

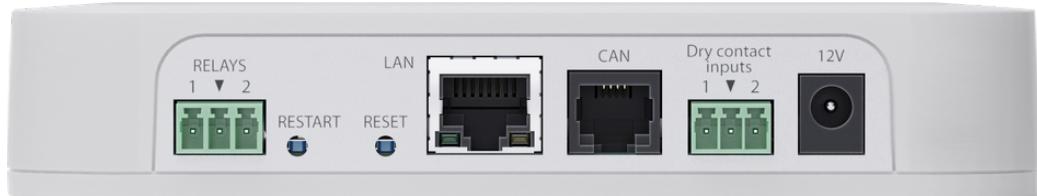
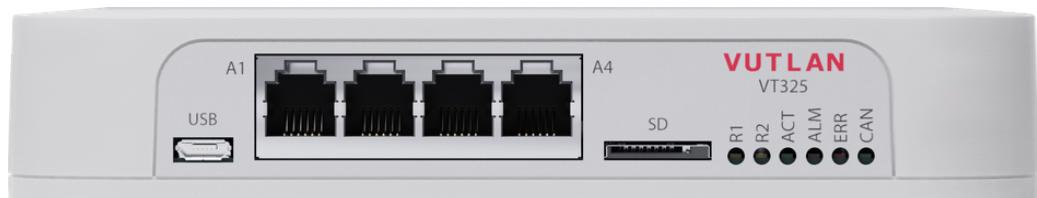
VT325t / Room monitoring unit

Datasheet page: <https://vutlan.atlassian.net/l/cp/At2b1ahP>

Product page: <https://vutlan.com/remote-monitoring-units/180-vt325t-room-monitoring-unit.html>

Brochure: [PDF](#) VT325t Room monitoring unit brochure.pdf

Meta tags: Small monitoring unit, Monitoring unit in a plastic enclosure, Low-cost monitoring unit,



Function and purpose

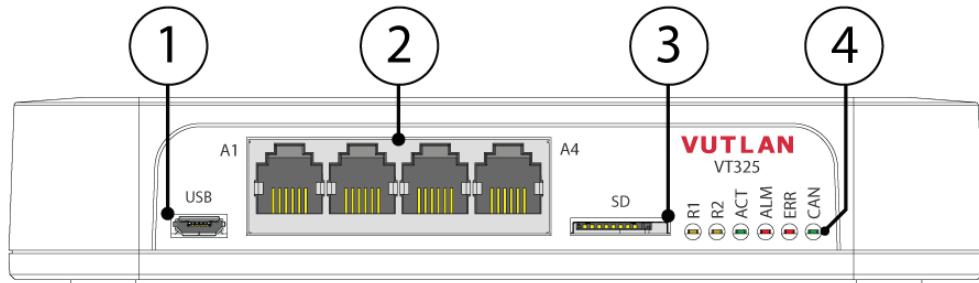
Low-cost remote environmental monitoring unit for small IT rooms. Can monitor temperature, humidity, voltage, leakage, smoke, airflow, and other parameters. It is also used as an I/O controller (e.g. door control, fans, generator, control panels, UPS, circuit breakers, and alarms). Can signal an alarm, activate a siren, send an e-mail notification, or send an SNMP Trap. Can monitor up to 100 physical sensors. Can use up to 700 different elements - notifications, triggers, timers, logic schemes, sensors, and dry contacts. Has a built-in Web interface with virtual sensors, logic schemes, different types of notifications, and control panels. There are built-in servers and agents like HTTP, HTTPS, SNMP v1, 2c, 3, SMTP, Radius, Syslog, FTP, DHCP, and OpenVPN clients.

i VT325t is a new model in it's range. It can be compared to VT335i in a previous range of products.

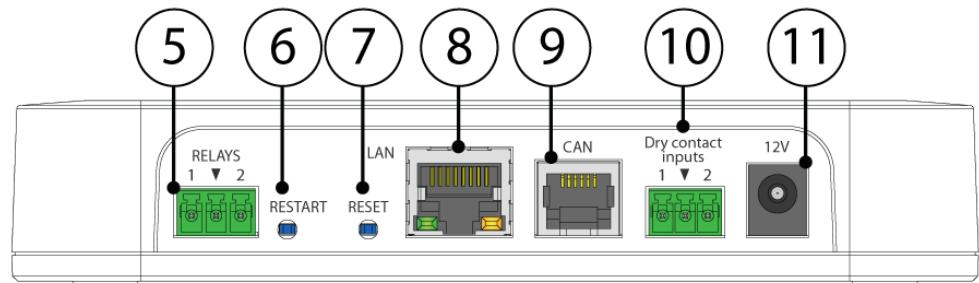
- low cost, affordable
- faster processor
- memory doubled
- plastic case

Physical Description

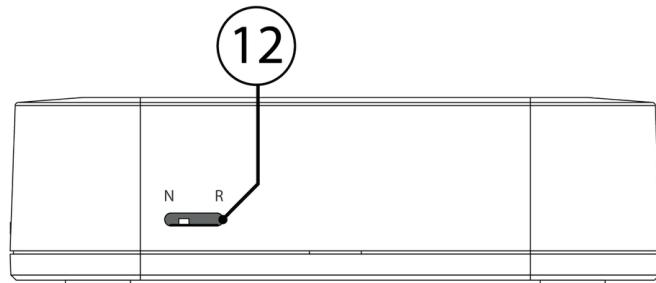
Front panel:



Back panel:

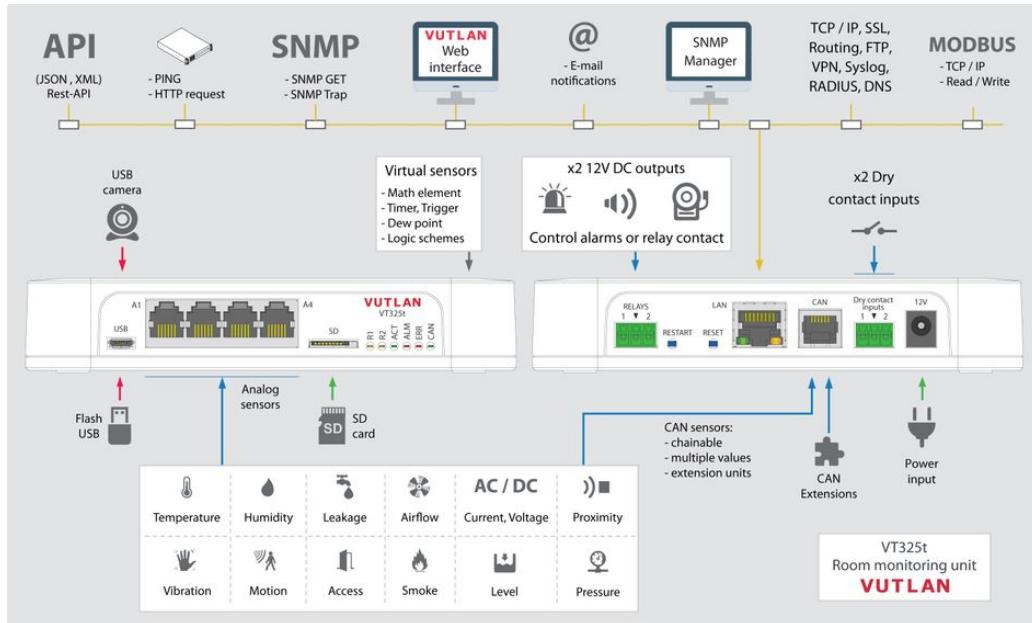


Side panel:

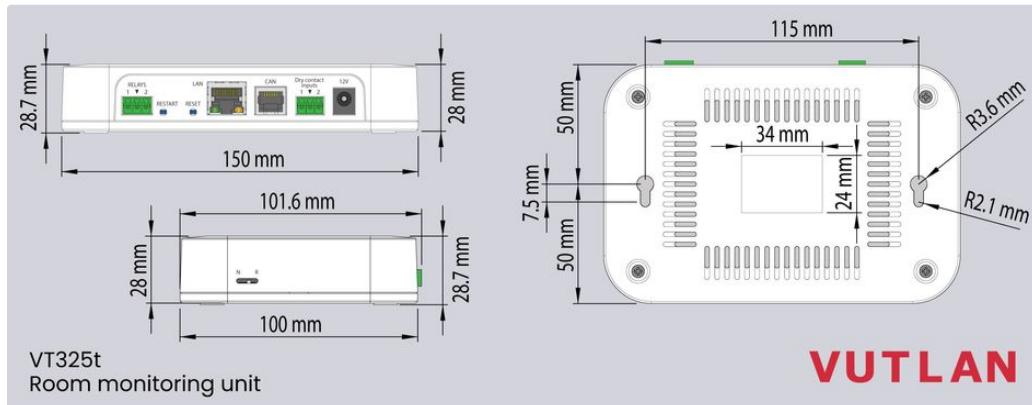


1. "**USB**" - micro USB-port 2.0 is needed for USB camera recording, USB Flash for system logs, and system restoration. Read instructions in "[Connecting USB camera](#)", "[USB camera settings. How to save a video](#)", "[Saving system logs on USB flash drive](#)", and "[USB upgrade or restore of default settings](#)".
2. "**Analog sensors: A1..A4**" - x4 RJ12 6P4C analog sensor inputs with auto-sensing. Read instructions at "[Analog sensors connection](#)", and "[Sensor configuration](#)".
3. "**SD card**" - MicroSD card slot with an ejector. The card is needed for data storage or the "system restore". Read instructions at "[Saving system logs to SD card](#)", and "[Restore of the appliance \(for VT960 series\)](#)".
4. "**LEDs: R1, R2**" - status indicators for two 12V 0.25A outputs on the front panel.
 - The LED is ON (orange) - the output is ON (the initial state can be configured).
 - The LED is OFF (orange) - the output is OFF ((the initial state can be configured)).
- "**LED: ACT**" - green LED indicates appliance system status,
 - - operating mode of the device: switches at a frequency of 2 times per second;
 - - successful completion of the software update process: switches at a frequency of 4 times per second;
- "**LED: ALARM**" - The LED can be programmed from the interface for alarm indication.
- "**LED: ERR**" - red LED indicates error and traffic.
 - the operating mode of the device: If everything is normal, the LED is extinguished, if not - there's a constant glow;
 - software update mode: switches at a rate of 2 times per second;
- "**LED: CAN**" - green LED indicates CAN bus status.
 - The LED blinks slowly - nothing is connected
 - The LED blinks fast - configuration is in process
 - The LED glows constantly - connected to CAN devices
- 5 "**RELAYS 12V 0.25A**" - 12V 0.25A (for each output) terminals outputs (electronic relay). Pitch 3.81mm, 3P. Each output has an LED indication "**E1, E2**". Read the instructions at "[Connecting 12V devices to 12V outputs](#)".
6. "**Restart**" - the button restarts the appliance. Hold the button for 2 seconds and then let go, and the system will restart.
7. "**Reset settings**" - reset settings to default factory settings. Keep pressing the button for more than 5 seconds. The "ERR" LED will start blinking. This indicates that the factory restoration has started. Wait for 20-60 seconds for the system to restart. The "ACT" LED will start blinking once the system has been restarted. The device can be accessed now.
8. "**LAN port**" - Ethernet 10/100 Base-T port, provides an Ethernet connection. Read more in this section "[LAN, GSM, LTE, RADIUS, DNS, SSL, VPN](#)".
 - "**Orange LED**" - orange LED for Ethernet port. It shows network traffic.
 - "**Green LED**" - green LED for Ethernet port. It shows network traffic. Flashes green when the system starts up. Shows the connection state (constant green light - the connection is established, blinking green - the connection attempt).
9. "**CAN**" - digital connector RJ12 6P4C for the connection of CAN sensors/extensions/devices on a CAN bus. Modules can be chained together. Has an LED indicator "**CAN**". Read the instructions in "[CAN devices connection](#)", and "[Setting up CAN](#)".
10. "**DRY CONTACT INPUTS 1...2**" - Digital inputs (Type IN). Pitch 3.5mm, 6P. Read the instructions at "[Connecting dry contacts](#)", and "[Dry contacts settings](#)".
11. "**DC 12V POWER**" - 12V DC 2A main power input.
12. "**Side switch**"
 - "N: Normal mode" - The switch is switched to the left ← . The switch should be always in this position.
 - "R: Restore of appliance" - The switch is switched to the right → . Used to load the clean system image from an SD card. Read instructions at "[Res tore of appliance \(for VT335i, VT825i, VT855i, VT960i & VT960ii series and VT855t series\)](#)"

Connection overview diagram



Drawing dimensions



Inventory - Package content

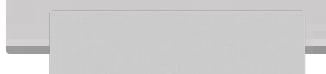
Make sure that the contents of the delivery meet the following configuration. Report a missing or damaged component to your supplier. If damage occurred during transportation, contact the appropriate delivery service.

	Package content	Description
1		Monitoring unit VT325t

2



12V adapter

3		RJ-45 1m patch cable white
4		OTG Micro USB cable adapter

Technical details

VT335i, VT336, VT825i, VT825ii, VT855i, VT855ii, VT960i, and VT960ii are the monitoring units and can not connect to each other. For scalability please use extension units and embedded boards.

● Built-in □ None ♦ Extension possible ◊ Not extendable

Versions	VT960i	VT855t	VT825t	VT335t	VT325t
Device Management: Web, SNMP, manually via SMS	Yes	Yes	Yes	Yes	Yes
Sensor access: Three-level by login	Yes	Yes	Yes	Yes	Yes
Interface	VT960i / VT960ii	VT855t	VT825t	VT335t	VT325t
LAN: Ethernet 10/100 Mbit	Yes	Yes	Yes	Yes	Yes
OS: Linux	v.5.10	v.6.2	v.6.2	v.6.2	v.6.2
Interface: Any browser	Yes	Yes	Yes	Yes	Yes
Memory RAM:	1 Gb	128 Mb	128 Mb	128 Mb	128 Mb
CPU speed:	720 MHz	1 GHz	720 MHz	720 MHz	600 MHz
Total CPU cores:	4	2	2	2	2
Clock: Built-in clock	Yes	Yes	Yes	Yes	Yes
Timer: Built-in watchdog	Yes	Yes	Yes	Yes	Yes
The maximum amount of sensors: physical sensors, dry contacts, relays	400	150	130	100	70
The maximum amount of elements: notifications, triggers, timers, logic, sensors, dry contacts, SNMP Get, SNMP Trap, Dial task, and other elements	2000	1000	1000	700	700
Networking / Protocol support	VT960i / VT960ii	VT855i / VT855ii	VT825i / VT825ii	VT335t	VT325t
LTE Gateway mode: Internet access (routing for internal network) (modem ordered separately)	Yes	Yes	Yes	Yes	Yes

LTE Access mode: Internet access over LTE (modem ordered separately)	Yes	Yes	Yes	Yes	Yes
Network protocols: DHCP; HTTP; HTTPS; SNMP v1, v2c, v3; SMTP; FTP; Syslog; TLS;	Yes	Yes	Yes	Yes	Yes
Modbus RTU	Yes	Yes	No	No	No
RS485 / OSDPv2: reader access control	No	No	No	No	No
Modbus TCP / IP	Yes	Yes	Yes	Yes	No
Static routing	Yes	Yes	Yes	Yes	
Dynamic DynDNS	Yes	Yes	Yes	Yes	Yes
Access via RADIUS server	Yes	Yes	Yes	Yes	Yes
VPN: secure data communications; secure change of connection between LTE and LAN	Yes	Yes	Yes	Yes	No
SSL installation	Yes	Yes	Yes	Yes	Yes
NTP server	Yes	Yes	Yes	Yes	Yes
Alerts / Notifications	VT960i / VT960ii	VT855i / VT855ii	VT825i / VT825ii	VT335t	VT325t
Alert types: E-mail, FTP log, Syslog, SMTP, SNMP Traps, SMS (Modem is ordered separately), Web-to-SMS,	Yes	Yes	Yes	Yes	Yes
A maximum number of "mail to" recipients in an E-mail notification:	50	20	20	20	20
A maximum number of "SMS to" recipients in an SMS notification: also the maximum amount of phone numbers	50	20	20	20	20
Virtual sensors	VT960i / VT960ii	VT855i / VT855ii	VT825i / VT825ii	VT335t	VT325t
Pings: Built-in function for server pinging. Test the reachability of a host in a network.	Yes	Yes	Yes	Yes	Yes
IP cameras: Connect the IP MJPEG camera with a proxy via the master module. Only view, no record.	4	4	4	4	4
Get SNMP: Read data from external equipment via SNMP PDU GET (v1/2c)	Yes	Yes	Yes	Yes	Yes
User keys: Add users who have access using an RFID reader.	Yes	Yes	Yes	No	No
Logic schemes: Used to specify automatic actions to events that occur in the system.	Yes	Yes	Yes	Yes	Yes
Timers: Allows you to plan the events in the system.	Yes	Yes	Yes	Yes	Yes

Triggers: Generate events in the system if logic is triggered.	Yes	Yes	Yes	Yes	Yes
SNMP traps	Yes	Yes	Yes	Yes	Yes
Virtual Math element (combine several sensor data and calculate new data)	Yes	Yes	Yes	Yes	Yes
Logic schemes	Yes	Yes	Yes	Yes	Yes
Modbus TCP/IP: read/write	Yes	Yes	Yes	Yes	No
Power	VT960i / VT960ii	VT855i / VT855ii	VT825i / VT825ii	VT335t	VT325t
Power input (230V AC):	x2 inputs option	x2 inputs option	x2 inputs option	No	No
Power input (24 ÷ 48V DC):	x2 inputs option	x2 inputs option	x2 inputs option	No	No
Power input (12V DC):	No	x1 input option	x1 input option	x2 inputs	Input
Fuse: Fuse at the inlet	1 A	1 A	1 A	1 A	No
Min. power consumption:					1 W
Max. power consumption:	30 W	10 W	10 W	10 W	6 W
The maximum current load on the relay:	10A	10A	10A	250mA	250mA
Redundant power supply: built-in voltage monitor, voltage range 9-12.6V.	Yes AC/DC DC/DC	Yes AC/DC DC/DC	Yes AC/DC DC/DC	Yes DC 12V	-
Outputs	VT960i / VT960ii	VT855i / VT855ii	VT825i / VT825ii	VT335t	VT325t
Relay outputs: latching relays 240V*10A	2	2	2	-	-
Relays outputs: 12V 0.25A	2	2	2	2	2
Max. dry contact outputs (contact closures/digital outputs)	8	8	-	-	-
Inputs	VT960i / VT960ii	VT855i / VT855ii	VT825i / VT825ii	VT335t	VT325t
Analog port: 6P6C for connection of an analog sensor. (extendable using CAN bus)	8 built-in ports, up to 16 on the CAN bus extension unit	8 built-in ports, up to 16 on the CAN bus extension unit	8 built-in ports, up to 16 on the CAN bus extension unit	4 built-in ports, up to 16 on the CAN bus extension unit	4 built-in ports, up to 16 on the CAN bus extension unit
CAN port: Max number of sensors Use CAN-12V-1A for connecting more than 12 devices.	x1 port, max. 32 devices	x1 port, max. 10 devices			
Dry contact inputs: (contact closures/digital inputs)	32	32	16	4	2
Extadable using CAN bus and Dry contacts unit					

Modbus RTU (RS-485): Max. line length 1000m	1 built-in port, up to 50 sensors	1 built-in port, up to 50 sensors	-	-	-
OSDP v2 reader extension:	-	-	-	-	-
Video	VT960i / VT960ii	VT855i / VT855ii	VT825i / VT825ii	VT335t	VT325t
AV camera	x1	-	-	-	-
USB cameras	x2	x1	x1	x1	x1
IP cameras	x4	x4	x4	x4	x4
RTSP IP camera	x1	-	-	-	-
Other connectors	VT960i / VT960ii	VT855i / VT855ii	VT825i / VT825ii	VT335t	VT325t
Ethernet port: 10/100Mbit	Yes	Yes	Yes	Yes	Yes
USB 2.0 Type A	1	1	1	-	-
USB 2.0 micro	1	1	1	1	1
Switch Normal / Recovery: returns the device to factory settings	<input type="checkbox"/>	Yes	Yes	Yes	Yes
External Memory / Logs	VT960i / VT960ii	VT855i / VT855ii	VT825i / VT825ii	VT335t	VT325t
Micro SD card slot (SDXC up to 512 Gb)	Yes	Yes	Yes	Yes	64Gb
SD card formatting function (FAT32)	Yes	Yes	Yes	Yes	Yes
USB flash drive: logs, sensor readings, item settings, etc.	Yes	Yes	Yes	Yes	Yes
Send system log to e-mail: Logs, sensor data, elements settings, etc.	Yes	Yes	Yes	Yes	Yes
Sensor dump files: save the per-second samples of analog and discrete sensors	Yes	Yes	Yes	Yes	Yes
Syslog	Yes	Yes	Yes	Yes	Yes
Send to FTP server: Logs, sensor data, elements settings, etc.	Yes	Yes	Yes	Yes	Yes
Maximum amount of log files: 10,000 logs/days = 27 years	Yes	Yes	Yes	Yes	Yes
Sample rate/period (logs, graphs)	1 s	1 s	1 s	1 s	1 s
Modem (extension ordered separately)	VT960i / VT960ii	VT855i / VT855ii	VT825i / VT825ii	VT335t	VT325t
4G LTE modem: ordered separately.	VT790	VT740	VT740	VT740	-
Modem modes:	Gateway / Access / SMS	Gateway / Access / SMS	Gateway / Access / SMS	Gateway / Access / SMS	-
• Gateway: Internet access					
• Access: Internet access over LTE					
• SMS: SMS notifications					

Modem LED: STATUS	Yes	Yes	Yes	Yes	-
Embedded onboard sensors	VT960i / VT960ii	VT855i / VT855ii	VT825i / VT825ii	VT335t	VT325t
Temperature sensor: +/- 1 °C PCB temperature.	Yes	Yes	Yes	Yes	Yes
Power supply voltage sensor: Accuracy (1%)	1	Main & Reserve	Main & Reserve	Main & Reserve	Yes
LED indication	VT960i / VT960ii	VT855i / VT855ii	VT825i / VT825ii	VT335t	VT325t
Ethernet LAN: LINK	Yes	Yes	Yes	Yes	Yes
Ethernet LAN: ACT	Yes	Yes	Yes	Yes	Yes
CAN bus: STATUS	Yes	Yes	Yes	Yes	Yes
System: STATUS (ACT)	Yes	Yes	Yes	Yes	Yes
System: ERROR (ERR)	Yes	Yes	Yes	Yes	Yes
System: ALARM	-	Yes	Yes	-	Yes
12V 0.25A outputs: STATUS (e.g. E1, E2)	x2	x2	x2	x2	x2
MODBUS RTU: STATUS	VT485M	VT485M	VT485M	VT485M	-
ODSP Reader:	VT485R	VT485R	VT485R	VT485R	-
NC/NO/COM Relay (e.g. R1, R2)	x2	x2	x2	-	-
HDD: Hard drive STATUS	Yes	-	-	-	-
Environmental characteristics	VT960i / VT960ii	VT855i / VT855ii	VT825i / VT825ii	VT335t	VT325t
Operating temperature: -10 to 80 °C	Yes	Yes	Yes	Yes	Yes
Storage temperature: -25 to 85 °C	Yes	Yes	Yes	Yes	Yes
Operating humidity: 0 to 90 %, non-condensing	Yes	Yes	Yes	Yes	Yes
Storage humidity: 0 to 95 %, non-condensing	Yes	Yes	Yes	Yes	Yes
Other Features	VT960i / VT960ii	VT855i / VT855ii	VT825i / VT825ii	VT335t	VT325t
Installation:	19" 1U	19" 1U	19" 1U	Desktop	Desktop
Casing:	Sheet metal	Sheet metal	Sheet metal	Sheet metal	Plastic
Dimensions (L x W x H) in mm:	440x44x120	440x44x90	440x44x90	180x35x80	150x29x100
Weight:	2 kg	1,6 kg	1,5 kg	0,7 kg	0,5 kg
External chassis grounding: M4 thread	Yes	Yes	Yes	Yes	Yes

Web interface (panels)	VT960i / VT960ii	VT855i / VT855ii	VT825i / VT825ii	VT335t	VT325t
Dashboard panel:	Yes	Yes	Yes	Yes	Yes
Overall statistics panel:	Yes	Yes	Yes	Yes	Yes
System tree panel: sensors and devices displayed in a hierarchy	Yes	Yes	Yes	Yes	Yes
Dry outputs panel:	Yes	Yes	Yes	No	Yes
Dry inputs panel:	Yes	Yes	Yes	Yes	Yes
Event log panel: amount of logs	500	300	300	300	200
Logic schemes panel:	Yes	Yes	Yes	Yes	Yes
Cameras panel:	Yes	Yes	Yes	Yes	Yes
Map panel: 5 layers	Yes	Yes	Yes	Yes	Yes
Users panel:	Yes	Yes	Yes	Yes	Yes
CAN configuration panel:	Yes	Yes	Yes	Yes	Yes
Graphs panel:	Yes	Yes	Yes	Yes	Yes
Reset smoke detectors panel:	Yes	Yes	Yes	Yes	Yes
Preferences panel: Web GUI, Network, Time, Logging, DynDNS, SNMP, RADIUS, FTP backup, VPN Client, Modbus RTU, GPS, SMTP, Routing	Yes	Yes	Yes	Yes	Yes
System menu panel: About, Firmware, Export, Support	Yes	Yes	Yes	Yes	Yes
List of latest sent SMS messages:	<input checked="" type="radio"/> Built-in <input type="checkbox"/> None	<input checked="" type="radio"/> Extension possible <input type="checkbox"/> Not extendable		150	200
Analog sensor power reset, resets smoke	Yes	Yes	Yes	Yes	Yes

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