



DELTA-T DEVICES

The DL6 is a dedicated soil moisture logger optimised for use with Delta-T soil moisture sensors. It can be used with combinations of ThetaProbes and Profile Probes and also accepts raingauge and soil temperature probe inputs. It is well suited to both research applications and irrigation monitoring.

DL6 Loggers include a novel accelerated logging feature to allow the tracking of wetting fronts.

- Complete logging solution with battery power and weatherproof case
- Package includes Windows programming software – supports real-time graphical display
- 16,000 readings storage
- Relay controlled alarm output
- Accelerated logging feature triggered by raingauge or event input



NEW PDA SOFTWARE FOR THE DL6 LOGGER

DeltaLINK Software allows DL6 users to benefit from the convenience of PDA compatibility. This provides an optional in-the-field solution, allowing users to:

- collect and graphically view data in the field
- analyse data and reconfigure the DL6
- download data for transfer to a PC

Full software functionality is available with any iPAQ 2200 Series PDA, running Pocket PC v4.2.

ENVIRONMENTAL

As you would expect from Delta-T, the DL6 is tough and passes a 1m drop test. It is environmentally sealed (IP67) and can be used in the field without any further protection. To minimise the need for opening the case, data is collected via a weatherproof external RS232 socket, and the status of the logger can be checked using a vibration-activated LED.

DL6

SOIL MOISTURE LOGGER PRODUCT INFORMATION

The new DL6 Soil Moisture Logger is the perfect partner for Delta-T soil moisture sensors

The DL6 provides cost effective solutions for soil moisture measurement

This versatile 9 channel logger can record:

- Profile Probes (100cm PR2/6 or the 40cm PR2/4)
- ThetaProbes (up to 6 ML2x Probes)
- Soil temperature (2k thermistor)
- Raingauge

The DL6 also provides an alarm output to enable on-site alarm and control applications.

Input / Output Channels

- ▶ 6 Differential analog channels
- ▶ 1 Temperature channel
- ▶ 1 Event counter channel
- ▶ 1 Alarm output channel

Input Connection Examples

The DL6 can handle different sensor combinations. Here are some examples:

Example	Sensors connected and recorded	Notes
Example 1	1 Profile Probe (long, type PR2/6) 1 Soil Temperature Probe (ST1) 1 Rain gauge (RG1 or RG2)	The long Profile Probe is using all 6 analog channels. The temperature channel and the event channel (rain gauge) both have sensors connected. There are no spare input channels.
Example 2	1 Profile Probe (short, type PR2/4) 2 ThetaProbes (ML2x) 1 Soil Temperature Probe (ST1) 1 Rain gauge (RG1 or RG2)	The short Profile Probe is using 4 analog channels and the ThetaProbes are using the other 2. The temperature channel and the event channel (rain gauge) both have sensors connected.
Example 3	6 ThetaProbes (ML2x) 1 Soil Temperature Probe (ST1) 1 Rain gauge (RG1 or RG2)	The ThetaProbes are occupying all the analog channels. The temperature channel and the event channel (rain gauge) both have sensors connected.

Specifications

Inputs/outputs	Range	Logger Accuracy -10 to +50°C	Notes
Analog channels (soil moisture)	0.0 to 0.1m ³ .m ⁻³	±0.001m ³ .m ⁻³	Applicable to: PR2 and ML2x (up to 100m cable) Mineral & organic soil calibrations
	0.1 to 0.6m ³ .m ⁻³	±1% of reading	
Analog channels (DC voltage)	-10 to 1150mV Common mode range -0.2 to 3.0V	±(0.3mV + 0.2% of reading) + common mode error: 0.25mV/V	Logger can read either volumetric water content or voltage (not both).
Temperature channels	Sensor -20 to -60°C	±0.4°C	Using ST1 or ST2 thermistor or other 2k thermistor
Event counter channels (using rain gauge)	-	0.2mm	Using RG2, max 5 events/second
Sensor excitation	5-9V at 120mA	-	Uses internal battery voltage supply
Alarm out	2A, 25V DC/AC	-	Isolated relay switching (2A max. 1A fuse.)



PDA compatible software
Collect and view graphical data in the field.
See front page for details and availability

Feature	Full scale No/Rating	Notes
Logging frequency	1s to 24hr	User selectable with accelerated logging option
Accelerated logging	1s to 24hr	User selected - rain gauge or event triggered
Reading capacity	16,000 readings	Auto-wrap or stop logging user selectable
PC connection	1	Via RS232 connection (PCs without an RS232 PC port will require a USB to RS232 converter)
Battery lifetime	1yr	6 alkaline AA cells last for up to one year (depends on logging frequency)
Environmental	IP67	-20 to +60°C Operating -10 to +50°C Full accuracy



DL6 Logger with ThetaProbe type ML2x

Ordering Information

DL6 Soil Moisture Logger

with 6 voltage inputs plus 1 resistance, 1 counter and 1 alarm channel, 16,000 readings storage. includes PC software DL6-SW1, alkaline batteries, user manual and RS232 cable DL6-RS232

DL6-MKT1 Mounting Kit

for DL6 Logger and fixings for attaching DL6 to ground stake, walls, posts, etc

PDLK-M12 Pocket DeltaLINK Kit

includes Pocket DeltaLINK Software CD, quick-guide and 1.5m cable for PDA connection to DL6 Logger

PPC-1 Pocket PC (iPAQ)

Windows CE (iPAQ) – please request further details before ordering.



Delta-T Devices Ltd

128 Low Road, Burwell, Cambridge, CB5 0EJ, England

Tel: +44 (0)1638 742922 Fax: +44 (0)1638 743155

Email: sales@delta-t.co.uk Web: www.delta-t.co.uk