

The **DEETER** Group®

deeter^{net}® 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 more than 1km, subject to environmental factors, and 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.

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.

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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 (SE01)

Analogue Inputs	Potentiometer type or 4-to-20mA current loop	Dimensions (mm)	Height = 160 (216 inc. antenna) Depth = 62 (118 inc. antenna) Width = 120 (inc Antenna) Antenna Height = 96
Antenna	Fully weather proof	Discrete Inputs	Four volt free contacts
Antenna Gain	2.2dBi	Enclosure	IP64
Antenna Extension Cable (Note 1)	3m length	External power supply (Note 2)	5V DC
Antenna type	Half-wave dipole	Frequency Channels	11 to 26
Battery Life expectancy	1 year	FCC part 15 compliant	Yes
Battery Size	AA	Operating Temperature	-20°C to + 70°C
Battery Type	Lithium Thionyl Chloride	Radio Frequency	2.4 GHz ISM band
Battery voltage	3.6V nominal	Receiver Sensitivity	-96dBm
CE Mark	Yes	Transmit power	6dBm
Communications Protocol	IEEE 802.15.4		

Notes

- 1) This is an optional feature.
- 2) The Sender is supplied with a 5V DC external wall-mounted mains adapter power supply. This can operate on 100-240V AC 50-60Hz mains. It can supply 1.2A

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Ordering Information

Description	Ordering Code
Wireless Sender SE02	DE012-0194
Antenna extension cable and mounting kit	DE012-0123

All electrical equipment should be installed by a qualified/certified electrician.

The Deeter Group follows a policy of continual development of its products and reserves the right to change specifications and/or features without notice.

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