

# Wall-mount Clamp on Ultrasonic BTU/ FLOW Meter



**TKN 204 Enhanced series**

**+/-0.5% Accuracy**

## Features

- Measurement accuracy:  $\pm 0.5\%$
- Non-Invasive: with no pipe disturbance and no Maintenance
- Easy installations
- Wide range: pipe size from DN50mm to DN2000mm and flow rate of 0.01 to 15m/s
- Suitable for many common pipe materials
- Communication interface: Modbus RTU and MBus
- 4G / GPRS modem for remote monitoring
- Connectivity to UBILL MACCLOUD server for Record & Analyze
- Weather resistance enclosure – IP65
- BTU, Mwh, Velocity, Volumetric, Totalized flow measurements
- Internal data logging.



Compatible with



◆ HIGH PERFORMANCE

◆ COMPACT

◆ ROBUST

◆ RELIABLE

◆ CLOUD CONNECTED

◆ INDUSTRIAL GRADE

## Communication Interface



## Introduction

Techknave TKN 204 Enhanced series Wall-mount Clamp on Ultrasonic BTU/ FLOW meter provides accurate thermal energy and Liquid flow measurements from outside of a pipe. TKN 204 series can be virtually applied to a wide range of pipe sizes and in long-term online measurement. A variety of liquid applications can be accommodated: ultra-pure liquids, portable water, chemicals, raw sewage, reclaimed water, cooling water, river water, plant effluent etc. Due to the non-intrusive nature of the clamp-on technology, there is no pressure drop, no leaks, no risk of contamination, no corrosion, no moving parts and easier and faster installations.

Techknave enhanced series TKN 204 are offered wide range of communication interface. As standard MODBUS RTU (RS485) interface built in. MBus interface is add-on -built within the device. External GPRS /4G module available for remote monitoring and remote control through UBILL cloud Server platform. GSM/GPRS technology allow us to automatically collect metering data and transfers that data to a Server for Record, analysis, dashboarding, reporting and notifications. Detailed Consumption data can be collected continuously at Predefined Intervals and can be read remotely via an automated process.

## Measuring Diagram



Flow Measurement




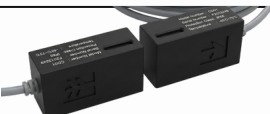
Energy/BTU

### Features:

- No need to cut off water
- No pressure loss.
- Additional clamp on temperature transducer.
- Perform the heat/energy measurement.
- Easy for Installation.

## Flow Transducers



External clamp on flow transducers are supplied in two variants

Model	Flow Transducer Type	Picture
F10	Flow Transducer for pipe size 2" to 28" (DN50 to DN700)	
F20	Flow Transducer for pipe size 28" to 80" (DN700 to DN2000)	

## Temperature Transducers

Supply & Return pipe temperature transducers are supplied in 2 variants with clamp on type:

- Temperature range: -30 – 160 °C
- Accuracy: 100°C ± 0.80°C

Model	Temperature Transducer type	Picture
T10	Small size Pt100 transducer for pipe size 2" to 28"(DN50 to DN700)	
T20	Large size Pt100 transducer for pipe size 28" to 80"(DN700 to DN2000)	

## Applications

Techknav T204 series wall mounted CLAMP ON BTU and FLOW METER are ideal for process-control / BTU or kWh energy measurement / Flow measurement, Flow verification, Energy Audits, Network leak detection and various other industry requirements.

◆ Flow meter verifications

◆ Energy Audits

◆ Network Metering

◆ Food, Beverage & Pharmaceutical plants

◆ Petrochemical industry

## Cloud Server Connected

TKN 204B GSM model helps to connect Flowmeters to UBILL MACCLOUD server making SMART IOT solution. The subscription-based service helps the meter to automatically monitor real time values, log, analyze and notify all critical parameters of the CLAMP ON BTU / FLOW meters. The platform helps the Energy consultants, Utility companies, ESCO managers to evaluate timely insights of Flow & Energy consumption.

## Communication Interface

- Rich intuitive dashboard
- Real time monitoring
- Energy auditing
- GEO Location mapping
- Measurement and verification
- Energy & cost saving tracking.
- Regression analysis
- Bill creation and Verification
- KPI analysis and portfolio benchmarking

This device is compatible with iBM and UEnergy for our cloud platform

## Order Codes

### TKN204 Series – Model Selection Matrix

Meter Type	Applicable Pipe Size	Modbus RTU (RS485)	M-Bus
Flow Meter	DN50 to DN700	TKN204F-E-000	TKN204F-E-MPB
	Above DN700	TKN204F-F-000	TKN204F-F-MPB
BTU Meter	DN50 to DN700	TKN204B-E-000	TKN204B-E-MPB
	Above DN700	TKN204B-F-000	TKN204B-F-MPB



Manufactured by: ConnectME Manufacturing LLC, UAE, Dubai.  
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