

Visit our websites:
www.switch2.com

www.metersdirect.co.uk

Contact us on **+44 (0)870 999 6030**
Fax: **+44 (0)870 999 6031**
E-mail: **sales@switch2.com**

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Delta Meter With M-bus communication



Panel mounting

Enabled for cost effective remote reading

The Delta Meter is a range of electronic electricity meters intended primarily for mounting on a DIN bar. The meters are designed in general in conformance with ABB's pro M-standard.

The Delta Meter is type-approved according to international standard IEC 1036 (for active energy) and IEC 1268 (for reactive energy). These standards cover all technical requirements with regard to climate, mechanics, EMC, electronics and accuracy.

The Delta Meter has an LCD-type display with integrated M-bus communication, which enables cost-effective remote reading without conversions via the traditional pulsed output.

The Delta Meter can also be provided with inputs or outputs, eg for control, alarm handling and pulse counting, etc. The meter can also be equipped with instrumentation functions, facilitating the reading of practically all electrical units. In addition, a light emitting diode on the front flashes in proportion to the measured energy.

The meter is also provided with electronic installation monitoring to indicate possible faults made in connection with installation. There is a primary registration function when the meter is used with external voltage transformers (VT) and/or current transformers (CT).

The product range is divided into 2 main groups:
Direct connected up to 65A
Transformer connected CT/VT

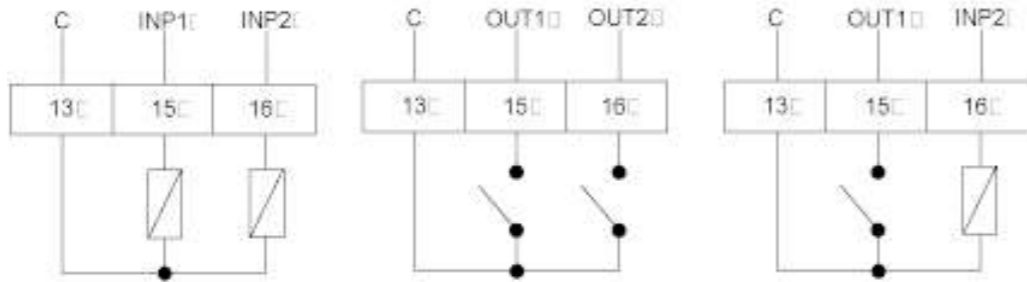
- Options
- Tariffs
 - Inputs or Outputs
 - Instrumentation functions



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Inputs or outputs (Option)

The meter can be provided with inputs and outputs. The input can be used as a sabotage alarm or as a pulse counter, e.g., for a water meter. The output can be used as an ON and OFF function, e.g., to switch off the current by remote control. The inputs/outputs are of the opto-switch type and are galvanically isolated from other electronics in the meter. There are two input/output voltage variants; high and low, see technical data. Both variants are for AC/DC voltage and are polarity independent.

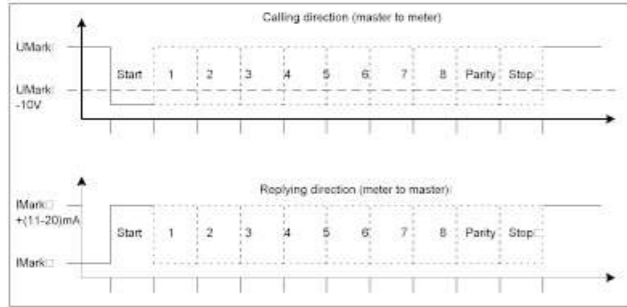


Functions inputs and outputs

The input counts and stores pulses. The status can be read both via the bus and on the LCD display. The output can be controlled from a PC by switching ON and OFF and the status can be read at each transmission of data from the meter.

M-bus protocol

The protocol is based on international standard IEC 870. The bus system is adapted for remote reading of energy meters and works on the principle of master/slave.

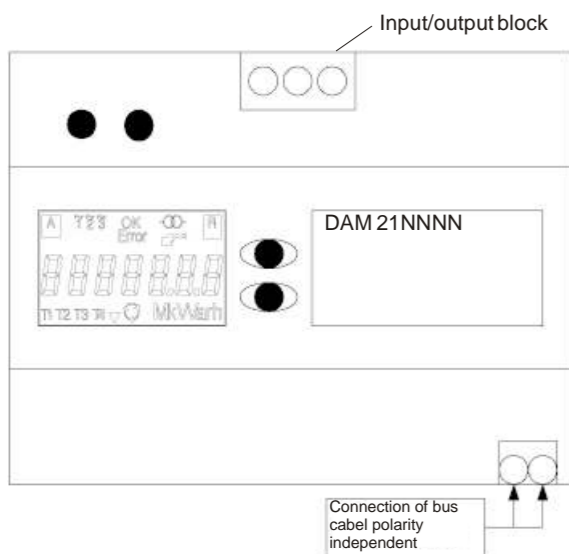


Instrumentation (optional)

Read electrical units and functions, depending on type of Delta Meter

Description
Active energy, total and per tariff
Reactive energy, total and per tariff
Transformer ratio
Status of inputs and outputs
Current and voltage per phase
Active power per phase and total
Reactive power per phase and total
Apparent power per phase and total
Power factor, power frequency
Status on installation check
Interruption counter for line voltage
Manufacturer and serial number

Installation



Technical data

Input:

Voltage range: 0 – 40 V AC/DC.
 0 V to 2 V no pulse count.
 4.5 V to 40 V pulse count.

Input resistance: 8 - 13 kohm

Min. pulse length and pause: 30ms

Output:

Voltage range: 0 – 400 V DC, 0 - 282 V AC.

Output resistance: 12 – 25 ohm, typical 18 ohm

Maximum current: 200 mA.

