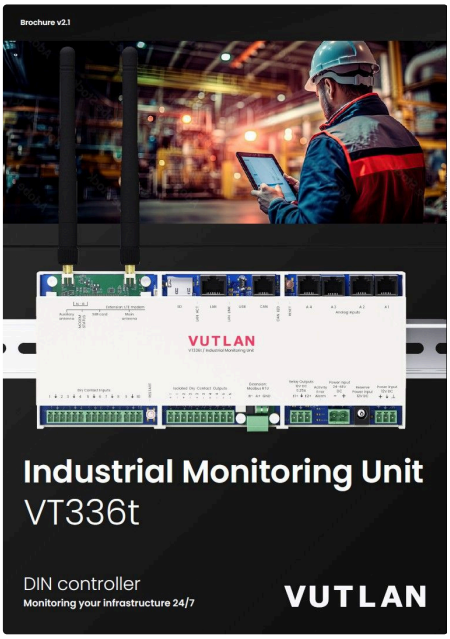
VT336t / Industrial Monitoring Unit

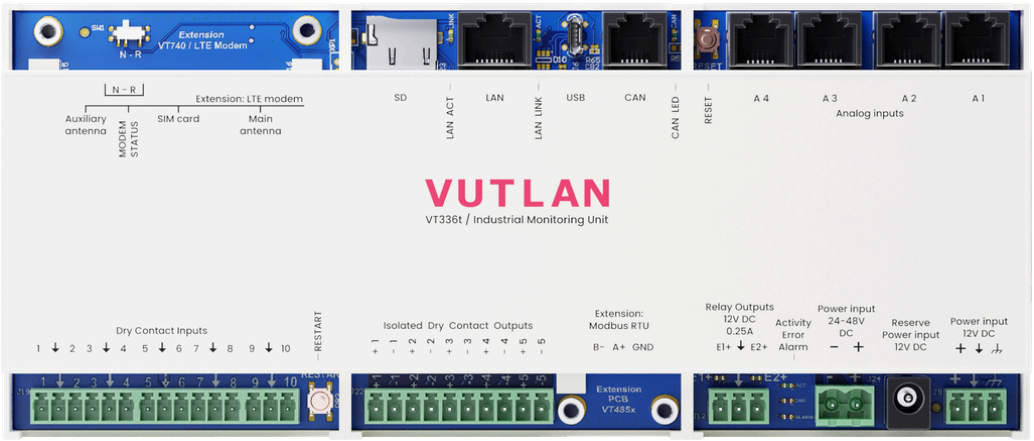


Datasheet page: https://vutlan.atlassian.net/wiki/spaces/DEN/pages/2903441424/VT336t

Product page: https://vutlan.com/remote-monitoring-units/183-vt336t-industrial-monitoring-unit.html

Brochure: https://vutlan.com/index.php?controller=attachment&id_attachment=121

Drivers: https://vutlan.atlassian.net/wiki/spaces/DRIV/pages/2912583997



Other names: `Industrial monitoring unit`, `Monitoring and control unit`, `DIN monitoring and control unit`, `I/O module`, `DIN controller`,

Function and purpose

“**VT336t / Industrial Monitoring Unit**” is a monitoring and control unit specially designed for DIN rail installations, industrial racks, and electrical installations.

The unit is used for environmental monitoring (e.g. temperature, humidity, voltage, leakage, smoke, airflow). It is also used as an I/O DIN 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.

It is specially designed for DIN-rail mounting racks. Includes x4 analog sensor ports, x1 CAN sensor bus port, x1 Ethernet port, x1 Micro USB port, SD card slot, x8 dry contact inputs, x5 dry contact outputs, x2 12V DC 0.25A relays, 12/24/48V power inputs (with power reservation).

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

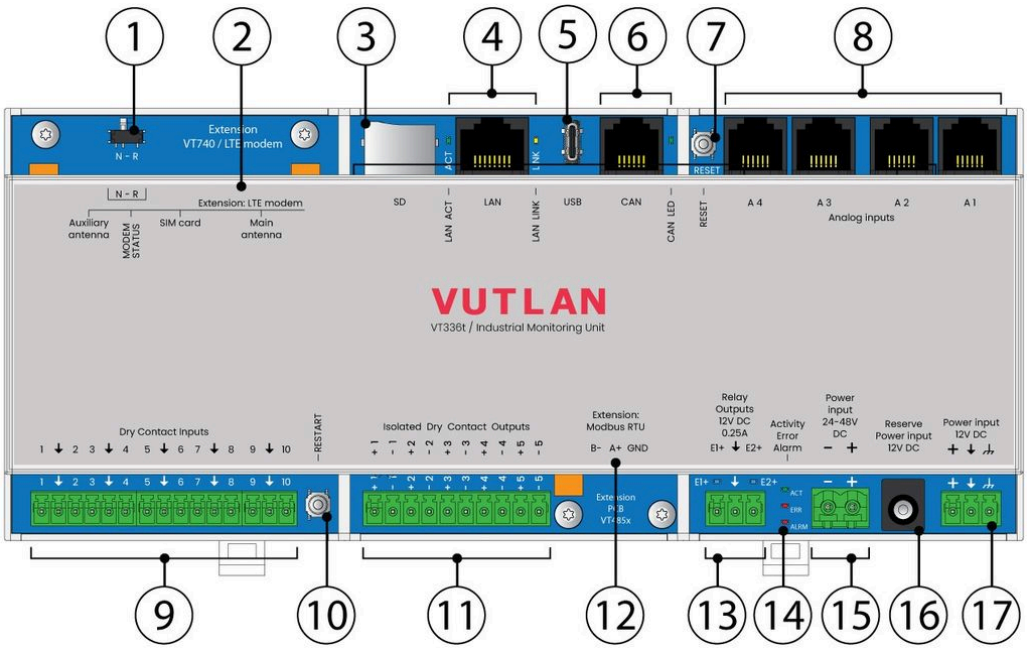
Notifications include E-mail, FTP log, Syslog, SMTP, SNMP Traps, Web-to-SMS, and PUSH.

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

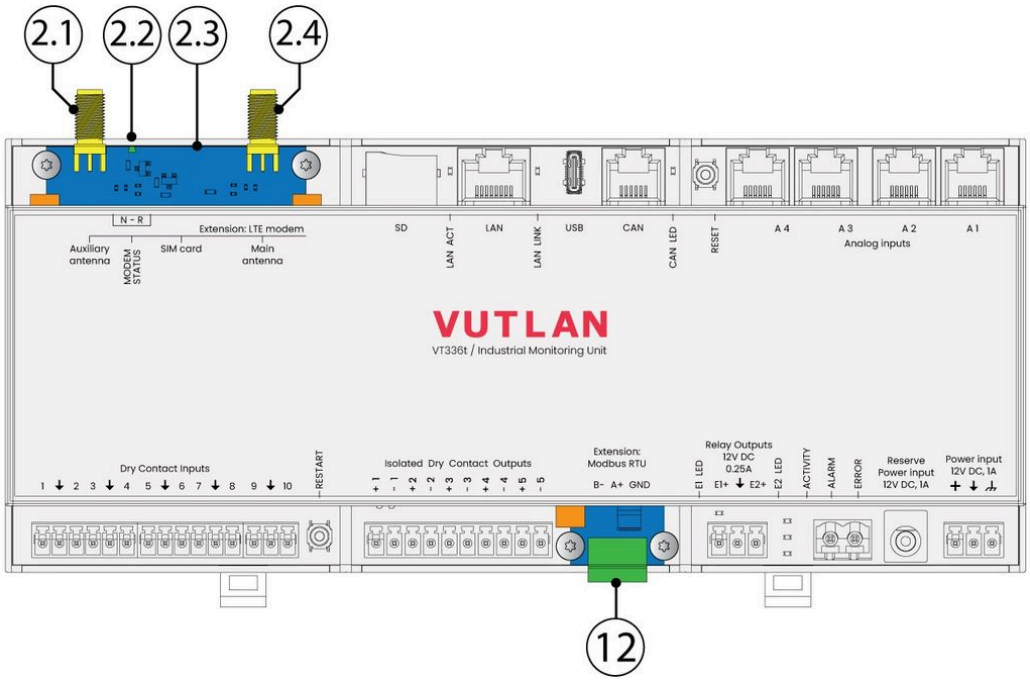
Virtual sensors include PING, timers, triggers, Logic schemes, SNMP GET, x4 IP cameras, Virtual math elements, and others.

Physical Description

Main module:



Extension slots:



1. "**N - R**" - DIP switch for operation mode

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 “Restore of appliance”.

2. "**LTE slot modem**" - "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".*

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. "**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).

5. “**USB**" - USB Type C 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".

6. "**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

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

9. "**DRY CONTACT INPUTS 1...8**" - Dry contact inputs (Type IN). Pitch 3.5mm, 6P. Read the instructions at "Connecting dry contacts", and "Dry contacts settings".

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

13. **"Relay Outputs 12V DC 0.25A"** - 12V 0.25A (for each output) terminals outputs (electronic relay). Pitch 3.81mm, 3P. Read the 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) - and the output is ON (the initial state can be configured).
- The LED is OFF (orange) - and the output is OFF ((the initial state can be configured).

14. System **LEDs**

"**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: ERROR**" - red LED indicates error and traffic.

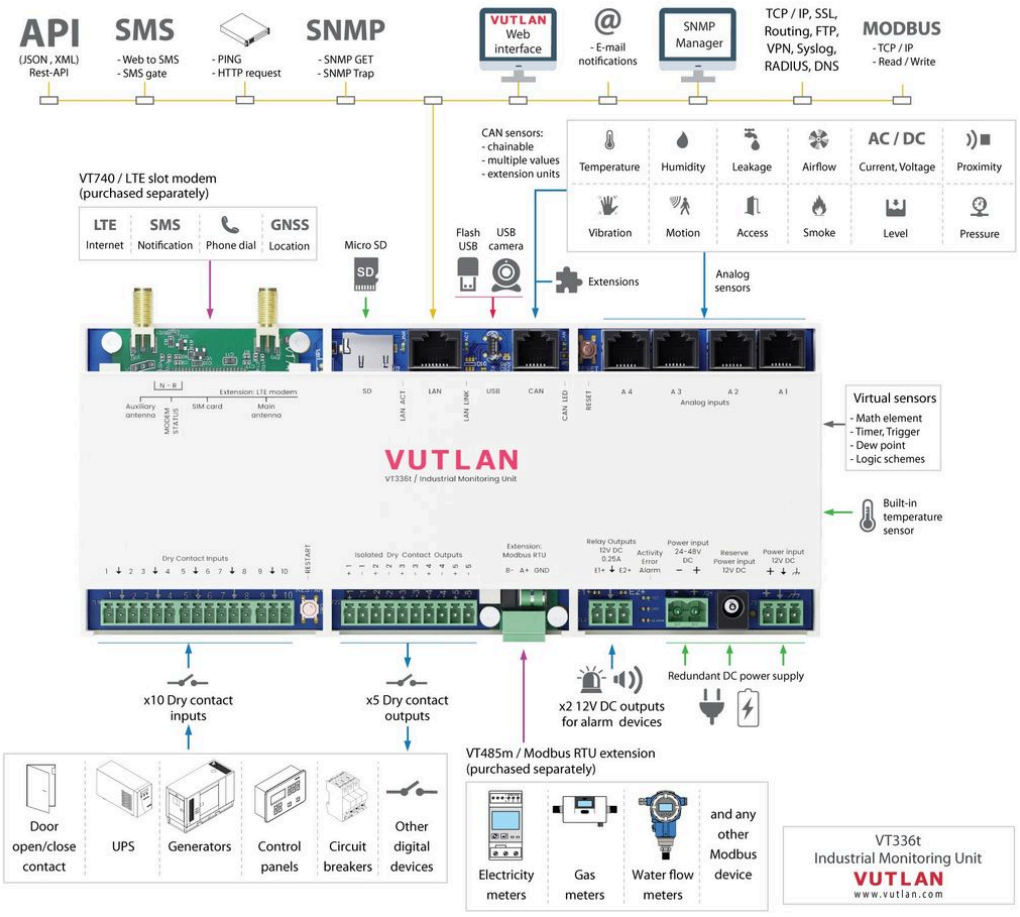
- the operating mode of the device: If everything is normal, the LED is extinguished, if not - there's a constant glow;
- software update mode: switches at a rate of 2 times per second;

15. "**DC 24-48V BACKUP POWER**" - 12V DC 2A alternative power input. Power terminal pitch 5.08mm.

16. "**DC 12V BACKUP POWER**" - 12V DC 2A alternative power input. Inside Contact Diameter 2mm, Outside Contact Diameter 6.3mm.

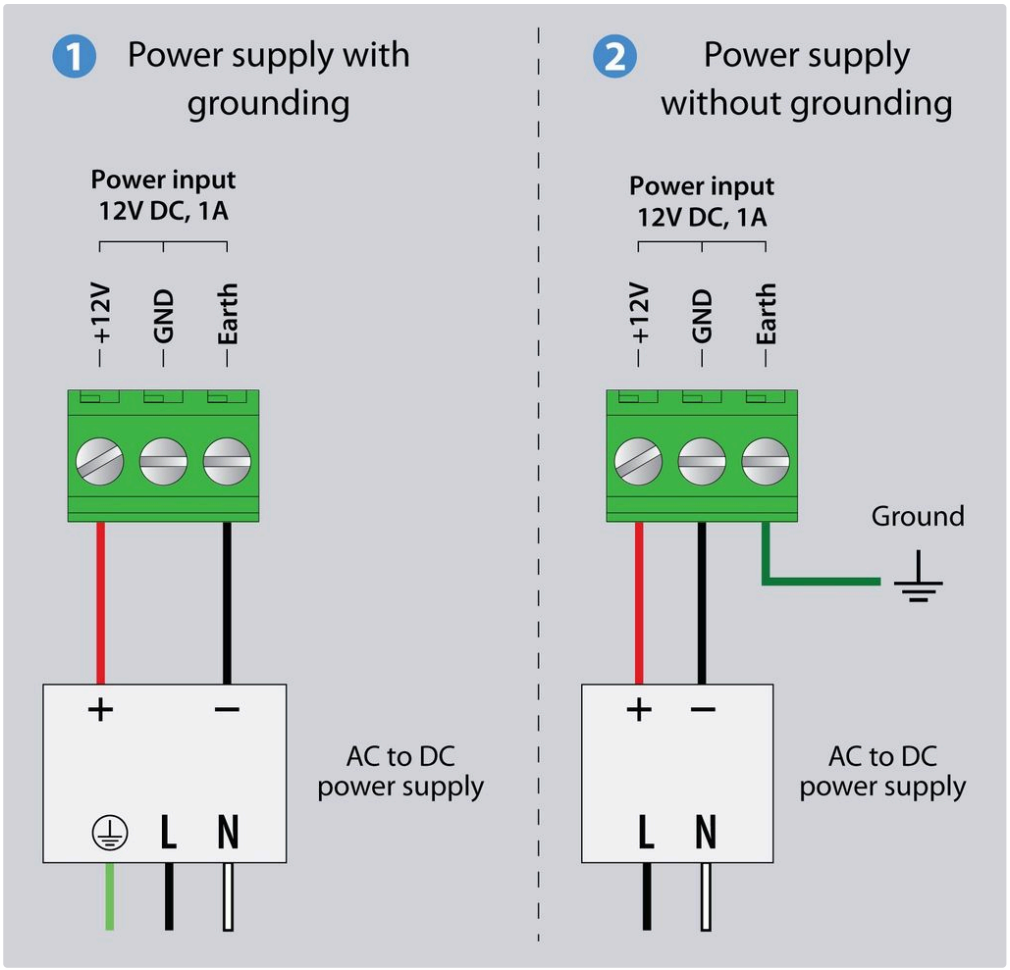
17. "**DC 12V POWER**"- 12V DC 2A main power input. Pitch 3.81mm, 2P.

Connection overview diagram

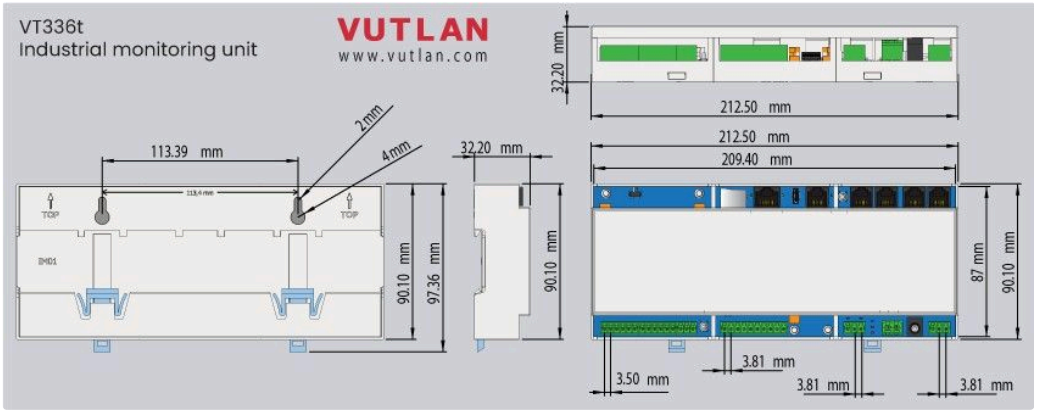


Powering the device

1. Power supply with grounding.
2. Power supply without grounding.

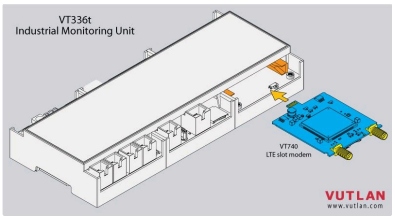
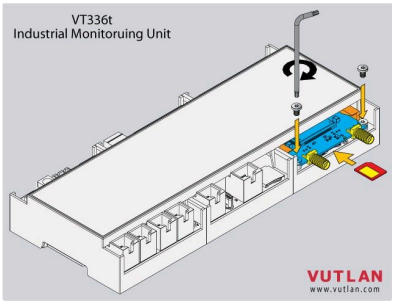
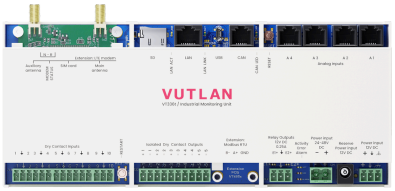


Drawing dimensions



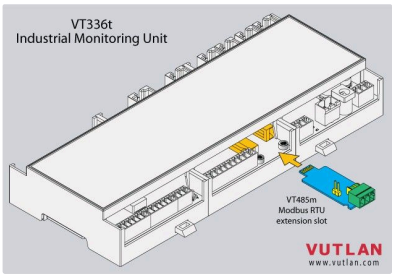
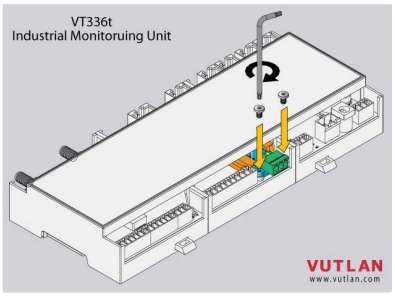
Installing LTE slot modem

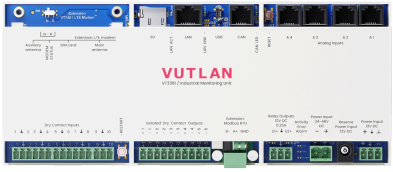
“VT740 / LTE slot modem” is purchased separately!

1		Insert the modem into two rails until it clocks.
2		The modem is a plug-and-play device and can be inserted while the unit is in operation. a) Use a Torx screw driver or a Torx wrench key to screw the two screws in and tighten the modem in place. b) Insert the SIM card
3		Follow the article Setting up a modem

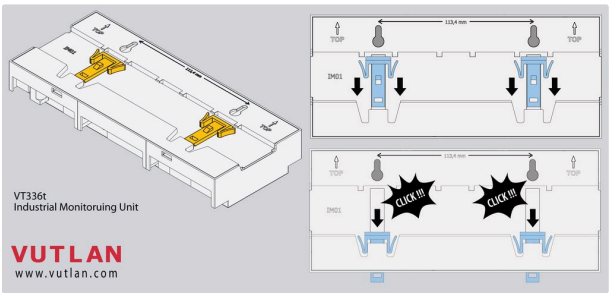
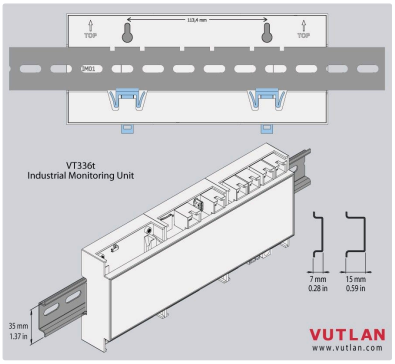
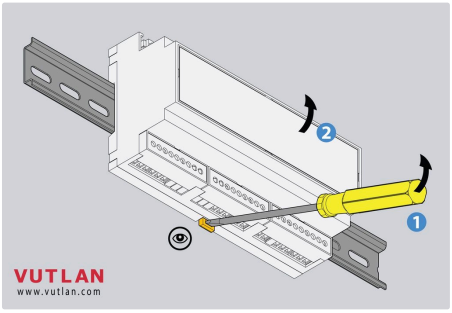
Installing VT485 / Modbus RTU extension

"VT485m / Modbus RTU extension" allows the unit to monitor/control Modbus RTU sensors/meters/devices.

1		Modbus RTU extension is a plug-and-play and can be connected whil ethe unit is in operation. Insert the unit between the two PCB rails until it clicks.
2		Use a Torx screw driver or a Torx wrench key to screw the two screws in and tighten the PCB in place.

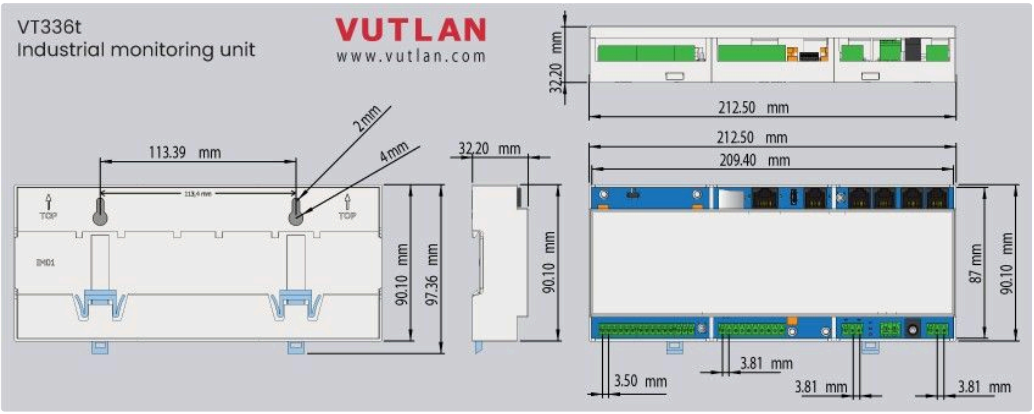
3		Follow the article VT485m / Modbus RTU slot extension

DIN rail installation

1		Insert the DIN rail holder as shown in the picture
2		Press the module onto the DIN rail, it should snap.
3		To dismantle the unit from the DIN rail: • Use a flat screwdriver and insert it into the DIN rail holder. • Pull the handle of the screwdriver to start pulling the DIN rail holder. • Now You can pull the enclosure from the DIN rail.

Wall installation

The enclosure has two holes for wall installation. See the diagram below.



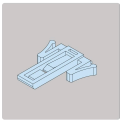
Device configuration

1. Initial Configuration (web interface)
2. Configuring (web interface)

Inventory

Package content for VT336t / Industrial Monitoring Unit

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	Quantity
1		VT336t / Industrial Monitoring Unit	1 pc
2		DIN rail holder	2 pc
4		RJ-45 3m patch cable for Ethernet/LAN	1 pc
5		USB Type-A to Type-C adapter cable	1 pc
6		Quick configuration manual	1 pc

7		Warranty card	1 pc
8		15EDGK-3.81-10P for Dry contact outputs	1 pc
9		15EDGK-3.5-6P for dry contact inputs	2 pcs
10		15EDGK-3.5-3P for dry contact inputs	1 pc
11		15EDGK-3.81-3P x1 for power input 12VDC x1 for 12V relay outputs	2 pcs
12		2EDGK-5.08-02P for power input 24-48VDC	1 pc

13		AC-DC power adaptor Input: AC 100-240V, 50/60Hz Output: 12VDC, 1A,	1 pc

Frequently asked questions

Problem	Cause	Solution

Question	Answer
Currently sold VT336t is v2.1. What has been changed compare to version 1.1?	We added additional power reservation option. Added x1 power input terminal block 24-48V DC.
