

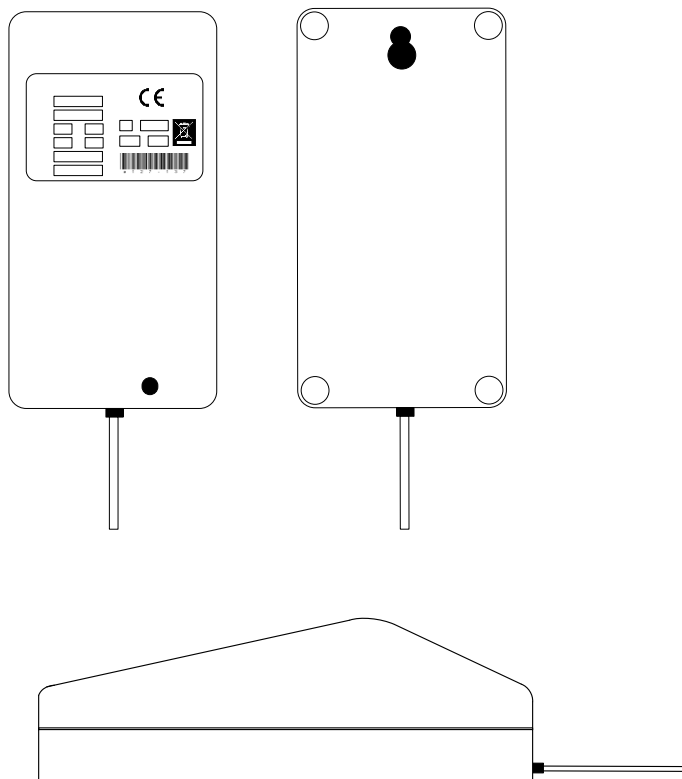
Installation and Connection

NOTE: The installation of this device must only be undertaken by a suitably trained and qualified engineer ensuring compliance with the DSEAR and ATEX directives and in accordance with IGEN/GM/7A.

Fixing

The ATEX gas sender has an environmental rating of IP65 and is suitable for outdoor use, however if installing outside, we recommend the unit is installed within a weatherproof cabinet or similar IP rated box alongside the Gas meter.

The ATEX gas sender should be fitted onto a level firm wall, meter board or cabinet. Two mounting points are provided as shown below.



Operating/Installation Instructions

ATEX Approved Gas Sender Unit:

Model: PMM1280

Before use please read these instructions carefully

Thank you for purchasing an emlite ATEX approved Gas pulse sender unit. These instructions are intended to provide information on the installation, operation and programming of sender unit used in conjunction with a Emlite EMA1.x Smart meter Please keep for future reference.

This ATEX approved gas pulse sender is designed to be used for collection of Gas metering data and then subsequently transmitted to the EMA1.x smart electricity meter via a low power 898 MHz radio.

Equipment Required for Installation

Before any work can be carried out you must ensure that you have all of the equipment needed to make a successful installation. These items are:

- Em-lite EMA1.x Smart meter with 868 MHz Han and GPRS WAN
- Gas meter or other device with pulsed output.
- ATEX Gas sender with Unique serial number(Serial number can be found on the front of the sender housing)
- Magnet to initiate programming of the ATEX pulse sender
- Your 6 digit PIN number supplied with the Atex sender.

Installation process.



Warning – Do not attempt to bind the unit to Smart meter while it is connected to the Gas meter. All programming and commissioning must take place outside of the hazardous zone

Step 1 - Understand the displays on the EM-lite EMA1.x/MC11 smart meter.

1. Press either button to activate the back light on the display.
2. Press the left push button repeatedly after the back light is illuminated to scroll through the display items described in the table below.
3. Please note - If you leave any display item for 30 seconds and display will revert to its default and the backlit will extinguish.

EMA1.x/Mc11 Display Cycle

Display order	Display	Description
1	Total Energy (default display)	Active energy kWh total
2	Time	Time in 24hrs format
3	Date	Date DD/MM/YYYY
4	Pulses IP1 (Channel 0)	Pulse count received from the Sender on channel 0.
5	Scaling factor (Channel 0)	The pulse scaling factor for channel 0. This is the number of 1/1000ths of a unit each pulse from the Sender is worth, default value 10.
6	Scaled reading (Channel 0)	This is the sum of the scaled Sender pulses and the opening read. This display should match the value shown on the Gas meter.
7	Sender serial number (Channel 0)	This is the Sender serial number contained within each pulse packet sent by the Sender. This display is used to ensure that the correct unit has bound with the Smart Meter.
8	LPR diagnostics	The upper line shows the total number of LPR messages received. The lower line shows the seconds since last receiving a message from the Sender and the Sender status byte, values defined later.
9	GSM diagnostics	Provides a description of the current status of the GSM. Once fully configured with an active listening socket the display shows: <ul style="list-style-type: none"> • Upper line: signal strength and network operator • Lower line: SIM IP address

Binding the ATEX pulse sender to the Em-lite Smart Meter

Note: To wake up your ATEX pulse sender you will need to place a Magnet on the right hand side of the unit. When the unit is awake and active the LED will flash.

1. Have the Smart Meter and ATEX pulse sender you wish to bind in front of you along with a Magnet and your 6 digit Pin number.
2. Make sure the Smart Meter and Sender to be installed are not already bound. This can be done by waking up the sender manually and checking that the LED flashes 10 times in quick succession.
3. Press and hold the Smart Meter's left push button for 5 seconds and the display should show '000000* Binding'.
4. Enter the assigned PIN into the Smart meters display (7) using the left push button to select which digit to change and the right push button to change that digit from 0 to 9.
5. Once the PIN has been entered press the left push button until it has scrolled past the star at the end of the display.
6. With the display showing 'Binding wake up sender' take the corresponding sender (Only wake up 1 sender at a time) and apply the magnet about half way up the right hand edge of the sender and remove it again (A sender can be woken up like this 10 times per 24 hour period).
7. Confirm the smart meter display reads 'binding successful' when the red LED starts to flash on the sender (This should flash 20 – 60 times in the minute when the sender is awake). The display should then revert to the default display after a few seconds.
8. Check that the Smart Meter is receiving messages from the Sender by looking at the LPR diagnostics display (8) and making sure the message count is incrementing.
9. Press the left push button repeatedly until the LCD displays 'IP1 Bound' followed by the serial number of the sender.
10. The meter and sender are now bound.
11. During normal operation when bound each Gas Sender is scheduled to wake up between every 15 – 21 minutes. When it awakes it sends messages containing the accumulated pulse data to the Smart Meter.

Entering the opening read into the Electricity Smart Meter

1. Have the Smart Meter in front of you.
2. Ensure no gas is being consumed at the premises (Digits stationary on gas meter).
3. Make a note of the reading on the gas meter e.g. 12345.678.
4. Press the left push button on the smart meter and hold it for 5 seconds.
5. Enter the assigned push button display PIN using the left push button to select which digit to change and the right push button to change that digit from 0 to 9.
6. When the number has been entered press the left push button until it has scrolled onto the '*' at the end of the display.
7. Press the right push button twice until the display shows the opening read option. Press the left button once more.
8. With the display showing 'Opening read 00000.000' enter 12345.678 using the left and right push buttons in the same manner as previously stated in these instructions.
9. Once the opening read has been entered press the left push button once more and the display will say 'Opening read accepted'.
10. Scroll through the display cycle until the 'scaled IP1' display is shown and confirm this value matches the gas meter reading. Note: this may only be to 2 decimal places as opposed to 3. In this case leave the 3rd decimal place at zero
11. The Gas Sender can now be plugged into the Gas meter.