

# HTM

## RTU4 GSM/SMS TELEMETRY RTU

### FEATURES

- ❖ Simple remote control via handphone
- ❖ Large touch screen interface
- ❖ Notification of events via SMS
- ❖ Automation of control system
- ❖ Low power consumption
- ❖ Suitable for solar power supply
- ❖ Low cost and reliable
- ❖ Over the air programming
- ❖ Data storage with SD card



### INTRODUCTION

HTM RTU4 is a GSM/SMS based telemetry RTU that utilize the commonly available GSM network for the transmission of data through SMS format. It is simple in operation via touch screen human interface & has been proven reliable and widely accepted as the simplest way of data transmission without heavy budget. It is specifically designed as an alternative to conventional signal & control cables for the remote control and monitoring of pumps, valves and any other equipment.

HTM RTU4 is available with 16 digital inputs & 16 digital outputs with SD memory card for data storage. Basic configuration consists of a stand alone RTU for the capture of process data and notify designated parties through pre-programmed events. Users can update process data in the field by sending sms through hand phones. HTM RTU4 can also be used as stand alone automatic control system by installing two RTUs at different locations. Pre-programmed automated sms will be sent between the two RTUs to achieve the automatic control. In addition, a network of RTU4 can be linked up to form a remote control SCADA system through third party SCADA software. All RTU4 units are housed in IP25 DIN rail mounted enclosures. Due to its low power consumption, HTM RTU4 is suitable for mounting at remote areas and powered by solar panel.

### APPLICATIONS

HTM RTU4 are suitable for the transmission of any digital on/off signals either by event initiated or via user interrogations. Data collected can be transferred and output through another RTU or hand phone automatically. The data can also be retrieved through hand phone via SMS messages.

Typical applications of HTM RTU4 include remote monitoring and control of pumping stations, traffic lights, unmanned machine rooms, weather stations, substations etc without using any physical hard wire. The unit can also be used to replace long control cables between pumping stations and reservoirs for automated pump control and transmission of overflow data over unlimited distance.

Due to the nature of GSM network, monitoring & control of HTM RTU4 signals can be carried out practically from any part of the world.

In a network system, there is no network master and any station can communicate with every other stations. Any input at any station can be linked to output at any station using a simple configuration program. All data transmitted are in programmable SMS messages.

## SPECIFICATIONS

Model: RTU4  
Microcontroller: PIC24F  
Internal memory: 256K with 32K SRAM  
Data storage: 1 GB SD card (Max 2GB)  
Operating frequency: 900/1800MHz  
Operating class: 900MHz: Class 3  
                    1800MHz: Class 1  
Transmitting power: 900MHz: 2W (peak)  
                          1800MHz: 1W (peak)  
Receiving Sensitivity: 900MHz: -107dBm  
                             1800MHz: -106dBm  
Operating temperature range: 10°C to 60°C  
Humidity: 35-85% non condensing  
Status display: LED  
Antenna connection: SMA  
Touch screen: 2.8" Color TFT

Digital input (DI): Optically isolated, suitable for 9-24VDC  
Digital output (DO): N-Channel MOSFET rated 500mA per channel  
Programming: Touch screen or Over The Air through hand phone  
Data transmission format: GSM/SMS  
EMC compliance: IEC 60101-1, 2, 3, 4, 5  
Enclosure: IP25  
Enclosure materials: PVC  
Mounting: DIN rail  
Dimensions (mm): 70 X 75 X 130 (mm)  
Power supply: DC9 to 24V  
Power consumption: Idle: 50mA  
                          Transmitting: 100mA  
Antennae type: Single pole with magnetic base

## TYPICAL APPLICATIONS

