

# THE SU8 AN EIGHT CHANNEL SUMMATION METER

*Breaking  
New Ground  
In Energy Management*



## Introduction

The Autometers SU8 meter is a new product in the range of the IC900 series meters, which has been specifically designed to meet the particular requirement of switchboard manufacturers around the world. Designed to be a meter which is not only accurate but small and compact, and easy to install. It also has an optional advantage of being able to be fitted at a later date with a communication module for BMS systems.

The SU8 panel mounted meter is an eight way summation and totalising meter designed to work with the Autometers range of pulse emitting meters. The SU8 is an alternative way of summing electrical circuits and at the same time supply better information by way of indicating the individual channels by name.

## Overview

The SU8 works by collecting and counting the pulses from upto eight external electricity meters which have a pulse output fitted. Each external electricity meter sends a known value pulse to one of the eight channels on the SU8, here it counts the pulses and displays this information in kWh on the display. The total kWh on each channel is then summated and displayed by pressing the green "TOTAL" key.

Also available on the meter is a volt free pulse output representing the sumated value of all channels this output is set to 10 kWh per pulse. An optional feature is the MODBUS RS 485 Communication module (IC 900) which allows other external monitoring devices to read the SU8 individual channels and summated value.

## Operation

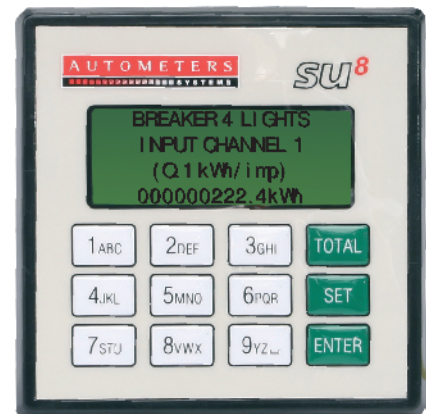
There are twelve press keys on the front, nine white and three green. The white keys have a large black numbers printed and the three small characters. The numbers represent the individual channels and the three small characters are used when you programme an individual name to each channel. The three green keys are used for programming the meter. There is one display 20 x 4 characters with a back light for easy reading. The back light will switch on when any key is pressed.

## Measuring Accuracy

The accuracy - critical components in the measurement circuitry are all passive, high quality and stable. The overall measurement accuracy is how ever dependant on the accuracy of the external meters.

## Sequence

The SU8 is a single key operated device. To obtain information press the appropriate key; e.g. to display channel one, press the key with the number 1 on the following display will show: The name you have programmed the channel, the number of the channel, the pulse value of the input from the external meter you have programmed and the Total kWh units.



By simple programming the display can show:

- A unique name for each channel input**
- An individual channel number**
- The input pulse value for each of the eight separate channels**
- Total kWh for each channel**
- Total kWh summated for all eight channels**

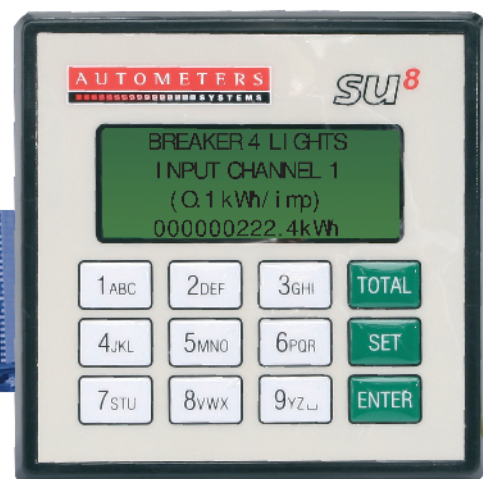
## System Use

Although the SU8 meter can be used in a stand alone situation, it is ideal for sub metering displaying information measured from different departments and locations. The meter has been designed to accept a plug in communication module (RS 485 MODBUS) which enables it to work with the new Autometers Systems Horizon range of data loggers as well as many other management systems.

## Product Range

Metering and monitoring equipment ranges from single phase and Polyphase kWh electromechanical meters to a sophisticated range of fully programmable information centres. Also available are Electronic Meters, Panel Mounted Meters, Maximum Demand Meters, DIN Rail Meters and Current Transformers.

# TECHNICAL DATA & PERFORMANCE



## Dedicated Customer Service

Customer care is the cornerstone of the company's success. A positive service policy is observed throughout every specialist area of operation. The personal involvement of all the directors at every level, a highly trained and motivated staff, fully computerised systems and in depth stockholding combine to provide a level of service which has earned the appreciation of customers across the spectrum of the UK and overseas markets. Computerised distribution systems are geared to a consistent 24 hour despatch of products, with 20 minute despatch being possible in response to urgent demand for small orders.

## Performance & Data

### Measurements

The SU8 is designed to collect pulses from external metering equipment, display them on individual channels (maximum eight) summate the value of all eight channels and display this as a total figure.

### Technical Parameters

Voltage Range	230V $\pm$ 20%
Working Temperature	-5 $\pm$ 60°C
Storing Temperature	-5 $\pm$ 60°C
Humidity	max 95%
Power	1.5W
Com Voltage	12V
Output Port	400V, 100ma
Insulation Immunity	4000 VAC

### Display

The display is a positive image 20 x 4 characters. Dimensions of the characters are 2.3mm wide by 4.03mm high (5 x 8 dots)

### Outputs

There is one optically isolated volt free relay, Total kWh on the SU8 meter.

Pulse duration: 100 ms

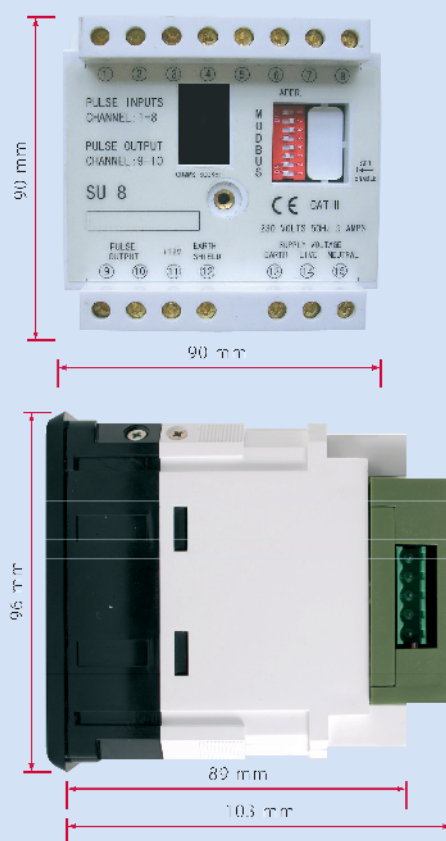
Pulse Value: 10 kWh

Relay contacts: Maximum switching voltage 400 volt at 100ma, maximum switching current 0.75 Amp (switching power 30ma)

### Communication Module

Baud Rate:	9600
Wire Mode:	2 WIRE
Modbus Type:	RTU
Parity Type:	EVEN
Data Format:	FLOAT 16 POINT
FP. Format:	11G 1 WORD 1st

## Dimension and Terminal Arrangements



### Important.

The attention of the specifier, purchaser, installer or user is drawn to special measures and limitations to use which must be observed when these products are taken into service to maintain compliance with the CE directives. Details of these special measures and limitations of use are available from HMSO.

REF: IEC 1000-5-1 (BS195/210788DC) IEC 1000-5-2 (BS 195/214642DC)  
IEC 10000-5-6 (BS 195/210789DC).

Product development is continuous and Autometers Systems Ltd reserves the right to make alterations and manufacture without notice. Products as delivered may therefore differ from the descriptions and illustrations in this publication.



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