

DT2000485

DT detector with digital PIR sensor, anti-masking protection and under-crawl function with ULTRABUS interface for intrusion detection systems



Addressee for this information: User | Installer

1 DESCRIPTION

DT2000485 is a dual-technology (infrared and microwave) detector.

DT2000485 supports connection to ULTRABUS RS-485 serial line.

The detector includes two sections operating in AND or OR mode.

Infrared section (IR): digital PIR sensor with temperature compensation and environmental monitoring, multi-focal lens with white light protection.

An additional bottom lens is used for the under-crawl function.

Microwave section (MW): 10.525 GHz DRO planar antenna (also available as an alternative in the 9.9 GHz version). Anti-masking and anti-sneak device.

The two green and blue LEDs show the activities of the IR and MW section respectively.

The red LEDs (only active in case of tampered sensor or tamper button open), show the activity of the serial line, either receiving or transmitting.

DT2000485 can be programmed using the BrowserOne software.

For side-by-side mounting, differentiated frequencies can be used.

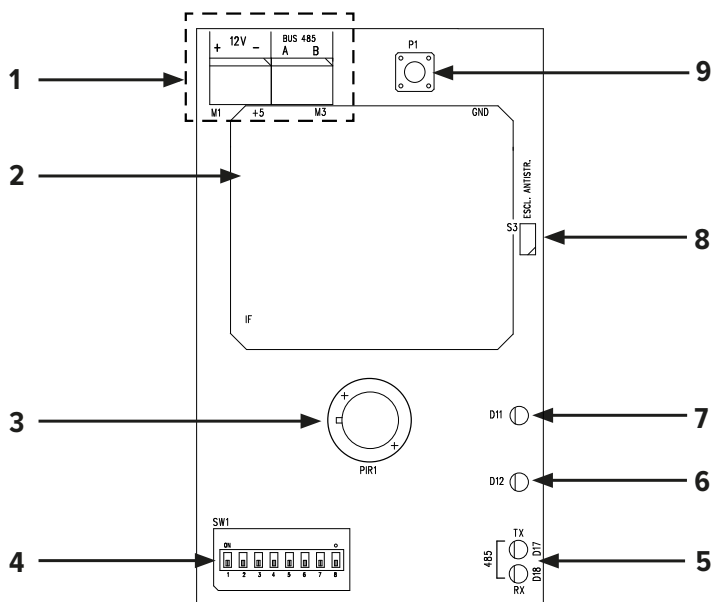
An optional swivel mount may be used for wall or corner installation.

DT2000485 is certified IMQ - Security Systems.

Compatible control unit	Firmware version
VIDOMO2K	8.3.3.0 or above
PREGIO series	2.3.2.0 or above
PROXIMA series	1.0.2 or above

Compatible control unit	Firmware version
ETRxxx G2 series	1.E or above
TITANIA series	4.x or above

2 PCB



- 1 12V power source terminals and RS-485 connection (A, B)
- 2 MW antenna
- 3 PIR sensor
- 4 Dip switch selectors for addressing
- 5 RS-485 RX, TX communication LEDs (red)
- 6 IR LED (green)
- 7 MW LED (blue)
- 8 Jumper to exclude protection against removal (S3)
- 9 Tamper button

3 TECHNICAL DATA



Model		DT2000485	
Identification			
Technology		IR + MW	
MW section			
MW max range		15	m
Number of integration pulses		4/8	
Pulse count		5 (1)	s
Pre-alarm time		10 (1)	s
Standard TX frequency		10,525	GHz
Differentiated TX frequency		9,900	GHz
Max power output		13 (2)	dBm
MW horizontal coverage		95°	°
MW vertical coverage		60°	°
IR section			
PIR sensors number		1	
Max range		15	m
Pulse count		5 (1)	s
Pre-alarm time		10 (1)	s
Opening		81°	°
No. of IR sensitive zones		18 areas on 4 levels	
General features			
Protection class		IP3X	
Working temperature		-10 / +55	°C
Operating voltage	Power supply	12	V
	Minimum power supply	7,5	V
	Power fault detection threshold	7,5	V
Permissible ripple (3)		200	mV
Consumption at power voltage	Idle mode	18	mA
	Alarm mode	23	mA
	MW excluded mode	17	mA
	Stabilisation at power on	23	mA
number of under-crawl zones		3 zones on 1 floor	
Operating times	Power-on stand-by	20	s
	Alarm	5	s
	Pre-alarm time	10	s
	Pause after alarm	1	s
Dimensions		W65 × H111 × D48 mm	mm
Weight		117	g
IMQ certified		EN50131-2-4: degree 2	

- (1) Adjustable via Browser
 (2) E.I.R.P.
 (3) Peak to peak

Model	DT2000485	
Environmental class	2	

- (1) Adjustable via Browser
 (2) E.I.R.P.
 (3) Peak to peak

Parts supplied

Screws, inserts, S4 screw and insert for microswitch against removal, technical manual.

Optional accessories

SN/D(x)99 swivel mount for tilted installation.

Optional accessories are not IMQ - Security Systems certified.

4 BEFORE INSTALLATION



General warnings are at the end of this manual.

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

4.1 General considerations

- Make sure the device operating field is free and devoid of zones darkened by obstacles.
- Adjust the range of the microwave so that it does not go through glass or plastic curtains. For distances below 4 m disable the anti-masking function.
- Avoid installation nearby oscillating or vibrating metal items (e.g. refrigerating units). If this is not possible, disable the anti-masking function.
- 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 an offset frequency type: 10,525 GHz (standard) model code: **RCRDTMP053#00**
9,9 GHz (offs. freq.) model code: **RCRDTMP054#00**

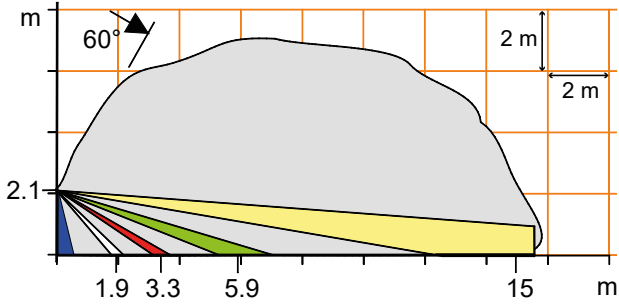
The electronic board of the detector may be damaged by electrostatic discharges. The installer must completely avoid any presence of electrostatic discharges.

4.2 Definition of installation position

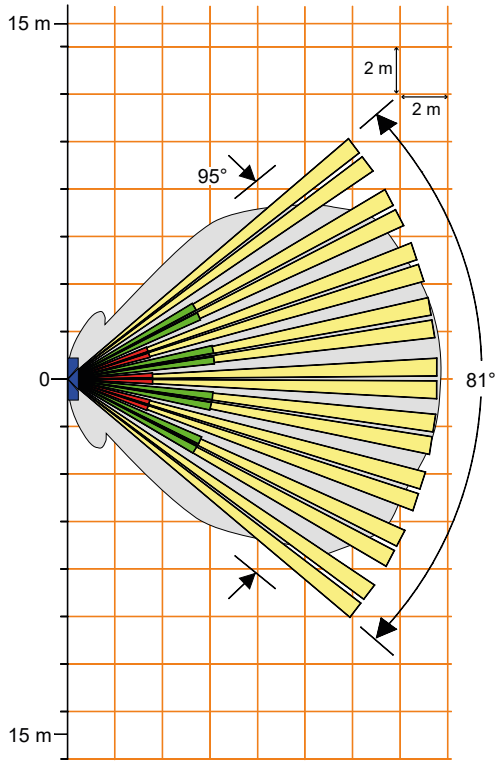
Choose installation position taking into account the IR and MW cover ranges shown in the following diagrams. Diagrams refer to detectors mounted at 2.1m height. The under-crawl zones are also included: 3 zones on 1 floor.

Coverage at maximum range:

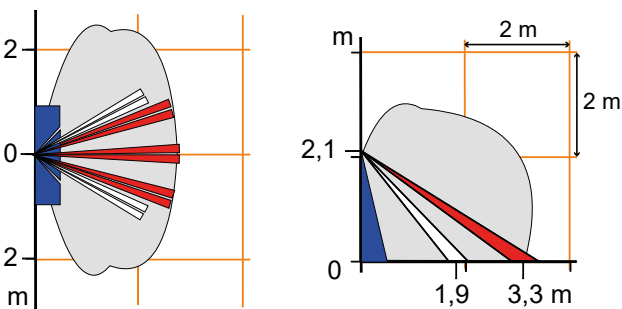
Side view



Top view



Coverage at minimum range:



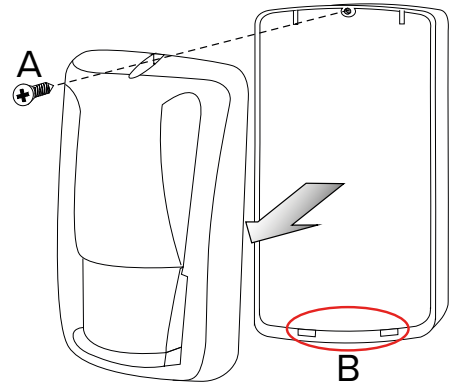
On the left: top view.
On the right: side view.

Note: the under-crawl function is not IMQ-certified.

5 DEVICE MOUNTING

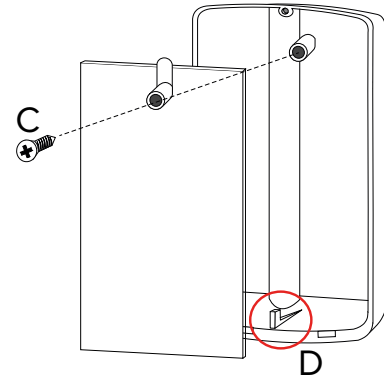


• Opening the housing



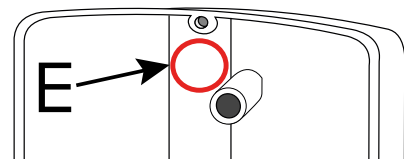
- unscrew the cover fixing screw (A)
- separate the front cover by pulling it away from the stops (B)

• Removing the electronic board

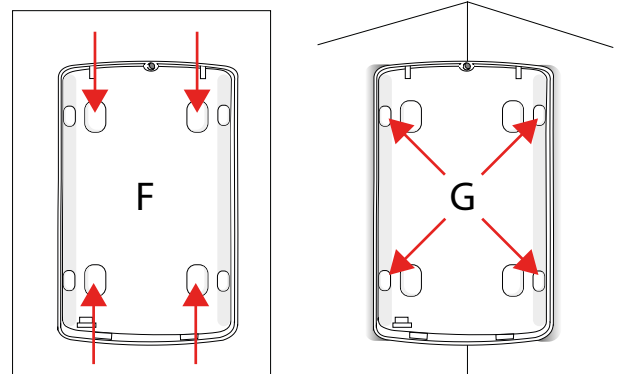


- remove the screw fixing the board to the base (C)
- extract the board from the bottom hook (D)

• Base wall mount



- drill a hole on area E (pre-cut plastic on the outside) for the passage of the wires



- using a screwdriver, perforate the 4 pre-cut areas of the

support for flat (F) or corner (G) installation

- In case of corner mount, move the lever against removal from wall as indicated in paragraph 5.1 p. 4
- insert a screw with the supplied S4 dowel where the microswitch against removal is located
- adjust the depth level of the screw so that the lever will keep the switch pressed

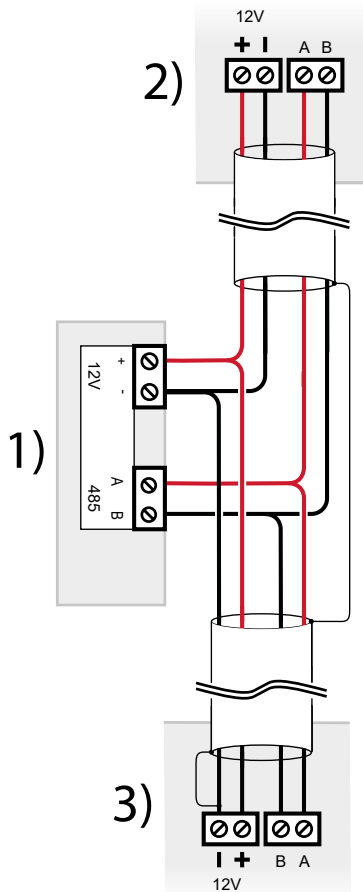
! *The lever is not active in case of mounting onto the optional swivel. Disable the function against removal by closing jumper S3.*

- fix the base to the surface using screws and dowels

! *In case of corner mount, to ensure the right value of max range, it is necessary to tilt the detector suitably by inserting a 2-3mm-thick shim under the two upper fixing holes.*

• Wirings

- feed the cable through the channel
- extract it from the drilled hole E
- wire terminals



- 1 Terminal board DT2000485
- 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;
- 680Ω termination resistors must be connected to the ends of the two longest branches.

• Board positioning

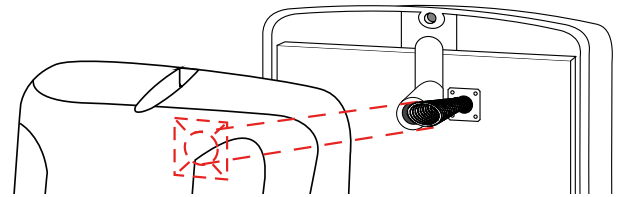
Disconnect the battery following the steps above in reverse order:

- position the electronic board under the lower hook
- secure it in position using the screw

• Device setup

Configure the sensor functions (see next chapter).

• Closing the housing



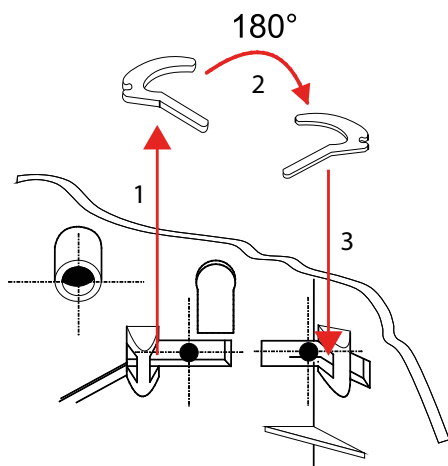
- position the front cover on the base making sure the tamper protection spring fits correctly to its place
- hook the cover to base stops again
- fix the cover with the screw

5.1 Protection against removal for corner mount

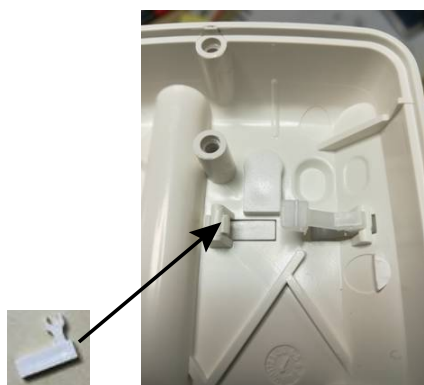


In case of corner installation, in order to ensure protection from removal from the mounting surface, it will be necessary to move the H lever (which operates the corresponding micro-switch at the back of the board) to the position of the plastic plug I that closes the detector angle.

Proceed as follows (images show the internal view of the detector base):



- detach the lever from the rotation pin
- detach the plastic plug that closes the detector angle
- rotate the lever by 180°
- insert the lever where the plug was, firmly attaching it to the pin



You can close the gap where the lever was before using the second plastic plug provided.

6 STARTING THE DEVICE



6.1 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

6.2 Address setup

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

VIDOMO, PREGIO, PROXIMA control units

Addr.	dip ON	Addr.	dip ON	Addr.	dip ON
1	12345678	86	-2-4-6-8	171	1-3-5-7-
2	-2345678	87	1--4-6-8	172	--3-5-7-
3	1-345678	88	---4-6-8	173	12--5-7-
4	--345678	89	123--6-8	174	-2--5-7-
5	12-45678	90	-23--6-8	175	1---5-7-
6	-2-45678	91	1-3--6-8	176	----5-7-
7	1--45678	92	--3--6-8	177	1234--7-
8	---45678	93	12---6-8	178	-234--7-
9	123-5678	94	-2---6-8	179	1-34--7-
10	-23-5678	95	1----6-8	180	--34--7-
11	1-3-5678	96	-----6-8	181	12-4--7-
12	--3-5678	97	12345--8	182	-2-4--7-
13	12--5678	98	-2345--8	183	1--4--7-
14	-2--5678	99	1-345--8	184	---4--7-
15	1--5678	100	--345--8	185	123---7-
16	----5678	101	12-45--8	186	-23---7-
17	1234-678	102	-2-45--8	187	1-3---7-
18	-234-678	103	1--45--8	188	--3---7-
19	1-34-678	104	---45--8	189	12----7-
20	--34-678	105	123-5--8	190	-2----7-
21	12-4-678	106	-23-5--8	191	1-----7-
22	-2-4-678	107	1-3-5--8	192	-----7-
23	1--4-678	108	--3-5--8	193	123456--
24	---4-678	109	12--5--8	194	-23456--
25	123--678	110	-2--5--8	195	1-3456--
26	-23--678	111	1--5--8	196	--3456--
27	1-3--678	112	----5--8	197	12-456--
28	--3--678	113	1234---8	198	-2-456--
29	12---678	114	-234---8	199	1--456--
30	-2---678	115	1-34---8	200	---456--
31	1----678	116	--34---8	201	123-56--
32	-----678	117	12-4---8	202	-23-56--
33	12345-78	118	-2-4---8	203	1-3-56--
34	-2345-78	119	1--4---8	204	--3-56--
35	1-345-78	120	---4---8	205	12--56--
36	--345-78	121	123----8	206	-2--56--
37	12-45-78	122	-23----8	207	1---56--
38	-2-45-78	123	1-3----8	208	----56--
39	1--45-78	124	--3----8	209	1234-6--
40	---45-78	125	12-----8	210	-234-6--
41	123-5-78	126	-2-----8	211	1-34-6--
42	-23-5-78	127	1-----8	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	12--5-78	130	-234567-	215	1--4-6--
46	-2--5-78	131	1-34567-	216	---4-6--
47	1--5-78	132	--34567-	217	123--6--

Addr.	dip ON	Addr.	dip ON	Addr.	dip ON
48	----5-78	133	12-4567-	218	-23--6--
49	1234--78	134	-2-4567-	219	1-3--6--
50	-234--78	135	1--4567-	220	--3--6--
51	1-34--78	136	---4567-	221	12---6--
52	--34--78	137	123-567-	222	-2---6--
53	12-4--78	138	-23-567-	223	1----6--
54	-2-4--78	139	1-3-567-	224	-----6--
55	1--4--78	140	--3-567-	225	12345---
56	---4--78	141	12--567-	226	-2345---
57	123---78	142	-2--567-	227	1-345---
58	-23---78	143	1---567-	228	--345---
59	1-3---78	144	----567-	229	12-45---
60	--3---78	145	1234-67-	230	-2-45---
61	12----78	146	-234-67-	231	1--45---
62	-2----78	147	1-34-67-	232	---45---
63	1-----78	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	1--4-67-	236	--3-5---
67	1-3456-8	152	---4-67-	237	12--5---
68	--3456-8	153	123--67-	238	-2--5---
69	12-456-8	154	-23--67-	239	1--5---
70	-2-456-8	155	1-3--67-	240	----5---
71	1--456-8	156	--3--67-	241	1234----
72	---456-8	157	12---67-	242	-234----
73	123-56-8	158	-2---67-	243	1-34----
74	-23-56-8	159	1----67-	244	--34----
75	1-3-56-8	160	-----67-	245	12-4----
76	--3-56-8	161	12345-7-	246	-2-4----
77	12--56-8	162	-2345-7-	247	1--4----
78	-2--56-8	163	1-345-7-	248	---4----
79	1---56-8	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	1--45-7-	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-----

ETR100MG2 control units

Addr.	dip ON	Addr.	dip ON	Addr.	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	1--45678	47	1--45-78	79	1--456-8
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	12--5678	53	12--5-78	85	12--56-8
22	-2--5678	54	-2--5-78	86	-2--56-8
23	1---5678	55	1---5-78	87	1---56-8
24	----5678	56	----5-78	88	----56-8
25	1234-678	57	1234--78	89	1234-6-8
26	-234-678	58	-234--78	90	-234-6-8
27	1-34-678	59	1-34--78	91	1-34-6-8
28	--34-678	60	--34--78	92	--34-6-8
29	12-4-678	61	12-4--78	93	12-4-6-8
30	-2-4-678	62	-2-4--78	94	-2-4-6-8
31	1--4-678	63	1--4--78	95	1--4-6-8
32	---4-678	64	---4--78	96	---4-6-8
33	123--678	65	123---78	97	123--6-8
34	-23--678	66	-23---78	98	-23--6-8
35	1-3--678	67	1-3---78	99	1-3--6-8
36	--3--678	68	--3---78	100	--3--6-8
37	12---678	69	12----78	101	12---6-8
38	-2---678	70	-2----78	102	-2---6-8
39	1----678	71	1-----78	103	1----6-8
40	-----678	72	-----78	104	-----6-8

Max no. of addresses:

PREGIO500: 24

PREGIO1000: 48

VIDOMO: 64

PREGIO2000: 104

PRX128: 128

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	1--4-6-8	188	--3-5-7-
19	1-345678	104	---4-6-8	189	12--5-7-
20	--345678	105	123--6-8	190	-2--5-7-
21	12-45678	106	-23--6-8	191	1---5-7-
22	-2-45678	107	1-3--6-8	192	----5-7-
23	1--45678	108	--3--6-8	193	1234--7-
24	---45678	109	12---6-8	194	-234--7-
25	123-5678	110	-2---6-8	195	1-34--7-
26	-23-5678	111	1----6-8	196	--34--7-
27	1-3-5678	112	-----6-8	197	12-4--7-
28	--3-5678	113	12345--8	198	-2-4--7-
29	12--5678	114	-2345--8	199	1--4--7-
30	-2--5678	115	1-345--8	200	---4--7-
31	1---5678	116	--345--8	201	123--7-
32	----5678	117	12-45--8	202	-23--7-
33	1234-678	118	-2-45--8	203	1-3--7-
34	-234-678	119	1--45--8	204	--3--7-
35	1-34-678	120	---45--8	205	12----7-
36	--34-678	121	123-5--8	206	-2----7-
37	12-4-678	122	-23-5--8	207	1-----7-
38	-2-4-678	123	1-3-5--8	208	-----7-
39	1--4-678	124	--3-5--8	209	123456--
40	---4-678	125	12--5--8	210	-23456--
41	123--678	126	-2--5--8	211	1-3456--
42	-23--678	127	1--5--8	212	--3456--
43	1-3--678	128	---5--8	213	12-456--
44	--3--678	129	1234---8	214	-2-456--
45	12---678	130	-234---8	215	1--456--
46	-2---678	131	1-34---8	216	---456--
47	1----678	132	--34---8	217	123-56--
48	-----678	133	12-4---8	218	-23-56--
49	12345-78	134	-2-4---8	219	1-3-56--
50	-2345-78	135	1--4---8	220	--3-56--
51	1-345-78	136	---4---8	221	12--56--
52	--345-78	137	123----8	222	-2--56--
53	12-45-78	138	-23----8	223	1--56--
54	-2-45-78	139	1-3----8	224	----56--
55	1--45-78	140	--3----8	225	1234-6--
56	---45-78	141	12-----8	226	-234-6--
57	123-5-78	142	-2-----8	227	1-34-6--
58	-23-5-78	143	1-----8	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	12--5-78	146	-234567-	231	1--4-6--
62	-2--5-78	147	1-34567-	232	---4-6--
63	1--5-78	148	--34567-	233	123--6--

Add.	dip ON	Add.	dip ON	Add.	dip ON
64	----5-78	149	12-4567-	234	-23--6--
65	1234--78	150	-2-4567-	235	1-3--6--
66	-234--78	151	1--4567-	236	--3--6--
67	1-34--78	152	---4567-	237	12---6--
68	--34--78	153	123-567-	238	-2---6--
69	12-4--78	154	-23-567-	239	1----6--
70	-2-4--78	155	1-3-567-	240	-----6--
71	1--4--78	156	--3-567-	241	12345---
72	---4--78	157	12--567-	242	-2345---
73	123---78	158	-2--567-	243	1-345---
74	-23---78	159	1--567-	244	--345---
75	1-3---78	160	----567-	245	12-45---
76	--3---78	161	1234-67-	246	-2-45---
77	12----78	162	-234-67-	247	1--45---
78	-2----78	163	1-34-67-	248	---45---
79	1-----78	164	--34-67-	249	123-5---
80	-----78	165	12-4-67-	250	-23-5---
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83	1-3456-8	168	---4-67-	253	12--5---
84	--3456-8	169	123--67-	254	-2--5---
85	12-456-8	170	-23--67-	255	1--5---
86	-2-456-8	171	1-3--67-	256	----5---
87	1--456-8	172	--3--67-	257	1234----
88	---456-8	173	12---67-	258	-234----
89	123-56-8	174	-2---67-	259	1-34----
90	-23-56-8	175	1----67-	260	--34----
91	1-3-56-8	176	-----67-	261	12-4----
92	--3-56-8	177	12345-7-	262	-2-4----
93	12--56-8	178	-2345-7-	263	1--4----
94	-2--56-8	179	1-345-7-	264	---4----
95	1--56-8	180	--345-7-	265	123-----
96	---56-8	181	12-45-7-	266	-23-----
97	1234-6-8	182	-2-45-7-	267	1-3-----
98	-234-6-8	183	1--45-7-	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-----

7 SETUP VIA BROWSERONE



- The device can be set using BrowserOne v3.6.7 or above.
- load a module compatible with the control unit being used
 - 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
- select **Zone Type** in **Sensor 485** drop-down menu
- in the grid row corresponding to the zone enable **Connected** option; click on **DT2000** 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.
- ▼ **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
- ▼ **Sensitivity**
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:

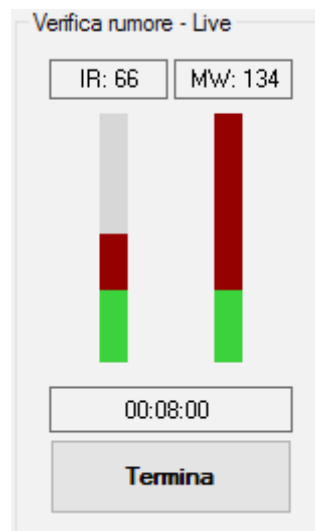
- ▼ **Single IR if preal. MW**
When enabled, the detector in MW pre-alarm mode will generate an alarm when it receives the first IR pulse (just one, regardless the number of pulses set).
- ▼ **Compensate high envir. T°**
Activate it to adjust IR section sensitivity in case the temperature shall raise 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.



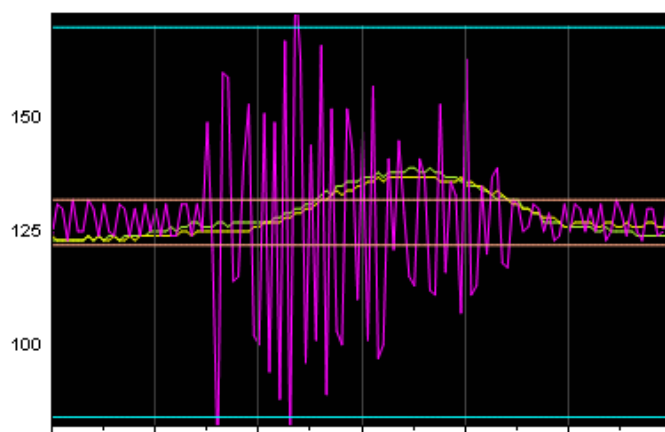
- click on **Start**: two vertical bars show the detected values
- click **Stop** to stop the detection

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 **System 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 value).

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

 *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 detector detects motion inside the covered area.

8.1 AND/OR mode

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

AND mode

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

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

OR mode

The function can be activated via browser.
 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-masking function

The detector features anti-masking function.
 The function detects attempts to obscure/cover the vision by placing an object in front of the detector.
 For anti-masking to be enabled, the detector must be in operation in AND mode.

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.

Activation status of the anti-masking function can be controlled with indications only during stabilisation at power on: if someone passes at less than 50 cm distance, blue and green LEDs will blink.


 *We recommend to disable anti-masking function if the detector is installed in places with people passing often at less than 50 cm distance.*

8.3 Anti-sneak

The detector features anti-sneak function.
 The function detects attempts to elude the IR section from far off with special physical expedients.
 In order to activate the function, the device shall be operating in AND mode.

The function can be activated via browser.
 When the anti-sneak function activates, the blue LED starts flashing.

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

 *It is recommended that the function is disabled if the sensor is pointed to glass windows, curtains or other oscillating elements.*

8.4 LED indications

Condition	Green LED	Blue LED
Stabilisation at power on	ON steady (20 s)	ON steady (20 s)
Anti-masking test at power on	Single blinking	Single blinking
Load default at power on	Slow blinking	Slow blinking
IR pulse	Single blinking	
MW pulse		Single blinking

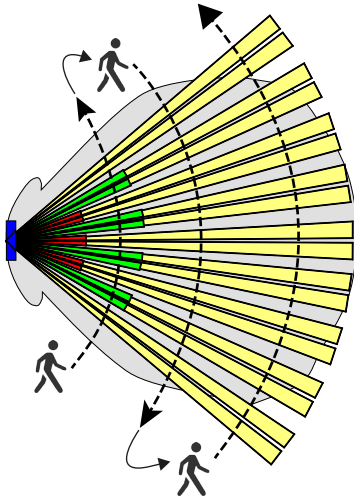
Condition	Green LED	Blue LED
Pre-alarm IR	ON steady	
Pre-alarm MW		ON steady
General alarm	ON 5 s	ON 5 s
Fault, low battery	Blinking alternate to blue	Blinking alternate to green
PIR fault	Fast blinking	
Masking		Slow blinking
Sneak		Fast blinking

9 MAINTENANCE



9.1 Periodic test

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



- Switch the device to system test mode: using the keypad, access the control unit SYSTEM TEST > ZONE TEST menu
- taking detector position as the point of reference, make half-circle movements from opposite directions to check coverage from both sides

Detector LED indicators shall respond as shown in the table of 8.4 p. 9 paragraph.

EU DECLARATION OF CONFORMITY

Hereby, EL.MO. Spa declares that the radio equipment DT2000485 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:

DT detector with digital PIR sensor, anti-masking protection and under-crawl function 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 performed only 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 performed only 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.