

## CloudGate

## SMART METERING EXPANSION CARD





The CloudGate expansion card that covers all your wired interface needs

- Modbus interface
- M-Bus interface
- P1/DSMR interface
- I2C sensor interface
- USB interface
- 5 x configurable GPIO
- RS232/RS485

## OPTION

## Ideal for smart building, street cabinets & energy optimization

Monitoring energy production and consumption in a building has never been easier with the CloudGate Smart Metering card.

Not only can it interface with all wired interfaces that are used by meters, it can also monitor critical sensors, analog or digital inputs and trigger digital outputs.

This makes it an ideal card to be used in Smart Building or cabinet monitoring use cases where it can optimally use the other advantages of the CloudGate IoT gateway platform such as a combination with wireless connectivity cards (LoRaWAN, Zigbee, wM-Bus, BLE...), an interface to the BACnet building management system, remote access etc.

In case of power loss, the optional battery kit of CloudGate 4.0 gateways can ensure transmission of notifications.

Technical Specifications	
Serial port	<ul> <li>6-pins, 2kV galvanically isolated</li> <li>R5232 (Rx/Tx/RTS/CTS/GND) – 500Kbaud max or</li> <li>R5422 or</li> <li>R5485 (full or half duplex A/B/GND)</li> <li>Switch for RS485 termination available in the UI*</li> <li>*not applicable to CloudGate R1</li> </ul>
Mbus port	<ul> <li>Mbus Master <ul> <li>up to 250 unit loads with 30V power supply</li> <li>up to 64 unit loads with 24V power supply</li> </ul> </li> <li>or <ul> <li>Mbus Slave</li> </ul> </li> <li>Power supply + GND pin for Mbus master. These pins are also powering CloudGate so no separate power supply is needed.</li> </ul>
IO port	<ul> <li>18-pins connector for wired interfaces</li> <li>12C interface 3.3V eg for environmental sensors in electricity cabinet (temp, humidity etc) - 4 pins</li> <li>5 multi-purpose IO's eg to monitor alarms in electricity cabinet or to drive door opening/ventilation relays - 11 pins</li> <li>Digital input (0 - 30V) (including dry-contact pulse counter)</li> <li>Analog input (0 - 10V)</li> <li>Current Loop input (4 - 20mA)</li> <li>S0 pulse-counter input</li> <li>Digital output (0 - 3.3V)</li> <li>Open Drain output (&lt; 250mA, 0 - 30V)</li> <li>P1 interface (for electricity meters in BE/NL) - 3 pins</li> </ul>
USB 2.0 port	$\checkmark$
Printed-Circuit Board Connector - Plug	<ul> <li>6-contact/3 position connector : PHOENIX-1790111-3V *</li> <li>18-contact/9 position connector: PHOENIX-1790179-9V **</li> <li>The 6-contact connectors can be used on the 18-pin socket</li> <li>* 2x 6-contact connectors included with the card</li> <li>** 18-contact connector not included with the card</li> </ul>



