

# PERFORMANCE CHARACTERISTICS

Type	Sensitivity (mV/A)	Peak current (A)	Peak di/dt (kA/μs)	Noise max (mV <sub>pk-pk</sub> )	Droop typ. (%/μs)	LF (-3dB) bandwidth f <sub>L</sub> typ. (Hz)	Gain @ 50 Hz typ. (dB's)	Frequency for -1% gain typ. (Hz)	HF (3dB) bandwidth f <sub>H</sub> typ. (MHz)
CWT015	200.0	30.0	1.0	20.0	0.100	116.0	-14.9	287.0	20.0
CWT03	100.0	60.0	2.0	15.0	0.060	66.5	-6.2	167.0	20.0
CWT06	50.0	120.0	4.0	12.0	0.030	32.0	-0.5	70.0	20.0
CWT1	20.0	300.0	10.0	10.0	0.009	9.0	0.0	24.0	20.0
CWT3	10.0	600.0	20.0	10.0	0.006	6.2	0.0	13.0	20.0
CWT6	5.0	1200.0	40.0	10.0	0.004	3.2	0.0	7.9	20.0

Higher current ranges available on request

**OUTPUT** ± 6V corresponding to 'peak current', (±2V into 50Ω load at half the sensitivity)

**RISE TIME AND DELAY** See full technical datasheet for a description of rise time and delay

**CALIBRATION AND POSITION ACCURACY** Calibrated to ±0.2% with conductor central in the loop and supplied with UKAS traceable certification  
Variation with conductor position in the coil loop typically ±2%

**LINEARITY** ±0.05% (typical value full scale)

**DC OFFSET @ 25°C** ±3.0mV (maximum value)

<b>ABSOLUTE MAXIMUM VALUES of di / dt (kA / μs)</b> (values must not be exceeded)	<b>CWT 015,03</b>	<b>PEAK</b>	25.0	<b>RMS</b>	1.0 @ 70°C
	<b>CWT 06, 1</b>	<b>PEAK</b>	25.0	<b>RMS</b>	2.0 @ 70°C
	<b>CWT3, 6</b>	<b>PEAK</b>	40.0	<b>RMS</b>	2.2 @ 70°C

FOR FURTHER DETAILS OF THE CWT ULTRA MINI PERFORMANCE CHARACTERISTICS PLEASE SEE THE FULL TECHNICAL DATASHEET AVAILABLE FROM [www.pemuk.com](http://www.pemuk.com).

## COIL AND CABLE

① **COIL CIRCUMFERENCE** 80mm  
② **COIL CROSS SECTION (max)** 1.7mm

**PEAK COIL VOLTAGE ISOLATION** 1.2kV  
Safe peak working voltage to earth.  
The coils are flash tested at 3kVrms / 50Hz for 60 seconds

**TEMPERATURE RANGE** -10°C to 70°C  
For operation at high temperature please consult PEM

③ **CABLE LENGTH (from box to coil)** 1m

## INTEGRATOR

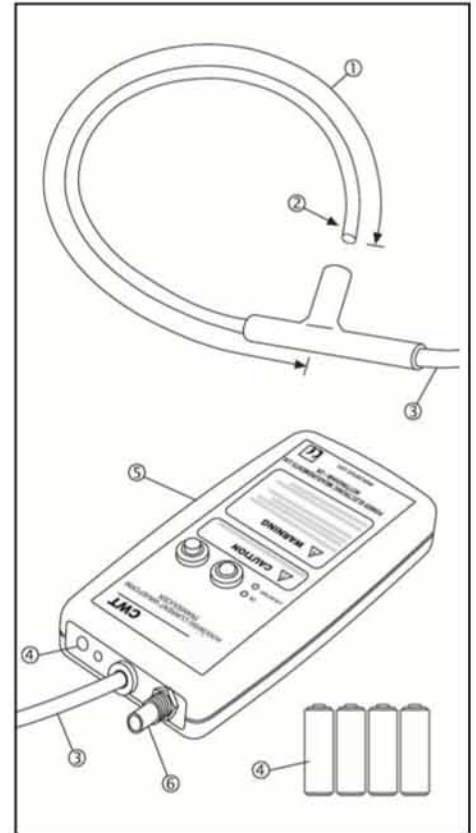
④ **POWER SUPPLY** Battery 4 x AA (1.5V standard alkali batteries)  
**-plus-**  
2.1/2.5mm socket for 12V (±10%) DC input  
**Typical life 30hrs (output into 1MΩ load)**  
Battery inoperative with DC supply present

⑤ **INTEGRATOR BOX DIMENSIONS** H = 183mm, W = 93mm, D = 32mm

⑥ **OUTPUT SOCKET** BNC (output impedance 50Ω - unit supplied with 0.5m BNC - BNC coaxial cable)

**MIN. OUTPUT LOADING** ≥100kΩ (for rated accuracy - recommended DC 1Mohm scope input)  
= 50Ω (for driving long cables > 10m)  
A load of 50Ω will reduce the CWT sensitivity to half it's normal value. It will also reduce the peak output to ± 2V

**TEMPERATURE RANGE** 0°C to 40°C



## ORDERING

Type + Power supply

Cable Length

Coil Circumference

e.g. order code

**CWT015 B**

**1**

**80 UM**

If you have any queries regarding the CWT or require specifications outside our standard ranges please do not hesitate to contact us.