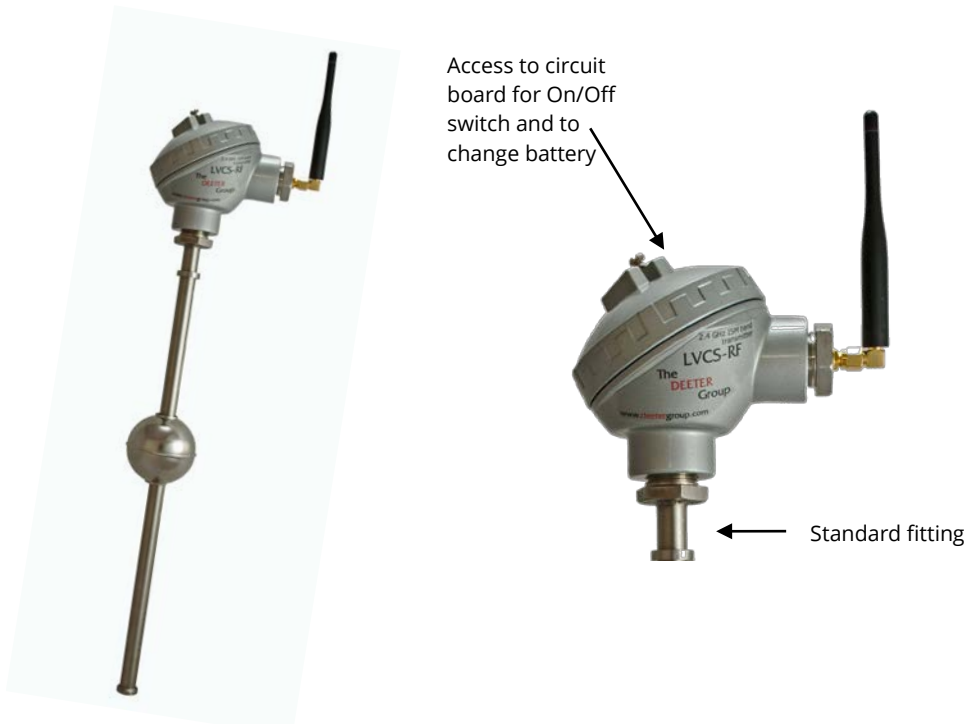


# The DEETER Group®

## deeter<sup>net</sup>®

### Wireless Sensor System

#### LVCS-RF



The LVCS-RF (Liquid Vertical Continuous Sensor - Radio Frequency) is designed to measure a continuous liquid level and transmit this information by radio to a Deeter Wireless Base Station at regular intervals.

The device is battery powered and wirelessly communicates in the 2.4GHz band using the internationally recognised IEEE802.15.4 protocol. Range can be more than 1km, subject to environmental factors, and greater distances can be attained with the use of a Deeter Wireless Router. A significant increase in the range can be achieved by using one or more Deeter Wireless Routers.

The simplest measurement system comprises an LVCS-RF sensor communicating to a Deeter Base Station connected to a 4-20mA current loop indicator such as a Deeter Current Loop Indicator (DCLI).

The LVCS-RF circuitry is housed in a die-cast Aluminium head with an external antenna. An optional 3m extension lead and bracket are available for mounting the antenna in a position more favourable to wireless communication.

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### Wireless Sensor System LVCS-RF

The sensor circuit is fitted inside a 316L stainless steel tube attached to the head, with a 53mm magnetic ball-float. Standard sensing lengths are 250mm, 500mm, 750mm and 1m. Custom lengths are available on request.

The LVCS-RF is powered by a single 3.6V Lithium Thionyl Chloride battery. Battery life is typically 9 months (based on a transmission interval of 10 seconds and an uninterrupted wireless link to the base station).

#### Specifications (LE01)

<b>Antenna (External)</b>	Fully weather-proof	<b>FCC Part 15 Compliant</b>	Yes
<b>Antenna Extension Cable (Note 1)</b>	3m length	<b>Frequency Channels</b>	16
<b>Antenna Gain</b>	2.2dBi	<b>Operating Temperature</b>	-20°C to 70°C
<b>Antenna Type</b>	Half-wave dipole	<b>Process Inputs</b>	Magnetic float switch with reed switch array
<b>Battery</b>	½ AA	<b>Radio Frequency</b>	2.4GHz ISM band
<b>CE Mark</b>	Yes	<b>Receiver Sensitivity</b>	-96dBm
<b>Communications Protocol</b>	IEEE 802.15.4	<b>Standard Measurement Lengths (mm)</b>	250, 500, 750, 1000
<b>Head Dimensions (mm)</b>	Height = 150 Width = 80 Depth = 120 Antenna Height = 96	<b>Transmit Power (Note 2)</b>	6dBm
<b>Stem Dimensions (mm)</b>	Height = 120+ sensing range Diameter (float) = 55mm	<b>Enclosure</b>	IP64

#### Notes

- 1) Optional feature
- 2) Conforms to European ETSI Limits.

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### Wireless Sensor System LVCS-RF

#### Ordering Information

Description	Measured Length	Inserted Length	Ordering Code
Wireless LVCS-RF1 LE01	250mm	340mm	DE012-0131
Wireless LVCS-RF2 LE01	500mm	590mm	DE012-0132
Wireless LVCS-RF3 LE01	750mm	840mm	DE012-0133
Wireless LVCS-RF4 LE01	1000mm	1090mm	DE012-0134
Antenna Extension Cable and mounting kit			DE012-0123

For custom lengths, contact the sales department

**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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