

TECHNICAL MANUAL

FLY485, FLY8485

Ceiling-mount DT detectors with ULTRABUS interface for intrusion detection systems





Addressee for this information: (U) User | Installer





1 **DESCRIPTION**

FLY485 is a dual-technology ceiling-mount detector. The detector features two sections that can work in AND or OR mode.

InfraRed Section (IR): two-channel digital PIR sensor with ceiling lens and silicon filter for white light protection. Anti-blinding protection. Fault condition control.

Microwave section (MW): 10.525GHz DRO planar antenna (available also 9.9GHz model). Anti-masking and anti-sneak protection. Fault condition control.

Red, green, and blue LED indicators provide information on IR and MW sections status and working mode.

The detector is available in two versions:

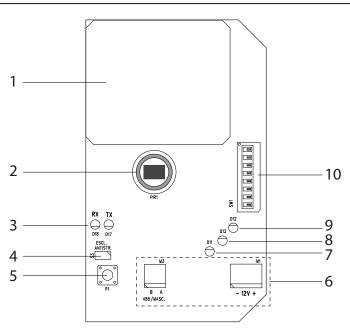
- FLY485 with lens for installation at 4 m height;
- FLY8485 with lens for installation at 8 m height.

For side-by-side mounting, differentiated frequencies can

FLY485 can be programmed via serial line using BrowserOne software.

Compatible control unit	Firmware Version
VIDOMO	8.4.1.0 or above
PREGIO Series	2.6.1.0 or above
ETRxxx G2	1.F or above
PROXIMA series	1.0.2 or above
TITANIA series	6.2.5 or above

2 **PCB**



- 1 MW antenna
- 2 PIR sensor
- Communication LED serial RX, TX (red)
- Jumper to exclude protection against removal
- Tamper button
- Serial line and detector power terminals
- 7 MW LED (blue)
- 8 Red LED
- 9 IR LED (green)
- 10 Dip switch for addressing

3 **TECHNICAL DATA**



Model		FLY485	FLY8485	
Identification				
Technology		IR + MW		
Coverage type			ic, conic- sectors	
IR section				
PIR sensors numl	ber		1	
Max range		4	8	m
No. of IR sensitive	e zones	55 over 6 conic sectors	19 over 3 conic sectors	
MW section				
MW max range		4	8	m
General features				
Operating	Power supply	1	2	V
voltage	Minimum power supply	7,5		V
	Power fault detection threshold	7,5		V
Operating times	Power-on stand-by	2	5	S
	Pre-alarm time	10		S
	IR fault detection	2		S
Consumption at	Idle mode	21		mA
power voltage	Alarm mode	26,0		mA
	MW excluded mode	18		mA
Working tempera	ture	-10 / +55		°C
Protection class		IP3x		
Conformity		EN50131-2-4: grade 3		
Environmental class		2	2	
Dimensions and weight		L151 × H159 × P36 mm, 206 g		
Parts supplied		screw and microswit removal,	nserts, S4 I insert for ch against technical nual	

PRECAUTIONS BEFORE **DEVICE MOUNTING**



!\ General warnings are at the end of this manual.

Before installing the product, please read the following indications carefully.

4.1 **General considerations**

· Avoid installation nearby oscillating or vibrating metal items (e.g. refrigerating units). If this is not possible,

- disable anti-masking and anti-sneak functions.
- Avoid installation near heat sources or drafts.
- Do not touch the PIR sensor with your fingers.
- In case of installation of two sensors at a distance of less than 5 m, the second must be be a differentiated-frequency model.

/! The electronic board of the detector may be damaged by electrostatic discharges.

The installer must completely avoid any presence of electrostatic discharges both during installation and maintenance.

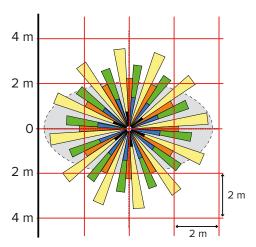
4.2 Definition of installation position

Choose installation position taking into account the IR and MW cover ranges shown in the following diagrams.

FLY485

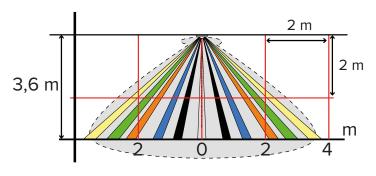
Diagrams refer to detectors mounted at 3.6 m height.

Top view:



Dashed line: MW section

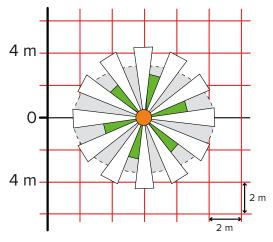
Side view:



Dashed line: MW section

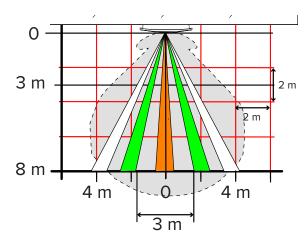
5 DEVICE MOUNTING

Top view:



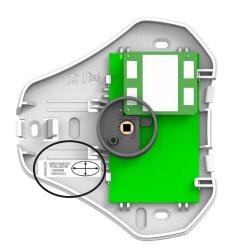
Dashed line: MW section

Side view:



Dashed line: MW section

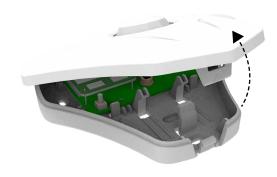
The label on the inner side of the detector base shows the detection orientation.



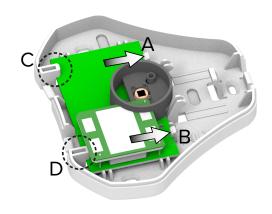
Opening the housing



- press the hook on the cover rim

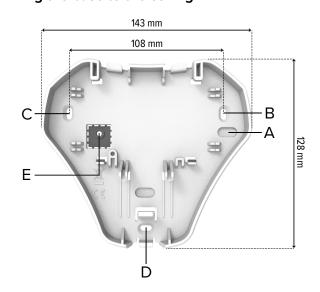


- rotate cover upward and remove it
- · Removing the electronic board



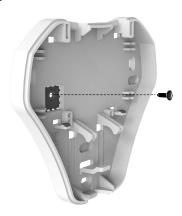
- press on fixing supports A, B
- remove the board from A, B supports
- remove the board from C, D supports

· Fixing the base to the ceiling

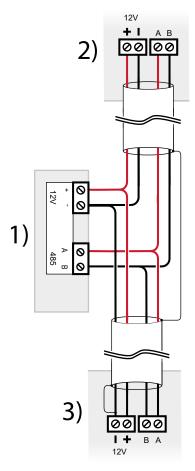


- open area A pre-cut for cables passage
- feed cables through the drilled hole
- fix the base to the ceiling with screws and dowels using holes B, C, D

Protection against removal from wall



- insert a screw with the supplied S4 dowel into the hole E
- Wirings
- wire terminals



- 1 Terminal board FLY485, FLY8485
- 2 Previous device over serial line
- 3 Next device over serial line

Use cables with the following section: $2 \times 0.75 \text{ mm}^2$ (power) $+ 2 \times 0.22 \text{ mm}^2$ (signal).

The serial line may be extended with branches, provided that the following rules are followed:

• the sum of the lengths of the branches must not exceed

1 km;

• 680 Ω termination resistors must be connected to the ends of the two longest branches.

· Reinstallation of the board

With ref. to image at **Removing the electronic board**:

- insert the board under C, D supports
- push the board in place under A, B supports

Device setup

Proceed with detector setup (see following chapter).

· Closing the housing



- position the cover on the two hooks on the base
- lower the cover until it closes



Verify that the spring protecting against housing opening is positioned correctly.

6 STARTING THE DEVICE

6.1 Address setup

Set device address over serial line using dipswitch. To access it, open housing cover as illustrated in section 5 p. 3.

VIDOMO, PREGIO, PROXIMA control units

Add.	dip ON	Add.	dip ON	Add.	dip ON
1	12345678	86	- 2 - 4 - 6 - 8	171	1-3-5-7-
2	-2345678	87	14-6-8	172	3-5-7-
3	1-345678	88	4-6-8	173	125-7-
4	345678	89	1236-8	174	- 2 5 - 7 -
5	12-45678	90	-236-8	175	15-7-
6	-2-45678	91	1-36-8	176	5-7-
7	145678	92	36-8	177	12347-
8	45678	93	126-8	178	-2347-
9	123-5678	94	-26-8	179	1-347-
10	-23-5678	95	16-8	180	347-
11	1-3-5678	96	6-8	181	12-47-
12	3-5678	97	123458	182	- 2 - 4 7 -
13	125678	98	-23458	183	147-
14	-25678	99	1-3458	184	47-
15	15678	100	3458	185	1237-
16	5678	101	12-458	186	- 2 3 7 -
17	1234-678	102	-2-458	187	1-37-
18	-234-678	103	1458	188	37-
19	1-34-678	104	458	189	127-
20	34-678	105	123-58	190	- 2 7 -
21	12-4-678	106	-23-58	191	17-
22	-2-4-678	107	1-3-58	192	7-
23	14-678	108	3-58	193	123456
24	4-678	109	1258	194	-23456
25	123678	110	-258	195	1-3456
26	-23678	111	158	196	3456
27	1-3678	112	58	197	12-456
28	3678	113	12348	198	-2-456
29	12678	114	-2348	199	1456
30	-2678	115	1-348	200	456
31	1678	116	348	201	123-56
32	678	117	12-48	202	-23-56
33	12345-78	118	-2-48	203	1-3-56
34	-2345-78	119	148	204	3-56
35	1-345-78	120	48	205	1256
36	345-78	121	1238	206	- 2 5 6
37	12-45-78	122	-238	207	156
38	-2-45-78	123	1-38	208	56
39	145-78	124	38	209	1234-6
40	45-78	125	128	210	-234-6
41	123-5-78	126	-28	211	1-34-6
42	-23-5-78	127	18	212	34-6
43	1-3-5-78	128	8	213	12-4-6
44	3-5-78	129	1234567-	214	-2-4-6
45	125-78	130	-234567-	215	14-6
46	-25-78	131	1-34567-	216	4-6
47	15-78	132	34567-	217	1236
7/	15-70	IJZ	3450/-	21/	1230

Add.	dip ON	Add.	dip ON	Add.	dip ON
48	5-78	133	12-4567-	218	-236
49	123478	134	-2-4567-	219	1-36
50	-23478	135	14567-	220	36
51	1-3478	136	4567-	221	126
52	3478	137	123-567-	222	- 2 6
53	12-478	138	-23-567-	223	16
54	- 2 - 4 7 8	139	1-3-567-	224	6
55	1478	140	3-567-	225	12345
56	478	141	12567-	226	-2345
57	12378	142	-2567-	227	1-345
58	-2378	143	1567-	228	345
59	1-378	144	567-	229	12-45
60	378	145	1234-67-	230	- 2 - 4 5
61	1278	146	-234-67-	231	145
62	- 2 7 8	147	1-34-67-	232	4 5
63	178	148	34-67-	233	123-5
64	78	149	12-4-67-	234	-23-5
65	123456-8	150	- 2 - 4 - 67 -	235	1-3-5
66	-23456-8	151	14-67-	236	3-5
67	1-3456-8	152	4-67-	237	125
68	3456-8	153	12367-	238	-25
69	12-456-8	154	-2367-	239	15
70	-2-456-8	155	1-367-	240	5
71	1456-8	156	367-	241	1234
72	456-8	157	1267-	242	-234
73	123-56-8	158	- 2 6 7 -	243	1-34
74	-23-56-8	159	167-	244	34
75	1-3-56-8	160	67-	245	12-4
76	3-56-8	161	12345-7-	246	- 2 - 4
77	1256-8	162	-2345-7-	247	14
78	-256-8	163	1-345-7-	248	4
79	156-8	164	345-7-	249	123
80	56-8	165	12 - 45 - 7 -	250	-23
81	1234-6-8	166	-2-45-7-	251	1-3
82	-234-6-8	167	145-7-	252	3
83	1-34-6-8	168	45-7-	253	12
84	34-6-8	169	123-5-7-	254	- 2
85	12-4-6-8	170	-23-5-7-	255	1

Max no. of addresses:

• PREGIO500: 24

• PREGIO1000: 48

VIDOMO: 64

• PREGIO2000: 104

• PRX128: 128

ETR100MG2 control units

	II 0N		II 011		
Add.	dip ON	Add.	dip ON	Add.	dip ON
9	12345678	41	12345-78	73	123456-8
10	-2345678	42	-2345-78	74	-23456-8
11	1-345678	43	1-345-78	75	1-3456-8
12	345678	44	345-78	76	3456-8
13	12-45678	45	12-45-78	77	12-456-8
14	-2-45678	46	-2-45-78	78	-2-456-8
15	145678	47	145-78	79	1456-8
16	45678	48	45-78	80	456-8
17	123-5678	49	123-5-78	81	123-56-8
18	-23-5678	50	-23-5-78	82	-23-56-8
19	1-3-5678	51	1-3-5-78	83	1-3-56-8
20	3-5678	52	3-5-78	84	3-56-8
21	125678	53	125-78	85	1256-8
22	-25678	54	-25-78	86	-256-8
23	15678	55	15-78	87	156-8
24	5678	56	5-78	88	56-8
25	1234-678	57	123478	89	1234-6-8
26	-234-678	58	-23478	90	-234-6-8
27	1-34-678	59	1-3478	91	1-34-6-8
28	34-678	60	3478	92	34-6-8
29	12-4-678	61	12-478	93	12-4-6-8
30	-2-4-678	62	- 2 - 4 7 8	94	-2-4-6-8
31	14-678	63	1478	95	14-6-8
32	4-678	64	478	96	4-6-8
33	123678	65	12378	97	1236-8
34	-23678	66	-2378	98	-236-8
35	1-3678	67	1-378	99	1-36-8
36	3678	68	378	100	36-8
37	12678	69	1278	101	126-8
38	-2678	70	- 2 7 8	102	- 2 6 - 8
39	1678	71	178	103	16-8
40	678	72	78	104	6-8

ETR128-256-512 G2 and TITANIA series control units

Add.	dip ON	Add.	dip ON	Add.	dip ON
17	12345678	102	- 2 - 4 - 6 - 8	187	1-3-5-7-
18	-2345678	103	14-6-8	188	3-5-7-
19	1-345678	104	4-6-8	189	125-7-
20	345678	105	1236-8	190	-25-7-
21	12-45678	106	-236-8	191	15-7-
22	-2-45678	107	1-36-8	192	5-7-
23	145678	108	36-8	193	12347-
24	45678	109	126-8	194	-2347-
25	123-5678	110	- 2 6 - 8	195	1-347-
26	-23-5678	111	16-8	196	347-
27	1-3-5678	112	6-8	197	12-47-

Add.	dip ON	Add.	dip ON	Add.	dip ON
28	3-5678	113	123458	198	-2-47-
29	125678	114	-23458	199	147-
30	-25678	115	1-3458	200	47-
31	15678	116	3458	201	1237-
32	5678	117	12-458	202	-237-
33	1234-678	118	-2-458	203	1-37-
34	-234-678	119	1458	204	37-
35	1-34-678	120	458	205	127-
36	34-678	121	123-58	206	- 2 7 -
37	12-4-678	122	-23-58	207	17-
38	-2-4-678	123	1-3-58	208	7-
39	14-678	124	3-58	209	123456
40	4-678	125	1258	210	-23456
41	123678	126	- 2 5 8	211	1-3456
42	-23678	127	158	212	3456
43	1-3678	128	58	213	12-456
44	3678	129	12348	214	- 2 - 4 5 6
45	12678	130	-2348	215	1456
46	-2678	131	1-348	216	456
47	1678	132	348	217	123-56
48	678	133	12-48	218	-23-56
49	12345-78	134	- 2 - 4 8	219	1-3-56
50	-2345-78	135	148	220	3-56
51	1-345-78	136	48	221	1256
52	345-78	137	1238	222	-256
53	12-45-78	138	-238	223	156
54	-2-45-78	139	1-38	224	56
55	145-78	140	38	225	1234-6
56	45-78	141	128	226	-234-6
57	123-5-78	142	-28	227	1-34-6
58	-23-5-78	143	18	228	34-6
59	1-3-5-78	144	8	229	12-4-6
60	3-5-78	145	1234567-	230	-2-4-6
61	125-78	146	-234567-	231	14-6
62	15-78	147 148	1-34567-	232	1236
64	5-78	149	12-4567-	233	-236
65	123478	150	-2-4567-	235	1-36
66	-23478	151	14567-	236	36
67	1-3478	152	4567-	237	126
68	3478	153	123-567-	238	-26
69	12-478	154	-23-567-	239	16
70	-2-478	155	1-3-567-	240	6
71	1478	156	3-567-	241	12345
72	478	157	12567-	242	-2345
73	12378	158	-2567-	243	1-345
74	-2378	159	1567-	244	345
75	1-378	160	567-	245	12-45

Add.	dip ON	Add.	dip ON	Add.	dip ON
76	378	161	1234-67-	246	-2-45
77	1278	162	-234-67-	247	145
78	- 2 7 8	163	1-34-67-	248	45
79	178	164	34-67-	249	123-5
80	78	165	12-4-67-	250	-23-5
81	123456-8	166	-2-4-67-	251	1-3-5
82	-23456-8	167	14-67-	252	3-5
83	1-3456-8	168	4-67-	253	125
84	3456-8	169	12367-	254	- 2 5
85	12-456-8	170	-2367-	255	15
86	-2-456-8	171	1-367-	256	5
87	1456-8	172	367-	257	1234
88	456-8	173	1267-	258	-234
89	123-56-8	174	-267-	259	1-34
90	-23-56-8	175	167-	260	34
91	1-3-56-8	176	67-	261	12-4
92	3-56-8	177	12345-7-	262	- 2 - 4
93	1256-8	178	-2345-7-	263	14
94	-256-8	179	1-345-7-	264	4
95	156-8	180	345-7-	265	123
96	56-8	181	12-45-7-	266	-23
97	1234-6-8	182	- 2 - 4 5 - 7 -	267	1-3
98	-234-6-8	183	145-7-	268	3
99	1-34-6-8	184	45-7-	269	12
100	34-6-8	185	123-5-7-	270	- 2
101	12-4-6-8	186	-23-5-7-	271	1

6.2 Factory default

To restore device default settings:

- disconnect it from mains
- set all dips to OFF
- connect it to mains
- verify that blue and green LEDs blink slowly
- wait 20 s
- disconnect it from mains
- set a valid address
- connect it to mains
- set it up via software

7 SETUP VIA BROWSERONE



The device can be set using BrowserOne 3.16.17 or above.

- load the latest module available for the control unit in use
- start control unit connection
- click on **Read setup** to read control unit setup
- on page **Zones** select the grid row corresponding to the zone used

for VIDOMO, PREGIO, PROXIMA control units:

click on Cable devices tab

- In Zone Type drop-down menu select Sensor 485.
- in the grid row corresponding to the zone enable Connected option; click on FLY485 in the window that will display
- click on Open configuration form

for ETR control units:

- click on Concentrators tab
- in Zone assigned to pane select 1 input device
- click on Open configuration form

for TITANIA control units:

- click on Cable devices tab
- in pane Zone assigned to select 1 input device
- click on Open configuration form

7.1 Device setup

The window allows setting:

▼ And/Or

Select an option.

▼ Anti-sneak

Enable/disable anti-sneak function.

▼ Led

Enable/disable LED indications.

▼ Masking

Enable/disable anti-masking function.

▼ Dazzle

Enable/disable anti-blinding function.

▼ Disable MW if disarmed

When enabled, MW section will be deactivated when all sectors to which the zone is assigned are disarmed. The general alarm will be generated when IR section enters pre-alarm mode.

▼ Range

Select the range from drop-down menu

▼ Sensibility

Select the sensitivity from drop-down menu

- High: 4 MW pulses, 2 IR pulses
- Low: 8 MW pulses, 3 IR pulses

Click on **Advanced options** to set further parameters (among which pre-alarm time and pulses number) and also:

▼ Single IR if preal. MW

When enabled, the detector in MW pre-alarm mode will generate an alarm when it receives the first IR pulse (just one, regardless the number of pulses set).

▼ Compensate high envir. T°

Activate it to adjust IR section sensitivity in case the temperature shall raise above 33°C.

▼ Dazzle/Masking on Alarm (Tamper)

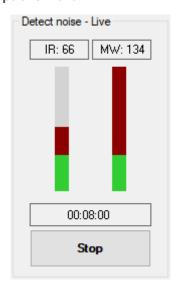
When enabled, general alarm relay (tamper) will activate in case of blinding/masking attempts.

Load default

Select it to restore device default settings.

Detect noise

It opens an environment noise detection tool for IR and MW sections. After the detection, the tool provides a result according to IR threshold and MW thresholds "warning" set in Advanced options menu.



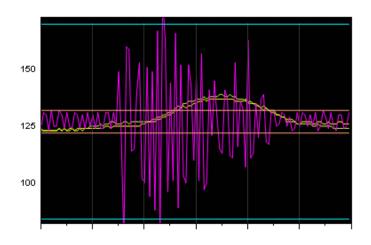
- Select **Start**. Two vertical bars will display detected values.
- Select **Stop** to stop detection mode.

7.2 **Device status**

The panel provides real time information on device status and its IR and MW sections

7.3 Oscillographic function

The software will display environment noise detected and IR and MW sections activity.



Check option boxes in **Options** (on the right of the graphic) to select data to be displayed on the graphic (IR/MW detection performance, grid, thresholds set).

The graphic flows leftwards: to stop the flowing press **Stop live acquisition** key.

Press **Show recording controls** key to activate commands to record detector waveforms for up to 4 hours.

REC	Start the recording
Pause	Pause the recording

Stop	Stop the recording		
Playback	Play a previously recorded video		
Restart live acquisition	Continue recording after having		
	pressed STOP.		

Select **Save samples** to save a recording.

Select **Open sample file** to load a recording saved.

Move the cursor on the position desired on the registration bar.

7.4 Send commands

Read configuration

It applies the setup currently saved on control unit to the device.

Write configuration

It writes the configuration set to the unit.

Read log

It displays wave forms of the last alarm generated by the detector. The alarm will be saved only if at least one of sectors belonging to the detector zone is armed.

Select **Display options** to see further options.

The following data will be saved:

- · waveforms of first alarm received after last arming: alarms following the first in the same arming cycle will not be saved:
- · alarm date and time:
- IR and MW alarm thresholds:
- room temperature at alarm occurrence (approximate

Alarms saved will not be cancelled in case of unit reset, but they will be lost in the event of mains failure.

/i Do not change the configuration before reading a detector alarm memory otherwise parameters shown in Device Setup window will be the latest entered and not the saved ones.

8 **OPERATING MODE**



The detectors detects movements inside covered area.

AND/OR mode

The way the alarm notification is given differs depending on operating mode set:

AND mode

The alarm is only activated when both relay IR and MW technologies trigger an One of the two technologies detects a movement and switches to pre-alarm status (IR or MW) for the set time. If within this time the other technology does not confirm the

detection, the technology in pre-alarm status will reset.

OR mode

The alarm relay is activated when either of the two technologies sends an alarm notification due to movement within the controlled area.

8.2 Anti-blinding function

FLY485 features anti-blinding function.

The function detects blinding attempts made by placing a reflective body before the lens.

The function can be activated via browser.

When the device enters a "blinded" condition, the green LED will start blinking slowly.

When the reflective body is removed, the standard operating mode will be restored.

8.3 Anti-masking function

FLY485 features anti-masking function.

The function detects attempts to obscure/cover the vision of the unit by placing an object in front of the detector. In order to activate the anti-masking function, the device shall be operating in AND mode and the MW mode shall be enabled.

The function can be activated via browser.

When the device enters a "detector masked" condition, the blue LED will start blinking slowly.

The standard operating mode will be restored when one of the technologies confirms the first movement.

8.4 Anti-sneak

FLY485 features anti-sneak function.

The function detects attempts to elude the IR section from far off with special physical expedient. In order to activate the function, the device shall be operating in AND mode.

The function can be activated via browser.

When the function activates, blue LED indicator will start blinking quickly.

The standard operating mode will be restored when one of the technologies confirms the first movement.

8.5 LED indications

Condition	Red LED	Green LED	Blue LED
Power on	ON steady		
Anti-masking test at power on		Blinking	Blinking
IR pulse		Single blinking	
MW pulse			Single blinking
Pre-alarm IR		ON steady	
Pre-alarm MW			ON steady
General alarm		ON 5 s	ON 5 s

Condition	Red LED	Green LED	Blue LED
Power failure	Slow blinking	Slow blinking	Slow blinking
PIR fault		Fast blinking	
MW fault			Fast blinking
Blinding		Slow blinking	
Masking			Slow blinking
Sneak			Slow blinking
Restore default	Fast blinking	Slow blinking	Slow blinking

There are also two red LEDs to monitor serial line activity. RX LED switches on in reception mode, TX LED in transmission mode.

Both LEDs will activate only when the cover is removed for diagnostic purpose.

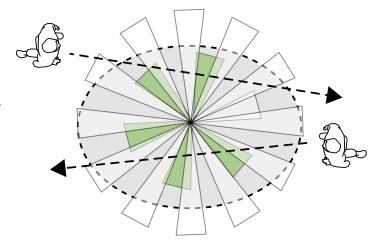
9 MAINTENANCE





9.1 Periodic test

Carry out a simple test regularly to verify the functionality and the coverage limits of the detector.



walk through the area covered by the detector, in both directions

Detector LED indicator shall respond as shown in the table LED indications.

Table of contents

1	DESCRIPTION	1
2	PCB	1
3	TECHNICAL DATA	2
4	PRECAUTIONS BEFORE DEVICE MOUNTING	
4.1 4.2	General considerations	2
5	DEVICE MOUNTING	3
6 6.1 6.2	STARTING THE DEVICEP. 4Address setupp. 4Factory defaultp. 4	4
7 7.1 7.2 7.3 7.4	SETUP VIA BROWSERONE.P.Device setupp.Device statusp.Oscillographic functionp.Send commandsp.	8
8 8.1 8.2 8.3 8.4 8.5	OPERATING MODE P. 6 AND/OR mode p. 6 Anti-blinding function p. 6 Anti-masking function p. 6 Anti-sneak p. 6 LED indications p. 6	8 9 9
9 9.1	MAINTENANCE.P. SPeriodic test.p. S	
	EU DECLARATION OF CONFORMITY P. 12	2
	GENERAL WARNINGS	2
	INSTALLER WARNINGS P. 1.	2
	USER WARNINGS	2
	MAIN SAFETY RULES	2
	DICDOCAL WADNINGS D 1	-

EU DECLARATION OF CONFORMITY

Hereby, EL.MO. Spa declares that the radio equipment FLY485, FLY8485 is in compliance with Directive 2014/53/EU.



The full text of the EU declaration of conformity is available at the following internet address: www.elmospa.com – registration is quick and easy.

GENERAL WARNINGS



This device has been designed, built and tested with the utmost care and attention, adopting test and inspection procedures in compliance with current legislation. Full compliance of the working specifications is only achieved in the event the device is used solely for its intended purpose, namely:

Ceiling-mount DT detectors with ULTRABUS interface for intrusion detection systems.

The device is not intended for any use other than the above and hence its correct functioning in such cases cannot be assured. Consequently, any use of the manual in your possession for any purpose other than those for which it was compiled - namely for the purpose of explaining the product's technical features and operating procedures - is strictly prohibited.

Production processes are closely monitored in order to prevent faults and malfunctions. However, the components adopted are subject to an extremely modest percentage of faults, which is nonetheless the case with any electronic or mechanical product.

Given the intended use of this item (protection of property and people), we invite you to adapt the level of protection offered by the system to suit the actual situation of risk (allowing for the possibility of impaired system operation due to faults or other problems), while reminding you that there are specific standards for the design and production of systems intended for this kind of application.

We hereby advise you (the system's operator) to see that the system receives regular routine maintenance, at least in accordance with the provisions of current legislation, and also check on as regular a basis as the risk involved requires that the system in question is operating properly, with particular reference to the control unit, sensors, sounders, dialler(s) and any other device connected. You must let the installer know how well the system seems to be operating, based on the results of periodic checks, without delay.

Work involved in the design, installation and maintenance of systems incorporating this product should be performedonly by personnel with suitable skills and knowledge required to work safely so as to prevent any accidents. It is vital that systems be installed in accordance with current legislation. The internal parts of certain equipment are connected to the mains and therefore there is a risk of electrocution when maintenance work is performed inside without first disconnecting the primary and emergency power supplies. Certain products include batteries, rechargeable or otherwise, as an emergency backup power supply.

If connected incorrectly, they may cause damage to the product or property, and may endanger the operator (explosion and fire).

INSTALLER WARNINGS



Comply strictly with current standards governing the installation of electrical systems and security systems, and with the manufacturer's directions given in the manuals supplied with the products.

Provide the user with full information on using the system installed and on its limitations, pointing out that there are different levels of security performance that will need to suit the user's requirements within the constraints of the specific applicable standards. See that the user looks through the warnings given herein.

Work involved in the design, installation and maintenance of systems incorporating this product should be performedonly by personnel with suitable skills and knowledge required to work safely so as to prevent any accidents. It is vital that systems be installed in accordance with current legislation. The internal parts of certain equipment are connected to the mains and therefore there is a risk of electrocution when maintenance work is performed inside without first disconnecting the primary and emergency power supplies. Certain products include batteries, rechargeable or otherwise, as an emergency backup power supply.

If connected incorrectly, they may cause damage to the product or property, and may endanger the operator (explosion and fire).

USER WARNINGS



Check the system's operation thoroughly at regular intervals, making sure the equipment can be armed and disarmed properly.

Make sure the system receives proper routine maintenance, employing the services of specialist personnel who meet the requirements prescribed by current regulations.

Ask your installer to check that the system suits changing operating conditions (e.g. changes in the extent of the areas to be protected, change in access methods, etc...)

MAIN SAFETY RULES

The use of the device is forbidden for children and unassisted disabled individuals.

Do not touch the device when bare footed, or with wet body parts. Do not directly spray or throw water on the device.

Do not pull, remove or twist the electric cables protruding from the device even if the same is disconnected from the power source.

DISPOSAL WARNINGS





IT08020000001624



In accordance with Directive 2012/19/EU on waste electrical and electronic equipment (WEEE), please be advised that the EEE was placed on the market after 13 August 2005 and must be disposed of separately from normal household waste.

090031260