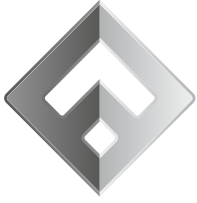


PARTNER TELESCOPIC MAST Zero - Ultralight

CATEGORY SMALL





FIRECO

PARTNER TELESCOPIC MAST SMALL

Index.

01

PARTNER TELESCOPIC MAST

- *zero*
- *ultralight*

02

ACCESSORIES

- *lamp units*
- *tilt & turn units*
- *pneumatic control board*
- *mounting accessories*
- *remote controls*
- *multifunctional kit **



01

PARTNER TELESCOPIC MAST SMALL

Fireco offers a wide range of Partner telescopic mast, made of aluminum, with extended heights from 1.8 m up to 40 m, diameters from 64 mm to 250 mm and with 3 to 14 sections. The masts are made of light aluminum alloy tubes, anodized and with anti-corrosion properties even in the presence of salt spray. They can withstand temperatures between -40°C and $+60^{\circ}\text{C}$. Fireco's flexibility and professionalism allows us to offer customized solutions, with tailor-made dimensions and features.

The Partner telescopic masts that make up the **SMALL** category are the models: ZERO and ULTRALIGHT. They can both be extended through the use of hand pumps or through the use of small compressors/solenoid valve units. These mast models can be used for mounting small light heads, cameras or other lightweight equipment. The ULTRALIGHT masts also allow the mounting of a Tilt & Turn unit for the tilting and turning of the floodlights.



PARTNER TELESCOPIC MAST SMALL

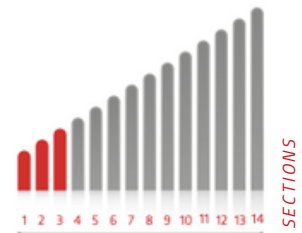
FEATURES

- DIAM Ø 64 TO 77 MM
- 3 TO 4 SECTIONS
- SUITABLE FOR SMALL VEHICLES
- SUITABLE FOR SMALL LIGHTING UNITS, CAMERAS OR LIGHTWEIGHT EQUIPMENT
- HIGH QUALITY ECONOMIC RANGE
- TILT & TURN UNIT *
- MUTIFUNCTIONAL SYSTEM*
- WIDE RANGE OF FOODLIGHTS COMBINATION

* available only for masts diam. 77 and 3 sections

PARTNER TELESCOPIC MAST SMALL ZERO

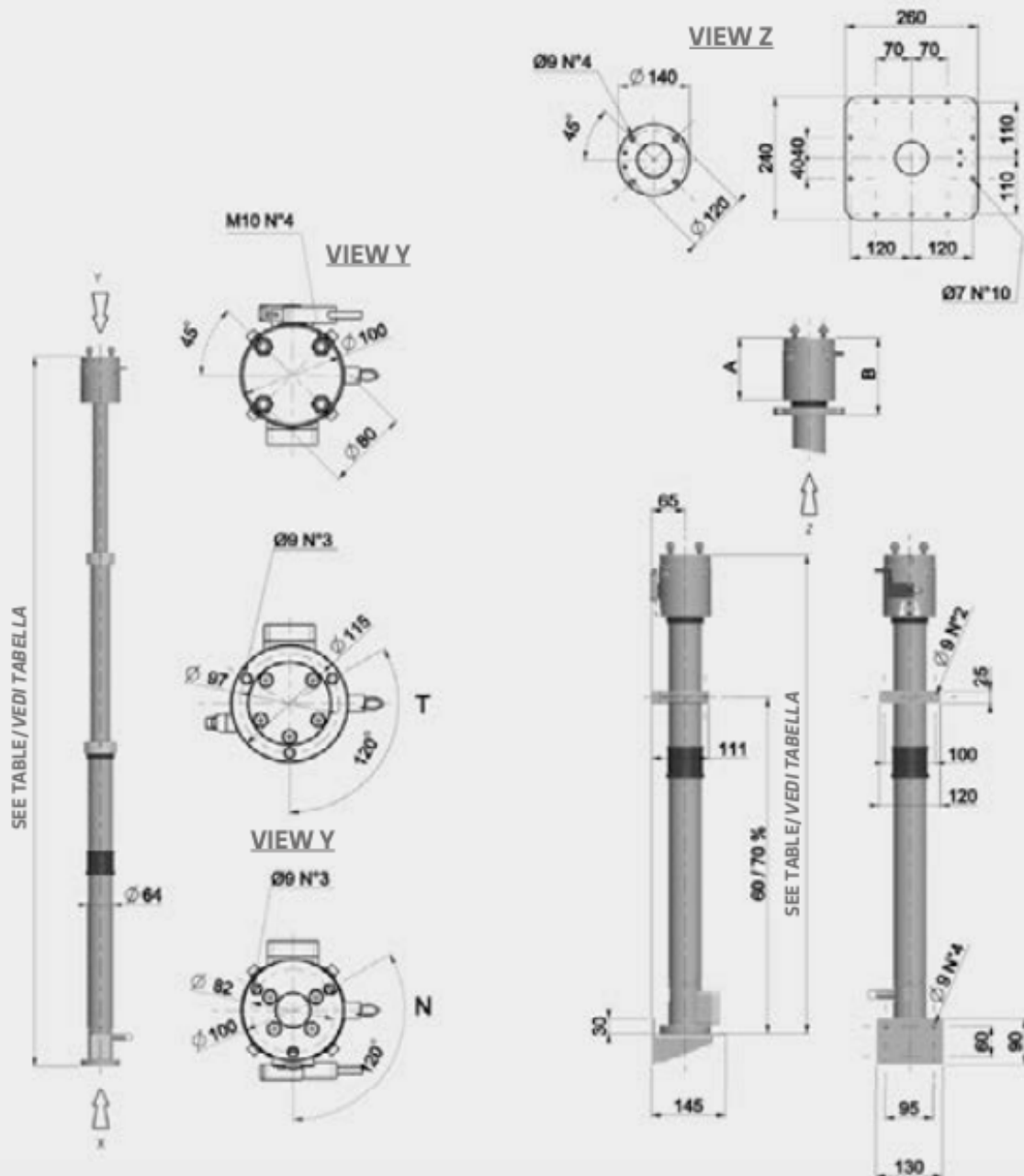
The **ZERO** telescopic mast is the smallest of the Partner family and has a diameter of 64 mm. The extended heights go from 1.855 m to 5.651 mm. This mast model can be used for small top loads, such as small lamp units, cameras, sensors, etc.



Mod. ZERO Ø 64 mm		3 sections with internal cable 3 sfili con cavo interno									
		CZ 33									
Code N		01	02	03	04	05	06	07	08	09	
		extended height <i>altezza estesa</i>	mm	1.855	2.251	2.740	3.151	3.651	4.125	4.635	5.145
	retracted height <i>altezza chiusa</i>	mm	939	1.069	1.234	1.369	1.539	1.709	1.879	2.049	2.219
	weight <i>peso</i>	kg	6,4	7	7,6	8,2	8,9	9,5	10,2	11	11,7
	internal spiralled cable <i>cavo intero spiralato</i>	Standard 4x1,5 mm ² Cod. B optional see page 188 / <i>optional a pag. 188</i>									
	max. top load <i>max. peso in testa</i>	kg	20	20	20	20	20	15	15	15	15
	max. allowed wind speed <i>max. velocità del vento ammessa</i>	km / h	160	150	140	150	140	130	145	135	125
	with max. surface <i>con area max.</i>		0,3 m ²		0,2 m ²			0,1 m ²			
	max. air pressure <i>max. pressione dell'aria</i>		2,5 kg / cm ² (bar)								
	Ø top section <i>Ø tubo finale</i>		38 mm								

TECHNICAL LAYOUT

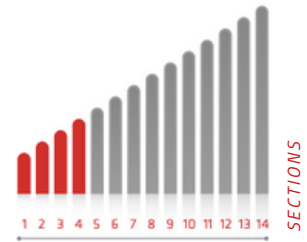
A/B (mm) -
3 sections 123/149





PARTNER TELESCOPIC MAST SMALL ULTRALIGHT

The **ULTRALIGHT** telescopic mast has a diameter of 77 mm, the extended height goes from 2.253 mm up to 6.962 mm. This mast is more versatile than the Zero model, thanks also to the greater ratio between the extended and retracted height. It is also available with 4 sections. The Ultralight mast can carry bigger loads than the Zero model and can also be equipped with a tilt & turn unit.



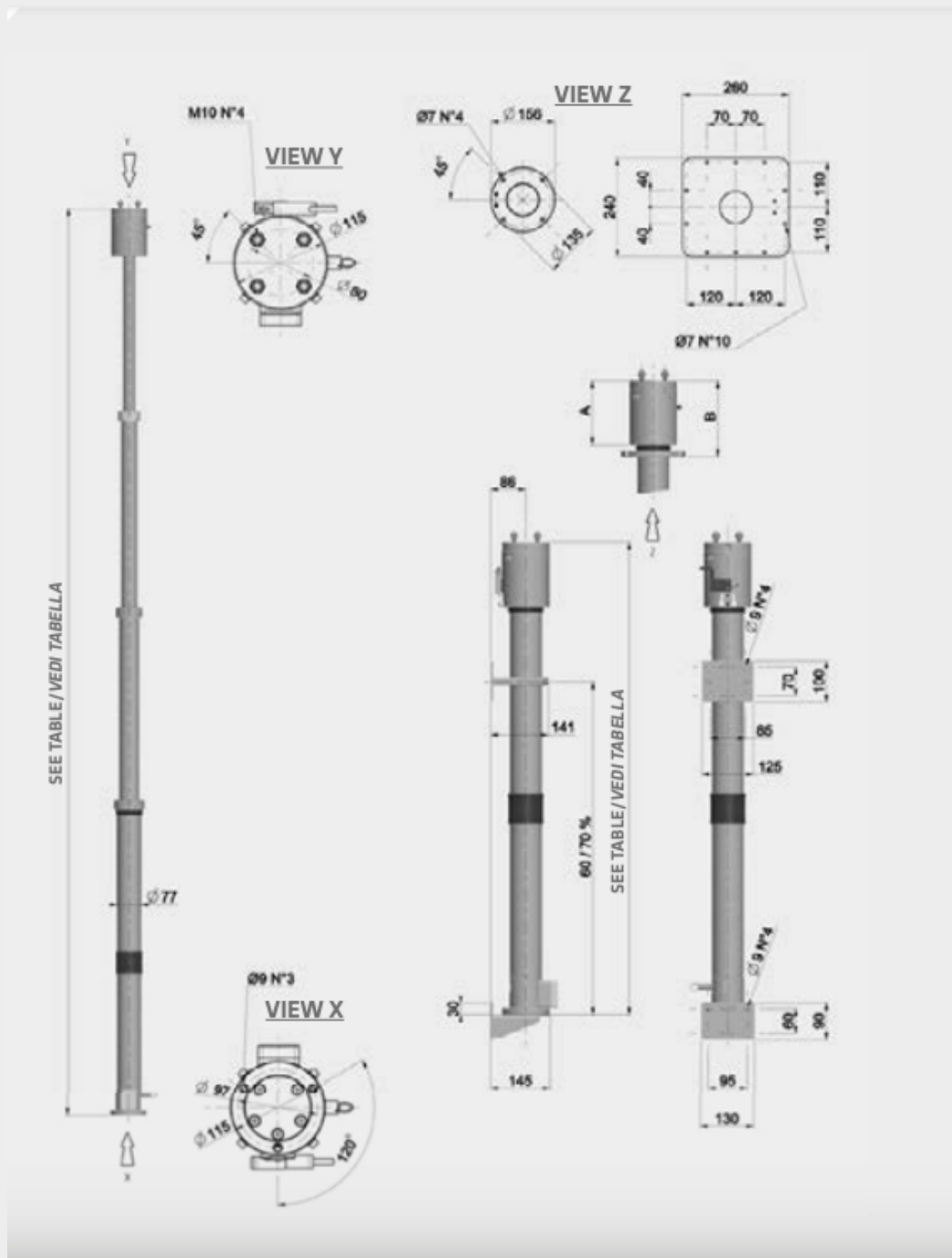
Mod. ULTRALIGHT Ø 77 mm		3 sections with internal cable 3 sfilì con cavo interno									
CU 33		16	17	18	19	20	21	22	23	24	
Code N	extended height altezza estesa	mm	2.253	2.700	3.126	3.617	4.117	4.595	5.117	5.599	6.067
	retracted height altezza chiusa	mm	1.070	1.235	1.369	1.540	1.710	1.880	2.050	2.220	2.390
	weight peso	kg	8,7	9,6	10,3	11,2	12,1	13	13,9	14,7	15,6
	internal spiralled cable cavo intero spiralato		Standard 4x1,5 mm ² Cod. B optional see page 188 / optional a pag. 188								
	max. top load max. peso in testa	kg	25	25	25	25	25	22	20	20	18
	max. allowed wind speed max. velocità del vento ammessa	km / h	150	140	130	145	135	125	160	150	140
	with max. surface con area max.		0,5 m ²			0,3 m ²			0,1 m ²		
	max. air pressure max. pressione dell'aria		2,5 kg / cm ² (bar)								
	Ø top section Ø tubo finale		51 mm								

On the 3-section Ultralight mast it is also possible to mount a small Tilt Unit or a Tilt&turn unit SPARK

Mod. ULTRALIGHT Ø 77 mm		4 sections with internal cable 4 sfilì con cavo interno									
CU 34		01	02	03	04	05	06	07	08	09	
Code N	extended height altezza estesa	mm	2.441	2.944	3.424	3.932	4.597	5.274	5.873	6.422	6.962
	retracted height altezza chiusa	mm	1.001	1.149	1.269	1.399	1.569	1.739	1.909	2.099	2.269
	weight peso	kg	9,4	10,2	11	11,8	12,8	13,9	14,9	16	16,9
	internal spiralled cable cavo intero spiralato		Standard 4x1,5 mm ² Cod. B optional see page 188 / optional a pag. 188								
	max. top load max. peso in testa	kg	20	20	20	20	16	16	13	13	12
	max. allowed wind speed max. velocità del vento ammessa	km / h	160	150	140	150	135	120	130	115	105
	with max. surface con area max.		0,3 m ²			0,2 m ²			0,1 m ²		
	max. air pressure max. pressione dell'aria		2,5 kg / cm ² (bar)								
	Ø top section Ø tubo finale		38 mm								

TECHNICAL LAYOUT

A/B (mm)
3 sections 123/149
4 sections 156/182





ACCESSORIES

The Partner telescopic 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.

Fireco also offers medium and small sized compressors which, thanks to their compactness and functionality, prove to be an optimal solution for quickly and safely extend the pneumatic telescopic masts. Equally useful are the pneumatic controls for the air supplied by the vehicle's brake system. 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.



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 or 100W versions and with 60° or 90° light beams.



LZ 50 W E 80 W



LZ 100 W

FEATURES			
Consumption	NEW 50 W	NEW 80 W	100 W
Power supply	12 a 40 Vdc	12 a 40 Vdc	12 a 24 Vdc - 130 a 230 Vac
Power absorption	4,16 A- 1,25 A	6,66 A - 2,00 A	8,3/4,13 A - 1,5/0,75 A
Color temperature	5000 K	5000 K	5000 K
Light flux	8800 LM	11500 LM	17600 LM
IP degree	IP 66	IP 66	IP 66
Weight	1,1 kg	1,1 kg	3 kg
Dimensions	128x148x70 mm	128x148x70 mm	348x161x96 mm
Operating temperature	da -40°C a + 85°C	da -40°C a + 85°C	da -40°C a + 85°C

FLOODLIGHTS WORKLED

In addition to the LZ, Fireco offers 50 W and 80 W LED floodlights, which are more compact and energy-efficient. These lights are ideal for mounting on different systems, such as Inside Focus System or Tilt & Turn units, or directly on the light mast head.

WORKLED 50 W



WORKLED 50 W

FEATURES	
Consumption	50 W
Power supply	12-48 Vdc
Color temperature	6000 K
Light flux	4200 LM
IP degree	IP 67
Weight	1,6 kg
Dimensions	125x110x103 mm
Operating temperature	-40°C to + 80°C

WORKLED 80 W



WORKLED 80 W

FEATURES	
Consumption	80 W
Power supply	12-48 Vdc
Color temperature	6000 K
Light flux	6797 LM
IP degree	IP 67
Weight	2,8 kg
Dimensions	175x146x115,4 mm
Operating temperature	-40°C to + 80°C



TILT UNIT

The Partner pneumatic masts can be equipped with a Tilt unit 12V or 24V,.

TILT UNIT ECO

The dimensions are compact and the weight is only 4 kg. With a tilt angle of 310°, it can mount small lamp units such as 4 LED 50W lights with compact mounting brackets (maximum top load of 10kg for 4 headlights). It can be equipped with a simple remote control for tilt or with a complete multifunction remote control (the electronic board will be mounted on the base of the mast).

- TL.31600 = Tilt Eco 12V
- TL.31601 = Tilt Eco 24V



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

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



PNEUMATIC CONTROL BOARD

The pneumatic control board is designed for the mast extension and retraction and is required when you use the air from the vehicle's air system, a compressed air cylinder or a compressor without pressure control.



PC.33211

Pneumatic control block with pressure regulator

PC.33212

Pneumatic control block with pressure regulator and spring

PC.33213

Pneumatic control block with pressure regulator and spring only for extension

PC.33221

Pneumatic control block pressure regulator and dry filter

PC.33222

Pneumatic control block with pressure regulator, dry filter and spring

PC.33223

Pneumatic control block with dry filter and spring for extension only

MOUNTING ACCESSORIES



ROUND ROOF BRACKET

BK.30001= for mast Ø64 mm
BK.30003= for mast Ø 77 mm



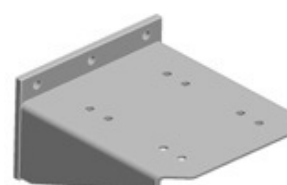
SQUARE ROOF BRACKET

BK.30053=for mast Ø 64 mm
BK.30054= for mast Ø 77 mm



UPPER FIXING BRACKET

BK.30202= for mast Ø 64 mm
BK.30203= for mast Ø 77 mm



LOWER FIXING BRACKET

BK.30102= for mast Ø 64-77mm



HAND PUMP BRACKET TO WALL

HP.32151



DOUBLE BRACKET FOR HAND PUMP AND MAST

HP.32155 = for mast Ø 64mm
HP.32154 = for mast Ø 77 mm



HAND PUMP

HP.32101
available also with discharge
valve



LONG STROKE HAND PUMP

HP.32104
available also with
discharge valve



FOOT BRACKET FOR HANDPUMPS HP.32101 AND HP.32104

HP.32105



REMOTE CONTROLS

REMOTE CONTROLS FOR MASTS WITH TILT AND TURN

available only for masts \varnothing 77 mm with 3 sections



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)

REMOTE CONTROLS FOR MASTS WITHOUT TILT AND TURN

available only for masts \varnothing 77mm with 3 sections



RC.31742

Multifunctional remote control for mast extension/retraction, single on/off switching of 4 floodlights, automatic restore – ergonomic, with protection cover and 4mt spiralled cable

Available also radio (RC.31745_1)

MULTIFUNCTION CONFIGURATION *

The Fireco **multifunction kit** offers to the customers a mast with a complete and functional equipment. This kit meets the needs of the most demanding customers who wish to have all the functions of the telescopic mast in "one single package", allowing the control of all functions with a single system. The multifunction remote control, which communicates with the integrated electronic board, allows you to control all the functions of the unit through a simple and user-friendly interface. Thanks to the latest technologies in the automotive sector, simple and safe connections to the vehicle system have been designed using dustproof and watertight connectors, making things easier for body builders and after-sales service.

* CONFIGURATION

* available only for masts Ø77mm with 3 sections

1. TELESCOPIC MAST

The pneumatic telescopic mast is the backbone of the entire multifunctional kit. It can support the entire lighting system consisting of a Tilt & Turn unit and floodlights powered by plug'n play connectors. There are multiple mast models, divided into SMALL, MEDIUM and LARGE based on diameters and specific characteristics.



2. LAMP UNITS

In addition to the mast, the essential elements are the floodlights that can be mounted on a Tilt & Turn unit (T&T, Inside Focus or Illuminator) or directly on the 360° head. They are all equipped with LED components with great efficiency, low voltages, and reduced energy consumption with high light intensity.



3. TILT & TURN UNITS

Fireco Tilt & Turn units have become a standard in combination with Partner masts. The system is safe, reliable and easily manageable, and allows you to tilt and rotate the floodlights from 0 to 365°. The product is available in different versions, which can carry different payloads and can have simultaneous or independent tilting of the floodlights.





4. REMOTE CONTROL FOR ALL FUNCTIONS

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.

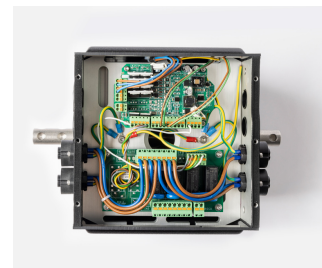


5. ELECTRONIC BOARD

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



6. MICRO - SWITCH

The function of the micro switch is to signal when the mast is extended. The customer can connect it to visual or audio signal inside the cabin, in order not to drive with a still extended mast. Furthermore the automatic restore function can also be connected to the hand brake system, so that by releasing the hand brake, the mast will return automatically to the "home" position.

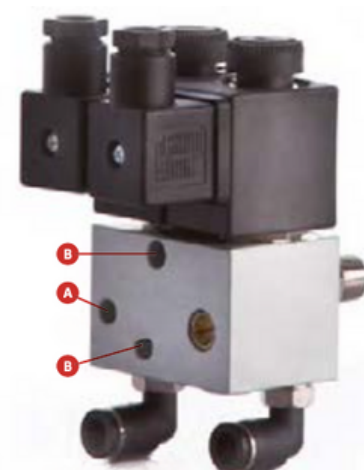


7. ELECTROVALVES GROUP

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



8. CONNECTORS FOR FLOODLIGHTS

The floodlights are connected to the tilt & turn unit Spark by quick connectors, so that the connection (as well as replacement or removal for maintenance) of the floodlight will be quick and easy; furthermore, it is robust, safe and waterproof (IP67 rating)



9. AUTOMOTIVE CONNECTORS (optionals)

Automotive connectors allow for quick and safe installation.





GALLERY Zero I Ultralight





Credits

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