# Smart, Expandable, Remote Terminal Unit (RTUs)
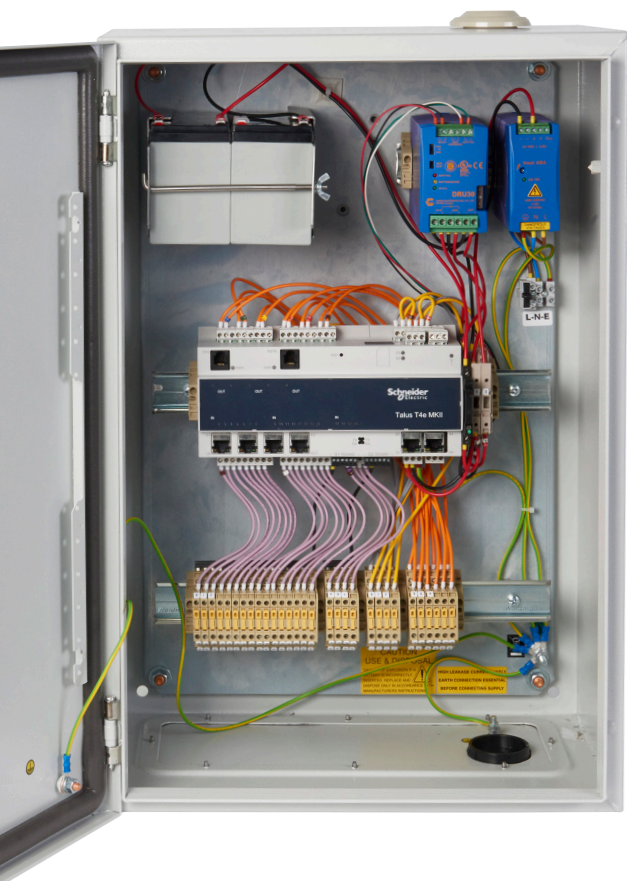
**Talus T4e** | Expandable highly connected RTU

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# The open, flexible & secure solution from Schneider Electric

## Keeping you in control

The T4e RTU is a telemetry outstation / field device that provides remote monitoring, control and diagnostic facilities for isolated and unmanned sites.

In addition to plant input and output, the T4e has built-in functions for alarm analysis, archive data logging and local control applications.

With a compact but expandable design the T4e is suitable for a range of telemetry applications.

Suitable for any large scale remote applications including:

Water and waste water treatment sites

Environmental monitoring systems

Abstraction points

Booster and pumping stations

With built-in analogue and digital I/O, on board GSM/GPRS modem, serial and IP communications, and IEC 61131-3 user applications, the T4e forms the essential link between your plant and a remote control centre.

The T4e is also fully compatible with many third party devices. In addition to modems, the T4e can connect directly to a local area network, for communication with other controllers and to a wide area network for communication to a control centre or other sites.

## The complete package

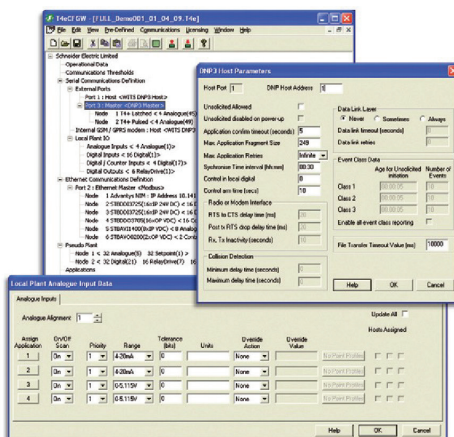At Schneider Electric we know that you need complete solutions from one product.

That's why the T4e is a fully-featured RTU that is compact, expandable and flexible, providing advanced monitoring, control and diagnostic functions for remote sites.

## Fits all of your needs

In addition to the on-board GSM/GPRS modem and socket modem, the serial and IP communication ports allow the T4e to interface with a wide variety of programmable logic controllers and external modems.

This makes the T4e ideal for those organisations who need to securely link remote plants with control centres across a number of geographical locations, such as the utilities industries.
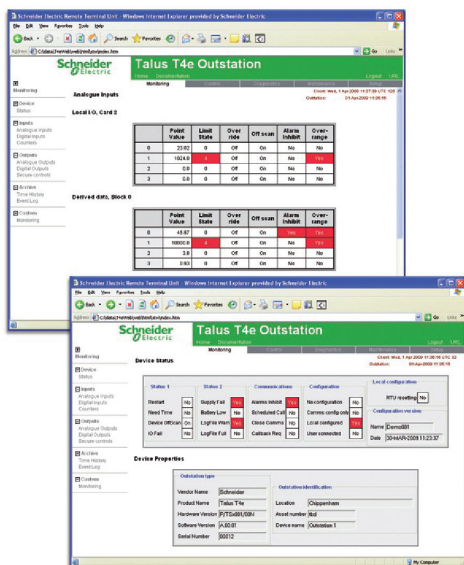
Schneider Electric's T4e is part of a compatible range of telemetry products including the T4c compact RTU for smaller sites and low power applications.

## Planning for the future

Our T4e has been developed to stand the test of time.

The integrated Ethernet, Serial and SDI-12 allows for internal expansion, ensuring that your T4e's capabilities grow with your needs.
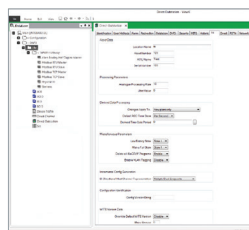
## Safe and secure

The inbuilt web server allows monitoring, diagnostics and maintenance from a PC using standard internet browser.  Connection can be achieved directly via a T4e Ethernet port, or remotely using an ASDL router.

Access through the integrated web server is controlled by a secure login system, requiring a correct username and password.

Encryption is made easy with the onboard 256 bit encryption accelerator. Five access levels are provided for differing groups, ranging from an observer who can view plant data, to administrator, who has full control of the plant and the ability to set user names and access levels.



## ClearSCADA Integration

If you are already a Schneider ClearSCADA customer, then compatibility goes one step further with all configuration parameters embedded in ClearSCADA giving you complete remote management for your RTU estate.

ClearSCADA Integration gives full remote management of all parameters and security configuration.

## Simple and easy to use

The T4e configurator is an easy-to-use, Windows based application that you can utilise to create and modify I/O and communication definitions.

The various I/O modules are presented using a simple tree structure enabling quick zoom-in to set parameters, such as:
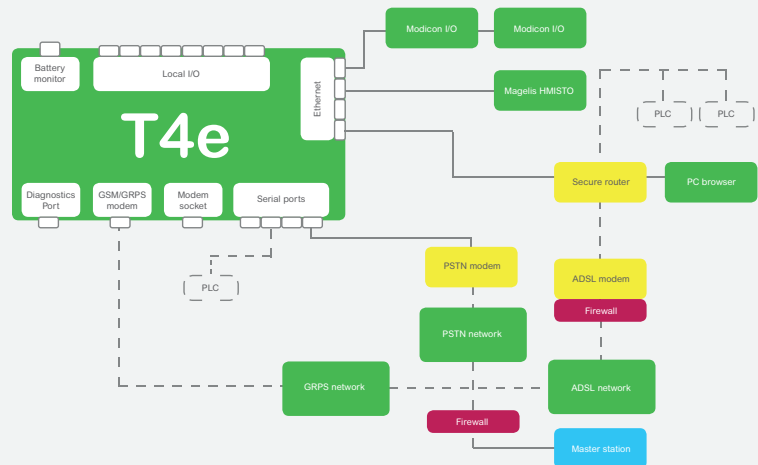
- Device identification
- Default parameters
- Communication media & protocols
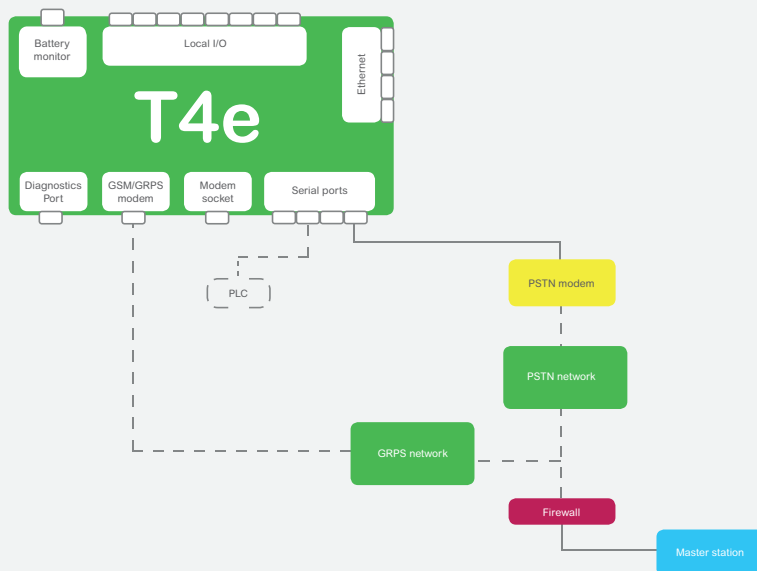- Local and remote I/O

## For very large sites

The T4e can be used to monitor and control hundreds of datapoints using the Modicon STB I/O Platform, wiring solution and power management system.

Our RTU is ideal for integration with other Schneider Electric devices such as our Magelis human/machine interface (HMI), TeSys motor starters and Altivar variable speed drives.
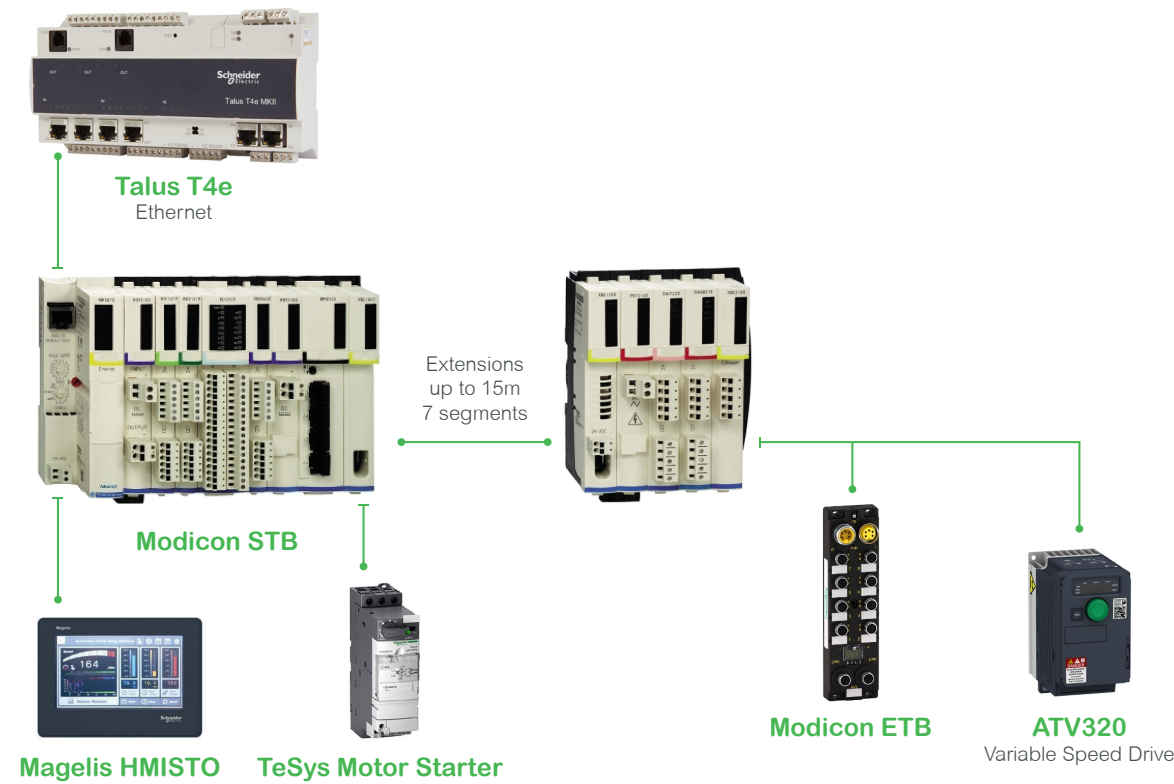


## For medium sites



The onboard I/O is capable of directly controlling medium sites with limited plant equipment, for example a two pump pumping station or a booster station.

The onboard GSM/GPRS modem or an external PSTN modem can be used to provide remote communications.

## An open, flexible and secure RTU to meet your specific needs



**Talus T4e**
Ethernet

**Modicon STB**

Extensions
up to 15m
7 segments

**Magelis HMISTO**   **TeSys Motor Starter**

**Modicon ETB**   **ATV320**
Variable Speed Drive

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## Technical Specification

| General | |
|---|---|
| Processor | ARM processor with encryption accelerator |
| Memory | 128MB Flash, 32MB RAM |
| Operating System | Embedded RTOS |
| Master Protocols | DNP3, Modbus (RTU/TCP), Siemens S7, DF1, SDI-12, Ethernet/IP |
| Slave Protocol | DNP3, WITS, Modbus or Proteus |
| IP Communications | Web server (HTTP / HTTPS), FTP, Modbus, DNP3, WITS |
| Security | TLS/SSL 256 bit encryption, DNP3 session key encryption, AES-128 |
| Programming Languages | IEC61131-3 structured text, function block diagram etc. |
| Data logging capability | 150,000 records |
| Database | Unlimited License |

| Communication | |
|---|---|
| Ethernet | 4x 10/100 Base-T |
| Wireless | GSM / GPRS MODEM (2G/3G/4G optional) / NB-IOT |
| Serial | 2x RS-232, 2x RS-485 |
| Expansion | CAN/CanOpen/DeviceNet, SDI-12 |

| Plant Input/Output | |
|---|---|
| Digital Inputs | 20 digital inputs with indications (inc 8 optional counters) <br> 2 auxiliary inputs for power supply monitoring |
| Digital Outputs | 6 relay outputs with indications |
| Analogue Inputs | 4 analogue inputs, voltage or current, 0.25% accuracy |

| Expandability Input / Output |
|---|
| Modicon STB modular I/O with a wide range of analogue and digital input and output modules |

| Physical | |
|---|---|
| Power Supply | 9-32Vdc 0.5A |
| Dimensions | 214mm x110mm x 61mm |
| Packaging | 12M DIN rail module housing (IP20) |
| Environmental | -40°C to +70°C, 5-95% RH |

| Certification | |
|---|---|
| Approvals | CE marked |

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## About Schneider Electric

Schneider Electric is leading the Digital Transformation of Energy Management and Automation in Homes, Buildings, Data Centers, Infrastructure and Industries.

With global presence in over 100 countries, Schneider is the undisputable leader in Power Management – Medium Voltage, Low Voltage and Secure Power, and in Automation Systems. We provide integrated efficiency solutions, combining energy, automation and software.

In our global Ecosystem, we collaborate with the largest Partner, Integrator and Developer Community on our Open Platform to deliver real-time control and operational efficiency.

We believe that great people and partners make Schneider a great company and that our commitment to Innovation, Diversity and Sustainability ensures that Life Is On everywhere, for everyone and at every moment.

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