

AT

DELTA-T DEVICES

The DL6 Logger is optimised for use with Delta-T soil moisture sensors. It can be used with many combinations of ThetaProbes, Profile Probes, temperature probes and rain gauges, and is well suited to both research applications and irrigation monitoring.

- Battery powered and portable
- Rugged and weatherproof
- Rain gauge or event triggered accelerated logging feature
- Windows programming software
- 16k reading capability
- Alarm output relay channel

The DL6 provides cost effective solutions to soil moisture measurement problems.

ENVIRONMENTAL

As you would expect, the DL6 is tough and passes a 1m drop test. It is environmentally sealed (IP68) 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.



This advanced 9 channel logger can record:

- Profile Probes (the 100cm PR1/6 or the 40cm PR1/4)
- ThetaProbes (ML2x)
- Soil temperature probes (2k thermistor)
- Rain gauges

The DL6 can also provide a control alarm output.

Input / Output Channels

- 6 Analog channels
- 1 Temperature channel
- 1 Event counter channel
- 1 Alarm output channel

Input Connection Examples

The DL6 can handle many different sensor combinations. Here are some examples:		
Example	Sensors connected and recorded	Notes
Example 1	1 Profile Probe (long, type PR1/6)	The temperature and rain gauge channels are not being used in this example.
Example 2	1 Profile Probe (long, type PR1/6) 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 3	1 Profile Probe (short, type PR1/4) 1 ThetaProbe (ML2x) 1 Soil Temperature Probe (ST1) 1 Rain Gauge (RG1 or RG2)	The short Profile Probe is using 4 analog channels (0 to 1.1V), and the ThetaProbe is using 1 more, which leaves 1 analog channel unused (e.g. for an extra ThetaProbe or other sensor). The temperature channel and the event channel (rain gauge) both have sensors connected.
Example 4	6 ThetaProbes (ML2x) 1 Soil Temperature Probe (ST1)	The rain gauge channel is unused. There are no spare analog channels.

Specifications

Inputs/outputs	No.	Full Scale	Resolution	Accuracy		Notes
				at 20°	20° to +60°	
Analog channels (soil moisture)	6	0 to 1 m ³ .m ³	12 bit max	±0.1 m ³ .m ³	±0.5 m ³ .m ³	Water content or voltage (not both)
Analog channels (DC voltage)	6	-0.05 to 1.15V	12 bit max	±0.3mV	±1.6mV	
Temperature channels	1	-20 to +60°C	-	±0.1	±0.4°C	Using ST1 or ST2 thermistor or other 2k thermistor
Event counter channels (using rain gauge)	1	-	0.2mm	-	-	Using RG2, max 5 events/second
Sensor excitation	6	5 to 9V at 120mA	-	-	-	Uses internal battery voltage supply
Alarm out	1	2A	-	-	-	Isolated relay switching 2A max

Feature	No./Rating	Notes
Logging frequency	1s to 24hr	User selectable with accelerated logging option
Accelerated logging	1s to 12hr	User selected - rain gauge or event triggered
Reading capacity	16k 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	IP68	-20 to +60°C Operating -10 to +50°C Full accuracy



Ordering Information

DL6 Soil Moisture Logger

with 6 voltage inputs plus 1 resistance, 1 counter and 1 alarm channel, 16k readings memory. 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



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