

PERFORMANCE CHARACTERISTICS

Type	Sensitivity (mV/A)	Peak current (kA)	Peak di/dt (kA/μs)	Noise max ¹ (mV _{pk-pk})	Droop typ. (%/ms)	LF (3dB) bandwidth typ. (Hz) f_L	Phase lead at 50Hz typ. (deg)	HF (3dB) bandwidth typ. (MHz) f_H ²	
								Coil Length 300mm	Coil Length 700mm

Standard Coils

CWT03LF	100.0	0.06	0.11	8.0	1.9	2.2	3.5	0.4	-
CWT06LF	50.0	0.12	0.22	8.0	1.0	1.1	1.8	0.5	0.2
CWT1LF	20.0	0.3	0.55	6.0	0.5	0.55	1.0	0.6	0.25
CWT3LF	10.0	0.6	4.0	15.0	0.5	0.55	0.85	6.5	3.0
CWT6LF	5.0	1.2	8.0	15.0	0.25	0.27	0.45	6.5	3.0
CWT15LF	2.0	3.0	11.0	15.0	0.1	0.11	0.18	6.5	3.0
CWT30LF	1.0	6.0	11.0	15.0	0.05	0.055	0.09	6.5	3.0
CWT60LF	0.5	12.0	11.0	15.0	0.025	0.022	0.045	6.5	3.0
CWT150LF	0.2	30.0	11.0	15.0	0.01	0.011	0.018	6.5	3.0
CWT300LF	0.1	60.0	11.0	10.0	0.007	0.008	0.012	6.5	3.0
CWT600LF	0.05	120.0	11.0	5.0	0.007	0.008	0.012	6.5	3.0
CWT1500LF	0.02	300.0	11.0	4.0	0.007	0.008	0.012	10.0	5.0

Miniature Coils

	Sensitivity (mV/A)	Peak current (kA)	Peak di/dt (kA/μs)	Noise max ¹ (mV _{pk-pk})	Droop typ. (%/ms)	LF (3dB) bandwidth typ. (Hz) f_L	Phase lead at 50Hz typ. (deg)	Coil Length 100mm	Coil Length 200mm
								CWT03LF	100.0
CWT06LF	50.0	0.12	0.22	8.0	1.9	2.2	3.5	1.5	0.7
CWT1LF	20.0	0.3	0.55	6.0	1.0	1.1	1.8	1.65	0.85
CWT3LF	10.0	0.6	4.0	15.0	1.0	1.1	1.7	12.0	7.5
CWT6LF	5.0	1.2	8.0	15.0	0.5	0.55	0.85	12.0	7.5
CWT15LF	2.0	3.0	14.0	15.0	0.2	0.22	0.35	12.0	7.5
CWT30LF	1.0	6.0	14.0	15.0	0.1	0.11	0.18	12.0	7.5
CWT60LF	0.5	12.0	14.0	15.0	0.05	0.055	0.09	12.0	7.5
CWT150LF	0.2	30.0	14.0	15.0	0.02	0.022	0.035	12.0	7.5
CWT300LF	0.1	60.0	14.0	15.0	0.01	0.011	0.018	12.0	7.5
CWT600LF	0.05	120.0	14.0	10.0	0.007	0.008	0.012	12.0	7.5

¹ Distributed around the f_L (-3dB) bandwidth.

² The high frequency bandwidth is in part dependent on coil length. Contact for values of f_H for other coil lengths

TYPICAL ACCURACY Calibrated to **UKAS ±0.2%** with conductor central in the loop
Variation with conductor position in the coil loop typically ±1% for STANDARD COILS
Variation with conductor position in the coil loop typically ±2% for MINIATURE COILS

TYPICAL LINEARITY ±0.05% (Full Scale)

ABSOLUTE MAXIMUM VALUES OF di / dt (kA/μs) (Standard coil) **PEAK** 11.0 **RMS** 0.8 @ 70°C (0.25 for CWT 015LF, 03LF & 1LF)
(value must not be exceeded) (Miniature coil) **PEAK** 14.0 **RMS** 0.85 @ 70°C (0.35 for CWT 015LF, 03LF & 1LF)
(Further information available on request)

COIL AND CABLE

Please refer to the specification sheets for our STANDARD RANGE and MINIATURE RANGE of CWT Rogowski current transducers for information regarding the length / level of voltage isolation for the coil. The length of cable connecting the coil to the integrator electronics is 2.5M or 4M.

INTEGRATOR

④ POWER SUPPLY

B Battery 4 x AA (1.5V standard alkali batteries)
-plus-
2.1/2.5mm socket for 12 to 24V (±10%) DC input

Typical life 70hrs
Battery inoperative with DC supply present

R Rechargeable battery 4 x AA (rechargeable NiMH batteries)
-plus-
2.1/2.5mm socket for 12 to 24V (±10%) DC input

Recharge time 40hrs, Typical life 30hrs
Battery is charged whenever 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)

TEMPERATURE RANGE

0°C to 40°C

ORDERING

Type + Power supply

Cable Length

Coil Circumference

Insulation

e.g. order code

CWT30LF R

4

100 M

2

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