

Wave parameters – explanation

Parameter	Unit	Description
hm0	m	Estimate of Hs (significant wave height). Hs is the average of the one third highest waves. $hm0 = 4\sqrt{m0}$ where m0 is the zero th order moment of spectrum
hm0a	m	Estimate of Hs (significant wave height) in the a frequency band, in the present case set to 0.04 – 0.10 Hz , corresponding to wave periods between 10-25 sec (long waves).
hm0b	m	Estimate of Hs (significant wave height) in the b frequency band, in the present case set to 0.10 – 0.50 Hz, corresponding to wave periods between 2-10 sec (short waves).
hmax	m	Height of the highest wave in the measurement period. Calculated from zero-upcrossing analysis.
mdir	°	Mean spectral wave direction. Computed from spectral analysis.
mdira	°	Mean spectral wave direction in the a frequency band, in the present case set to 0.04 – 0.10 Hz, corresponding to wave periods between 10-25 sec (long waves).
mdirb	°	Mean spectral wave direction in the b frequency band, in the present case set to 0.10 – 0.50 Hz , corresponding to wave periods between 2-10 sec (short waves).
sprtp	°	Wave spreading at the spectral peak period. Computed from spectral analysis.
thtp	°	Mean wave direction at the spectral peak period. Computed from spectral analysis.
thhf	°	High frequency mean wave direction. This is the mean wave direction over the frequency band 0.40 – 0.45 Hz , corresponding to wave periods between 2.2 – 2.5 sec.
tm01	s	Estimate of mean wave period Tz or the average period of the individual waves. Calculated from the spectral moments. $tm01 = m0/m1$ where mn are the nth order spectral moments.
tm02	s	Estimate of mean wave period Tz or the average period of the individual waves. Calculated from the spectral moments. $tm02 = \sqrt{(m0/m2)}$ where mn are the nth order spectral moments.
tm02a	s	Estimate of mean wave period Tz or the average period of the individual waves over the a frequency band, in the present case set to 0.04 – 0.10, which corresponds to wave periods between 10-25 sec (long waves).
tm02b	s	Estimate of mean wave period Tz or the average period of the individual waves over the b frequency band, in the present case set to 0.10 – 0.50 which corresponds to wave periods between 2-10 sec (short waves).
tp	s	Period of the spectral peak
thmax	s	Period of the highest wave. Calculated from the zero-upcrossing analysis.

For further details about calculation of the parameters see the Wavesense 3 User Manual, Section 6.4