

ENG

ROOF MASTS

Electropneumatic Roof Base Pro - Roof Plus Pro Manual Roof Mast







FIRECO

ROOF MASTS



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ROOF MASTS

- electropneumatic Roof Base Pro
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ACCESSORIES

- tilt & turn units
- inside Focus System
- lamp units
- remote control
- electronic board and electrovalves goroup



ROOF MASTS

Fireco offers a wide range of roof masts models, the peculiarity of this mast model is its mounting, which takes place on the roof of the vehicle. This allows you to save space inside the passenger compartment and to have a compact solution. The roof system allows you to tilt the mast from the 0° position, when it's in the parking position horizontally on the roof of the vehicle, to the vertical position at 90° and then extend it to the desired height. The system is available at 12V or 24V and is controlled with a multifunction control. The mast can be equipped with a Tilt & Turn unit with 2 or 3 motors, different combination of LED lights, a built-in air compressor or a solenoid valve group.

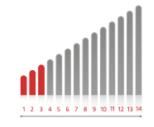
ROOF MASTS

FEATURES

- DIAMETERS FROM Ø 64 TO 115 MM
- FROM 2 TO 4 SECTIONS
- TOP LOAD UP TO 30 KG
- HEIGHT EXTENDED UP TO 7 METERS
- WIDE RANGE OF INTERNAL CABLES
- TUBE THICKNESS OF 3.5 MM
- WATER DRAINAGE HOLES
- ANTI-ROTATION KEY
- MAST ESTENSION WARNING SWITCH
- ROOF MOUNTING
- IT DOES NOT TAKE UP SPACE INSIDE THE VEHICLE
- TILT & TURN UNITS
- COMPLETE MUTIFUNCTIONAL SYSTEM
- WIDE RANGE OF FOODLIGHTS COMBINATION
- PLUG & PLAY

ELECTROPNEUMATIC ROOF BASE PRO

The roof mast model BASE PRO has a main tube \emptyset 64 and \emptyset 77 mm and is equipped with a tilt and turn unit SPARK 12V or 24V, a micro switch, a multifunctional remote control for all the mast's functions, one electronic board and a built-in compressor, available 12V or 24V Al.32245/46. This system is suitable for small lamp units (ex. 2x100W LED).



SECTIONS

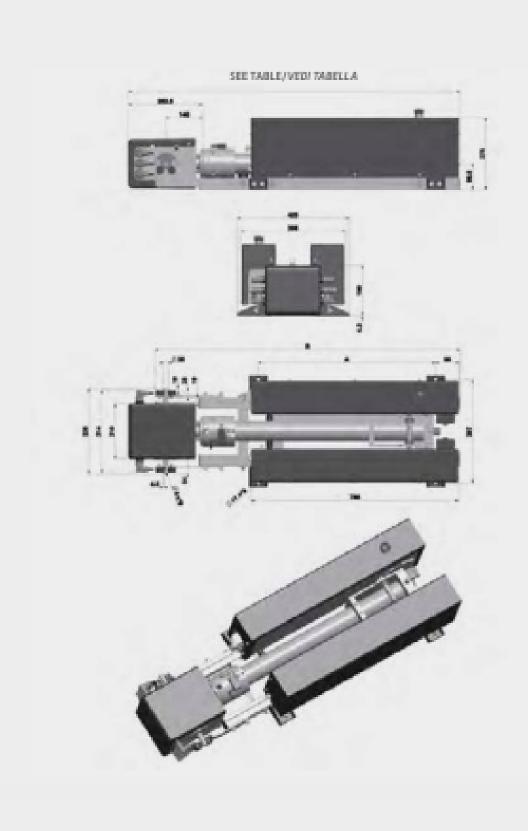
	Mod. ROOF BA	SE PRO ZERO Ø 64	2 sections with 2 sfili con c	
	F	RE 55	11	12
Code N	extended height altezza estesa	mm	1.720	2.205
90	retracted height altezza chiusa	mm	1.250	1.506
	internal spiralled cable cavo intero spiralato		Code	Z - P
	max. top load max. peso in testa	kg	1	5
	weight peso	kg Cod. P / H kg	49	51
	max. allowed wind speed max. velocità del vento ammessa	km / h	150	130
	with max. surface con area max.		0,54	l m²
	max. air pressure max. pressione dell'aria		2,5 kg	/ cm²

	Mod. ROOF BASE F	PRO ULTRALIGHT Ø 77	3 sections with internal cable 3 sfili con cavo interno			!
	F	RE 56	11	12	13	14
Code N	extended height altezza estesa	mm	2.054	2.489	2.976	3.104
8	retracted height altezza chiusa	mm	1.241	1.345	1.549	1.582
	internal spiralled cable cavo intero spiralato			Code	Z - P	
	max. top load max. peso in testa	kg		1	5	
	weight peso	kg	51	52	53,5	54
	max. allowed wind speed max. velocità del vento ammessa	km / h	160	140	125	120
	with max. surface con area max.		0,54 m²			
	max. air pressure max. pressione dell'aria			2,5 kg	/ cm²	

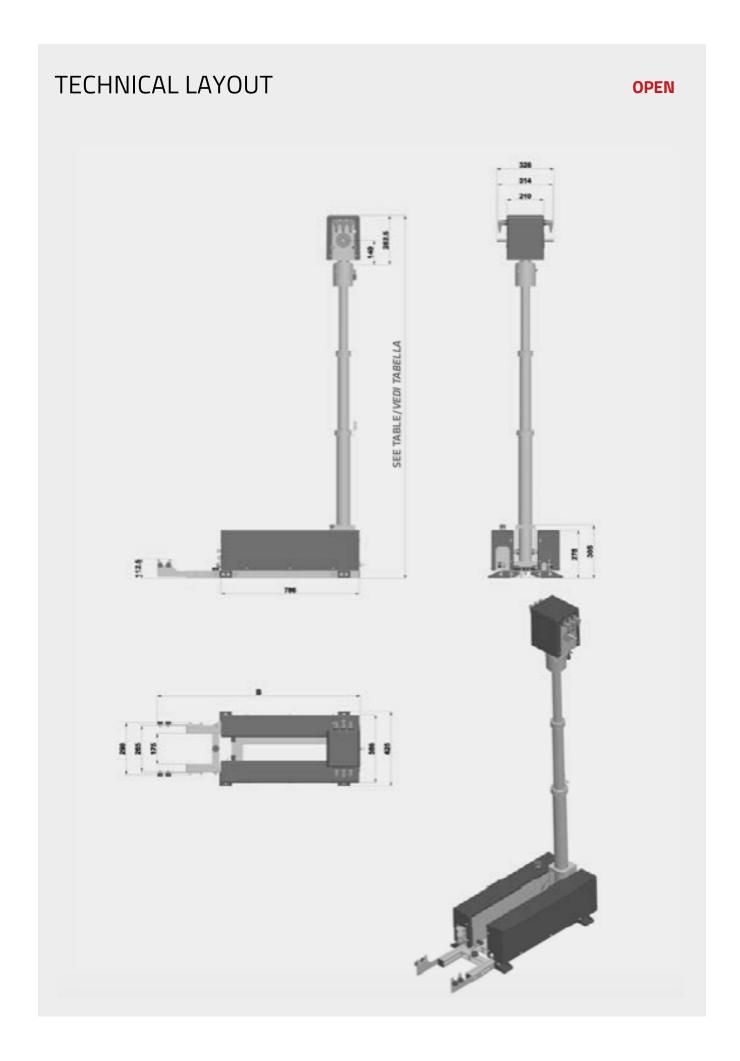


TECHNICAL LAYOUT

CLOSED









ELECTROPNEUMATIC ROOF PLUS PRO

The roof mast model PLUS PRO has a main tube Ø 90 and Ø 115 mm, and is equipped with a tilt and turn unit SPARK 12V or 24V, a micro switch, a multifunctional remote control for all the mast's functions and one electronic board. The roof PLUS has a stronger structure than the BASE one and can carry bigger top loads. It is supplied standard with the solenoid valve group, a tilt & turn unit 2 motors and a wired remote control, but upon request it's available also with a built-in air compressor, a tilt & turn unit 3 motors (with independent tilting) and a SMART remote control (can be used with and without cable). This system is suitable for the most common lamp units, for example 4x200 W, 6x100 W, 8x80W Led.



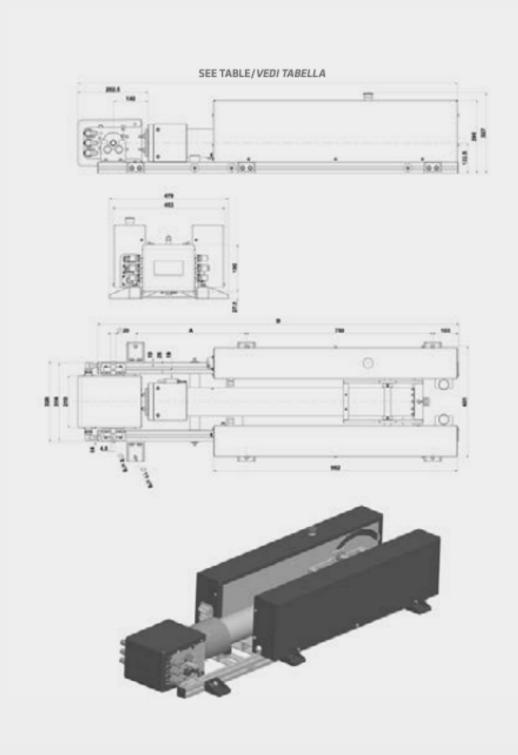
	Mod. ROOF PLI	JS PRO LIGHT Ø 90			n internal cable avo interno		
		RE 57	11	12	13	14	
Code N	extended height altezza estesa	mm	2.461	2.801	3.101	3.401	
P C C C	retracted height altezza chiusa	mm	1.423	1.553	1.658	1.758	
	internal spiralled cable cavo intero spiralato		Code Z - P - W				
	max. top load max. peso in testa	kg	25		2	20	
	weight peso	kg	63	64	65	66	
	max. allowed wind speed max. velocità del vento ammessa	km / h	145	135	125	115	
	with max. surface con area max.		0,74 m²				
	max. air pressure max. pressione dell'aria			2,5 kg	/ cm²		

	Mod. ROOF PLUS PRO STANDARD Ø 115		4 sections with internal cable 4 sfili con cavo interno			1
		RE 58	11	12	13	14
Code N	extended height altezza estesa	mm	3.087	3.453	3.853	4.239
Cod	retracted height altezza chiusa	mm	1.517	1.591	1.691	1.804
	internal spiralled cable cavo intero spiralato		Code Z - P - W			
	max. top load max. peso in testa	kg	3	0	2	5
	weight peso	kg	68	69,5	71	72,5
	max. allowed wind speed max. velocità del vento ammessa	km / h	160	150	140	130
	with max. surface con area max.		0,74 m²			
	max. air pressure max. pressione dell'aria			2,5 kg	/ cm²	

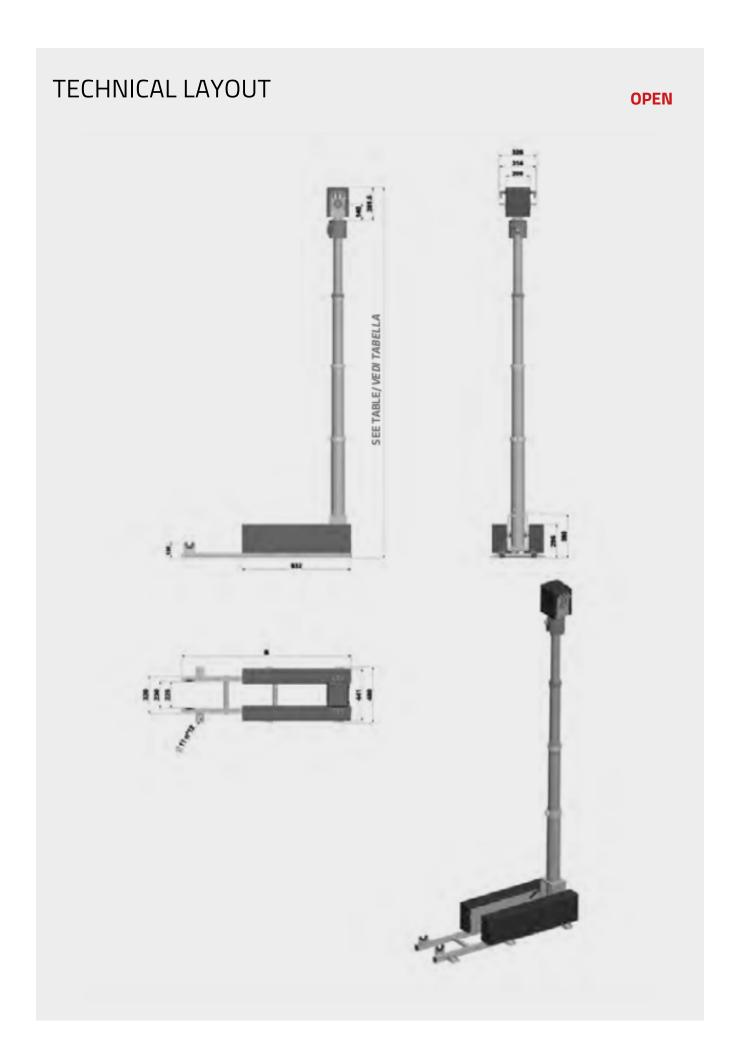


TECHNICAL LAYOUT

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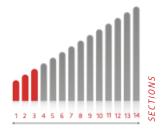






MANUAL ROOF MAST

The MANUAL ROOF mast is a very good solution when there is not much space inside the vehicle body, the mast can be easily mounted on the vehicle roof and can be 90° manually tilted. The manual version is very simple and easy and it is suitable for small lamp units and other lightweight equipment.



Manual 90° tilting and extension

	Mod. ROOF ECO Ø 77		1 sections with internal cable 1 sfili con cavo interno			
	RE 44		01	02	03	04
Code N	extended height altezza estesa	mm	1.450	1.750	-	-
	internal spiralled cable cavo intero spiralato		Non spiralled cable Cavo non spiralato			
	max. top load max. peso in testa	kg		2	5	
	weight peso	kg	6	6,5	7,5	8
	max. allowed wind speed max. velocità del vento ammessa	km / h	110 km / h	with max con are	. surface: a max.:	0,24m²

	Mod. ROOF ENTRY Ø 66			tions with internal o	
		RE 43	31	32	33
Z	extended height altezza estesa	mm	2.500	3.000	3.500
Code	retracted height altezza chiusa	mm	1.135	1.300	1.470
	internal spiralled cable cavo intero spiralato		St	andard 4x1,5mm² code Optional H	2 B
	max. top load max. peso in testa	kg		15	
	weight peso	kg	10	11	12
	max. allowed wind speed max. velocità del vento ammessa	km / h	100 km / h	with max. surface: con area max.:	0,24m²

	Mod. ROO	DF ENTRY Ø 66		tions with internal sfili con cavo interr		
		RE 43	01	02	03	
Z	extended height altezza estesa	mm	2.000	2.500	3.000	
Code	retracted height altezza chiusa	mm	1.200	1.450	1.700	
	internal spiralled cable cavo intero spiralato		Standard 4x1,5mm² code B Optional H			
	max. top load max. peso in testa	kg		15		
	weight peso	kg	7	8	9	
	max. allowed wind speed max. velocità del vento ammessa	km / h	100 km / h	with max. surface: con area max.:	0,24m²	



Manually 90° tilting and pneumatic extension by hand pump, compressor or other air source

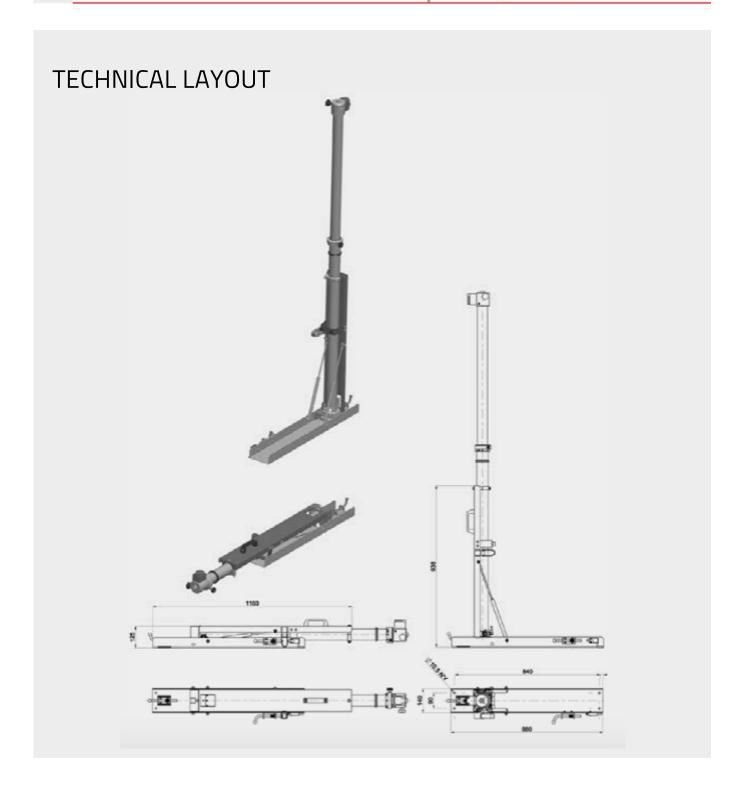
	Mod. ROOF	ECO ZERO Ø 64			n internal cable avo interno	
	F	RE 43	11	12	13	14
Code N	extended height altezza estesa	mm	1.800	2.400	-	-
Cod	retracted height altezza chiusa	mm	1.100	1.400	-	-
	internal spiralled cable cavo intero spiralato				,5mm² code B al D-H-I	
	max. top load max. peso in testa	kg		2	0	
	weight peso	kg	10	11	11	12
	max. allowed wind speed max. velocità del vento ammessa	km / h	100 km / h		x. surface: ea max.:	0,24m²
	max. air pressure max. pressione dell'aria			2,5 kg	/ cm²	

	Mod. ROOF	ECO ZERO Ø 64	3 sections with internal cable 3 sfili con cavo interno			
	R	E 43	21	22	23	24
Code N	extended height altezza estesa	mm	2.400	3.000	-	-
Cod	retracted height altezza chiusa	mm	1.100	1.300	-	-
	internal spiralled cable cavo intero spiralato				5mm² code B nal H	
	max. top load max. peso in testa	kg		2	0	
	weight peso	kg	12	13	13	14
	max. allowed wind speed max. velocità del vento ammessa	km / h	100 km / h		. surface: a max.:	0,24m²
	max. air pressure max. pressione dell'aria			2,5 kg	/ cm²	

Manually 90° tilting and pneumatic extension by hand pump, compressor or other air source

	Mod. ROOF ECO	ULTRALIGHT Ø 77			n internal cable avo interno	
	R	E 44	11	12	13	14
Z	extended height altezza estesa	mm	2.000	2.500	-	-
Code	retracted height altezza chiusa	mm	1.200	1.450	-	-
	internal spiralled cable cavo intero spiralato				5mm² code B al D-H-I	
	max. top load max. peso in testa	kg		2	5	
	weight peso	kg	12	13	13	14
	max. allowed wind speed max. velocità del vento ammessa	km / h	100 km / h		. surface: a max.:	0,24m²
	max. air pressure max. pressione dell'aria			2,5 kg	/ cm²	

	Mod. ROOF ECO	ULTRALIGHT Ø 77	3 sections with internal cable 3 sfili con cavo interno			
	R	E 44	21	22	23	24
Code N	extended height altezza estesa	mm	2.500	3.200	-	-
Cod	retracted height altezza chiusa	mm	1.135	1.380	-	-
	internal spiralled cable cavo intero spiralato		Standard 4x1,5mm² code B Optional D-H-I			
	max. top load max. peso in testa	kg		2	5	
	weight peso	kg	13	14	14	15
	max. allowed wind speed max. velocità del vento ammessa	km / h	100 km / h		x. surface: a max.:	0,24m²
	max. air pressure max. pressione dell'aria			2,5 kg	/ cm²	





GALLERY





ACCESSORIES

The ROOF masts can be equipped with a wide range of accessories and devices, in order to satisfy every operational need: LED lamp units, with high efficiency and light power, tilt & turn systems able to direct the light beams to the desired spot in an easy way, thanks to remote controls.

A multifunction kit, specifically designed for this type of masts, allows you to control all the functions in a simple and intuitive way with one single remote control.

TILT & TURN UNIT

The telescopic masts can be equipped with our devices, designed to provide a flexible illumination in various emergency scenarios. The main product is the Tilt &Turn unit: a reactive positioning system for tilting and turning the floodlights, in order to direct the light beam where necessary. The Tilt & Turn units are available in different versions in order to provide a solution to different requirements, by granting always reduced weight and dimensions and giving great versatility.

The Tilt & Turn units can be controlled with remote controls using the RS485 communication protocol. The remote controls are available in the versions with cable, radio or in the Smart version which allows both wired and radio use and which is equipped with rechargeable batteries. In order to communicate with the most complex and standardized protocols worldwide, the system can also be controlled via CANbus, especially in its FireCAN version specifically dedicated to fire-fighting applications.

TILT & TURN SPARK 2 - 3 MOTORS

Compact and easy to use with a maximum top load of 60 kg. Available 12V and 24V, it is suitable for the most common applications. It can be supplied with a pair of connectors for each floodlight and it is available with two or three actuators in order to the turn the mounted accessories and to tilt them simultaneously (with 2 motors) or separately (with 3 motors). All functions are controlled via multifunction remote control (available wired, radio and Smart). The T&T Spark has an IP65 protection rating.



Version 2 motors

- weight 10 Kg
- load 20+20 Kg

Version 3 motors

- weight 12 Kg
- load 25+25 Kg

Electric ratings

- supply voltage 12-24 VCC
- gearmotor max power 72 W*
- gearmotor max current 6/3 A*
- *This data refers to a single actuator; depending on the TT unit version (2 or 3 actuators) the total power will be twice or three times the indicated value.

	TT Spark	TT Spark Plus
Width (end of shafts)	300 mm	300 mm
Height	269 mm	269 mm
Depth	196 mm	196 mm
Weight (2 mot. version)	10 Kg	12 Kg
Payload (2 mot .version) *	50 Kg (25 +25)	70 Kg (35+35)
Weight (3 mot. version)	12 Kg	14 Kg
Payload (3 mot .version) *	60 Kg (30+30)	90 Kg (45+45)
Turn angle	365°	365°
Tilt angle	365°	365°

^{*} Resistance to payload calculated considering center of gravity at 0,5 m from mast vertical axis



TILT & TURN SPARK PLUS 2 -3 MOTORS

The Tilt &Turn Spark Plus system is able to rotate and tilt loads with weights 60% higher than those supported by the Spark version, allowing the quantity of floodlight that can be installed to be increased, thus increasing the illuminating power, while maintaining the small and compact dimensions of the Spark solutions.

The superior performance derives from the increase in power and the overall structure of the two tilting actuators, a new electronic board allows you to drive more powerful motors through the same RS485 control interface and multifunction remote controls.



Version 2 motors

- weight 12 Kg
- load 35+35 Kg

Version 3 motors

- weight 14 Kg
- load 45+45 Kg

Electric ratings

- supply voltage12-24 VCC
- gearmotor max power 290 W*
- gearmotor max current 24/12 A*
- * This data refers to a single actuator; depending on the TT unit version (2 or 3 actuators) the total power will be twice or three times the indicated value.

INSIDE FOCUS SYSTEM ON TILT & TURN SPARK

The Inside Focus System allows you to mount on the tilt and turn unit a motorized lamp unit with LED lights, for increasing or focusing the lighting beam angle $(+46^{\circ}/-4^{\circ})$.

The unit allows you to turn and tilt the floodlights 365° , furthermore you can move the arms -4° and $+46^{\circ}$ like shown in the pictures.



This will permit you to illuminate a wide area and to direct the lighting beam to the required direction. All the functions of this unit can be controlled by one multifunctional remote control.







FLOODLIGHTS LZ

The floodlights designed and developed by Fireco allow telescopic masts to be completed with high-quality lighting to provide firefighters or rescue workers with the best available support. They can be mounted on a Tilt & Turn unit directly or on the mast head, if required, also in a 360° top side position (i.e. 3 floodlights mounted at 120° or 4 floodlights at 90°).

The latest series of floodlights with LED technology developed by Fireco are the LZ LEDs which offer an excellent mix of energy-efficient performance and great light output. They are available in 50W, 80W, 100W, 200W, 300W or 400W versions and with 60° or 90° light beams.



LZ 50 W LZ 80 W

NEW FEATURES		
	Consumption	50 W
	Power supply	12 to 40 Vdc
	Power absorption	4,16 A- 1,25 A
50 W	Color temperature	5000 K
7	Light flux	8800 LM
	IP degree	IP 66
	Weight	1,1 kg
	Dimensions	128x148x70 mm
	Operating temperature	-40°C to + 85°C

NEW			
	FEATURES		
	Consumption	80 W	
	Power supply	12 to 40 Vdc	
	Power absorption	6,66 A - 2,00 A	
80 W	Color temperature	5000 K	
Z 8	Light flux	11500 LM	
	IP degree	IP 66	
	Weight	1,1 kg	
	Dimensions	128x148x70 mm	
	Operating temperature	-40°C to + 85°C	



LZ 100 W

FEATURES 100 W Consumption 12 to 24 Vdc - 130 to 230 Vac **Power supply** Power absorption 8,3/4,13 A - 1,5/0,75 A 5000 K **Color temperature** Light flux 17600 LM IP degree IP 66 Weight 3 kg **Dimensions** 348x161x96 mm **Operating temperature** -40 °C to +85 °C

LZ 100 W



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	FEATURES	
	Consumption	200 W
	Power supply	12 to 24 Vdc - 130 to 230 Vac
>	Power absorption	16,7/8,3 A - 1,5/7,5 A
200 W	Color temperature	5000 K
77	Light flux	35200 LM
	IP degree	IP 66
	Weight	5,8 kg
	Dimensions	362x224x142 mm
	Operating temperature	-40°C to + 85°C

LZ 200 W



LZ 300 W

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FEATURES	
Consumption	300 W
Power supply	12 to 24 Vdc - 130 to 230 Vac
Power absorption	25/12,5 A - 1,5/0,75 A
Color temperature	5000 K
Light flux	52800 LM
IP degree	IP 66
Weight	7,6 kg
Dimensions	517x224x142 mm
Operating temperature	-40°C to + 85°C



LZ 400 W



	FEATURES	
	Consumption	400 W
	Power supply	12 to 24 Vdc - 130 to 230 Vac
	Power absorption	33/16,6 A - 1,5/0,75 A
LZ 400 W	Color temperature	5000 K
)† Z	Light flux	70400 LM
_	IP degree	IP 66
	Weight	10,8 kg
	Dimensions	674x224x142 mm
	Operating temperature	-40°C to +85°C



FLOODLIGHTS DUO LZ

Natural evolution of the LZ, the Duo LZ floodlights are Fireco's most complete LED lighting solution. It allows operators to adapt the lighting to the environmental conditions of the operating site by switching between two different color temperatures: a classic white daylight (5700 K) or a warmer selective yellow light (2700 K).

Especially suitable for foggy or snowy environments, the yellow light will help to avoid the effects of glare. Whatever the weather, the Duo LZ is ready to guarantee the best visibility in every situation.



DUO LZ 100 W

DUO LZ 100 W

FEATURES 100 W Consumption 12 to 40 Vdc **Power supply Power absorption** 8,3/4.15 A- 1.5/0.75 A Color temperature 2700 K / 5700 K **Light flux** 8000 LM/8900 LM IP degree IP 66 Weight 3 kg **Dimensions** 348x161x96 mm -40°C to +85°C **Operating temperature**

DUO LZ 200 W

FEATURES	
Consumption	200 W
Power supply	12 to 40 Vdc
Power absorption	16,7/8,3 A
Color temperature	2700 K / 5700 K
Light flux	18700 LM / 20370 LM
IP degree	IP 66
Weight	6,5 kg
Dimensions	362X224X142 mm
Operating temperature	-40°C to + 85°C
	Consumption Power supply Power absorption Color temperature Light flux IP degree Weight Dimensions



REMOTE CONTROL

The FIRECO multifunctional remote control permits you to control ALL the functions of the mast with just one remote control. The remote control is easy and safe to use, thanks to the automatic block of the keypad and easy to understand functions. The mast with the multifunctional remote control is supplied with an electronic board and an electrovalves group.

REMOTE CONTROL FOR ROOF MASTS



RC.31746

Multifunctional remote control for mast extension/retraction, tilt & turn of the floodlights, on/off switching of floodlights, automatic restore — ergonomic, with protection cover and 4 m spiralled cable.

Available also radio (RC.31747_1)



RC.31748

Multifunctional remote control for mast extension/retraction, turn & independent tilting of the floodlights, on/off switching of floodlights, automatic restore – ergonomic, with protection cover and 4 m spiralled cable.

Available also radio (RC.31749_1)



RC.31756 596

SMART Multifunctional remote control for mast extension/retraction, tilt & turn of the floodlights, on/off switching of floodlights, automatic restore – ergonomic, with protection cover and 4 m spiralled cable – USABLE WITH AND WITHOUT CABLE – switches automatically to the radio mode as soon as the cable is detached – with rechargeable batteries – back-lit keypad

Available also radio for 3 motors version (RC.31758_596)



ELECTRONIC BOARD

The multifunctional system is controlled by a double layer electronic board mounted inside the tilt & turn unit.

The main features

- Protection against external interferences
- Input Voltage Range from 9 to 36 VDC
- Protection against higher voltage peaks
- Protection against short circuits on the tilt & turn motors
- Protection against short circuits on the electro-valves
- Storage of all vital data for operation into the microprocessor storage, like airplane black-boxes
- Warning LEDs on the remote control
- 2.4 GHZ radio module for quicker radio data transmission without interferences



ELECTROVALVES GROUP

The solenoid valve unit is used to ensure the electronic extension and retraction of the mast. It is made of anodized Aluminum and it works from 12 V DC to 230 AC, so it is very adaptable. Furthermore it can be easily remoted to another position.

The solenoid valve unit can be placed in two different positions, depending on the costumers' needs: with the coils one opposite to the other or, for a more space-saving configuration, with the coils positioned parallel.

- A) Extension Regulator
- B) Fixing Screws M4/M5

The roof plus system can be supplied with an integrated compressor 12V or 24V.





Credits

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