PARVIS DUAL

Invisibile perimeter protection
Serie 400
Double Beams

POLITEC s.r.l.

Introduction

Parvis is an active infrared beam perimeter intruder detection system for use in any application where a covert detection is required.
Designed for external use, Parvis can be employed in all ambient conditions thanks to the thermostatically controlled heating of the beam tower, high specification optical assemblies, automatic gain control all of which maintain the effectiveness and reliability of the system.

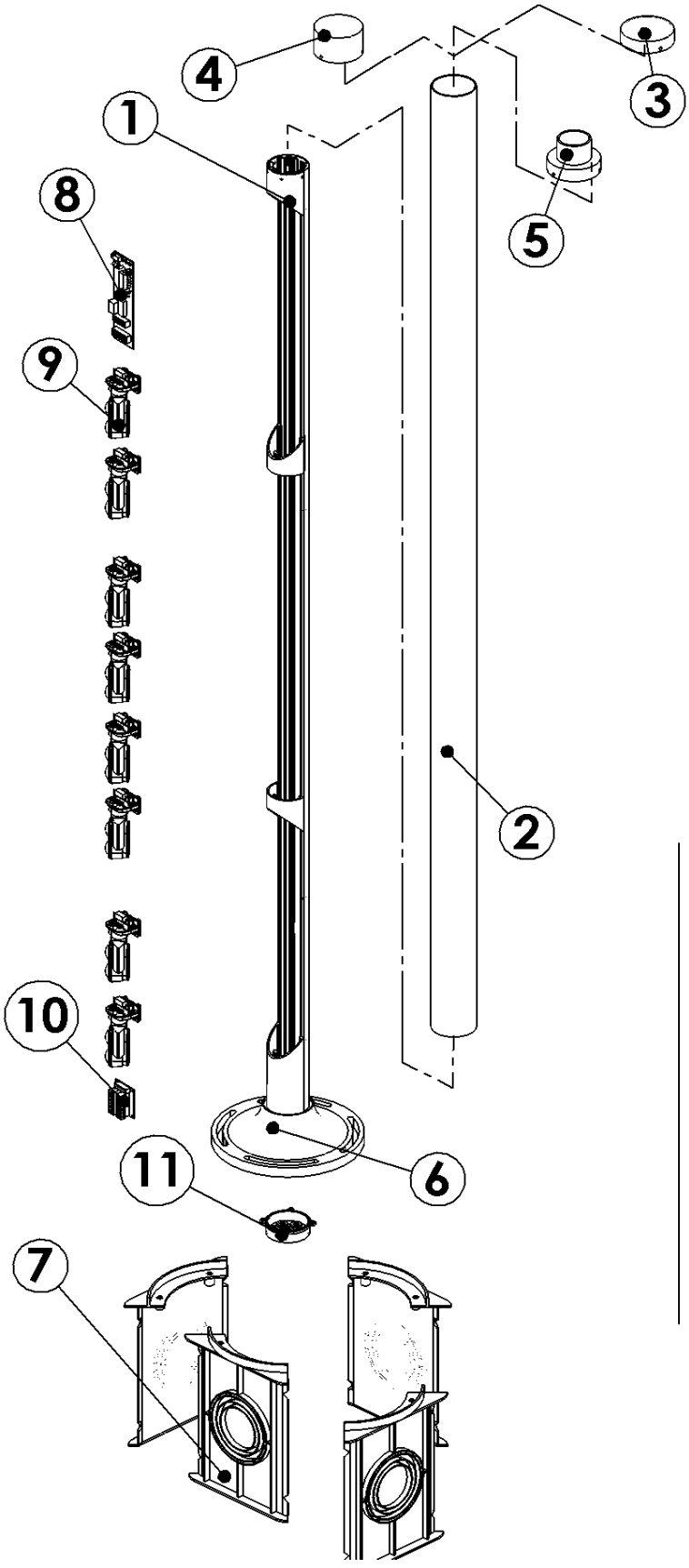
External installation

It is advisable to take into account any trees, hedges or bushes that are near to the proposed perimeter detection path during the planning stages; these can in the event of strong winds interfere with the beam.
In the same way grass that is permitted to overgrow can obscure the lower beam.

Hidden kit

As the Parvis detection system is both covert and camouflaged it is possible to add illumination with or without detection beams.

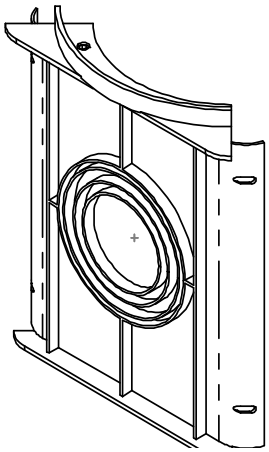
Main component list



N° Parte	Descrizione
1	Aluminium column
2	IR transparent plastic tube
3	Top cap
4	Top cap with waterproof camera mounting
5	Top cap fitted with a lamp fitting
6	Base cable entries
7	Cable pit side panel
8	P.C.B.
9	Receiver / transmitter optic
10	P.C.B. Terminal board
11	Base cover

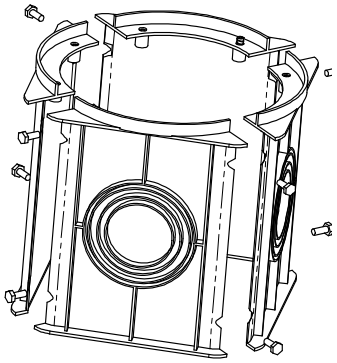
Assembling the cable pit

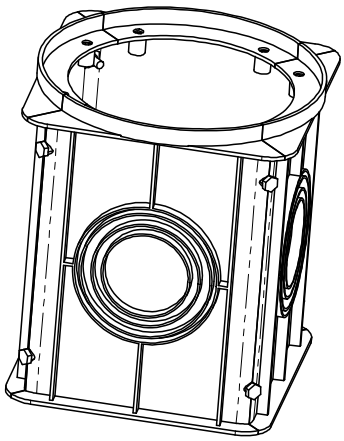
The cable pit has two functions; the first is to permit easy connection of all the cable ducting and conduit and secondly as a hold solid base to mount the beam tower.



Single cable pit side panel

Use the supplied nuts and bolts to assemble the cable pit.
Overlap the right-hand edge of one side pan to the left-hand edge of the next.

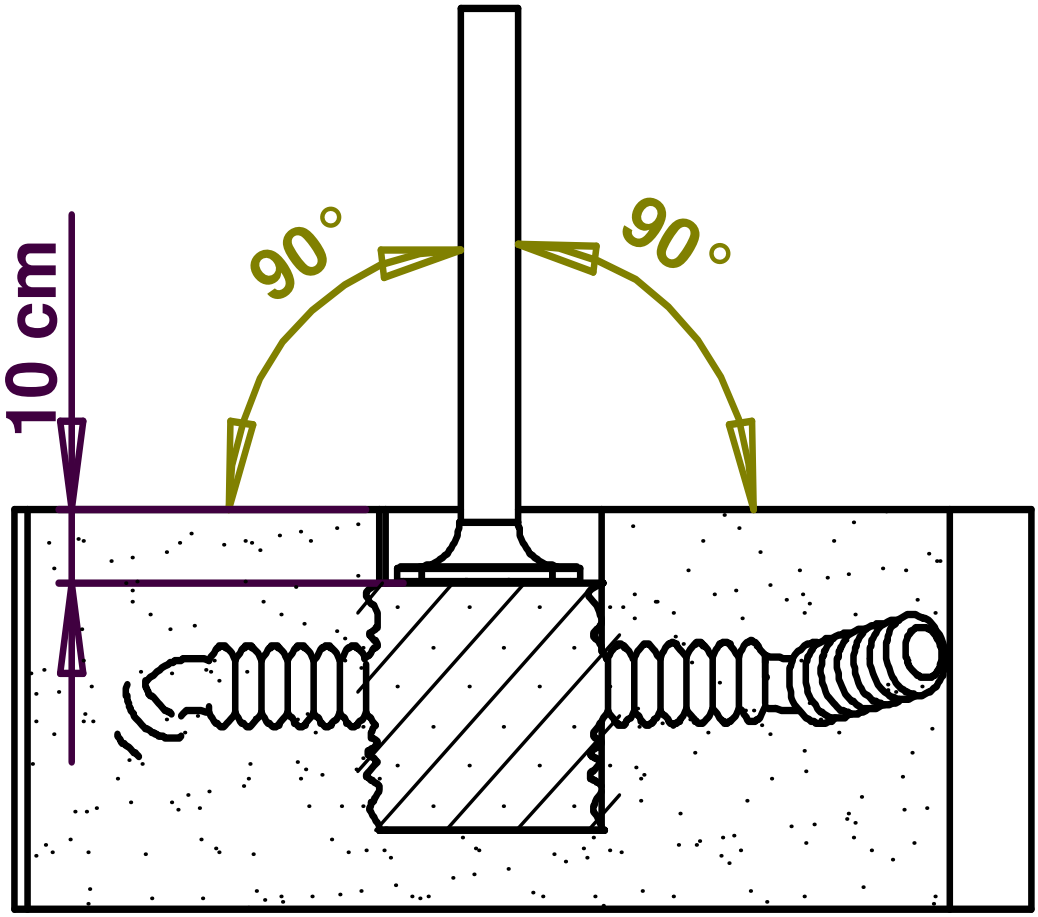




Assembled cable pit, ensure that the mounting flange is uppermost.

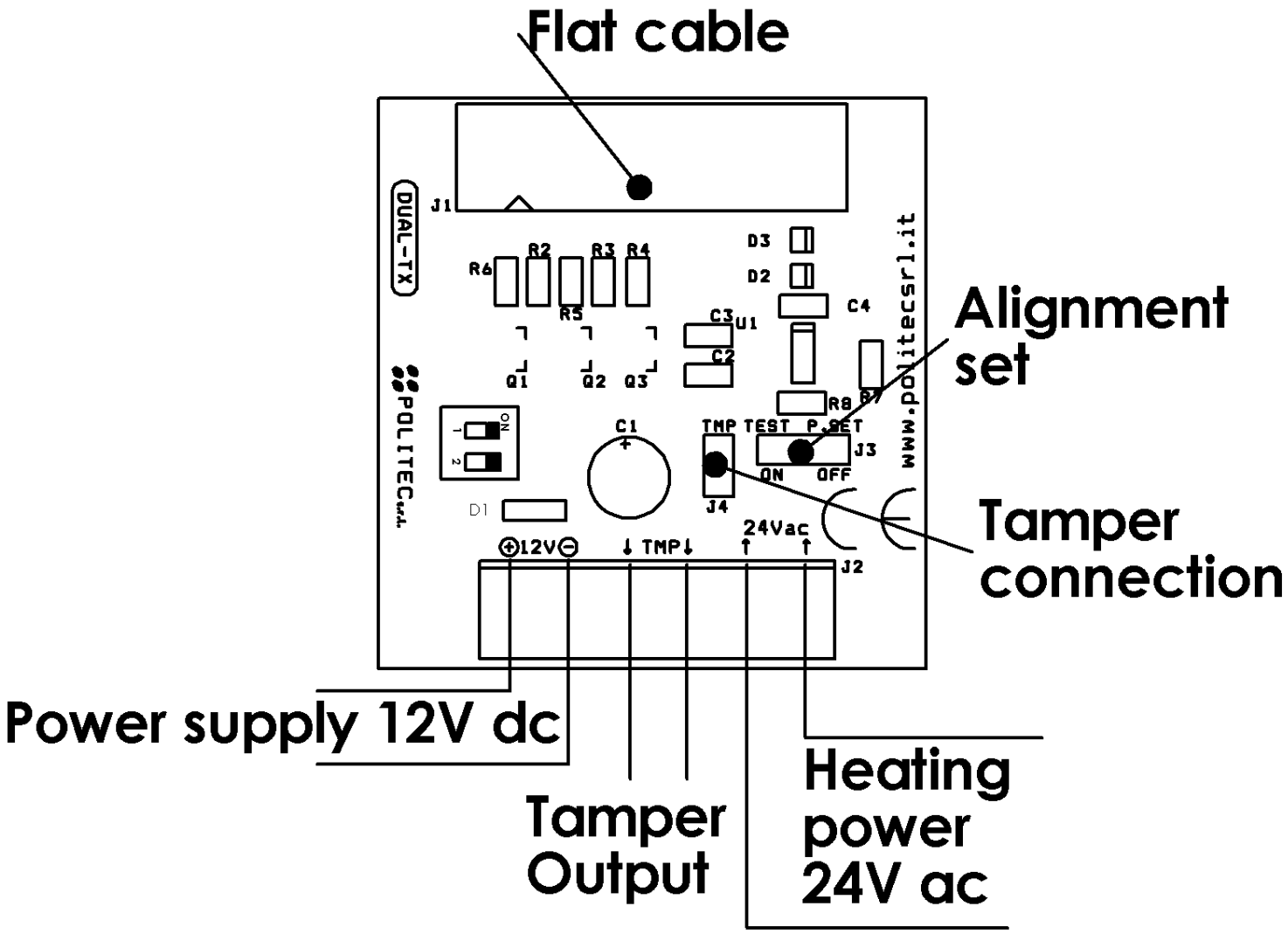
Positioning the cable pit

Once fully assembled the cable pit is installed ten centimeters below ground level and is embedded in concrete; once correctly installed it can be covered (with turf or suitable decking) so that only the IR beam tower is visible .

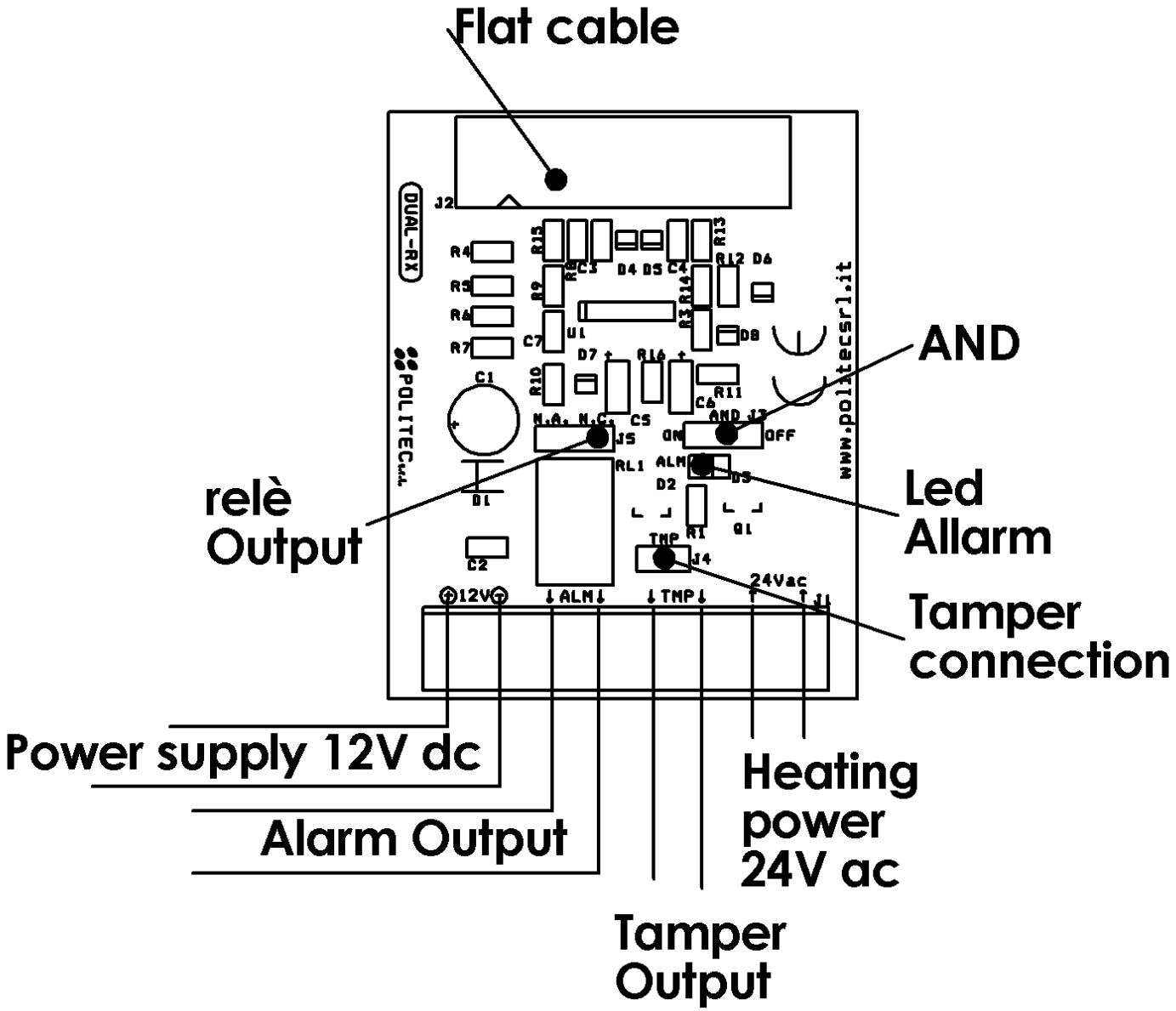


Cabling and terminal connections

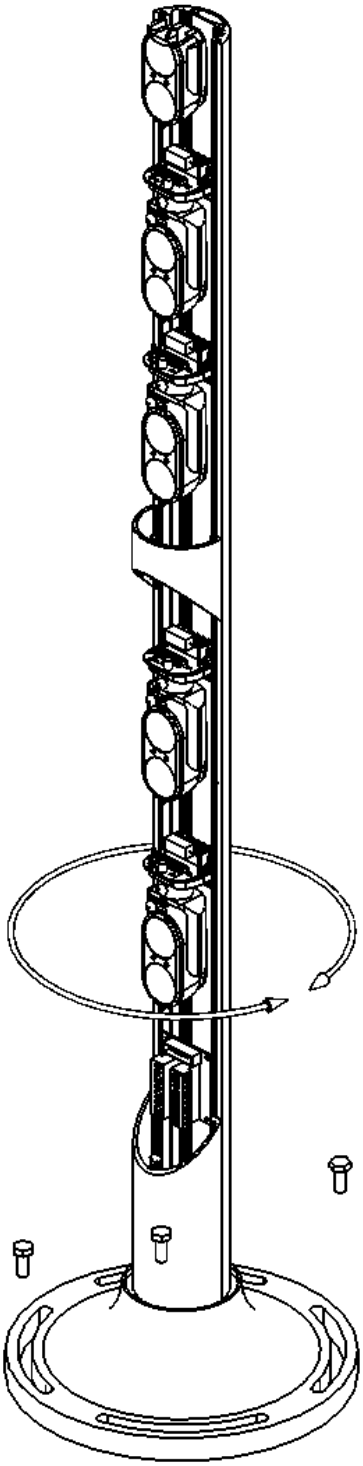
TRANSMITTERS
MAIN P.C.B.



RECEIVERS
MAIN P.C.B.

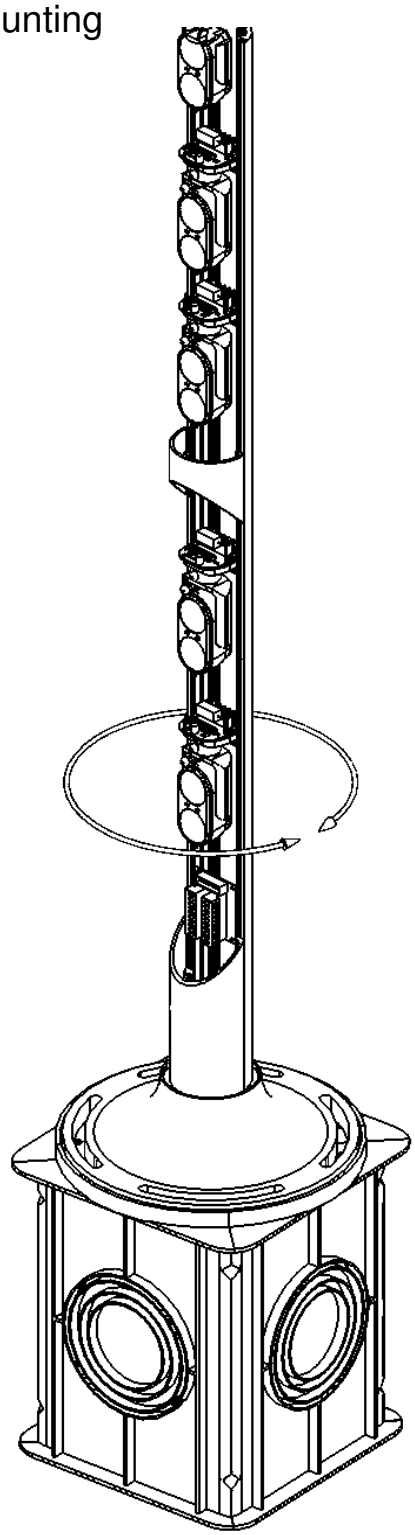


Positioning beam with respect to others in the perimeter

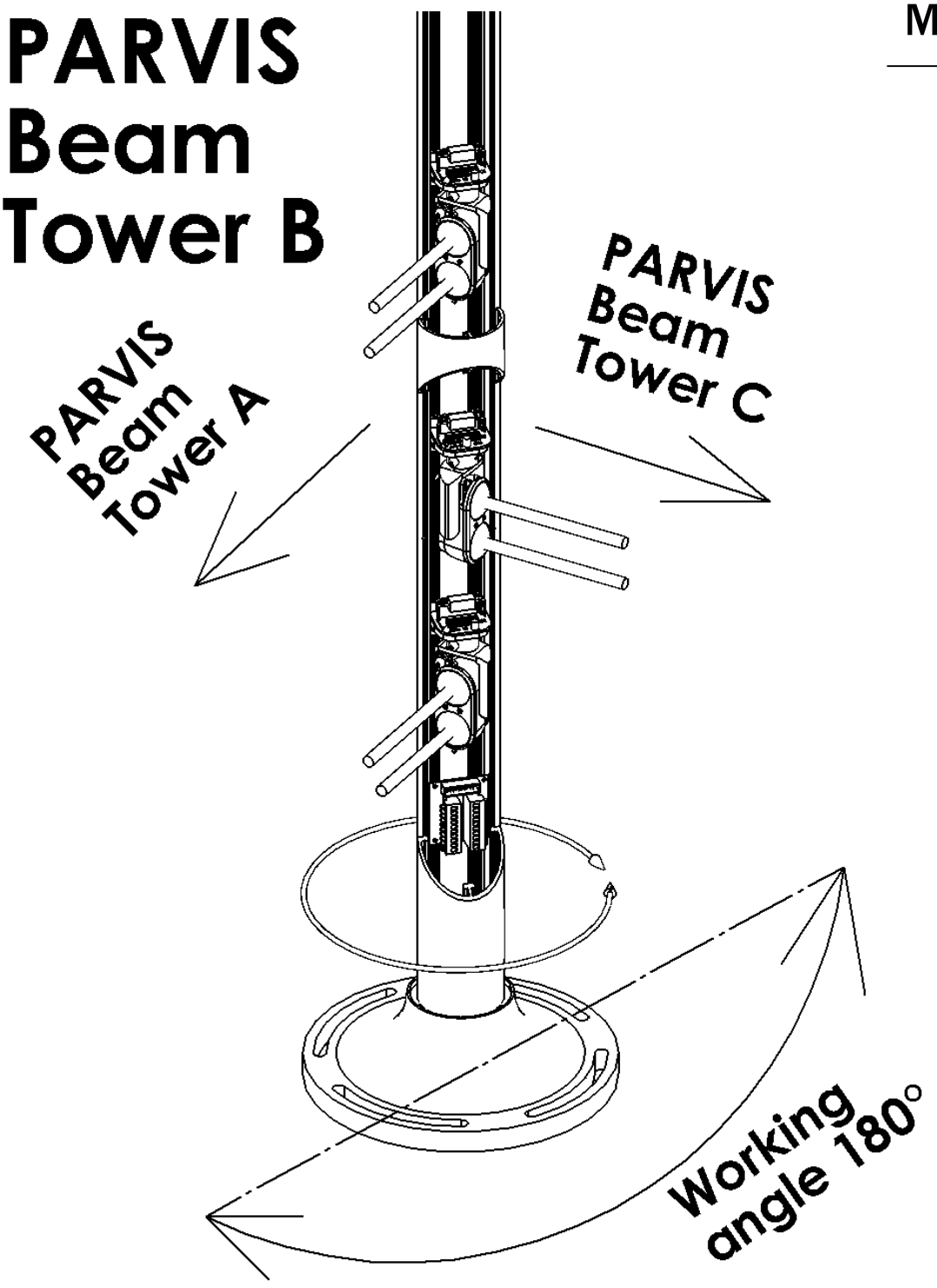


Floor mounting

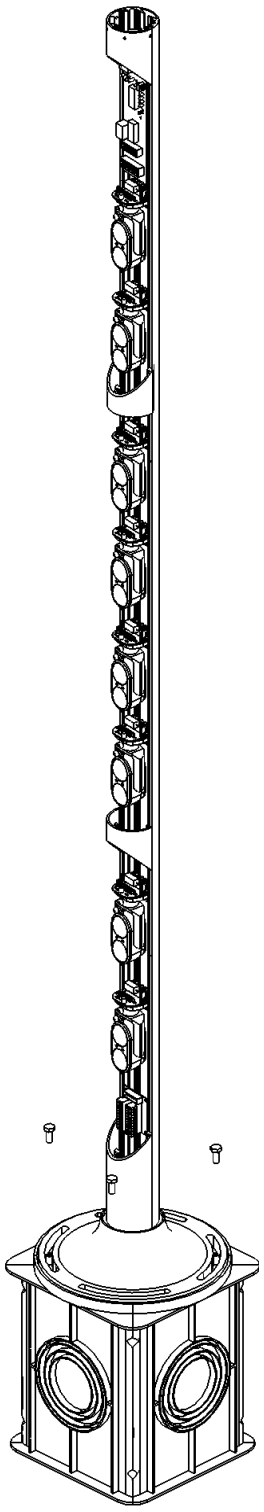
Cable pit mounting



Positioning



Mounting the beam



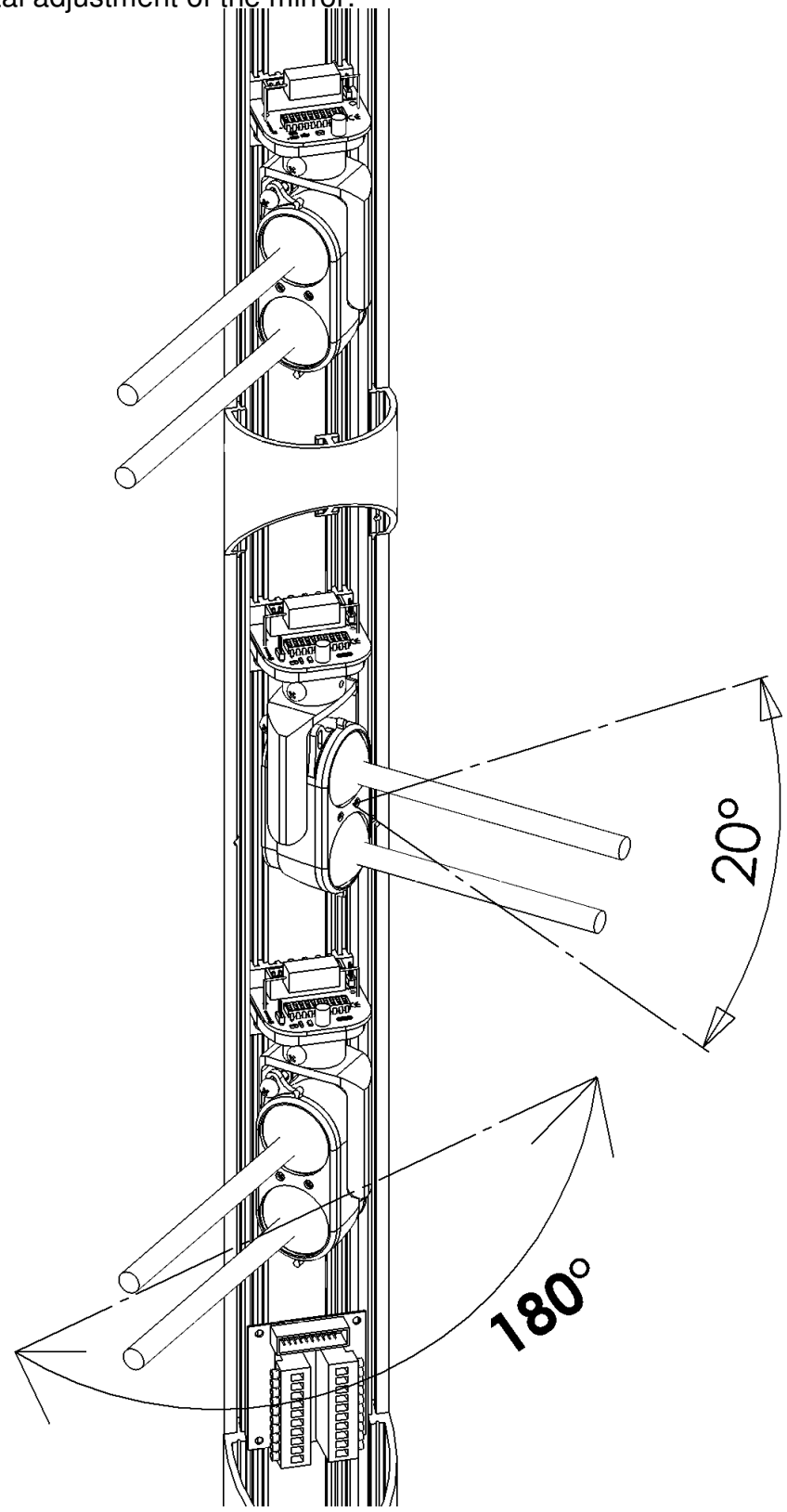
Use the bolts supplied to anchor the base to the cable pit .

Optical alignment setting

Alignment angle

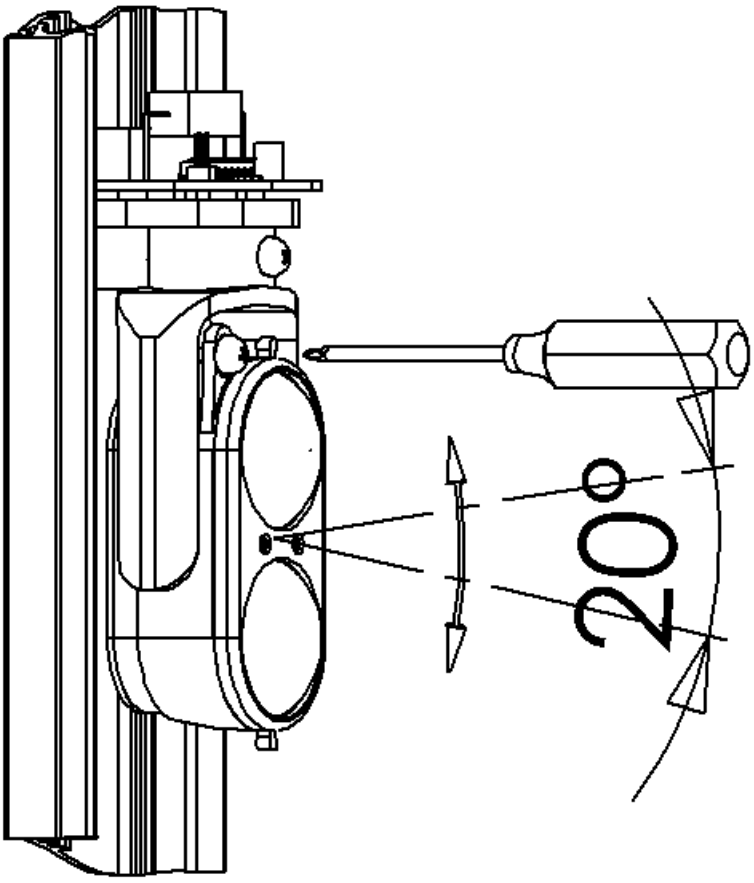
Vertical and horizontal adjustment of the mirror:

- Vertical : +/- 10°
- horizontal 180°

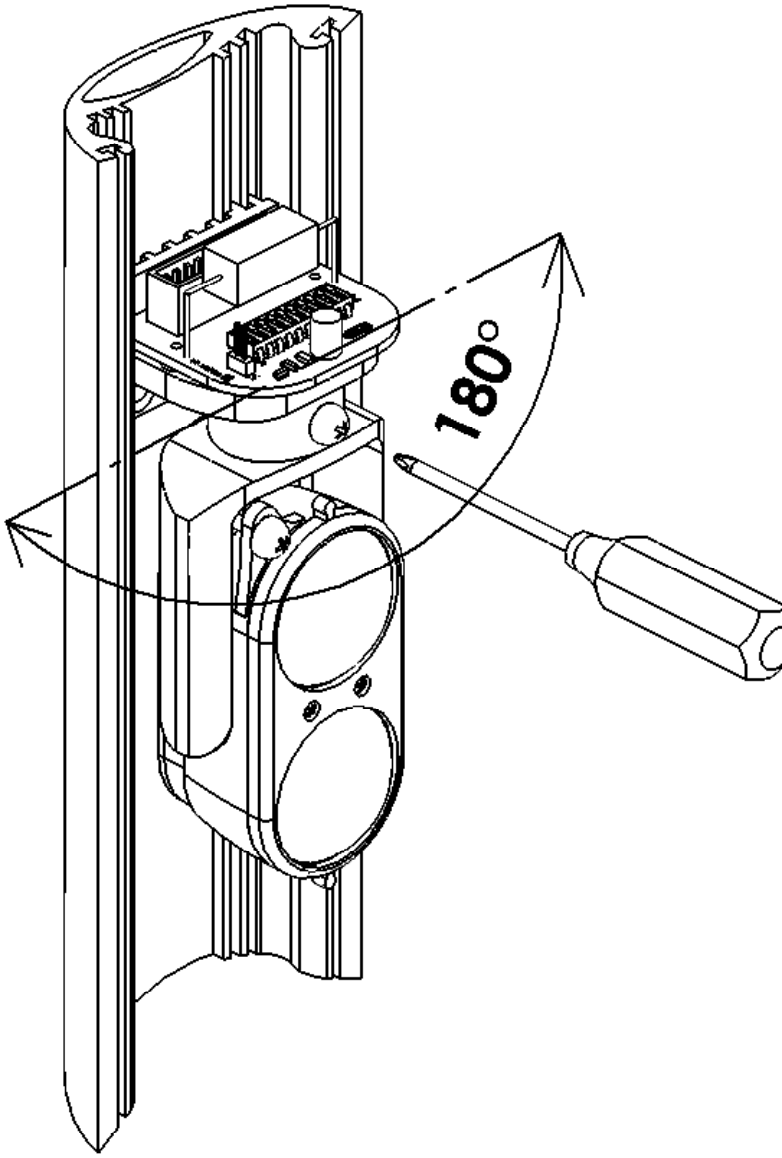


Primo orientamento

Per un corretto orientamento una volta installate le barriere orientare i gruppi ottici dei trasmettitori e i gruppi ottici dei ricevitori gli uni nella direzione degli altri. Regolando il portalente in orizzontale attraverso lo spostamento manuale, e in verticale attraverso le viti frontali poste al di sopra della lente.



Orientamento verticale



Orientamento orizzontale

Set-up using the test point

It is necessary to put the transmitter PBC “A” into the test mode in order to complete the alignment.

Fase 1) Insert into ON position the TEST P SET Link on the main transmitter PCB

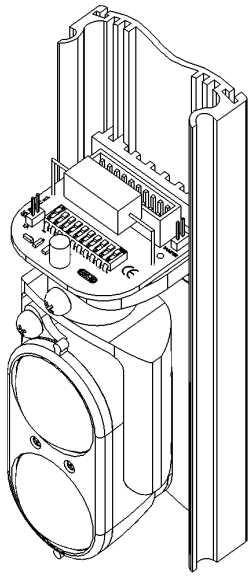
Fase 2) Move in OFF the dip switch corresponding to the beam to be aligned.

Fase 3) Connect the Voltmeter, using the cable supplied, to the corresponding receiver test point, move the transmitter optics slightly in both axes (horizontal and vertical) until the maximum voltage is obtained. Repeat with receiver optics.

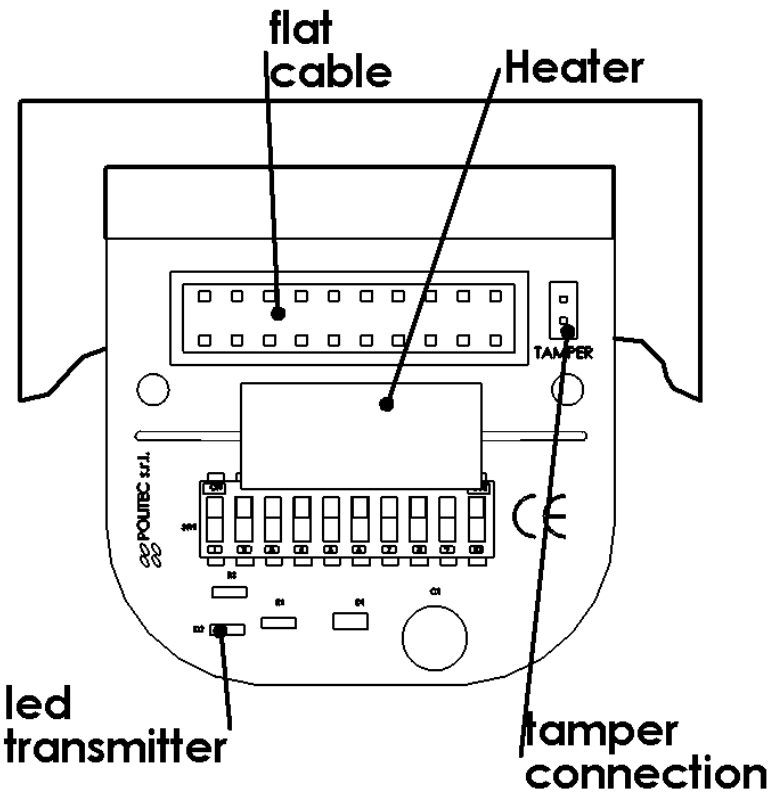
Fase 4) Once the alignement is obtained replace the dip switch in ON

Fase 5) Repeat the above procedure for all beam pairs after which reinsert, into OFF position the TEST P SET Link

Transmitters



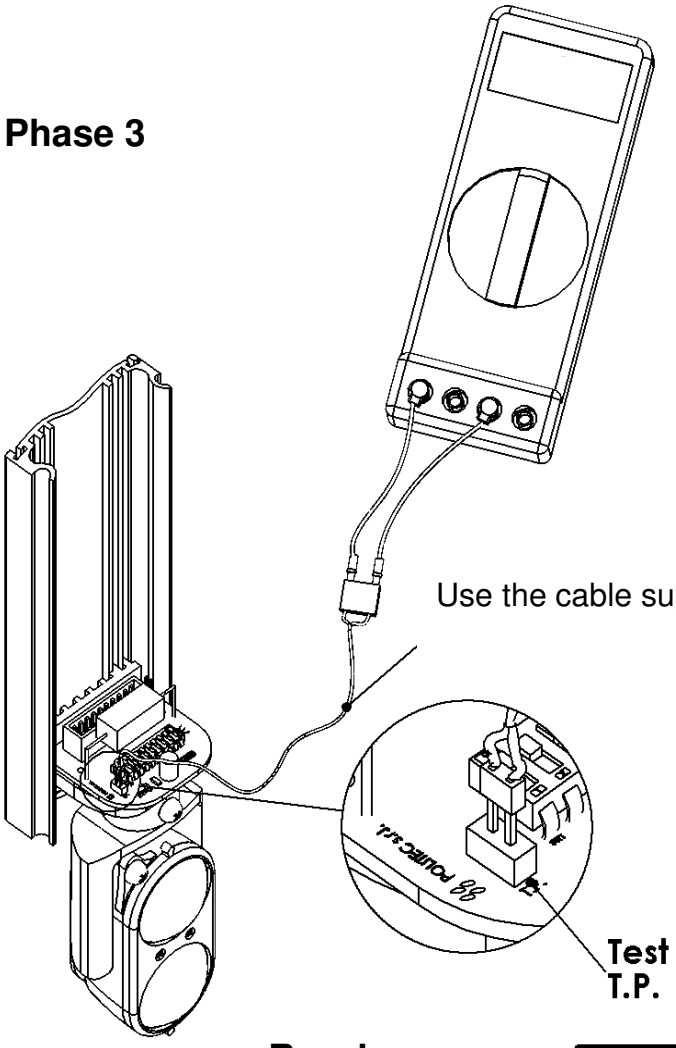
Phase 1 and 4



MAD TX FORM 1 TO 6 ON (ONLY ONE IDENTIFICATION)
FROM 7 TO 9 OFF
10 TEST TX

ON	1	2	3	4	5	6	7	8	9	10
OFF	TX1	TX2	TX3	TX4	TX5	TX6	OFF	OFF	OFF	TEST

Phase 3

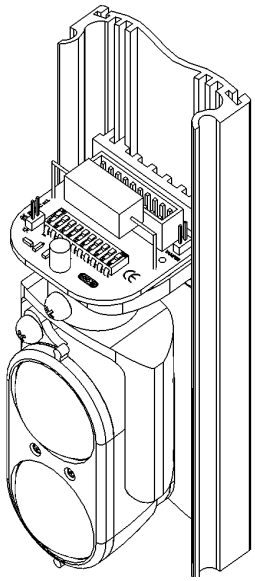


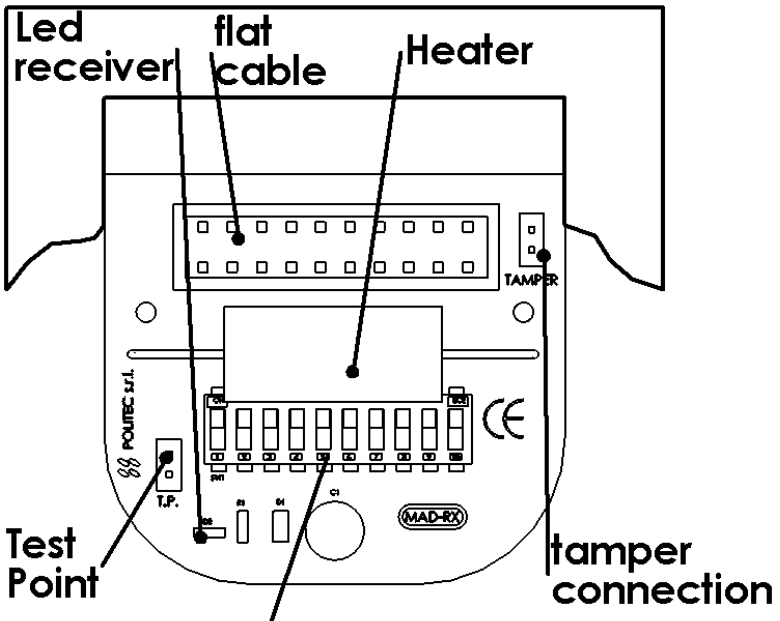
Verifing on the tester at the Test Point RX

Use the cable supplied

Reading without Signal	0,20V	0,40V
Reading with signal	From 3 to 4V	From 6 to 7V

Receivers





In alignement always obtain the maximum value

MAD FORM 1 TO 6 ON (ONLY ONE IDENTIFICATION)
RX FROM 7 TO 10 OFF

ON	1	2	3	4	5	6	7	8	9	10
OFF	RX1	RX2	RX3	RX4	RX5	RX6	OFF	OFF	OFF	OFF

Setting and programming

OPERATIONAL CHARACTERISTICS AND LINK SETTING

AND In the ON position at least two beams must be interrupted in order than an alarm condition is created.
This feature can also be enabled remotely via the appropriate command on terminal block (AND with + 12 V dc)

N.A. N.C. The Link chance the relay output from normally Open (NO) to normally Close (NC).

TAMPER Connector for tamper switch.

LED ALM Alarm confirmation LED. Normally OFF indicates and alarm when lit.

Technical specifications

CE

MODELS	*DUAL 412*	*DUAL 416*	*DUAL 420*
Maximum range	850 m		
Max useable range internal	200 m		
Max useable range external	40 m		
Minimum range		4 m	8 m
Tower height	120cm	160cm	200cm
Synchronization	Optical		
Total number of beams	4 crossed	16 crossed	36 crossed
Power requirements		12Vdc	
Power consumption for tower	Tx-rx 30+30 mA	Tx-rx 30+30	Tx-rx 30+30 mA
heater	20W +20W 24Vca termostatically controlled	20W +20W 24Vca termostatically controlled	20W +20W 24Vca termostatically controlled

OPERATING TEMPERATURE –25° / +65°
VERTICAL ALIGNMENT ANGLE 20°
HORIZONTAL ALIGNMENT ANGLE 180°
AND/OR DETECTION OPTION REMOTE AND CONTROL
AUTOMATIC ANTI-BLANKING SYSTEM (SHUTNTABLE)
ALARM OUTPUT RELAY NO/NC SELECTABLE
NC TAMPER OUTPUT
SHUNTABLE LED'S INDICATING: ON-BLANKED-ALARM-HEATING
PULSED INFRA-RED SIGNAL WAVELENGHT 950 mm
PROTECTION RATING IP 54
2 YEAR GUARANTEE

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