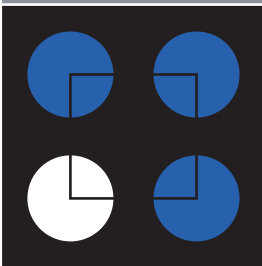


**B&S**  
Power Division



energy management



## Terminal

The Smart Way to  
Data Collection  
and Control



## The versatile metering terminal

The Terminal is used to log and store signals from different types of meters and sensors. Readings can be displayed locally or sent to a central PC. The signals can be analog or digital. In the Terminal, different types of calculation can be made, such as summations of selected inputs. The Terminal can also be equipped for load control, i.e. with the ability to control loads in order to reduce maximum demand and power consumption.

### Digital signals

The Terminal can be fitted with 8 or 16 digital inputs (see Product range). Different types of meters can be connected to these inputs. Meters are connected via the pulse output to the chosen input of the terminal. A digital signal can also be a status signal from some types of sensors, in this case the signal could represent off or on.

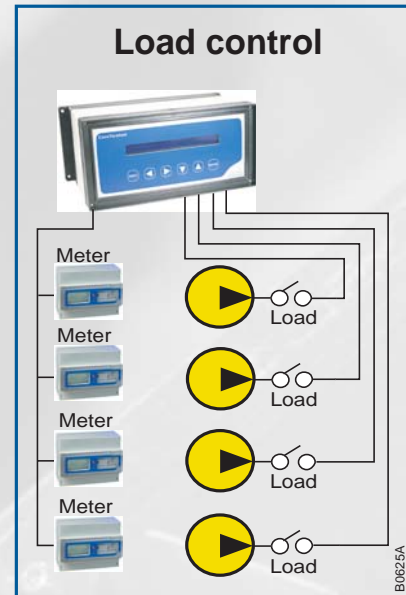
### Analog signals

As well as digital signals, the terminal can be equipped with eight analog inputs (see Product range). Analog signals may be signals from transducers or sensors. Examples of such signals are 0/4–20 mA, 1–5 V, 0–10 V or Pt 1000.

### Load control

Many industrial firms have to contend with uneven loading on their networks which can be heavily loaded for short periods. As a consequence, the system must be dimensioned to handle these peaks and costs are increased in the form of extra charges. The Terminal can be used to monitor these peaks and send control signals to switch off non-priority loads, thus reducing overall energy costs.

The Terminal can do this in several ways. The most common approach is to let the terminal monitor the average power over a mean value



period. If the power tends to rise above a given limit, a signal is sent to an output to switch off a load. Control can also be done by stages. If switching off the first load is not enough, further loads can be disconnected.

Another way of controlling loads is to consider the instantaneous power. When it goes above a given limit, a signal is sent to an output to control loads.



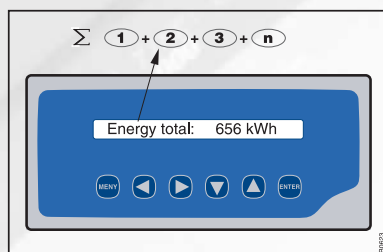
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## Summation

In many cases it is of interest to summate (total) the consumption figures from different meters. For example, it may be of interest to summate the readings of all such meters allocated to say a cost centre within the factory. The terminal can also be configured to do comparisons such as the difference between summation of all sub-meters and the main meter readings directly on the display.



## Terminal in systems

Where a more detailed analysis of energy consumption is required Cetrics communication software can be supplied for use on a remote PC. The program allows the user to set up tariffs, prices, produce invoices and monitor energy consumption in real time.

## Configuration

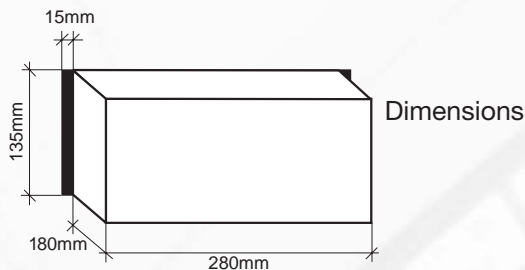
Functions are configured with PC software which comes with the terminal.

## Product range

Art. No.	Designation	Description
5080	CwT 20 00 08	8 digital inputs
5081	CwT 20 00 16	16 digital inputs
5082	CwT 20 08 08	8 analog inputs, 8 digital inputs
5084	CwT 20 00 08 M	8 digital inputs, modem
5085	CwT 20 00 16 M	16 digital inputs, modem
5086	CwT 20 08 08 M	8 analog inputs, 8 digital inputs, modem
5088	CwT 20 00 08 C	8 digital inputs, stand alone
5089	CwT 20 00 16 C	16 digital inputs, stand alone
5090	CwT 20 08 08 C	8 analog inputs, 8 digital inputs, stand alone
5091	CwT 20 08 16 C	8 analog inputs, 16 digital inputs, stand alone

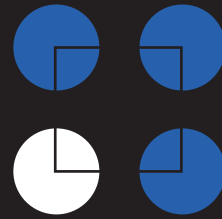
## Technical data

Power supply:	9 V AC, 1 A
Temperature range:	0–55 °C
Size:	270x145x120 mm
Interface 1:	Current loop, InfBus LAN
Cable type:	Twisted pair two-wire cable, shielded in some cases. Max 1.5 mm <sup>2</sup> .
Interface 2:	Internal modem (OPTION)
Transmission distance:	Depends on cable resistance, max 70 ohm
Number of inputs:	see Product range
Analog inputs:	0–5 V 0–10 V Pt 1000 0–20 mA 4–20 mA
Measurement accuracy:	16 bits
Storage capacity:	24 trend curves 36 000 readings distributed over 24 trend
Channels:	50 types of alarm, freely configurable 50-year clock
Battery backup button cell:	<55 days
Display:	LCD, 2x40 characters



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