# VT335t / Monitoring unit


Documentation page: https://vutlan.atlassian.net/l/cp/Z5ujzQHc

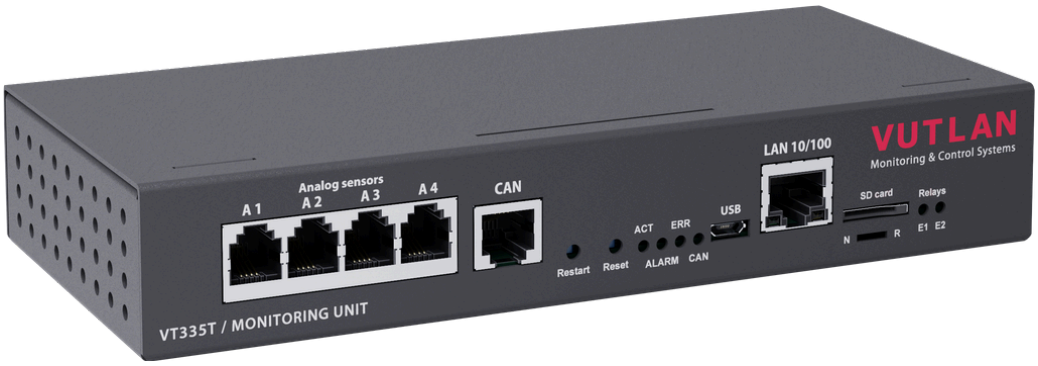
Product page: https://vutlan.com/remote-monitoring-units/178-vt335t-monitoring-unit.html

Brochure: https://vutlan.com/index.php?controller=attachment&id_attachment=119

Drivers: https://vutlan.atlassian.net/wiki/spaces/DRIV/pages/2912583997/Latest+Vutlan+drivers+for+T+series+VT325t+VT335t+VT825t+VT855t

Other names: `Rack monitoring and control unit`, `Monitoring and control unit`, `Mini monitoring and control unit`, `I/O module`, `environmental logging`,

Keywords: SNMP monitoring,




## Function and purpose

The unit is used for environmental monitoring (e.g. temperature, humidity, voltage, leakage, smoke, airflow). It is also used as an I/O controller (e.g. door control, fans, generator, control panels, UPS, circuit breakers, and alarms). Can use up to 1000 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. Has a slot for an LTE modem for an ethernet connection reservation.

Includes x4 analog sensor ports, x1 Ethernet port, x1 Micro USB port, x1 CAN sensor bus port, x2 12V DC 0.25A relays, x4 dry contact inputs, x1 SD card slot, redundant power supply inputs 12V DC.

Supports a full range of Vutlan analog sensors and CAN devices/sensors. Supports Modbus TCP/IP.

Possible extensions:

- VT740 / LTE slot modem
- VT485m / Modbus RTU extension or VT485r / OSPDv2 reader extension

Accessories:

“VT122t / 19” holder” - supports x1 slot for VT335t & x1 slot for VT408

“VT124 / DIN rail holder” (also named DRP-03)

“VT123 / Wall mounting brackets”

Notifications include E-mail, FTP log, Syslog, SMTP, SNMP Traps, Web-to-SMS, and PUSH.

Protocols include DHCP; HTTP; HTTPS; DynDNS; SSL; SNMP v1, v2c, v3; SMTP; FTP; Syslog; RADIUS; Modbus RTU; OpenVPN.

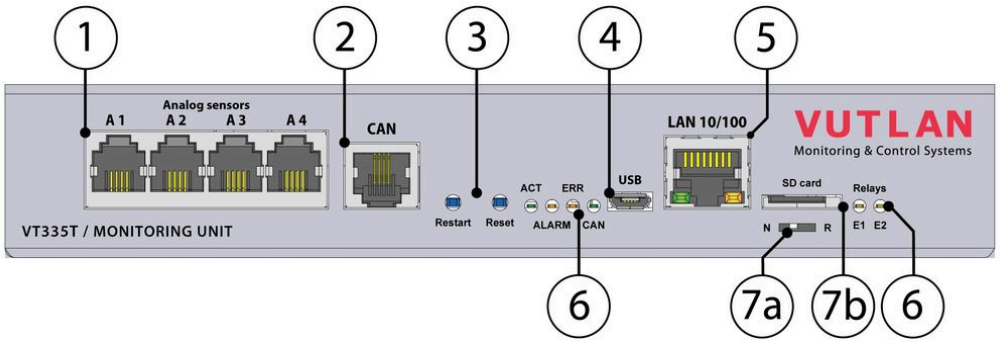
Virtual sensors include PING, timers, triggers, Logic schemes, SNMP GET, x4 IP cameras, Virtual math elements, and others.

VT335t is a new model and it replaces VT335i. New features include:

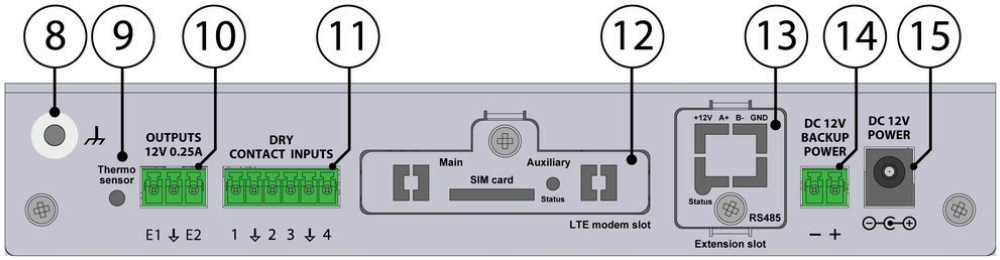
- faster processor
- memory doubled
- ability to handle more elements (+300)
- VT740 slot modem (added fixation)
- Modbus RTU extension
- OSDP v2 reader extension

## Physical Description

Front panel:




Back panel:




1. "**Analog sensors: A1**..**A4**" - x4 RJ12 6P4C analog sensor inputs with auto-sensing. Read instructions at "Analog sensors connection", and "Sensor configuration".

2. "**CAN**" - digital connector RJ12 6P4C for the connection of CAN sensors/extensions/devices on a CAN bus. Modules can be chained together. Read the instructions in "CAN devises connection", and "Setting up CAN".

- "**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

3a. "**Restart**" - the button restarts the appliance. Hold the button for 2 seconds and then let go, and the system will restart.

3b. "**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.

4. "**USB**" - micro USB-port 2.0 is needed for USB camera recording, USB Flash for system logs, and system restoration. Read instructions at "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".
5. "**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).

6a. "**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;

6b. "**LED: ALARM**" - The LED can be programmed from the interface for alarm indication.

6c. "**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;

6d. "**LED: CAN**" - green LED indicates CAN bus status.

6e. "**LEDs: E1, E2**" - status indicators for two 12V 0.25A outputs on the front panel.

7a. "**Dip switch**"

- Normal mode: The switch is switched to the left ←. The switch should be always in this position.
- Restore of appliance: The switch is switched to the right →. Used to load the clean system image from an SD card. Read instructions at “ Restore o f appliance ”

7b. "**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)"

8. "**Chassis grounding**" - Chassis grounding, M4 thread. Enhances the immunity of the equipment against conducted and radiated RF disturbances. Please contact a professional electrician before connecting it.

9. "**TEMPERATURE SENSOR**" - accuracy +/- 1 °C.

10. **"OUTPUTS 12V 0.25A"** - 12V 0.25A (for each output) terminals outputs (electronic relay). Pitch 3.81mm, 3P. Read instructions at "Connecting 12V devices to 12V outputs".

- "**LEDs: E1, E2**" - 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).

11. "**DRY CONTACT INPUTS 1...4**" - Digital inputs (Type IN). Pitch 3.5mm, 6P. Read the instructions at "Connecting dry contacts", and "Dry contacts settings".

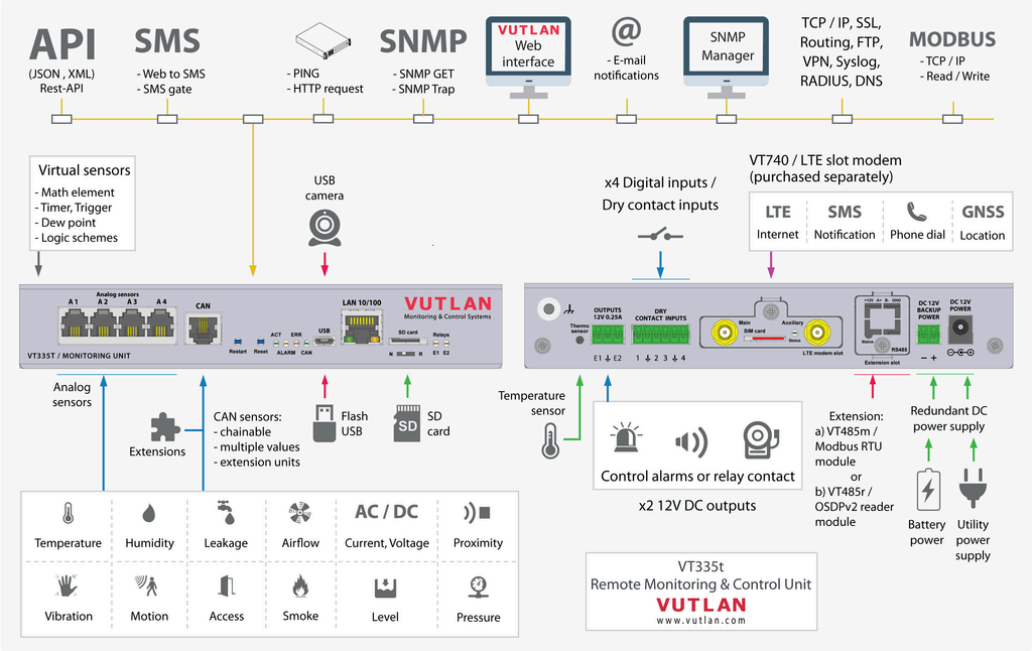
12. "**Modem slot**" - "VT740 / LTE slot modem" can be installed in this slot. ***This modem is ordered separately.*** *Read instructions at "VT740 / LTE slot modem", and "LAN, GSM, LTE, RADIUS, DNS, SSL, VPN".*

13. “Extension slot” - Only one of the two extensions can be installed “VT485m / Modbus RTU extension” or “VT485r / OSDP v2 reader extension”.

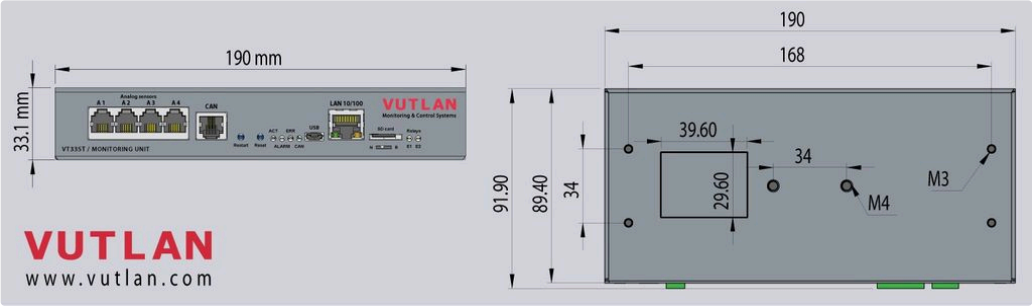
14. "**DC 12V BACKUP POWER**" - 12V DC 2A alternative power input. Pitch 3.81mm, 2P.

15. "**DC 12V POWER**"- 12V DC 2A main power input.

## Connection overview diagram

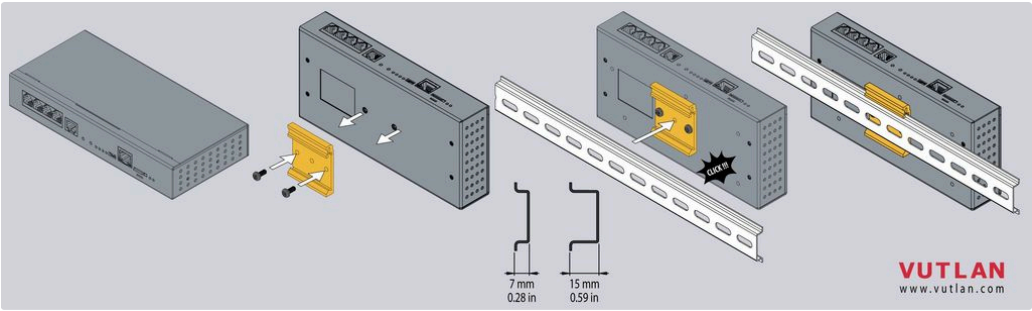



## Drawing dimensions



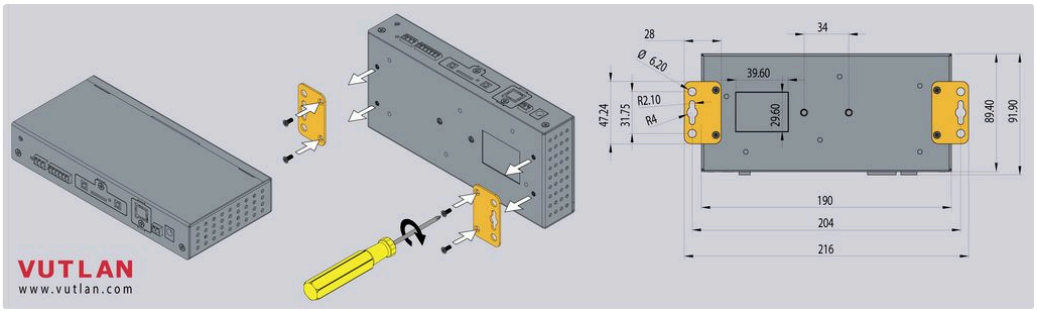

## DIN rail installation

"**VT124 / DIN rail holder**" (also named **DRP-03**) for mounting on DIN rail. VT124 is ordered separately. The package includes a holder and screws.



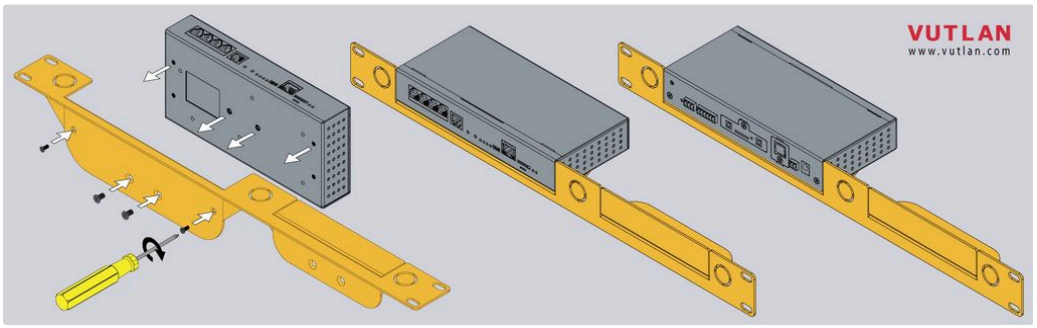

## Wall installation

"**VT123 / Wall mounting brackets**" for mounting onto the wall. The package includes 2 brackets and screws.




## 19” 1U installation in a rack-cabinet

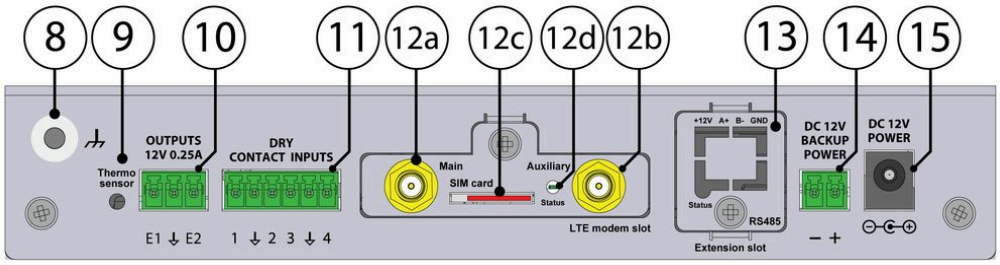
“**VT122t / 19” holder**” for mounting onto a 19” 1U rackmount.





## Installing LTE slot modem

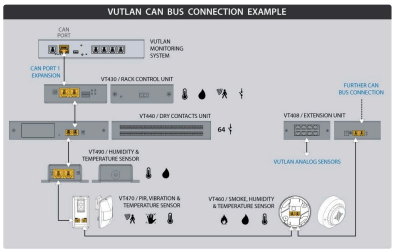
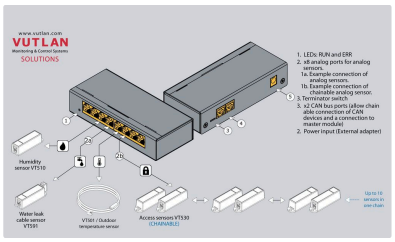
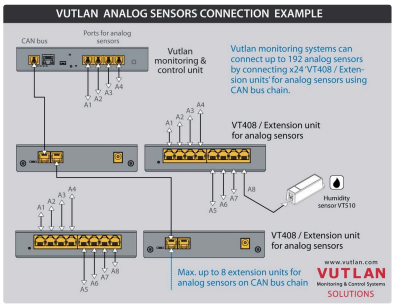
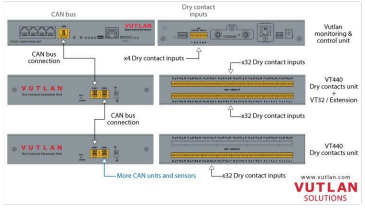
VT335t has a slot for “VT740 / LTE slot modem extension”.




A modem (point 12 in the picture above) can be installed (purchased separately) inside the system.

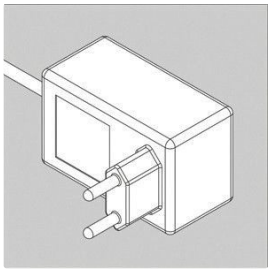
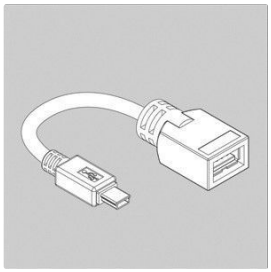
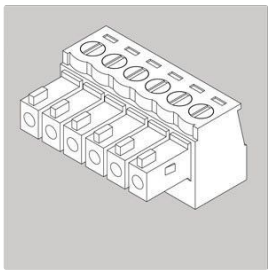
| Extension | Photo |
|---|---|
| VT740 |  |

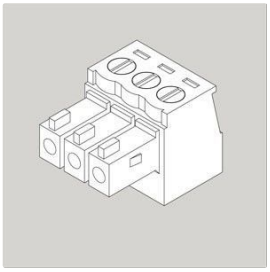
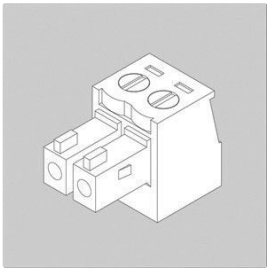
## Extending the number of sensors and devices connected to the system

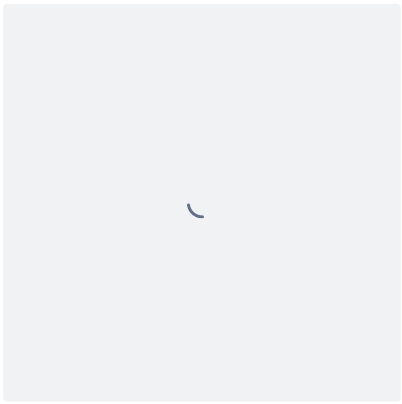
| Example | Picture | Link |
|---|---|---|
| 1 |   | You can connect CAN sensors and devices in a CAN bus chain.<br>Read more at:<br>CAN devices connection<br>Setting up CAN UNDEFINED |
| 2 |     | VT408 / Analog sensor extenion unit increases a number of connected analog sensors. Each unit adds x8 ports.<br>This is a CAN device. Multiple devices can be connected in a CAN bus chain. See example #1.<br>Read more at:<br>VT408 / Analog sensor extension unit |
| 3 |   | Increases a number of connected dry contact inputs. Each unit adds x64 or x32 contacts.<br>Read more at:<br>VT440 / Dry contacts unit & VT32 / Dry contacts board extension |
| 4 | | Add sensors and devices. See available devices:<br>Sensors and meters<br>www.vutlan.com |

# Inventory - Package content VT335t

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 |   VT335t / Remote Monitoring & Control Unit | Monitoring unit VT335t. | 1 pcs |
| 2 |  | 12V adapter. | 1 pcs |
| 3 |  | RJ-45 3m patch cable | 1 pcs |
| 4 |  | OTG Micro USB cable adapter | 1 pcs |
| 5 |  | Terminal plug 6 pins, 3.5 mm | 1 pc |

| | | | |
|---|---|---|---|
| 6 |  | Terminal plug 3 pins, 3.81 mm | 1 pcs |
| 7 |  | Terminal plug 2 pins, 3.81 mm | 1 pcs |
| 8 | | Self-adhesive rubber foot | 4 pcs |
| 9 | | Short configuration manual | 1 pc |

| | | | |
|---|---|---|---|
| 10 |  | Warranty card | 1 pc |

## Technical details

See a comparison table with technical details for each individual Vutlan monitoring unit at:

https://vutlan.atlassian.net/wiki/spaces/DEN/pages/705855489

## Frequently asked questions

| Problem | Cause | Solution |
|---|---|---|
| The unit is not powering up. | The DIP switch is switched to “R” position. | Switch the DIP switch to “N” position (Normal). |
| | | |

Slovak Republic

www.vutlan.com