

# Introducing the **SOLO** (microgeneration)

The Solo (microgeneration) is designed for generation only customers using solar PV panels.

The display provides live generation information to the user giving a clear picture of how their PV array is working. The user can see how much electricity their array is producing, it will show how much money they are earning through the Feed In Tariff and it will also show them how much carbon they are saving by generating their own energy as opposed to taking it from the grid.

Energy from microgeneration needs to be used efficiently as it cannot be stored. The Solo will indicate to the homeowner when the optimum times are to use their heavy load appliances such as dishwashers and washing machines. This matching of peak generation times with consumption ensures that as much of the self-generated energy is used as possible.

The Solo can store several years' worth of data to its SD Card which can then be uploaded to a graphical web portal. The website shows historical consumption of the PV array in kwh generated, money earned and carbon saved since the system was installed.

An LED sensor is used to take fiscally accurate information directly from the generation pulse meter. This ensures that customers get 100% accurate generation information.



- Intuitive, colour, back-lit display giving high visibility
- Shows live PV generation levels
- See how much you are earning from your Feed in Tariff (programmable for different FIT rates)
- Monitor how much carbon you are saving by using self-generated electricity instead of from the grid
- Use your PV system efficiently – a tick or cross indicates when are the best (or worst) times to use your heavy load appliances
- Website available to see historical generation levels
- Simple to install - magnetic LED sensor attaches directly to the customers' generation meter (see overleaf for compatible meter types)
- Battery or mains powered

## Solo Specifications

### Display

Dimensions:	approx 145 x 75 x 35mm
Materials:	UL approved ABS
Window:	perspex or similar with protective coating, 2 colour printing
Ingress Protection:	IP20
Ambient temperature:	0°C to +45°C operating, 75% RH non-condensing
Power consumption:	< 0.75W active, 0.5W with backlight off
Power supply:	mains PSU, 230Vac nominal 50Hz for UK wall socket
DC socket:	barrel-type
Radio:	2.4GHz ZigBee, Manufacturer Specific profile
Display:	colour transfective backlit TN LCD, approx. 55 x 90mm active area, chip on glass
UI:	3 momentary buttons, LED for display functions see the Solo user manual

### Transmitter

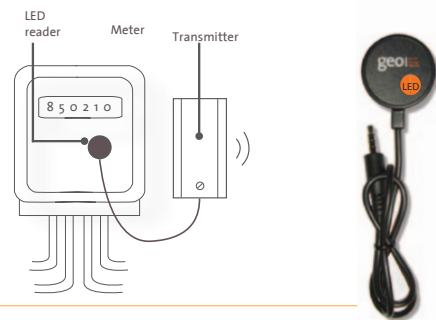
Dimensions:	approx 150 x 70 x 45mm
Materials:	UL approved ABS
Ingress Protection:	IP52
Ambient temperature:	-20°C to +45°C operating, 75% RH non-condensing
Battery life:	>2 years typical, 8mths minimum for a continuously changing load
Battery type:	4 C-cells, Alkaline
Sensor-In socket:	barrel-type
Radio:	2.4GHz ZigBee, Manufacturer Specific profile
UI:	single momentary button for pairing with LED feedback
Measurement:	12-bit ADC, 75kW full-scale
Accuracy:	±5% for Current sensor: resistive loads, sinusoidal waveform (PF=1.000)
Measurement interval:	2 seconds
Transmission interval:	2 second minimum, triggered by a load change of > 25W

### Performance

Range:	30m, 2 stud walls
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### LED Sensor

Type:	split-core ferrite current clamp
Max current:	75 Amp AC 50Hz, Cat III
Construction:	3000 turns, integral ballast resistor
Connection:	1.0m cable, barrel connector
Compatible with:	Elster A100C Landis+Gyr 5235 Iskra ME372/162 Most pulse out-put generation meters



### Approvals

- EN300 328
- EN 301 489
- EN61000-3-2
- EN61000-3-3
- EN55024
- EN60335-1
- CE
- RoHS
- WEEE

Manufacturing life:	2 yrs, i.e. components shall not have an end-of-life within 2 yrs of manufacture start
Pack includes:	display, transmitter, stand, LED sensor, batteries, PSU, instructions, packaging, batteries
Warranty:	12 months

Other Solo's available from GEO:

#### Electricity monitors

- Smart Solo (communicates with Smart Meters)
- Solo with IR or LED reader
- Solo with CT clip