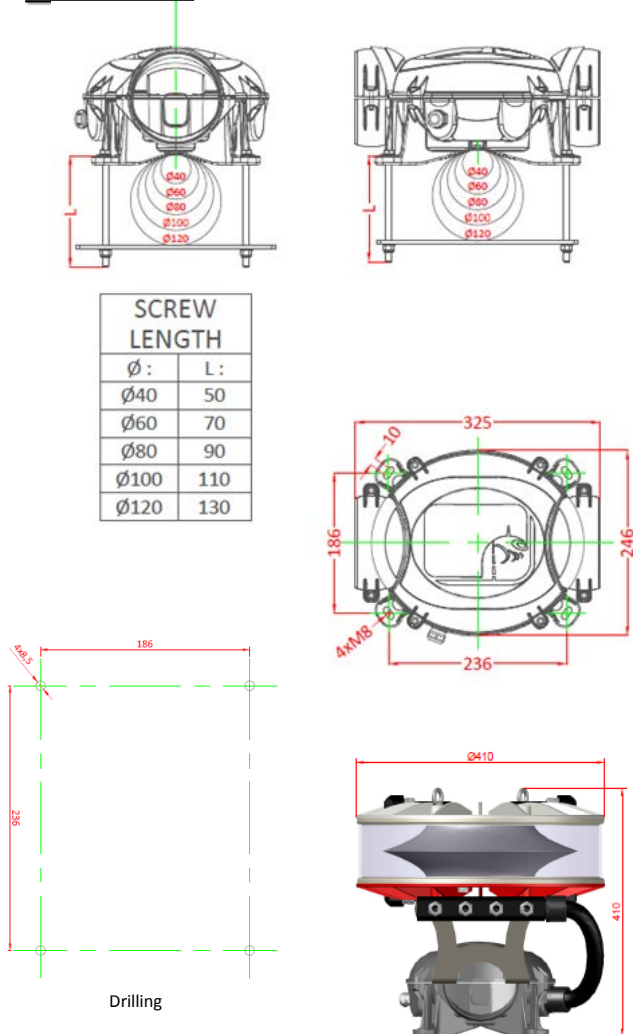
# Medium Intensity LED - LMIAC Type A&C

## – White Flash and night Steady Red beconing

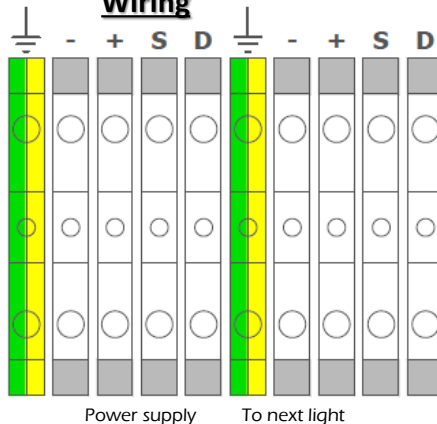
### Characteristics

<b>Luminous</b>	
Luminous source	LEDs
Colour	White flash (Day) Red flash (Night)
Horizontal beam	360°
Vertical beam	3°
Luminous intensity	20 000 Cd (Day, white) 2 000 Cd (Night, red)
Flash frequency	20 to 60 fpm
MTBF	100 000 Hours
<b>Electrics</b>	
Voltage	48V DC / 110-240V AC
Lightning protection	Integrated
Functioning temperature	-55°C to +55°C
Consumption	<90 Watts
Current I <sub>max</sub> (day mode)	To 48V : I=4200mA To 230V : I=900mA
Current I <sub>max</sub> (night mode)	To 48V : I=1300mA To 230V : I=300mA
Protection class	IP68
<b>Mechanicals</b>	
Box material	Zamac
Body lamp material	Aluminium
Lens material	Polycarbonate
Mounting	M8 screw
Height	410mm
Width	410mm
Weight	18 Kg
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1 CEI60364, NF C15-100 EN60529
ICAO	Annexe 14, Volume I, Chapter 6
FAA	Compliant L-865 / L-864
Quality	ISO 9001 ; 2008
Warranty	2 years
Options	Photocell Dry contact for failure alarm

### Dimensions :



### Wiring



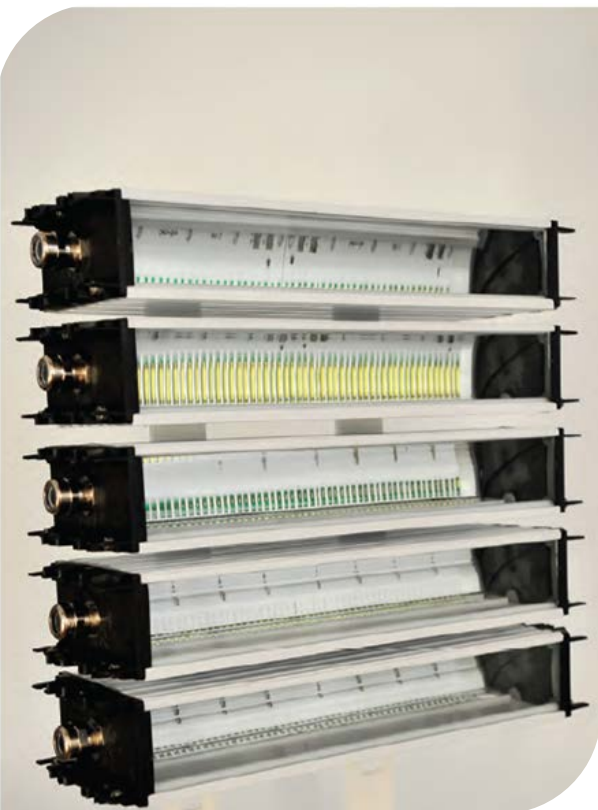
### Available accessories for installation

- Power supply
- UPS system
- Solar kit



# High Intensity LED

## LHIA Type A – White Flash



### Description:

The LHIA is a high intensity light with multi-LEDs technology, developed with an aluminium design for a natural fresh cooling system. Dedicated to a day, twilight and night white marking, it is a long life system (50 000 Hours), with a modular conception due to reduce the weight of the flash head.

The LHIA is provided with a control panel including the photocell for an automatic switch ON/OFF, and a dry contact for failure alarm.

It has been designed for an easy installation.

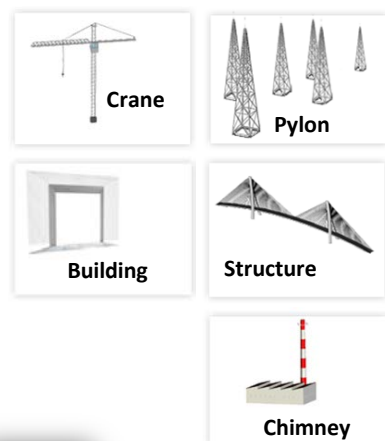
### Advantages :

- Wired synchronization integrated, optical fiber, GPS and TCPIP available
- Long life time > 5 years
- Multi – LEDs
- Consumption about 300W
- Lightning protection
- Automatics test sequence included with photocell
- No maintenance
- 2 year warranty
- Connection plug IP68, in option

### Regulations:

- ICAO compliant
- CE
- FAA Compliant

### Scope of application:



### Applications :

Rules concerning aircraft beaconing are established by the ICAO

High intensity lights can be settled on structures higher than 150 meters high.

According to the rules, an uninterruptible power supply cabinet has to be installed to assure a 12 hour beaconing in case of power supply failure.

### Models

Model	Voltage	Photocell	Dry contact
LHIA-TF	-	Not included	Not included
AA-LHIA-A230	Input voltage 110 -240 V	Included	Included

\*to installed with Safebox or solar power supply or GPS

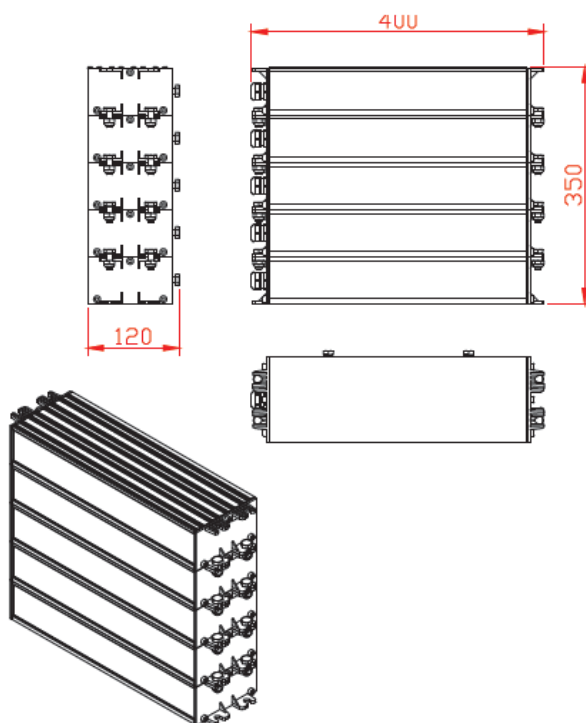
# High Intensity LED

## LHIA Type A – White Flash

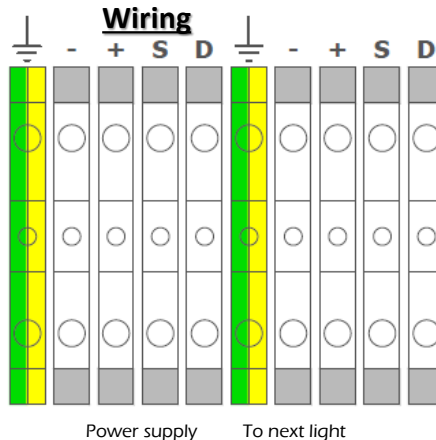
### Characteristics

<b>Luminous</b>	
Luminous source	LEDs
Colour	White flash
Horizontal beam	90°
Vertical beam	3°
Luminous intensity	200 000 Cd Day
	20 000 Cd Twilight
	2 000 Cd Night
Flash frequency	20 to 60 fpm
MTBF	50 000 Hours
<b>Electrics</b>	
Voltage	110-240V AC
Lighting protection	Integrated
Functioning temperature	-55°C to +55°C
Consumption max	300 Watts
Courant I <sub>max</sub> (1 flash head)	To 48V: I=15A (120°) To 230V: I=3A
Protection class	IP68
<b>Mechanicals</b>	
Box material	Polyester
Body lamp material	Aluminium
Lens material	Glass
Mounting	M8 screw
Height	350mm
Width	400mm
Weight	<20 Kg
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1
	CEI60364, NF C15-100
	EN60529
OACI	Annex 14, Volume I, Chapter 6
FAA	Compliant
Quality	ISO 9001 ; 2008
Warranty	2 years

### Dimensions :



### Wiring



### Available accessories for installation

- Power supply
- UPS system
- Solar kit

# Low Intensity LED SOLBIA Type A > 10 Cd – Solar



## Description:

The SOLBIA is an environmentally friendly system.

Dedicated to an autonomous night beaconing, it is long life system (100 000 Hours), more than 80 hour autonomy system.

The SOLBIA is also available with a 110-240V input as back-up power supply.

The SOLBIA is provided with photocell for an automatic switch ON/OFF and a dry contact for failure alarm.

The specific design of the box is the most convenient solution on the market for installation: mounting frame is a part of the box and it could be adjusted in horizontal or vertical position.

## Advantages :

- Long life time > 10 years
- Multi – LEDs
- Independant
- Lightning protection
- Delta Box exclusive self-test included with photocell
- Power saving
- 2 year warrant
- Zamac box with epoxy powder painting

## Regulations:

- OACI, STAC N° 2010A012
- CE

## Scope of application:

## Applications :

Rules concerning aircraft beaconing are established by the ICAO

Low intensity beacons can be installed on structures up to 45 meters.

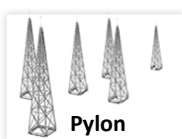
The SOLBIA gives security to every sites, even the most isolated.

## Models

Model	Tension d'alimentation	Interrupteur crépusculaire	Contact défaut
SOLBIA 11	Solaire	Avec	Avec



Crane



Pylon



Building



Structure

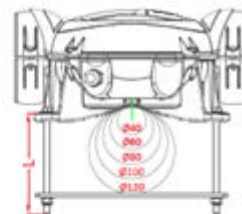
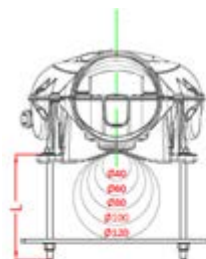
# Low Intensity LED

## SOLBIA Type A > 10 Cd – Solar

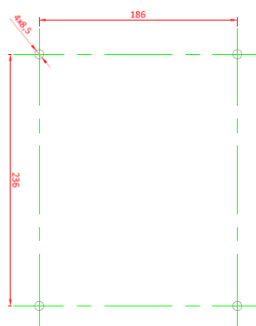
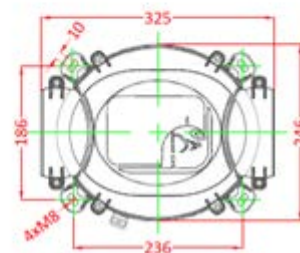
### Characteristics

<b>Luminous</b>	
Luminous source	LEDs
Colour	Red
Horizontal beam	360°
Vertical beam	10°
Luminous intensity	>10 Cd
MTBF	100 000 Hours
<b>Electrics</b>	
Voltage	Solar
Lightning protection	Integrated
Functioning temperature	-55°C to +55°C
Solar panel	10 Watts Polycrystallin
Battery	Waterproof lead gel
Autonomy	12V 9Ah
Protection class	80 Hours
	IP68
<b>Mechanicals</b>	
Box material	Zamac
Body lamp material	Composite
Lens material	Polycarbonate with bird spike
Mounting	M8 screw
Height	425mm
Weight	<11 Kg
Solar panel dimensions	300mm x 385mm
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1
	CEI60364, NF C15-100
	EN60529
ICAO	Annexe 14, Volume I, Chapter 6
Quality	ISO 9001 ; 2008
Warranty	2years

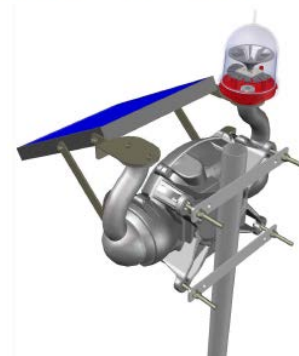
### Dimensions :



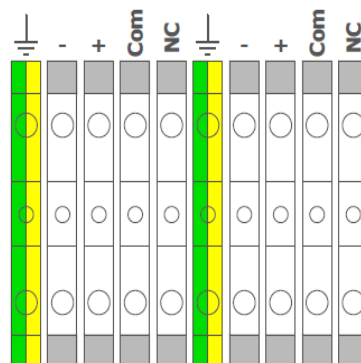
Length of screw	
Ø :	L :
Ø40	50
Ø60	70
Ø80	90
Ø100	110
Ø120	130



Drilling



### Wiring



Power supply

To next light

### Available accessories for installation

-Specific stainless steel mounting



# Low Intensity LED SOLBIA Type A > 10 Cd – Solar TWINY



## Description:

Le SOLBIA TWINY is an environmentally friendly system, equipped with the exclusive redundant system.

For security installation, its automatic test is launched every day. Dedicated to an autonomous night beaconing, it is long life system (100 000 hours), more than 80 hour autonomy system.

The SOLBIA TWINY is also available with a 110-240V input as back-up power supply.

Le SOLBIA TWINY is provided with photocell for an automatic switch ON/OFF and a dry contact for failure alarm.

The specific design of the box is the most convenient solution on the market for installation: mounting frame is a part of the box and it could be adjusted in vertical or horizontal position.

## Advantages :

- Long life time > 10 years
- Multi – LEDs
- Independant
- Lightning protection
- Delta Box exclusive self-test included with photocell
- Power saving
- 2 year warrant
- Zamac box with epoxy powder painting

## Regulations:

- OACI, STAC N° 2010A012
- CE

## Scope of application:

## -Applications :

Rules concerning aircraft beaconing are established by the ICAO

Low intensity beacons can be installed on structures up to 45 meters high.

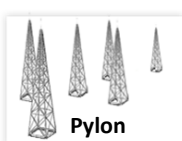
The SOLEO gives security to every sites, even the most isolated.

## Models

Model	Voltage	Photocell	Dry contact
SOLBIATW	Solar	Included	Included



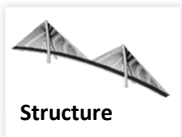
Crane



Pylon



Building



Structure

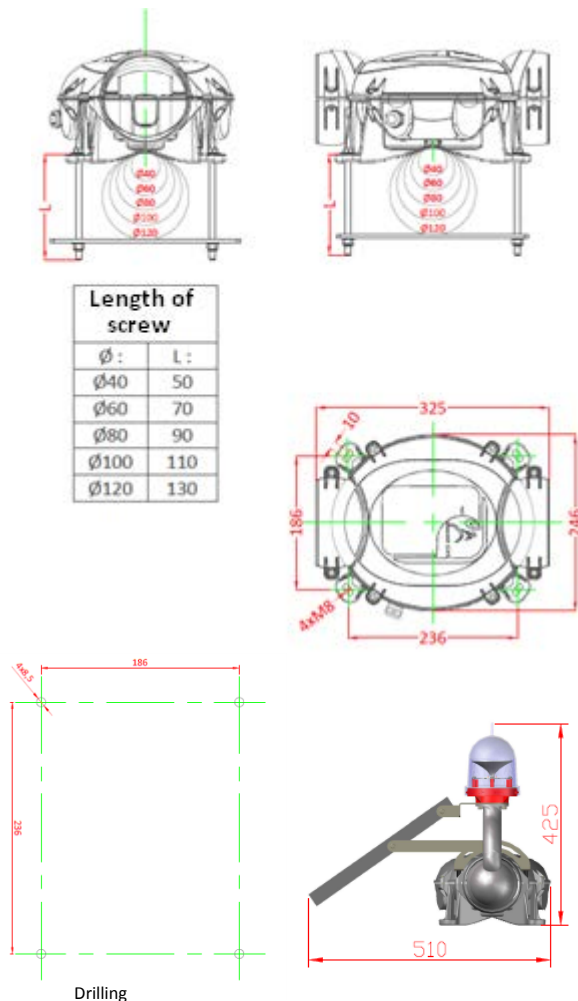
# Low Intensity LED

## SOLBIA Type A > 10 Cd – Solar TWINY

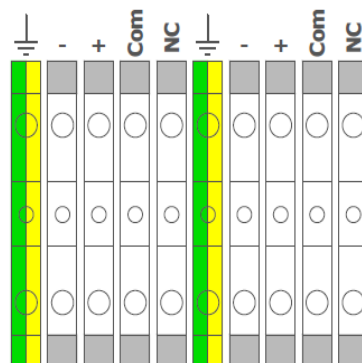
### Characteristics

<b>Luminous</b>	
Luminous source	LEDs
Colour	Red
Horizontal beam	360°
Vertical beam	10°
Luminous intensity	>10 Cd
MTBF	100 000 Hours
<b>Electrics</b>	
Voltage	Solar
Lightning protection	Integrated
Functioning temperature	-55°C to +55°C
Solar panel	10 Watts Polycrystallin
Battery	Waterproof lead gel
Autonomy	12V 9Ah
Protection class	80 Hours
	IP68
<b>Mechanicals</b>	
Box material	Zamac
Body lamp material	Composite
Lens material	Polycarbonate with bird spike
Mounting	M8 screw
Height	425mm
Weight	<11 Kg
Solar panel dimensions	300mm x 385mm
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1 CEI60364, NF C15-100 EN60529
ICAO	Annexe 14, Volume I, Chapter 6
Quality	ISO 9001 ; 2008
Warranty	2years

### Dimensions :



### Wiring



Power supply To next light

### Available accessories for installation

-Specific stainless steel mounting

# Low Intensity LED SOLBIB Type B > 32 Cd – Solar



## **Description:**

The SOLBIA is an environmentally friendly system.

Dedicated to an autonomous night beaconing, it is long life system (100 000 Hours), more than 40 hour autonomy system.

The SOLBIA is also available with a 110-240V input as back-up power supply.

The SOLBIA is provided with photocell for an automatic switch ON/OFF and a dry contact for failure alarm.

The specific design of the box is the most convenient solution on the market for installation: mounting frame is a part of the box and it could be adjusted vertical or horizontal position

## **Advantages :**

- Long life time > 10 years
- Multi – LEDs
- Independant
- Lightning protection
- Delta Box exclusive self-test included with photocell
- Power saving
- 2 year warrant
- Zamac box with epoxy powder painting

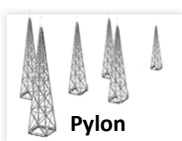
## **Regulations:**

- OACI, STAC N° 2010A020
- CE
- FAA Compliant L810

## **Scope of application:**



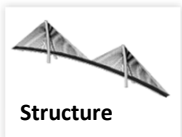
Crane



Pylon



Building



Structure

## **Applications :**

Rules concerning aircraft beaconing are established by the ICAO

Low intensity beacons can be installed on structures up to 45 meters.

The SOLEO gives security to every sites, even the most isolated.

## **Models**

Model	Voltage	Photocell	Dry contact
SOLBIB11	Solar	Included	Included

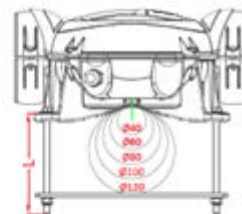
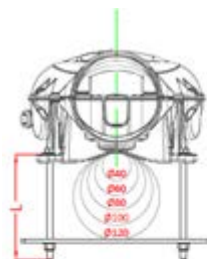
# Low Intensity LED

## SOLBIB Type B > 32 Cd – Solar

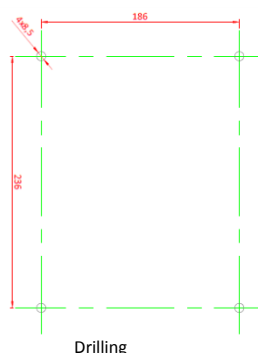
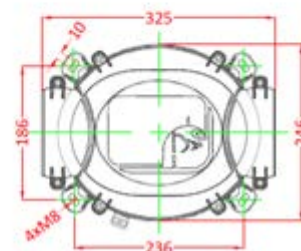
### Characteristics

<b>Luminous</b>	
Luminous source	LEDs
Colour	Red
Horizontal beam	360°
Vertical beam	10°
Luminous intensity	>32 Cd
MTBF	100 000 Hours
<b>Electrics</b>	
Voltage	Solar
Lightning protection	Integrated
Functioning temperature	-55°C to +55°C
Solar panel	2*10 Watts Polycrystallin
Battery	Waterproof lead gel
	2*12V 9Ah
Autonomy	40 Hours
Protection class	IP68
<b>Mechanicals</b>	
Box material	Zamac
Body lamp material	Aluminum
Lens material	Polycarbonate with bird spike
Mounting	M8 screw
Height	425mm
Weight	<11 Kg
Solar panel dimensions	300mm x 385mm
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1
	CEI60364, NF C15-100
	EN60529
ICAO	Annexe 14, Volume I, Chapter 6
Quality	ISO 9001 ; 2008
Warranty	2years

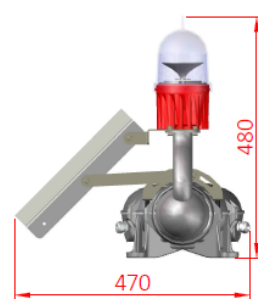
### Dimensions :



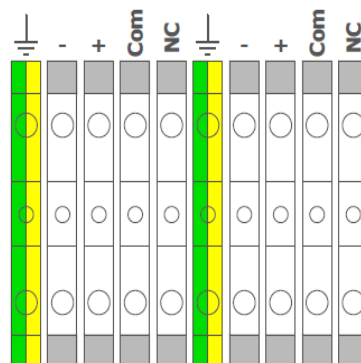
Length of screw	
Ø :	L :
Ø40	50
Ø60	70
Ø80	90
Ø100	110
Ø120	130



Drilling



### Wiring



Power supply

To next light

### Available accessories for installation

-Specific stainless steel mounting

# Low Intensity LED SOLBIA Type A > 32 Cd – Solar TWINY



## **Description:**

Le SOLBIA TWINY is an environmentally friendly system, equipped with the exclusive redundant system.

For security installation, its automatic test is launched every day. Dedicated to an autonomous night beaconing, it is long life system (100 000 hours), more than 40 hour autonomy system.

The SOLBIA TWINY is also available with a 110-240V input as back-up power supply.

Le SOLBIA TWINY is provided with photocell for an automatic switch ON/OFF and a dry contact for failure alarm.

The specific design of the box is the most convenient solution on the market for installation: mounting frame is a part of the box and it could be adjusted in vertical or horizontal position.

## **Advantages :**

- Long life time > 10 years
- Multi – LEDs
- Independant
- Lightning protection
- Delta Box exclusive self-test included with photocell
- Power saving
- 2 year warrant
- Zamac box with epoxy powder painting

## **-Applications :**

Rules concerning aircraft beaconing are established by the ICAO

Low intensity beacons can be installed on structures up to 45 meters high.

The SOLEO gives security to every sites, even the most isolated.

## **Models**

Model	Voltage	Photocell	Dry contact
SOLBIATW	Solar	Included	Included

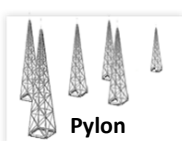
## **Regulations:**

- OACI, STAC N° 2010A012
- CE
- FAA compliant

## **Scope of application:**



Crane



Pylon



Building



Structure



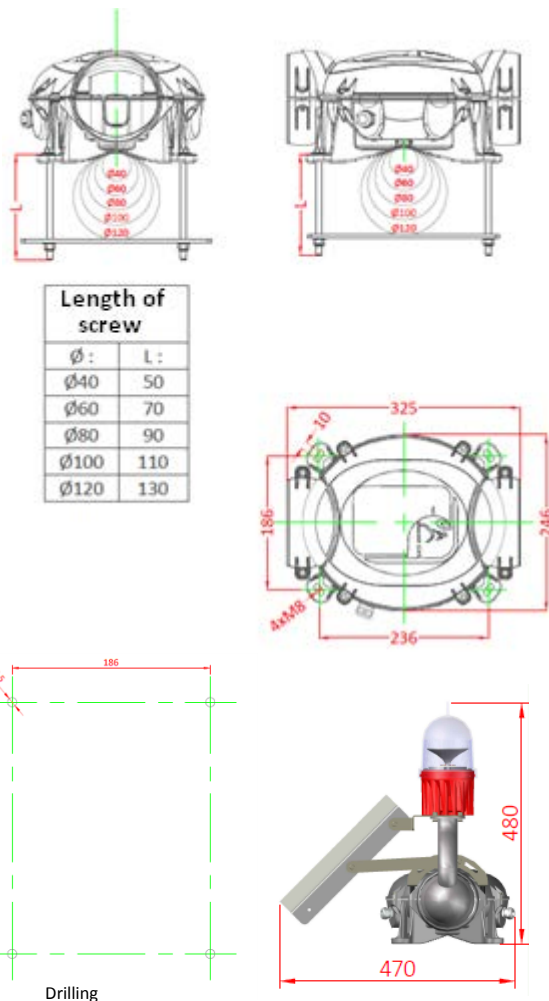
# Low Intensity LED

## SOLBIA Type A > 32 Cd – Solar TWINY

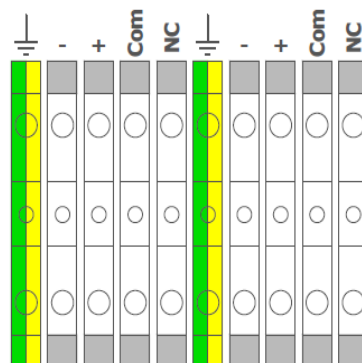
### Characteristics

<b>Luminous</b>	
Luminous source	LEDs
Colour	Red
Horizontal beam	360°
Vertical beam	10°
Luminous intensity	>32 Cd
MTBF	100 000 Hours
<b>Electrics</b>	
Voltage	Solar
Lightning protection	Integrated
Functioning temperature	-55°C to +55°C
Solar panel	2*10 Watts Polycrystallin
Battery	Waterproof lead gel
	2*12V 9Ah
Autonomy	40 Hours
Protection class	IP68
<b>Mechanicals</b>	
Box material	Zamac
Body lamp material	Aluminum
Lens material	Polycarbonate with bird spike
Mounting	M8 screw
Height	425mm
Weight	<11 Kg
Solar panel dimensions	300mm x 385mm
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1
	CEI60364, NF C15-100
	EN60529
ICAO	Annexe 14, Volume I, Chapter 6
Quality	ISO 9001 ; 2008
Warranty	2years

### Dimensions :



### Wiring



### Available accessories for installation

-Specific stainless steel mounting

# Low Intensity NEON

## SBA30 Type B > 32 Cd



### Description:

The SERA BA30 is a neon system dedicated to a night marking.

This is a very strong system, with a proven technology, resistant to high temperature.

The BA30 is provided with 4 meters of cable. In option, it can be equipped with photocell for an automatic switch ON/OFF and a dry contact for failure alarm.

### Advantages :

- Proven technology
- Resistant to high temperature
- One assembly system
- Stainless steel body
- Warranty 2 years

### Applications :

Rules concerning aircraft beaconing are established by the ICAO

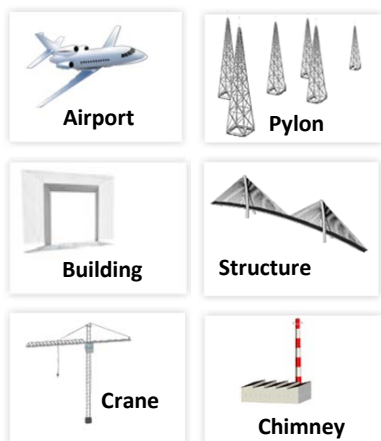
Low intensity beacons can be installed on structures up to 45 meters.

According to the rules, an uninterruptible power supply cabinet has to be installed to insure a 12 hour beaconing in case of power supply failure.

### Regulations:

- ICAO, STAC N° 2006A001
- CE
- FAA Compliant L810

### Scope of application:



### Models

Model	Voltage	Photocell	Dry contact
SBA3000AC	24V DC	Not included	Not included
SBA3000BC	48V DC	Not included	Not included
SBA3000MC	110-240V AC	Not included	Not included



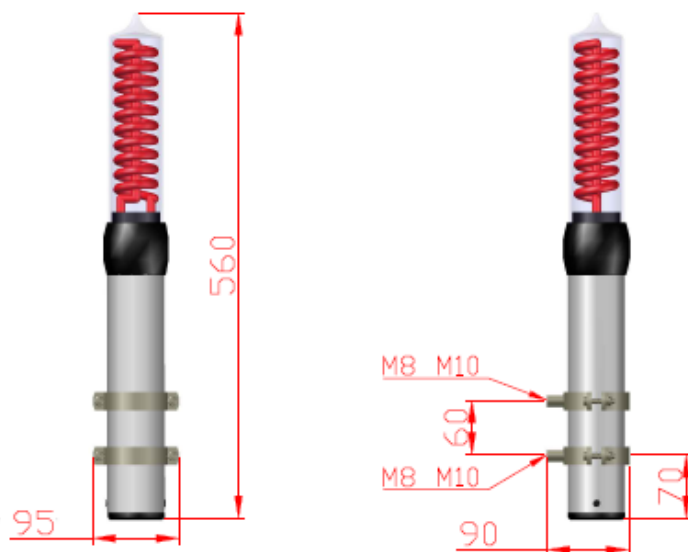
# Low Intensity NEON

## SBA30 Type B > 32 Cd

### Characteristics

<b>Luminous</b>	
Luminous source	Neon
Colour	Red
Horizontal beam	360°
Vertical beam	10°
Luminous intensity	>32 Cd
MTBF	50 000 Hours
<b>Electrics</b>	
Voltage	24, 48V DC / 110-240V AC
Functioning temperature	-55°C to +70°C
Consumption	30 Watts
Current I <sub>max</sub>	To 24V : I=930mA
	To 48V : I=500mA
	To 230V : I=200mA
Protection class	IP66
<b>Mechanics</b>	
Body material	Stainless steel
Lens material	Glass
Mounting	M8 screw
Height	560mm
Width	95mm
Weight	2 Kg
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1
	CEI60364, NF C15-100
	EN60529
Warranty	2 years
FAA	Compliant L-810
Quality	ISO 9001 ; 2008
Options	Photocell
	Dry contact for failure alarm

### Dimensions :



### Wiring

24V, 48V CC



230V CA



### Available accessories for installation

- Power supply
- Stainless steel mounting
- Driving box
- UPS System



# Low Intensity NEON

## SBA30 Type B > 32 Cd Zamac BOX



### Description:

The SERA BA30 is a neon system dedicated to a night marking.

This is a very strong system, with a proven technology, resistant to high temperature.

The BA30 is equipped with a photocell for automatic switch, ON/OFF and dry contact for failure alarm.

Its compact and innovating design facilitates its installation.

### Advantages :

- Proven technology
- Resistant to high temperature
- One assembly system
- Stainless steel body
- Warranty 2 years
- Zamac box with epoxy powder painting.

### Applications :

Rules concerning aircraft beaconing are established by the ICAO

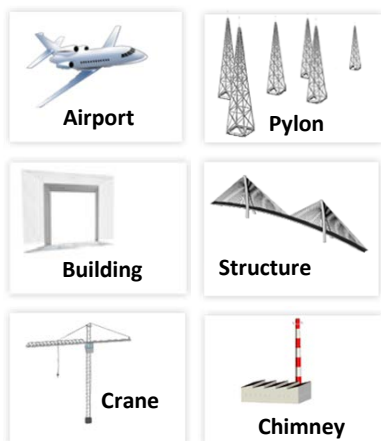
Low intensity beacons can be installed on structures up to 45 meters.

According to the rules, an uninterruptible power supply cabinet has to be installed to insure a 12 hour beaconing in case of power supply failure.

### Regulations:

- ICAOI, STAC N° 2006A001
- CE
- FAA Compliant L810

### Scope of application:



### Models

Model	Voltage	Photocell	Dry contact
SBA3011AZ	24V DC	Included	Included
SBA3011BZ	48V DC	Included	Included
SBA3011MZ	110-240V AC	Included	Included

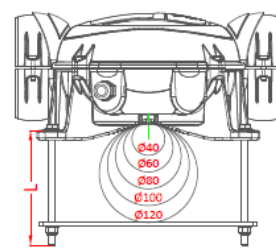
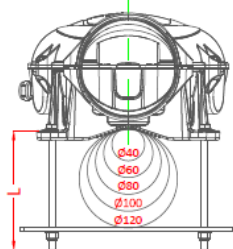
# Low Intensity NEON

## SBA30 Type B > 32 Cd Zamac BOX

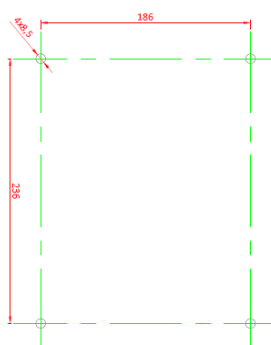
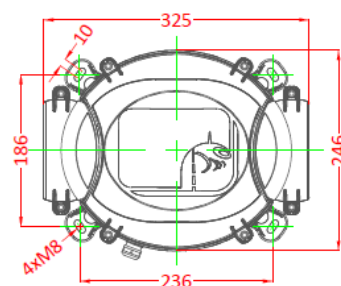
### Caracteristics

<b>Luminous</b>	
Luminous source	Neon
Colour	Red
Horizontal beam	360°
Vertical beam	10°
Luminous intensity	>32 Cd
MTBF	50 000 Hours
<b>Electrics</b>	
Voltage	24, 48V DC / 110-240V AC
Functioning temperature	-55°C to +70°C
Consumption	<30 Watts
Current Imax	To 24V : I=930mA
	To 48V : I=500mA
	To 230V : I=200mA
Protection class	IP66
<b>Mechanicals</b>	
Box material	Zamac
Body lamp material	Stainless steel
Lens material	Glass
Mounting	M8 screw
Height	470mm
Weight	5Kg
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1
	CEI60364, NF C15-100
	EN60529
ICAO	Annexe 14, Volume I, Chapter 6
FAA	Compliant L-810
Quality	ISO 9001 ; 2008
Warranty	2 years

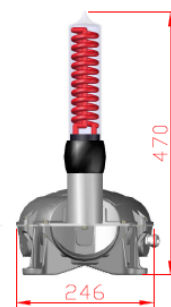
### Dimensions :



SCREW LENGTH	
Ø :	L :
Ø40	50
Ø60	70
Ø80	90
Ø100	110
Ø120	130



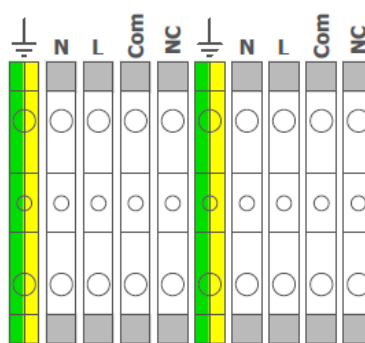
Drilling



### Wiring

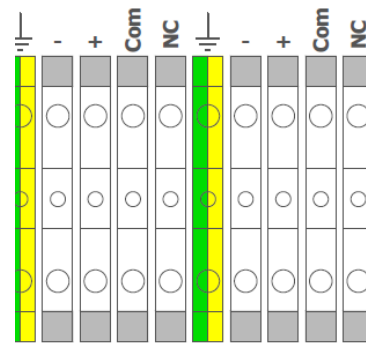
110-240 AC

24V, 48V DC



Power supply

To next light



Power supply

To next light

### Available accessories for installation

- Power supply
- Solar kit

# Low Intensity NEON

## SBA30 Type B > 32 Cd Twiny



### Description:

The SERA BA30 TWINY is a neon system dedicated to a night marking, with the exclusive redundant system.

For security installation, its automatic test is launched every day.

This is a very strong system, with a proven technology, resistant to high temperature.

Its compact and innovating design facilitates its installation.

The zamac box allows facilitating the on-site connecting.

### Advantages :

- Proven technology
- Resistant to high temperature
- One assembly system
- Stainless steel body
- Warranty 2 years
- Zamac box with epoxy powder painting

### Applications :

Rules concerning aircraft beaconing are established by the ICAO

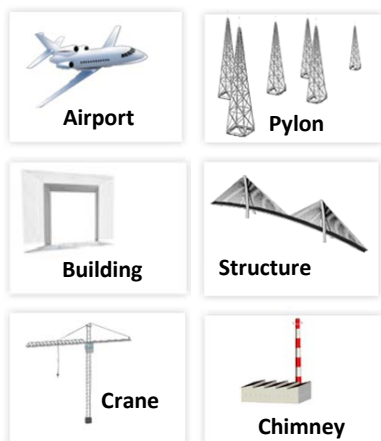
Low intensity beacons can be installed on structures up to 45 meters.

According to the rules, an uninterruptible power supply cabinet has to be installed to insure a 12 hour beaconing in case of power supply failure.

### Regulations:

- ICAI, STAC N° 2006A001
- CE
- FAA Compliant L-810

### Scope of application:



### Models

Model	Voltage	Photocell	Dry contact
SBA30TWAB	24V DC	Included	Included
SBA30TWBB	48V DC	Included	Included
SBA30TWMB	110-240V AC	Included	Included

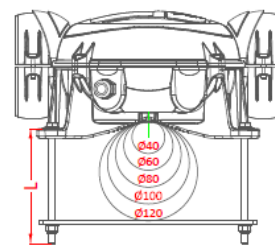
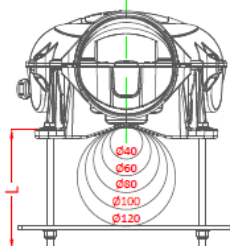
# Low Intensity NEON

## SBA30 Type B > 32 Cd Twiny

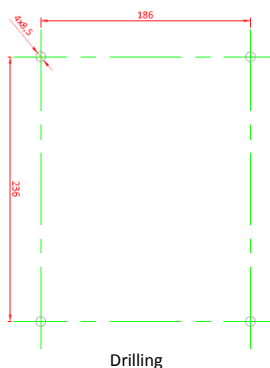
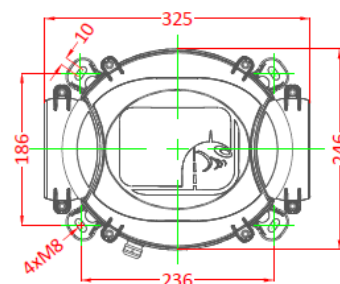
### Caracteristics

<b>Luminous</b>	
Luminous source	Neon
Colour	Red
Horizontal beam	360°
Vertical beam	10°
Luminous intensity	>32 Cd
MTBF	50 000 Hours
<b>Electrics</b>	
Voltage	24, 48V DC / 110-240V AC
Functioning temperature	-55°C to +70°C
Consumption	30 Watts
Current Imax	To 24V : I=930mA To 48V : I=500mA To 230V : I=200mA
Protection class	IP66
<b>Mechanicals</b>	
Box material	Zamac
Body lamp material	Stainless steel
Lens material	Glass
Mounting	M8 screw
Height	470mm
Weight	5Kg
<b>Environment</b>	
Humidity	100%
Gel	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1 CEI60364, NF C15-100 EN60529
OACI	Annexe 14, Volume I, Chapter 6
FAA	Compliant L-810
Quality	ISO 9001 ; 2008
Warranty	2 years

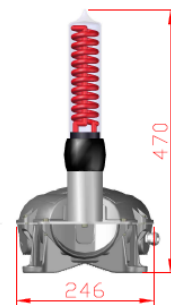
### Dimensions :



SCREW LENGTH	
Ø :	L :
Ø40	50
Ø60	70
Ø80	90
Ø100	110
Ø120	130



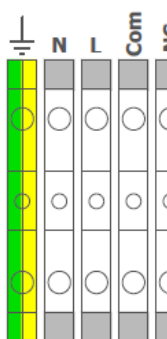
Drilling



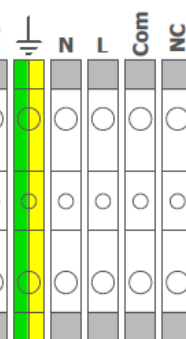
### Wiring

230V CA

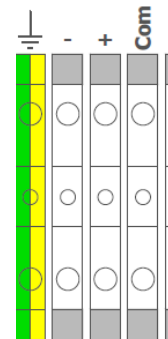
24V, 48V CC



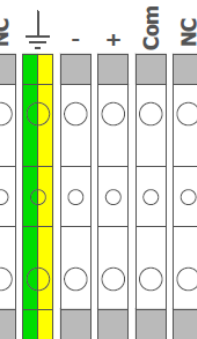
Power supply



To next light



Power supply



To next light

### Available accessories for installation

- Power supply
- Solar kit

# Uninterruptible Power Supply

## Low Intensity Lights



### Description:

Our Uninterruptible Power Supply is dedicated to guarantee 12 hour autonomy in case of power supply failure. The Safebox is the UPS solution optimized for obstruction lights based on high quality batteries.

Available with input of 110-240V, and output of 48V or 110-240V, the UPS is equipped in standard with lightning protection and dry contacts for network and beacons alarm failure.

### Advantages :

- Isolated of the network by a transformer
- Compact
- IP66 structure
- Indication of functional status and charging status on the front of the cabinet
- 12 hour autonomy

### Applications :

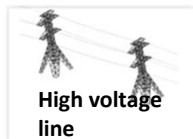
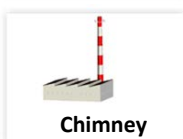
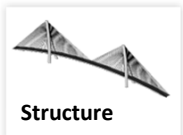
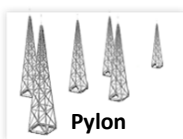
Rules concerning aircraft beaconing are established by the ICAO

According to the rules, an uninterruptible power supply cabinet has to be installed to insure a 12 hour beaconing in case of power supply failure.

### Regulations:

- OACI, STAC
- CE
- FAA Compliant L810

### Scope of application:



### Models

Model	Capacity	Maximum of Low Intensity Light for 12 hours of autonomy
SBMCBI4-10	4 Batteries 12V 7Ah	10 LBIA / 4 LBIB
SBMCBI8-20	4 Batteries 12V 12Ah	20 LBIA / 8 LBIB

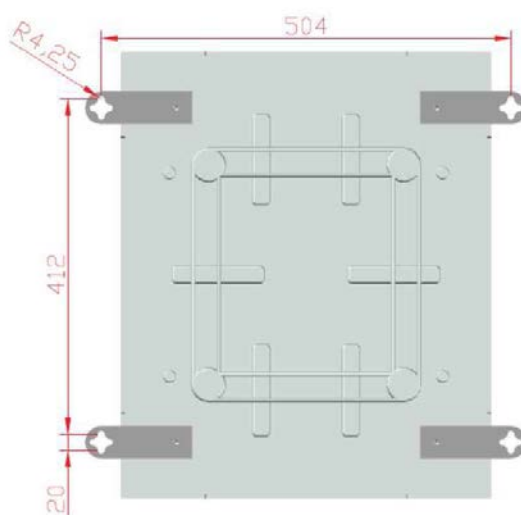
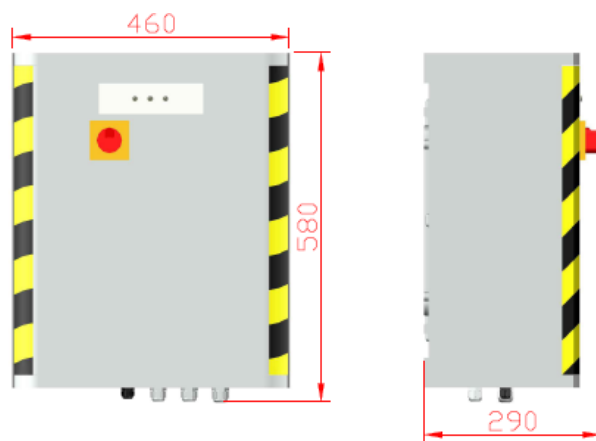
# Uninterruptible Power Supply

## Low Intensity Lights

### Characteristics

<b>Electrics</b>	
Input voltage	240V
Output voltage	48V or 240V
Lightning protection	Integrated
Functioning temperature	-55°C up to +70°C
Autonomy	12 Hours
Battery	Waterproof lead gel
<b>Mechanicals</b>	
Material	Polyester
Mounting	By external mounting bracket
Height	580mm
Width	460mm
Thickness	290mm
Weight SBMCBI4-10	30 Kg
Weight SBMCBI8-20	37 Kg
Protection class	IP66
<b>Environment</b>	
Humidity	100%
Frost	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1 CEI60364, NF C15-100 EN60529
ICAO	Annex 14, Volume I, Chapter 6
FAA	Compliant
Quality	ISO 9001 ; 2008
<b>Warranty</b>	2 years (except batteries)
<b>Options</b>	Greater autonomy (72 hours)

### Dimensions :





# Uninterruptible Power Supply

## Medium Intensity Lights



### Description:

Our Uninterruptible Power Supply is dedicated to guarantee 12 hour autonomy in case of power supply failure. The Safebox is the UPS solution optimized for obstruction lights based on high quality batteries.

Available with input of 110-240V, and output of 48V or 110-240V, the UPS is equipped in standard with lightning protection and dry contacts for network and beacons alarm failure.

### Advantages :

- Isolated of the network by a transformer
- Compact
- IP66 structure
- Indication of functional status and charging status on the front of the cabinet
- 12 hour autonomy

### Applications :

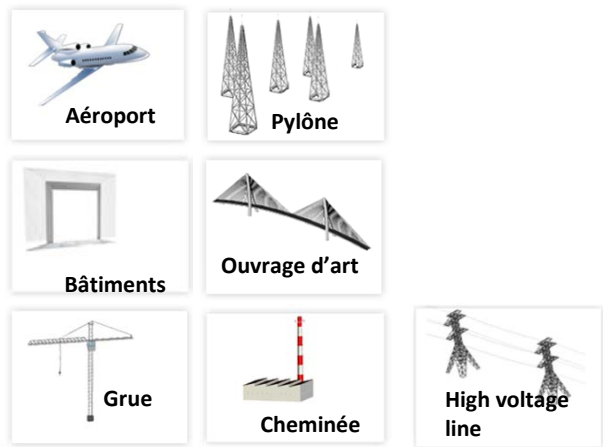
Rules concerning aircraft beaoning are established by the ICAO

According to the rules, an uninterruptible power supply cabinet has to be installed to insure a 12 hour beaoning in case of power supply failure.

### Regulations:

- ICAO STAC
- CE
- FAA Compliant

### Scope of application:



### Models

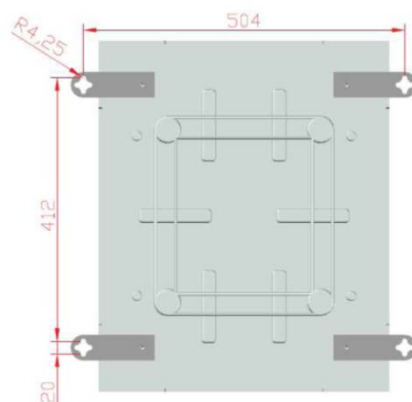
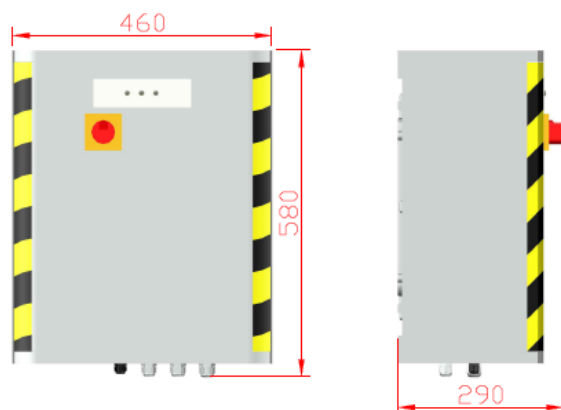
Model	Capacity	Maximum of Low Intensity Light for 12 hours of autonomy
SBMCM11	4 Batteries 12V 24Ah	1 LMIA / 4 LMIB
SBMCM12	4 Batteries 12V 48Ah	2 LMIA / 8 LMIB
SBMCM13	4 Batteries 12V 100Ah	3 LMIA / 12 LMIB

# Uninterruptible Power Supply Medium Intensity Lights

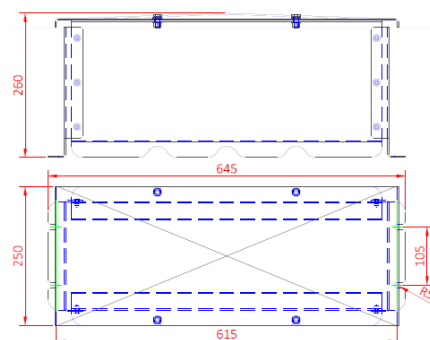
## Characteristics

<b>Electrics</b>	
Input voltage	240V
Output voltage	48V or 240V
Lightning protection	Integrated
Functioning temperature	-55°C up to +70°C
Autonomy	12 Hours
Battery	Waterproof lead gel
<b>Mechanicals</b>	
Material	Polyester
Mounting	By external mounting bracket
Height	580mm
Width	460mm
Thickness	290mm
Weight	20 Kg
Protection class	IP66
<b>Mechanicals (rack)</b>	
Material	Polyester
Dimensions rack 24Ah	645x250x260
Weight rack 24Ah	30 Kg (with batteries)
Dimensions rack 48Ah	825x405x305
Weight rack 48Ah	30 Kg (with batteries)
Dimensions rack 100Ah	825x405x305
Weight rack 100Ah	112 Kg (with batteries)
Protection class	IP66
<b>Environment</b>	
Humidity	100%
Frost	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1 CEI60364, NF C15-100 EN60529
ICAO	Annex 14, Volume I, Chapter 6
FAA	Compliant
Quality	ISO 9001 ; 2008
<b>Warranty</b>	2years (except batteries)
<b>Options</b>	Greater autonomy (72 hours)

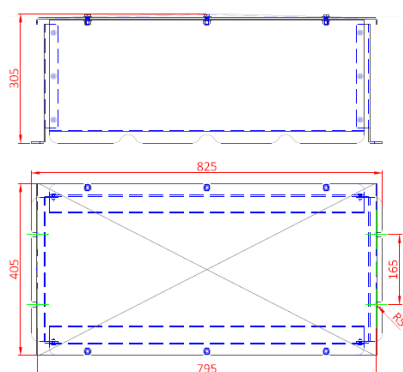
## Dimensions :



Rack 24Ah



Rack 48Ah and 100Ah





# High Voltage Lines Warning Sphere



## **Description:**

Our warning sphere is a diurnal beaconing installed on the high voltage lines and stays of pylons.

Extremely light and very resistant to the weather, the warning sphere is available in red, white or orange.

The sphere can be adapted on any diameter of cable or conductor.

## **Advantages :**

- Exclusive silicon system for clamping
- Weather resistant
- Physical property retention after UV exposure
- Colour stability
- Practical toughness and rigidity
- Dimensional stability
- Adaptable to any diameter of cable or conductor
- Recyclable

## **-Model**

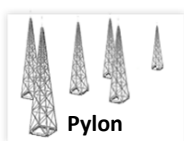
## **Regulations:**

- ICAOI
- CE

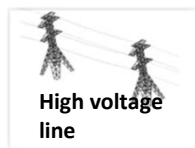
## **Scope of application:**



Crane



Pylon



High voltage line

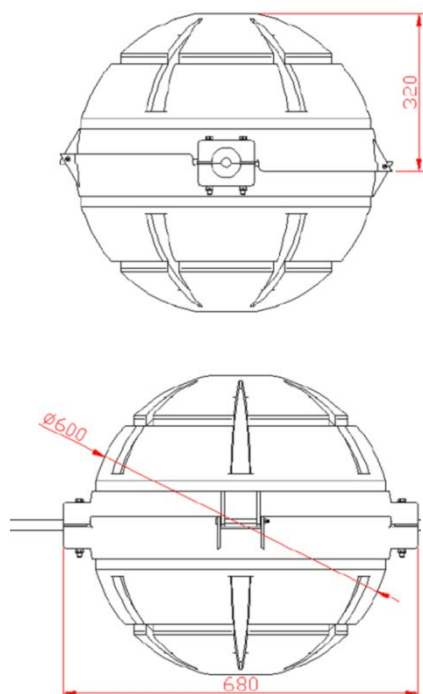
Model	Colour	Jaw 07mm ( cable from 10 to 15mm)	Jaw 12mm (cable from 15 to 20mm)	Jaw 18mm (cable from 20 to 26.4mm)
WS60R-d07	Red	X		
WS60R-d12	Red		X	
WS60R-d18	Red			X
WS60W-d07	white	X		
WS60W-d12	white		X	
WS60W-d18	white			X
WS60O-d07	Orange	X		
WS60O-d12	Orange		X	
WS60O-d18	Orange			X

# High Voltage Lines Warning Sphere

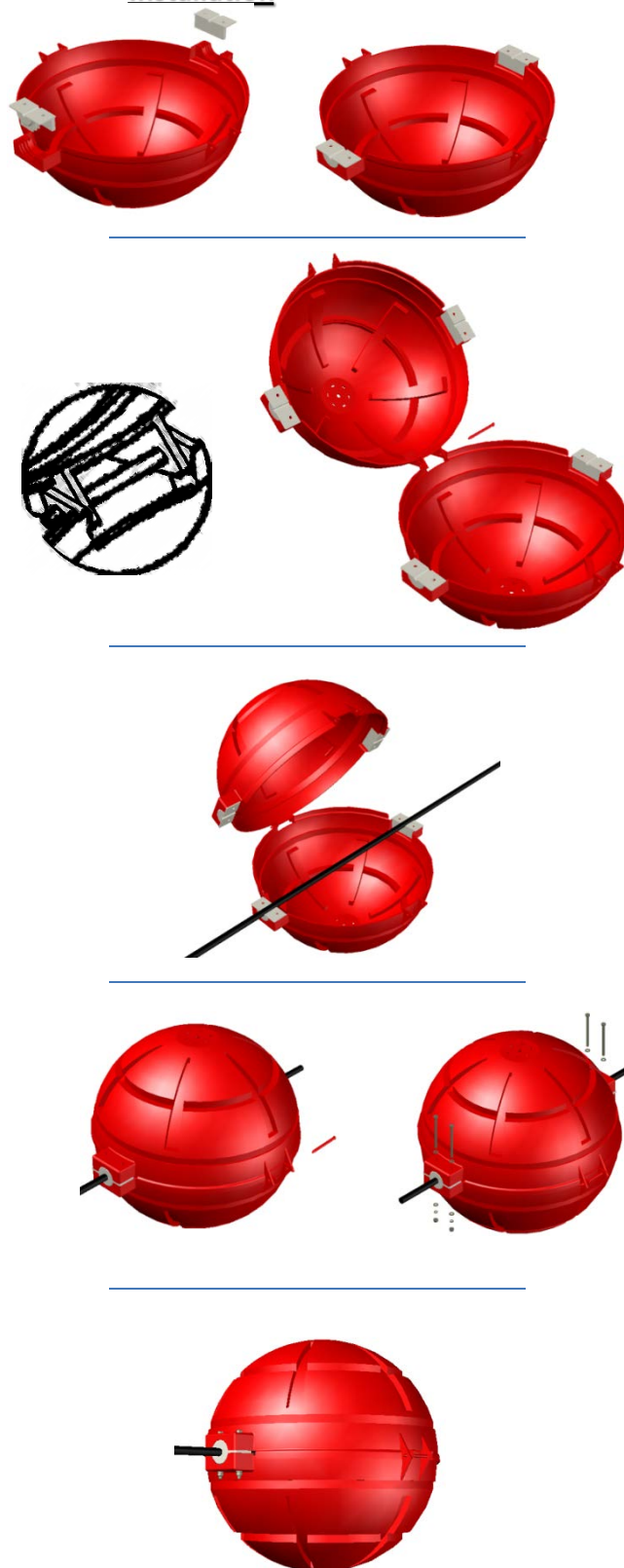
## Characteristics

Mechanicals	
Body material	Composite
Colour	Red, white or orange
Fixation	Jaw in silicone + stainless steel screws (included)
Diameter	600mm
Thickness	3mm
Weight	<5 Kg
Temperature	-25°C up to +65°C
Environment	
Humidity	100%
Frost	-60°C
Wind speed	240 Km/h
Certifications	
ICAO	Annex 14, Volume I, Chapter 6
Quality	ISO 9001 ; 2008
Warranty	2 years

## Dimensions :



## Installation



# High voltage lines

## LBIA Type A > 10 Cd



### Description:

The LBIA BHT is a one block beacon with the LEDs technology.

Dedicated to the beaconing of high voltage lines, it is a long life beacon (100 000 hours), without any power supply. This compact design and light weight allow the quickest and easiest installation on the market.

### Advantages :

- Long life time > 10 years
- Multi – LEDs
- Natural stability based on specific nut
- Installation time reduced
- No maintenance
- Warranty 5 years
- Product completely fulfil with high voltage resin to avoid vibration effects
- Only 1 reference for all voltage of lines

### Applications :

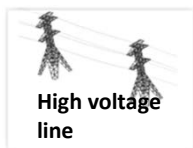
The LEDEOBIA BHT complies with the ICAO regulations as it is power supplied by the magnetic field around the cable of the high voltage line. This light can be used for beaconing high voltage lines up to 500kV. The installation specifications for high voltage overhead cables are mainly dealing with the intervals between two beacons:

- 70 meters for sensitive specification location in the vicinity of an airport
- 105 meters for other locations Moreover, the light cannot be fixed at less than 10 meters from the closest supporting tower.

### Regulations:

- ICAOI
- CE

### Scope of application:



### Models

Model	Voltage of the lignes	Photocell	Dry Contact
LBIA00HT	1V to 500kV	Without	Without

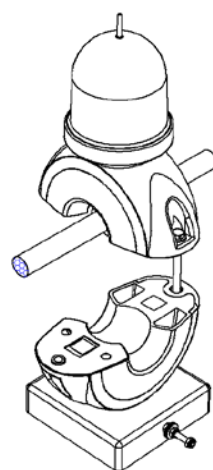
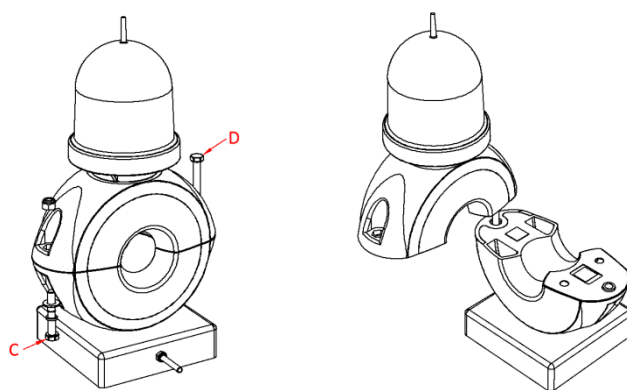
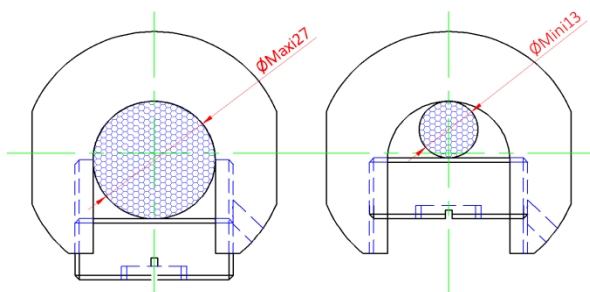
# High voltage lines

## LBIA Type A > 10 Cd

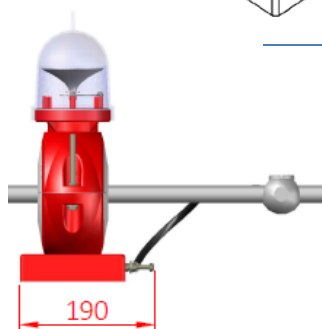
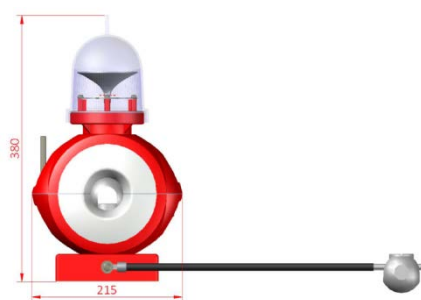
### Characteristics

<b>Luminous</b>	
Luminous intensity	LEDs
Colour	Red
Horizontal beam	360°
Vertical beam	10°
Luminous intensity	>10 Cd
MTBF	100 000 Hours
<b>Electrics</b>	
Voltage lines	1V to 500kV
Functioning temperature	-55°C to +55°C
Current Imin	9A
Current I10Cd	10A
Current Imax	500A
Protection class	IP68
<b>Mechanicals</b>	
Body material	Aluminium ABS
Lens material	Polycarbonate with peak against birds
Mounting	Positioning nut
Height	380mm
Width	215mm
Weight	<6 Kg
<b>Environment</b>	
Humidity	100%
Frost	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1
	CEI60364, NF C15-100
	EN60529
ICAO	Annexe 14, Volume I, Chapter 6
Quality	ISO 9001 ; 2008
Warranty	2 years

### Installation



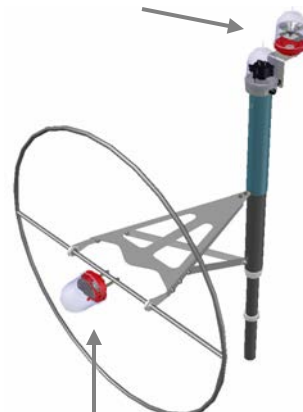
### Dimensions :





#### Wind vane in stainless steel

Obstruction light LEDs



Windsock internal lighting  
6.6A/110-240V/12V (Solar)

#### Description:

The STNA mast is our ICAO compliant one. This tipping mast measure 7, 40 meters, equipped with 3 braces.

The standard wind vane are 60 cm or 100 cm diameter, others diameters are also available.

In option, the mast can be manufactured in stainless steel or aluminium. A dedicated piece could be added for frangibility.

Several accessories are available, windsock internal lighting or top mast beaconing with solar or direct power supply.

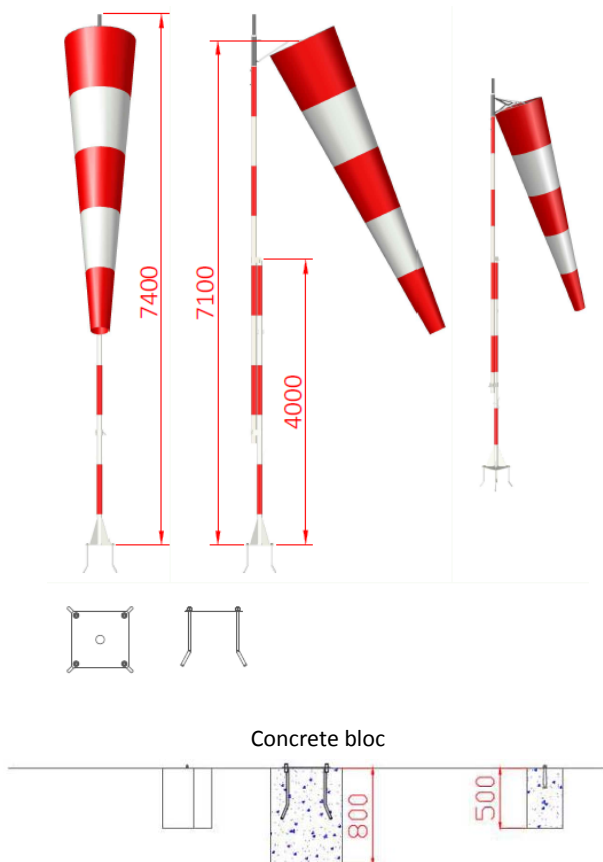
#### Models

# STNA Compliant Wind Sochet Mast

## Characteristics

Mechanicals	
Height	7.40 meters
Tiltable part	Integrated
Protection	Galvanized steel
Paint	Red and white
Fixation	Plate of sealing (included)
Wind vane	Diameter 60
	Diameter 100
Braces	3 x 120 cm
Concrete block	600 x 600 x 800 mm
Environment	
Humidity	100%
Frost	-60°C
Wind speed	240 Km/h
Certifications	
CE	EN60947-1 CEI60364, NF C 15-100 EN60529
ICAO	Annex 14, Volume I, Chapter 6
Quality	ISO 9001 ; 2008
Warranty	1 an
Options	
	Windsock internal lighting
	Top mast beaconing
	Frangibility of the mast
	Stainless steel manufacture
	Solar power supply

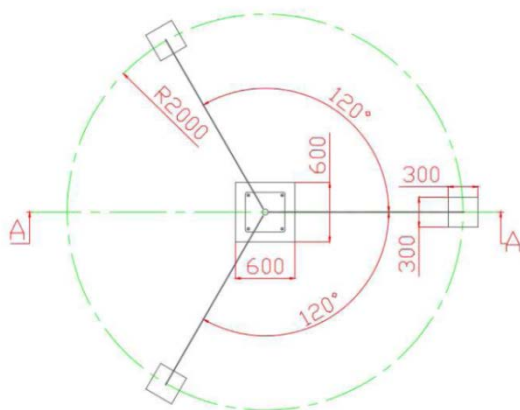
## Dimensions :



## Characteristics option top mast beaconing :

Luminous	
Luminous source	LEDs
Colour	Red
Horizontal beam	360°
Vertical beam	10°
Luminous intensity	>10 Cd
MTBF	100 000 Hours
Electrics	
Voltage	6.6A/230V/12V (solar)
Lightning protection	Integrated
Functioning temperature	-55°C up to +55°C
Consumption	<3 Watts
Protection class	IP68

## Braces disposition

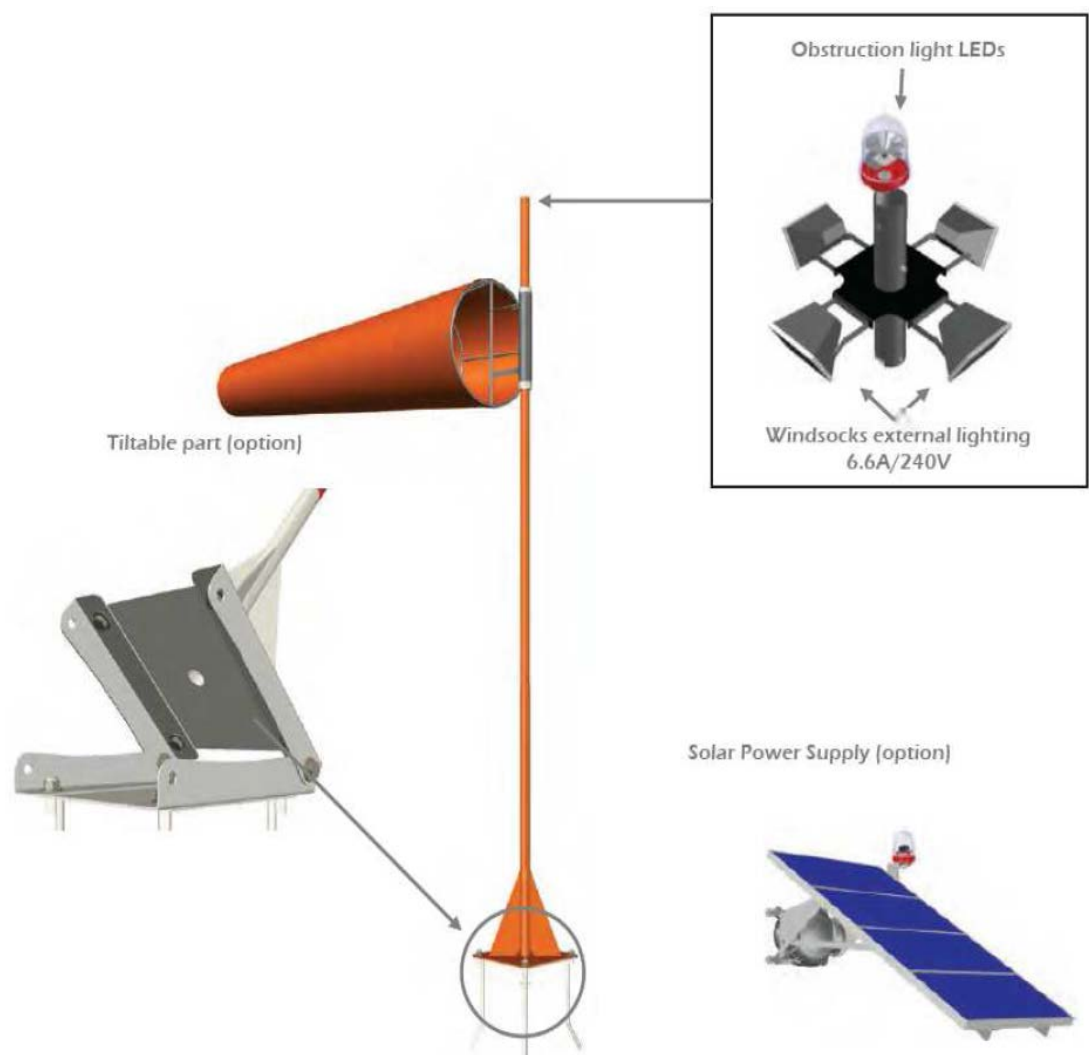


## Available accessories for installation

- Windstock
- Solar kit



# FAA Compliant Wind Sochet Mast



## Description:

Our FAA mast is compliant with FAA rules.

This mast is available in 3 or 6 meters and is provided with preformed wind vane.

In option, the mast could be painted in white or red.

Several options are available as windssocks, external lighting and top mast beaconing.

## Modèles

Model	Win vane diameter	3 meters	6 meters
FAA3-30-G	30 cm	X	
FAA3-60-G	60 cm	X	
FAA3-90-G	90 cm	X	
FAA3-100-G	100 cm	X	
FAA6T-30-G	30 cm		X
FAA6T-60-G	60 cm		X
FAA6T-90-G	90 cm		X
FAA6T-100-G	100 cm		X



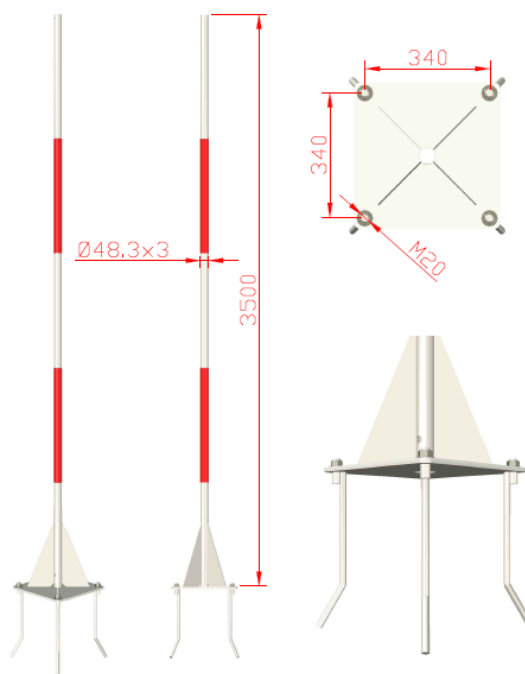
# FAA Compliant Wind Sochet Mast

## Characteristics

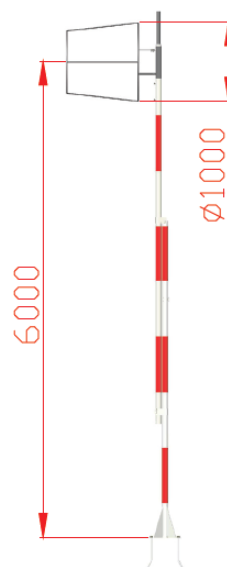
Mechanicals	
Height	3 or 6 meters
Tiltable part	In option for 3 meters
Protection	Galvanized steel
Paint	No paint
Fixation	Concrete block
Wind vane	30 / 60 / 90 / 100 cm
Braces	No
Concrete block	600 x 600 x 800 mm
Environment	
Humidity	100%
Frost	-60°C
Wind speed	240 Km/h
Certifications	
FAA	Compliant
Quality	ISO 9001 ; 2008
Warranty	
	1 an
Options	
	Specific plate for tiltable part
	Top mast beaconing
	Windsock external lighting with 4 halogen (240V or 6.6A)
	Painting
	Frangibility of the mast
	Solar power supply

## Dimensions :

3 Meters FAA Maast



6 Meters FAA maast



## Characteristics option top mast beaconing :

Luminous	
Luminous source	LEDs
Colour	Red
Horizontal beau	360°
Vertical beau	10°
Luminous intensity	>10 Cd
MTBF	100 000 Hours
Electrics	
Voltage	6.6A/230V/12V (solar)
Lightning protection	Integrated
Functioning temperature	-55°C up to +55°C
Consumption	<3 Watts
Protection class	IP68

## Available accessories for installation

- Windsock
- Solar kit



# Wind socket Mast



**Description:**

The simple mast is 4 meters and could be tiltable.

It is provided with its wind vane, braces (for fixed version) and mounting frame in “U”.

Three diameters of wind vane and corresponding windsock are available.

**Models**

Model	Wind vane diameter (cm)	Tiltable
MASBG30	30	X
MASBG40	40	X
MASBG50	50	X
MASFG30	30	
MASFG40	40	
MASFG50	50	

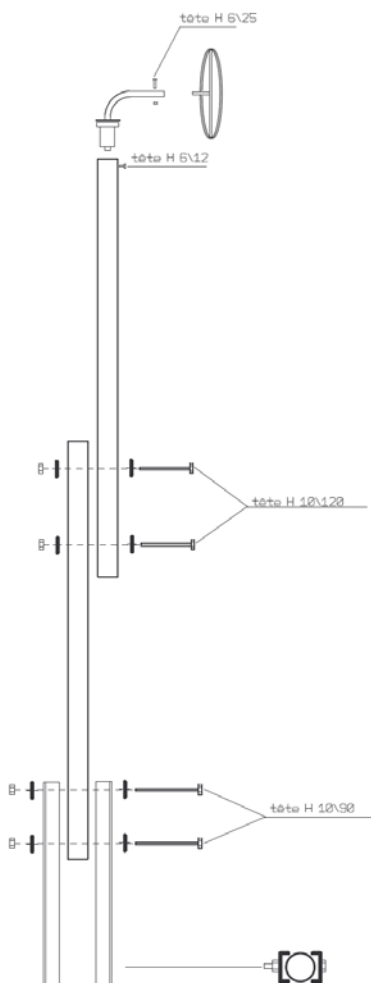
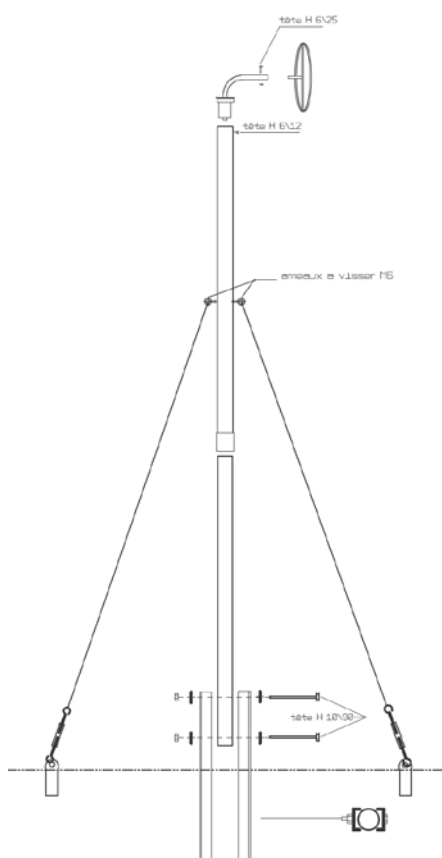


# Wind Socket Mast

## Characteristics

Mechanicals	
Height	4 meters
Tiltable part	Fixe or tiltable
Protection	Galvanized steel
Paint	White
Mounting	In "U"
Wind vane	Diameter 30
	Diameter 40
	Diameter 50
Braces (for fixe version)	3 x 120 cm
Concrete block	600 x 600 x 800 mm
Environment	
Humidity	100%
Frost	-60°C
Wind speed	240 Km/h
Certifications	
CE	EN60947-1
	CEI60364, NF C15-100
	EN60529
ICAO	Compliant
Quality	ISO 9001 ; 2008
Warranty	1 an

## Dimensions :



# Windsock



## Description:

Our windsocks are in compliance with the international civil aviation rules. The windsocks are manufactured in France with high quality fabric, qualified with 160g/m2. With a specific U.V. treatment the colour is warranty.

They offer high resistance to the weather and to the sun.

The standard colours available are white, red, orange, yellow and black. Your logo could be added.

## Models :

Model	Dimensions	Colour
DBM-SE-30-120-RB	30 x 120 cm	Red and white
DBM-SE-30-180-RB	30 x 180 cm	Red and white
DBM-SE-40-250-RB	40 x 250 cm	Red and white
DBM-SE-50-225-RB	50 x 225 cm	Red and white
DBM-SE-60-240-RB	60 x 240 cm	Red and white
DBM-SE-90-450-RB	90 x 450 cm	Red and white
DBM-SE-100-450-RB	100 x 450 cm	Red and white
DBM-SE-30-120-OR	30 x 120 cm	Orange
DBM-SE-30-180-OR	30 x 180 cm	Orange
DBM-SE-40-250-OR	40 x 250 cm	Orange
DBM-SE-50-225-OR	50 X 225 cm	Orange
DBM-SE-60-240-OR	60 x 240 cm	Orange
DBM-SE-90-450-OR	90 x 450 cm	Orange
DFBM-SE-100-450-OR	100 x 450 cm	Orange

## Characteristics

<b>Windsocks</b>	
Dye	Colourfast
Assembling	In 5 sections
Mounting	By synthetic clamp collars
<b>Options</b>	
	Specific dimensions
	Customization of the windsock (logo)
	Anti-rolled up system
	Specific colour

# Runway lighting > Low Intensity LED BPLBIA Type A > 10 Cd – Portable Light



## Description:

Our portable beacon is heavy duty solution for temporary marking, based on multi-LEDs technology.

All the system is stand alone, including charger, battery and monitoring in one set. Each beacon could be connected to the normal or supplying 110-240-V AC.

.

## Advantages :

- Long life time > 10 years
- Multi – LEDs
- Indeependant system
- Blinking of the light when the level of load of the battery is low
- 2 year warranty
- Zamac box with epoxy pounder painting

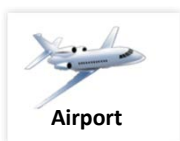
## Applications :

Rules concerning aircraft beaconing are established by the ICAO

## Regulations:

- ICAO, STAC N° 2010A012
- CE

## Scope of application:



## Models :

Model	Colour	Photocell
BPLBIAR	Red	Included
BPLBIAB	White	Included
BPLBIABL	Blue	Included
BPLBIAV	Green	Included

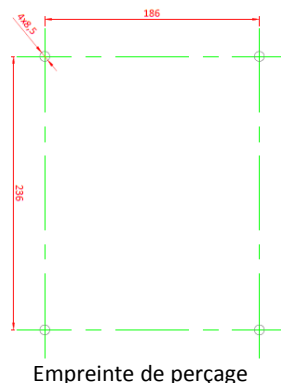
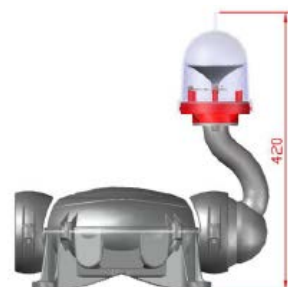
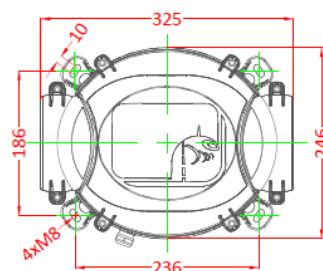


# Low Intensity LED BPLBIA Type A > 10 Cd – Portable Light

## Characteristics

<b>Luminous</b>	
Luminous source	LEDs
Colour	Red, white, blue or green
Horizontal beam	360°
Vertical beam	10°
Luminous intensity	>10 Cd
MTBF	100 000 Hours
<b>Electrics</b>	
Load voltage	110 up to 230V
Lightning protection	Integrated
Functioning temperature	-55°C up to +55°C
Autonomy	80 Hours
Loading time	6 Hours
Battery	Waterproof lead gel 12V 7Ah
Protection class	IP68
<b>Mechanicals</b>	
Body material	Zamac
Body lamp material	Composite
Lens material	Polycarbonate with bird spike
Mounting	M8 screw
Height	420mm
Weight	<5 Kg
<b>Environment</b>	
Humidity	100%
Frost	-60°C
Wind speed	240 Km/h
<b>Certifications</b>	
CE	EN60947-1
	CEI60364, NF C15-100
	EN60529
ICAO	Annex 14, Volume I, Chapter 6
Quality	ISO 9001 ; 2008
Warranty	2 years

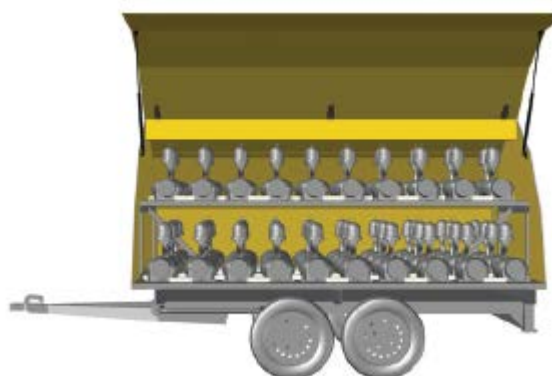
## Dimensions :



Empreinte de perçage

## Available accessories for installation

- Power supply
- Solar kit
- UPS system
- Specific trailer (40 or 60 beacons)



# Truncated cone and dihedral beacon

## Truncated cone



## Description:

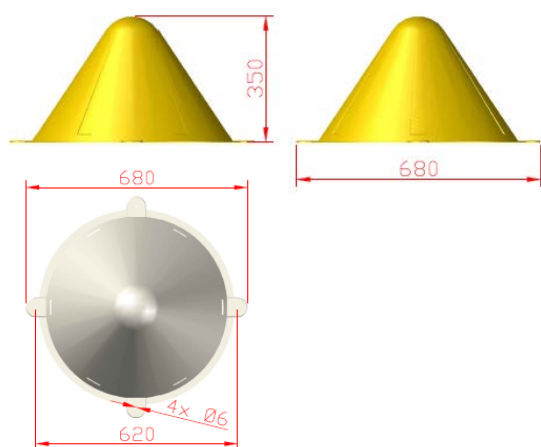
These composite beacons are dedicated to the runways (white) and taxi ways (yellow) on the airport.

They are studied to avoid any damage to the engine in case of shock

## Models

Reference	Designation	Colour
BPTRY	Truncated cone	Yellow
BPTRW	Truncated cone	White

## Dimensions :



## Available accessories for installation

- Stickers
- Lighting
- Fixation

## Description:

This dihedral beacon is red and white to mark the extremities of runway.

This beacon is delivered with 2 frangible pickets as well as with 4 holding nuts.

## Models

Model	Designation	Colour
BPDIEDRE	Dihedral beacon	Red and white

## Dihedral beacon



## Dimensions :

