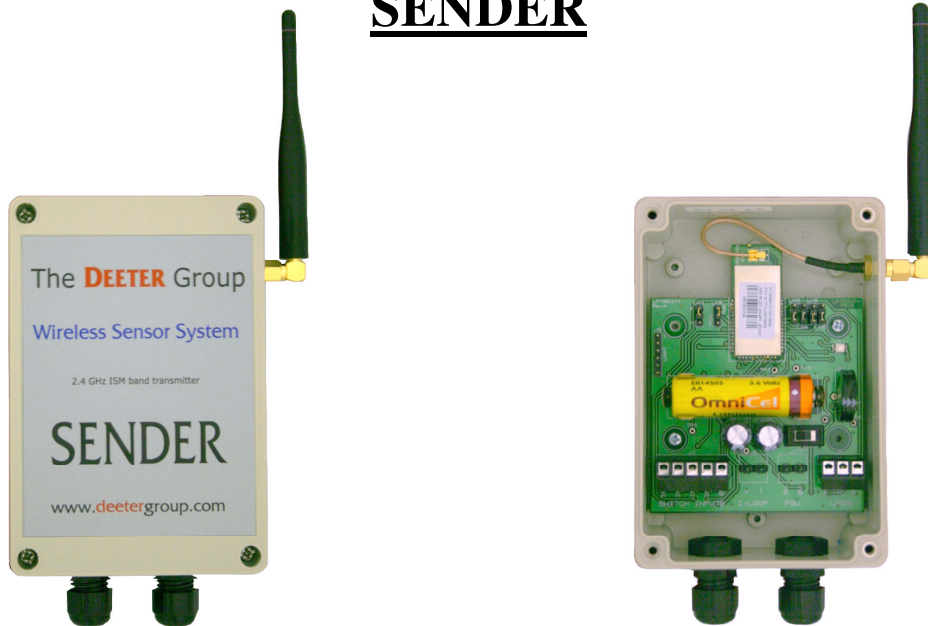


The **DEETER** Group



Wireless Sensor System SENDER



The Wireless Sender forms part of a Deeter Wireless Sensing System. It is always used with a Deeter Base Station, which acts as a coordinator for an IEEE 802.15.4 wireless network.

The sender has a number of sensing inputs and will transmit sensor data at regular intervals to the Base Station for conversion to drive process outputs. The sensor inputs are as follows:

- 1) Four discrete inputs from external switches, such as Deeter level sensor float switches or other voltage free contacts.
- 2) One analogue resistive input, such as a Deeter Resistive LVCS.
- 3) One 4 - 20mA current loop analogue input.

Wireless communication uses the internationally recognised IEEE 802.15.4 protocol in the 2.4GHz ISM radio band. Range can be up to 4km under ideal conditions. Significantly greater distances can be attained with the use of a Deeter Wireless Router.

The Sender is housed in an ABS enclosure with an external antenna and cable glands for power and signal inputs. An optional 3m extension lead and bracket are available for mounting the antenna in a position more favourable to wireless communication.

DEETER Electronics Inc

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Wireless Sensor System SENDER

The unit can be powered internally by a 3.6V Lithium Thionyl Chloride battery or externally by a 5VDC mains powered wall adaptor. The battery acts as a back-up when the external supply is interrupted.

If a 4-20mA current loop input is being monitored, a small amount of power is derived from this input to help extend battery life. Battery life for a battery-only powered Sender is greater than one year (based on a transmission interval of 10 seconds) transmission rates of 1 - 60 seconds are user configurable.

Specifications

Radio Frequency	2.4 GHz ISM band	Analogue Inputs	Potentiometer type or 4-to-20mA current loop
Communications Protocol	IEEE 802.15.4	Discrete Inputs	Four volt free contacts
Channel	11 to 26	Operating Temperature	-20°C to + 50°C
Transmit power	Model F01:P 18dBm	Enclosure	IP64
Antenna type	Half-wave dipole	Antenna	Fully weather proof
Antenna Gain	2.2dBi	Extension Cable (Optional)	3m
Receiver Sensitivity	-96dBm	External power supply (Note 2)	5V DC
Battery voltage	3.6V nominal	Dimensions (mm)	Height = 125 Depth = 55 Width = 85 Antenna Height = 88
Battery Size	AA	Battery Life expectancy	1 year
Battery Type	Lithium Thionyl Chloride	FCC part 15 compliant	Yes

Ordering Information

Description	Ordering Code
Wireless Sender Model SU01	DE012-0127
Antenna extension cable and mounting kit	DE012-0123

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