



# Commercial Control & Monitoring Solution



Simplify the Complex®

# Simplify the Complex<sup>®</sup>

At Titan we simplify the complex to help our customers create truly smart spaces promoting wellbeing, comfort and energy efficiency.

Through innovation and continuous investment in technology and people, our intelligent control solutions aid the delivery of smart buildings and create connected spaces.

Our commercial control and monitoring solutions combines energy efficient control, powerful network management, flexible sensing options, energy management and stylish user interfaces, to provide a one stop solution for all your connected control needs.



# FROM CONCEPT TO COMPLETION

At Titan we design and develop our products and services to aid every stakeholder in the delivery of smart and efficient building control. From design, install and commissioning through to end user, facilities managers and building owners, every feature of the solution has been carefully selected and developed to add value to the users experience.

## INSTALL

All hardware and software is designed to provide installers with the speed of install and insight they require to hand over to the commissioning team. We work with a team of partners who can provide a smooth and cost effective install.

## COMMISSIONING

Commissioning is made easy through Titan's ToolBox commissioning platform, with features such as auto discovery, flexible commissioning routines and the ability to copy profiles from product to product. ToolBox provides all the tools for quick and simple commissioning designed to minimise the amount of site time required.

## FACILITY & ASSET MANAGERS/ BUILDING OWNERS

IoT links, trending reports and smart alarming all allow the building managers and owners to have the best possible insights into the building's performance. Flexible integration options allow for this data to be served via on-premise BMS and IoT communication platforms.

## CONSULTANT/DEVELOPER

Titan will work with you to develop the best possible control solution to meet building requirements. We will ensure the project is delivered as intended from day 1 with energy efficient comfort control, fully networked solutions, modern aesthetics and the best possible user experience.



## BUILDING OCCUPANTS

All solutions are designed to provide a clean, productive and energy efficient working environment for the building users and occupants.

# A Complete Solution

Whether you are looking for a sensing or control application only or a complete solution with network and energy management, the commercial solutions from Titan Products cater for every need.

All aspects covering install, commissioning and usability have been designed with your needs at the forefront of our development focus. Whether the building is a commercial, retail or hospitality environment covering office space, retail outlets or restaurants, the system will provide benefits to all key building stakeholders.

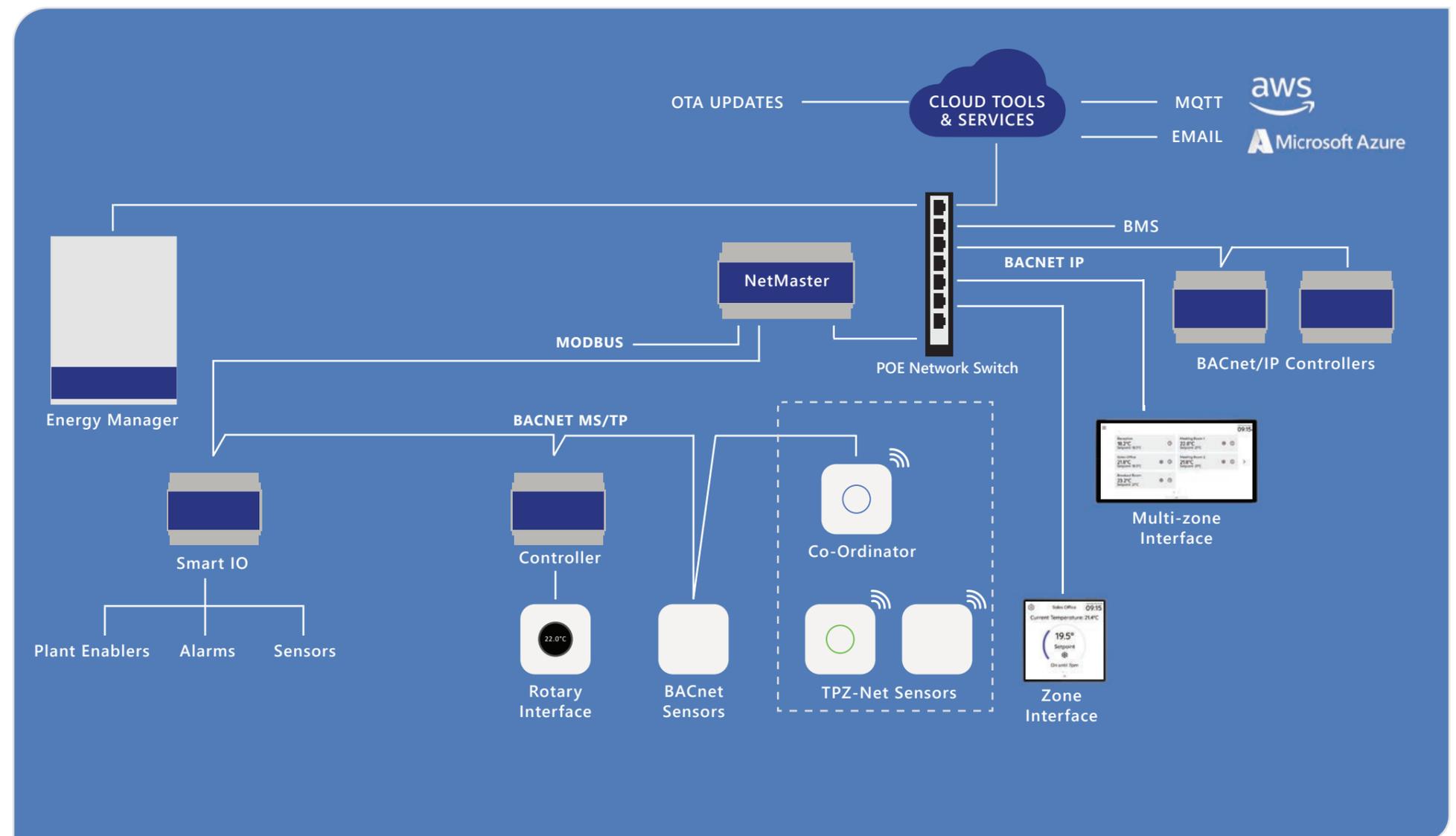
**NETWORK MANAGEMENT**  
**NetMaster**  
 Scheduling • Water Treatment • Network Mapping  
 Alarming & Trending • BMS & Cloud Integration

**CONTROL & IO**  
**Controllers & Smart IO Modules**  
 Flexible Fan Coil Control • MS/TP & BACnet/IP • Simple setup through Titan ToolBox

**SENSORS**  
**Including BACnet and Wireless Sensors**  
 Temperature, Humidity & CO2 • Networkable & wireless options • Modern, slimline aesthetics • Anti-microbial

**USER INTERFACES**  
**Multi-zone and Zonal interfaces**  
 4 & 7 inch touch screens • Multi-zone or single zone interfaces • Rotary interface

**ENERGY MANAGEMENT**  
**Energy Manager**  
 Insights into energy usage • Email reporting • IOT & BMS integration



# Fan Coil Control

The TP-710 controllers offer flexible and energy efficient control for fan coil applications. Covering 2-pipe and 4-pipe applications the TP-710 controllers are available with either BACnet MS/TP or BACnet/IP communications and are supplied with a flexible mix of I/O to cater for 0-10V and 24VAC heat/cool actuator type and 0-10V EC fan control.

All controllers feature an extensive library of control options including:

- Condensate monitoring control
- Fan proving monitoring control
- Electric heating control options
- Fabric protection
- Valve exercising and system flush
- Occupancy control options

For retrofit applications requiring three speed relay fan control contact Titan for details.

## Commissioning Made Easy

Commission control and network parameters in seconds through Titan ToolBox where controllers are auto discovered via the network and profiles can be created, saved and copied to other controllers on the network making system setup and commissioning simple and quick.

### KEY FEATURES:

- 2-pipe and 4-pipe FCU applications
- BACnet MS/TP and BACnet/IP communications
- Simple commissioning via Titan ToolBox



**710**

Flexible BACnet MS/TP Fan Coil Controller



**710 IP**

Flexible BACnet IP Fan Coil Controller

Feature	TP-C-710-IP	TP-C-710
Communications	BACnet/IP	BACnet MS/TP
2 x BACnet IP port switch	Yes	No
Commissioning method	Titan ToolBox	Titan ToolBox
2 Pipe Heating	Yes	Yes
2 Pipe Cooling	Yes	Yes
2 Pipe Summer / Winter changeover	Yes	Yes
4 Pipe Heat / Cool	Yes	Yes
Electric Heater Control Options	Yes	Yes
Library of Control Options	Yes	Yes
Compatible Interfaces	Rotary TP-UI-TS 4 TP-UI-TS-7	Rotary TP-UI-TS 4 TP-UI-TS-7 RDU-Touch
Pluggable Terminals	Yes	Yes
Analogue Outputs	3	3
Digital 24VAC Triac Outputs	4	4
Relay Outputs	3	3
Digital / Analogue Inputs	4	4
Sensor Inputs	3 (10K3A1)	3 (10K3A1)

# Network Management

Designed from the ground up using open BACnet, Modbus, IP and MQTT communications for both building and cloud communications, the NetMaster provides a full feature set for powerful network management.

The NetMaster connects all network peripherals together to provide a complete edge control solution covering time scheduling, water treatment routines, network I/O mapping, alarming and trending and communicates to a wider Building Management System (BMS) or IoT cloud tools through its native communication stacks.



## KEY FEATURES:

- Time scheduling and Water Treatment routines
- Network alarming and trending
- Network IO mapping
- Email notification and reporting
- BACnet IP, BACnet MS/TP, Modbus RTU & MQTT comms
- 2x IP ports



# IO Modules

The networkable Smart IO modules allow for cost-effective network expansion for a variety of applications such as monitoring, enabling or mapping. Inputs can be monitored for alarming or metering purposes or mapped utilising the flexible mapping capabilities of the NetMaster where network points can be freely mapped to IO outputs or, IO points can be mapped to controllers or other devices on the network. Outputs can be written to enable central plant or control and position equipment within the building such as dampers, actuators or switches.

Using the dedicated Titan NFC app, the commissioning process can be completed with or without power applied to the Smart IO units providing extremely quick, simple and flexible set up.



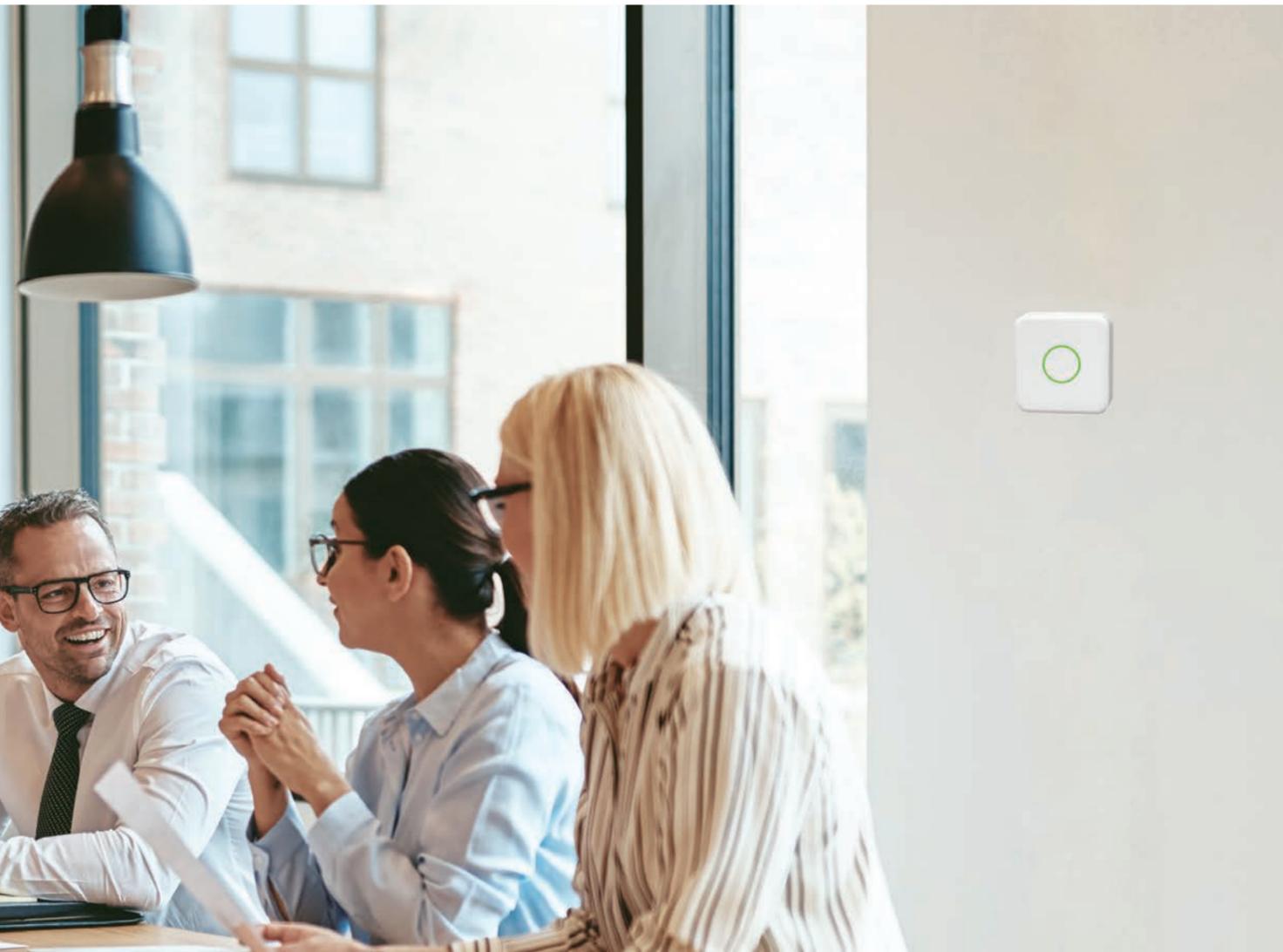
## KEY FEATURES:

- Flexible universal inputs for monitoring, metering and alarming
- Analogue, digital and relay output options for plant control
- BACnet MS/TP and Modbus RTU communications
- Simple commissioning via Titan ToolBox platform or NFC app

# Flexible Sensing

The Gen 3 sensors combine reliability and accuracy with modern, slimline aesthetics suitable for any commercial setting.

Covering temperature, humidity and CO2 monitoring the Gen 3 sensors are available with traditional resistive and analogue outputs that connect directly to the network controllers, BACnet and Modbus smart communications or battery powered wireless communications which can be mapped for control via the NetMaster's network mapping capabilities or exposed directly to a BACnet or Modbus network for monitoring purposes.



## Slimline Sensors

The slimline, modern sensors bring design and functionality together like never before. At only 19mm deep the slimline temperature, humidity and CO2 sensors are our slimmest room sensors to date, perfect for integrating into smart buildings.

## LED HALO Indication

The LED HALO provides simple yet informative visual indication of CO2 levels within the space for the end user to understand at a glance.



Ideal for cinemas and theatres

Perfect for classrooms and offices

## Sensor Output Options

Designed for space sensing applications, the sensors are available with a choice of output options including:

- Resistive temperature outputs
- 0-10V or 4-20mA
- Smart Sensors with BACnet MS/TP or Modbus RTU communications
- Wireless Sensors with BACnet or Modbus connectivity

### KEY FEATURES:

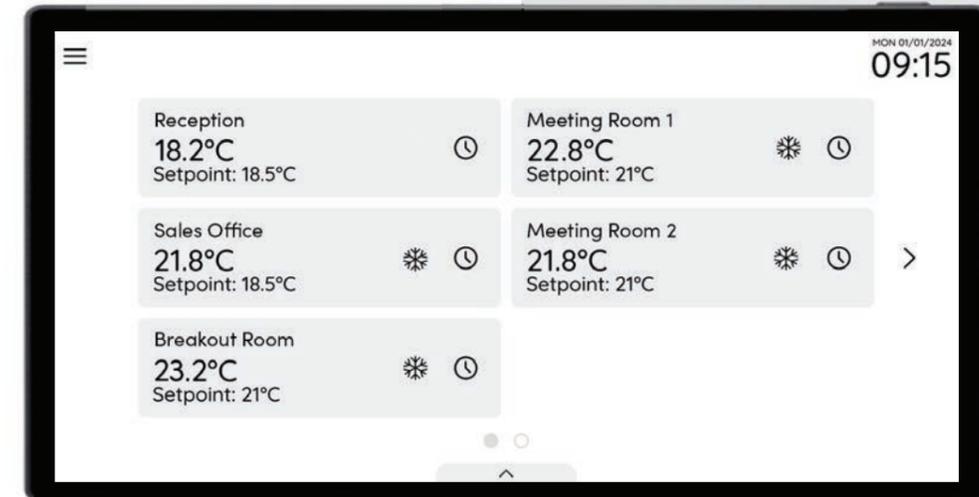
- Incorporates certified Polygiene® product protection, designed to pro-actively inhibit the growth of harmful microbes on the sensor
- Modern aesthetics, slimline aesthetics
- Option for HALO LED for indication of CO2 levels
- Easy to install

# Central and Zonal Touch Screen Interfaces

Titan understand the importance of combining user experience with aesthetics and provide high quality user interface multi-zone 7" and single zone 4" options that seamlessly integrate with our control solutions.

The TP-UI-TS-7 allows control and scheduling adjustment for multiple spaces while the TP-UI-TS-4 caters for a single space. Both touch screens combine modern aesthetics, high performance and excellent user experience to provide a networkable user interface for comfort control adjustment when used alongside the Titan TP-710 fan coil controllers and NetMaster.

## MULTI-ZONE CONTROL SCREEN



**TP-UI-TS-7**  
7" Touch Screen Display

### KEY FEATURES:

- Easily adjust control set points, modes and fan speed for any zone
- Set flexible time schedules for each zone
- Quick and simple install via POE or 24V power supply
- Mounts to single gang electrical back box
- 2 x sensor inputs to expand the sensing capabilities of the system
- Proximity and ambient light level sensors adjust the screen settings for optimum display levels

## ZONAL INTERFACE



**TP-UI-TS-4**  
4" Touch Screen Display

# Rotary Interfaces

The Rotary Interface offers a networkable, feature rich, attractive user interface. Providing set point, fan speed adjust and mode adjust along with temperature and humidity sensing with the option for CO2, the Rotary interface is the perfect solution for a complete user interface.

The Rotary Interface can be powered directly from the TP-C-710 controller via RJ45 connection and communicates with the controller this way or alternatively, can be 24V powered with all control and monitoring parameters being exposed via BACnet MS/TP for network integration.

## KEY FEATURES:

- Full colour LCD display
- Fully anti-microbial Gen 3 enclosure and rotating dial
- Monitor CO2, temperature & humidity via BACnet
- Excellent user experience, with simple to navigate menus
- HALO indication for heat or cool operation or CO2 levels
- Direct connection to Titan's 710 controllers

## INTUITIVE CONTROL

The interface is highly intuitive to use, by simply pressing the dial users can easily switch between setpoint, fan speed and mode adjust menus, while rotating the dial cycles through selection options.



## HALO LED INDICATION

As well as displaying an icon to show if heating or cooling is active, the HALO LED can be set to illuminate red when in heating or blue when in cooling. Alternatively, on the CO2 variant, the HALO be used to show traffic light indication of the CO2 levels.



## CHOICE OF MODELS

The Rotary Interface is available in white or black enclosures, which are both fully anti-microbial.

As standard the Rotary includes temperature and humidity monitoring, displaying this on wake, with the option for CO2 monitoring to be added.



# Energy Management

At Titan we believe in aiding buildings to be run as energy efficiently as possible and understand the benefits this can bring. Not only through energy efficient control and network management, but also by providing valuable insights into where the building is utilising its energy usage.

The Energy Manager is a stand-alone energy monitoring platform that surpasses traditional smart meters by offering advanced analytics, customisable reporting and seamless integration, empowering energy usage to be optimised, costs to be cut and data-driven decisions to be made.



## Email Reporting

Easily configure reports to be sent daily, weekly, monthly, quarterly or annually by email.

Grouping meters to users within the Energy Manager setup enables dynamic email reporting, allowing for a multi-level reporting structure. This means tenants can receive data specific to their area, while building owners and facility managers can access reports for the entire building. This data enables businesses to understand their energy usage patterns more comprehensively, helping them identify opportunities for efficiency improvements.

## Benchmark Usage

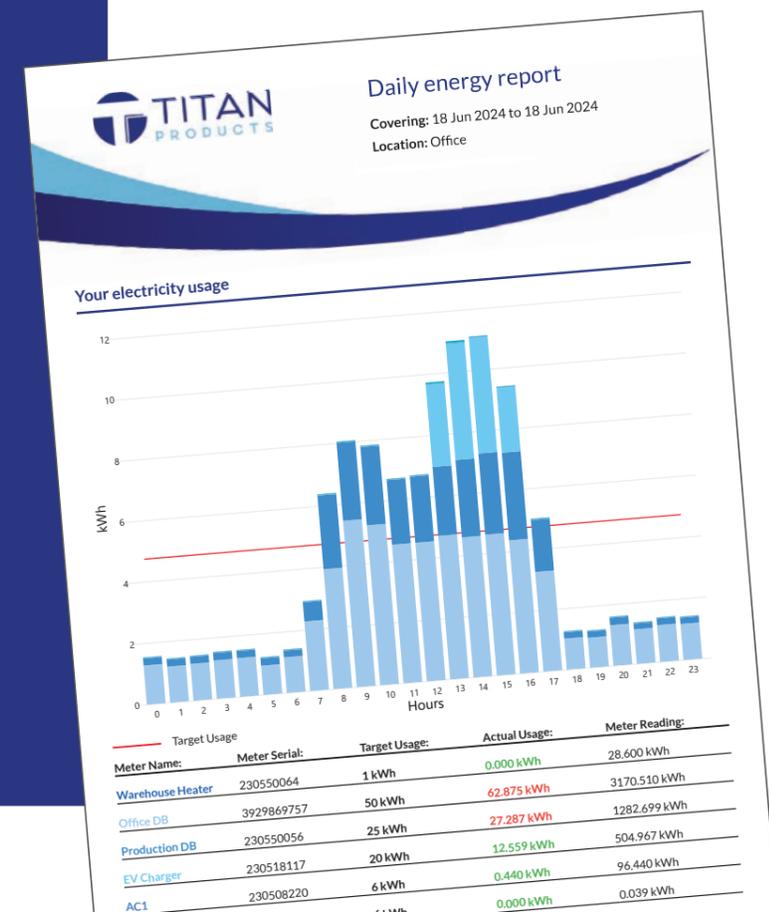
Performing to energy usage standards is critical for modern buildings. The Energy Manager allows building owners to set the designed target energy usage to benchmark reports against actual usage to understand if the building energy usage is performing to the design.

### KEY FEATURES:

- Connect up to 16 meters
- Supports Gas / Electricity / Water / Heat / Cool meters
- Supports BACnet, Modbus, Pulse, 0-10V, 4-20mA meter types
- IoT integration to 3rd party cloud servers
- BMS integration via BACnet/IP
- Housed in pre-wired enclosure for simple and quick install & setup
- Email reporting with benchmarking

### KEY FEATURES:

- Native email reporting from Energy Manager
- Group users to specific meters allowing reports for only meters that concern particular stakeholders
- Options for daily, weekly, monthly, quarterly & yearly reports
- Displays meter name, meter serial number, target usage, actual usage and total meter reading
- Target line and usage helpful for meter energy benchmarking



# Part Codes

<b>Network Management</b>	<b>Part Code</b>
NetMaster Network Manager (Din rail mounted)	TP-NM-C-D
<b>Control &amp; IO</b>	
Flexible BACnet MS/TP Fan Coil Controller	TP-C-710
Flexible BACnet/IP Fan Coil Controller	TP-C-710-IP
Smart IO Module with 4 x UI and 4 x Digital Outputs c/w NFC communications for setup	IO/COM-4DO
Smart IO Module with 8 x UI and 8 x Analogue Outputs c/w NFC communications for setup	IO/COM-8AO
Smart IO Module with 8 x UI and 8 x Digital Outputs c/w NFC communications for setup	IO/COM-8DO
Smart IO Module with 8 x UI and 8 x Relay Outputs c/w NFC communications for setup	IO/COM-8R
<b>Sensors</b>	
Room Temperature Sensor (10K3A1*) - slimline enclosure	TP-RS-10K3
*Other thermistors available	
Smart Room Humidity and Temperature Sensor with BACnet / Modbus communications	TP-RS-RHT-BMS
Smart Room CO2, Humidity and Temperature Sensor with BACnet / Modbus communications	TP-RS-CO2RHT-BMS
Smart Room CO2, Humidity and Temperature Sensor with HALO LED indication with BACnet / Modbus communications	TP-RS-CO2RHT-BMS-H
TPZ-Net Wireless Room Humidity and Temperature Sensor	TP-RS-RHT-TPZ
TPZ-Net Wireless Room CO2, Temperature and Humidity Sensor c/w LED HALO	TP-RS-CO2RHT-TPZ
<b>User Interfaces</b>	
Multi-zone 7" Touch Screen	TP-UI-TS-7
Zonal 4" Touch Screen	TP-UI-TS-4
Rotary User Interface	TP-UI-RO
Rotary User Interface with CO2 Monitoring	TP-UI-RO-CO2
<b>Energy Management</b>	
Pre-wired Energy Manager for up to 16 x BACnet, Modbus, Pulsed, 0-10V, 4-20mA or custom meters	TP-EM-16
Bespoke pre-wired Energy Manager for up to 16 x single phase CT meters or 4 x 3 phase CT meters	Contact Titan for bespoke CT meter enclosure details