

# CVM-1D

Single-phase power analyzer



## Description

**CVM-1D** is a power analyzer for single-phase circuits up to 32 A. It has an LCD display with a rotating screen system, showing a total of 24 instantaneous, maximum and minimum electrical variables. It has been designed in an enclosure with only 1 DIN module (18 mm), and the size of the analyzer allows it to be installed in any electrical panel. The unit has the Modbus/RTU (RS-485) protocol and is compatible with the energy management software **PowerStudio**.

Other features:

- Six-digit LCD Display
- RS-485 Modbus/RTU interface
- Programmable impulse output and alarm
- Metering in four quadrants

## Application

Application in:

- Student residences / Hotels
- Ports
- Shopping centres
- Buildings with rented office space
- Camp sites
- Domestic and industrial lines
- Single-phase lines in general

## Features

<b>Power circuit</b>	
Single-phase power supply	230 V <sub>AC</sub> ±20%
Power supply frequency	50 / 60 Hz
Power supply use	1.5 VA
<b>Measurement circuit</b>	
Phase – Neutral nominal voltage	184 V <sub>AC</sub> to 276 V <sub>AC</sub>
Frequency	50 / 60 Hz
Nominal current	32 A
Minimum current	250 mA
Maximum current	32 A
<b>Output transistor features</b>	
Type	Optoinsulated transistor (commutator open) NPN
Maximum voltage of operation	35 V <sub>DC</sub>
Maximum current of operation	50 mA
Maximum frequency	5 impulses / s
Impulse duration	100 ms (configurable)
Insulation	3.7 kV <sub>RMS</sub> / 1 min
<b>Communications</b>	
Port	RS-485
Protocol	Modbus / RTU
<b>Build features</b>	
Measuring module	Assembly on <b>DIN rail 46277 (EN 50022)</b>
Number of modules	1
<b>Environmental conditions</b>	
Operating temperature	-10 – +50 °C
Protection degree	IP 31
Humidity (without condensation)	5% - 95%
Maximum altitude	2000 m
<b>Safety</b>	
Type of insulation	<b>EN 61010</b> double-insulated electric shock protection class II
<b>Standards</b>	
<b>IEC 664, VDE 0110, UL94-V0, EC 801, IEC 348, IEC 571-1, Class B</b> <b>EN 50470-3</b> in Active Energy, Class 2 <b>EN 62053-23</b> in Reactive Energy, <b>EN 50470-1, EN 61010, EN 61000-4-3, EN 61000-4-4, EN 61000-6-4, EN 55022</b>	

# CVM-1D

Single-phase power analyzer

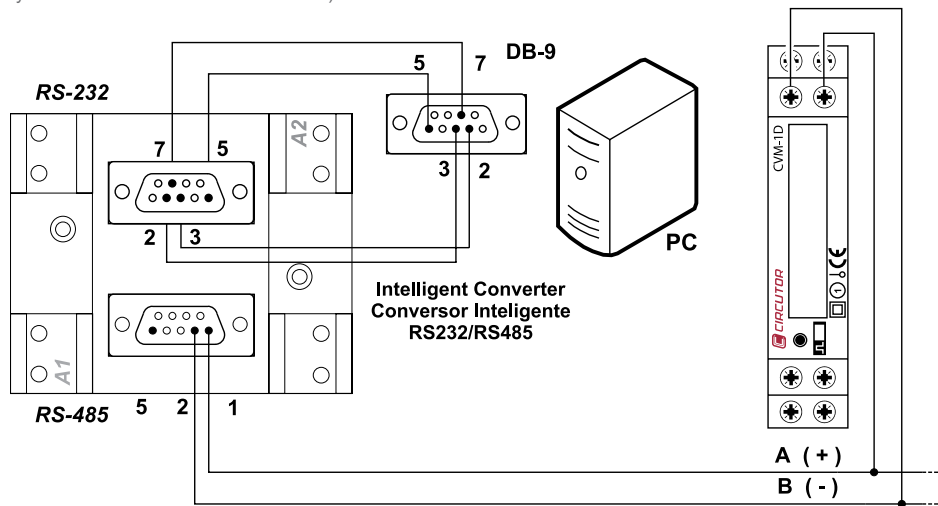


## References

Quadrants	Communications Protocol MODBUS / RTU	Impulse output	Measurement	Type	Code
4	-	Yes	Single-phase	CVM-1D-C	M55510
4	RS-485	Yes	Phase 1	CVM-1D-RS-485-C	M55511

## Connections

RS-485 connection communication through Intelligent Converter RS-232 / RS-485  
(only model with RS-485 communications)



## Dimensions

