

# ML4109-DU transmitter

## Pro ML4000-DU Series

Part of the **Hanwell Pro** ML4000-DU Series; the ML4109-DU outdoor transmitter provides highly accurate temperature and humidity measurement using a combined EE07 and PT100 probe and utilises the 434.075 MHz frequency as standard.

### Features

- ✓ Rugged, durable enclosure with a minimum IP rating of 50
- ✓ Combined temperature & humidity measurement for outdoor use
- ✓ 50,000 data readings per channel & up to 2 years battery life
- ✓ Superior performance hardware & high accuracy sensors
- ✓ Easily accessible battery & USB socket
- ✓ Low power radio for long distance transmission (3km over open ground)
- ✓ Complies with RoHS and WEEE EU directives
- ✓ Carries CE and UKCA Marking
- ✓ Supplied with wall bracket

### Typical Applications

- Outdoor comparative data monitoring

Always ask for a long-range signal strength test.



We can prove ours to be unrivalled.



Product code: ML4109-DU-434.075

Instrument specifications	
Dimension (Excl. ancillaries)	150 x 88 x 50mm
Weight	485 grams
Power supply	1 x 3.6V AA Lithium battery
Case material	ABS
Memory capacity	50,000 readings per channel (unit will wrap when full)
Clock accuracy (logging)	20 ppm at 25°C
IP Rating	IP54
System Accuracy (Transmitter Unit + Integral Sensor)	<b>Temp:</b> +/- 0.1°C at 20°C (see Temperature accuracy chart)
	<b>RH:</b> +/- 2% (0 - 90%) +/- 3% (90 - 100%)
Transmitter Unit Measuring range	<b>Temp:</b> -20°C to +60°C
	<b>RH:</b> 0 - 100%
Transmitter Unit Operating range	-20°C to +60°C (in a non-condensing RH environment)
Transmitter Unit Storage temperature	-40°C to +60°C
Resolution	0.1°C (temperature)
	0.1%RH (humidity)

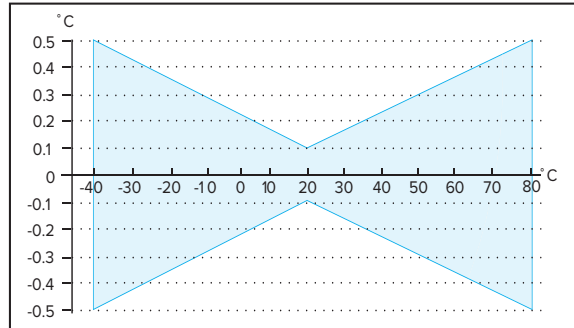
Battery life	Up to 2 years, dependent on conditions of use and instrument settings. This value determined under the following conditions: <b>Tx Interval</b> - 300 seconds. <b>Logging Interval</b> - 15 Minutes <b>Ambient Temperature</b> +22°C +/- 3°C.
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Radio transmitter functions	
Frequency options	A range of frequencies are available between 433-458MHz. Country specific regulations apply.
Radio power	10mW
Radio range	3km over open ground
Software required	W900 – Standard EMS Software Package *See EMS datasheet for further options
Software compatibility	<b>EMS</b> - All Versions
Hardware required	CR2 / CR3 – Controller SR2 – Smart Receiver REP – Repeater

Accessories	
Y055	USB Cable
88706	3.6V AA Lithium battery
Probe options	<a href="#">Please refer to the Hanwell Pro Sensor datasheet</a>

# Temperature accuracy chart

Refers to J140 and J223 Probes



## Solar and rain shield

### P311

#### Operating environment

Operating/Storage temperature: -40°C to +80°C

#### Shielding performance

Shielding efficiency: 2.3°C/KW/m<sup>2</sup> at 1m/s typical  
(temperature rise/error due to incident solar radiation)

#### Mechanics

Diameter: 76mm

Shield materials: Nylon/polyamide, polycarbonate, ABS, aluminium, stainless-steel

Overall height: 118mm

Typical weight: 110g

