



TL320

- The DEGREANE HORIZON TL320 Laser ceilometer is a cloud height sensor used mainly at airports to provide cloud base altitude, vertical visibility and sky condition parameters.
- Operating according to the LIDAR principle (Light Detection and Ranging), the TL320 sensor can report up to three cloud layers. The TL320 provides the latest state of the art technical development in the field of Laser source and Signal Processing. The transmitter unit uses a pulsed MOPA laser which offers a very high reliability. The wavelength (1550nm) is particularly suited for measurement under all weather conditions and guarantees a fully eye safe class 1 (complies with ANSI - Z - 136, IEC 825, EN 60825-1 norms).
- The TL320 sensor can be used as a stand-alone instrument or integrated into a meteorological system. TL320 ceilometer includes a pedestral base, allowing beam tilting (0°-5°-90°). The tilting position insures a total protection against direct solar radiation, and facilitates field testing against a hard target.
- The ceilometer opto electronics are enclosed in a rugged housing protecting the sensor from extreme operating conditions. An automatic blower with heater ensures to keep the window clean and dry under all weather conditions.



● Characteristics

Performance:

Measurement range: 0 m – 7 500 m (0 ft – 25 000 ft)

Resolution : 3 m (10 ft)

Accuracy : ± 3 m below 100m (on fix target)
 $\pm 5\%$ above 100m

Measurement integration / cycle : 4sec/15sec

Transmitter : MOPA laser (non cooled) $\lambda = 1550\text{nm}$, energy per pulse = $4\mu\text{J}$, 1M class

Receiver : INGaAs PIN photodiode

Optics : bi-static system including a 100mm diameter receiver aperture and a fiber collimation (simplifying receiver photodiode coupling).

Power supply & data output:

Power : 230 VAC $\pm 10\%$, 45-65Hz

Interfaces : RS232, CIBUS.

Data messages: cloud layer heights, full backscatter profile, monitoring status, sky cover in octa for each cloud layer, vertical visibility.

Mechanical:

Electronic cabinet dimensions/ weight (optic/electronic/power supply) : 990 x 380 x 460 mm / 35Kg

Pedestal dimensions / weight: 953 x 400 x 502 mm / 10Kg

Installation: pedestal unit for beam tilting ($0^\circ \dots 90^\circ$)

Window conditioner: window heater and blower

Environmental:

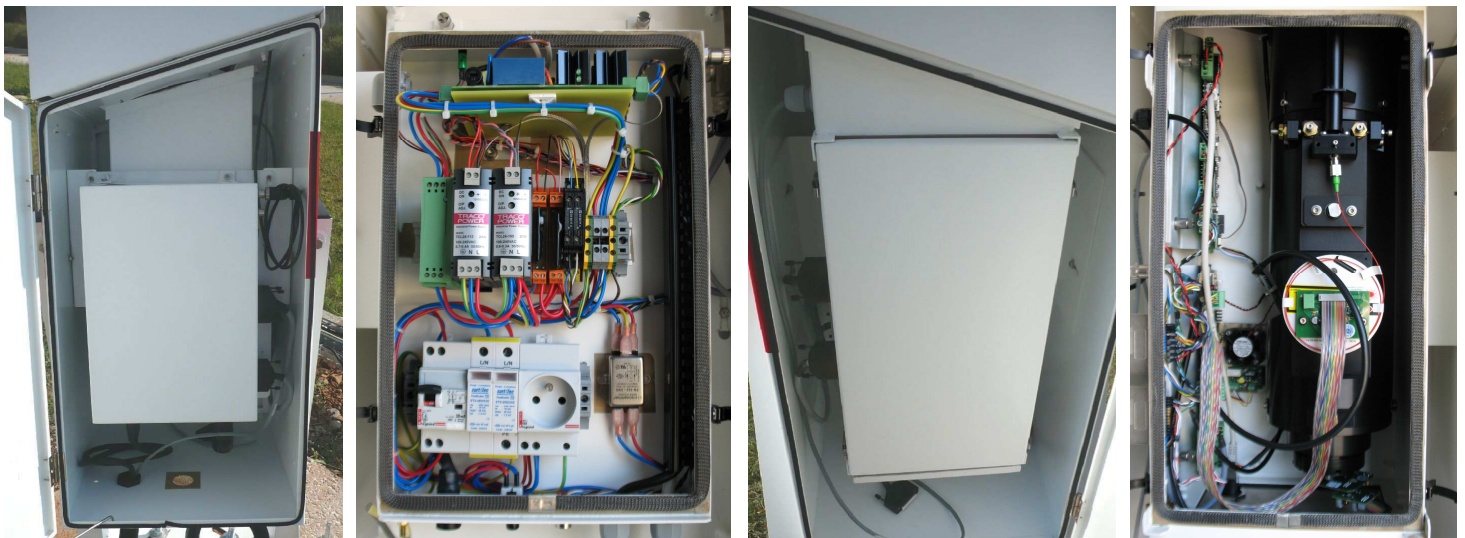
Environment : -40°C to $+60^\circ\text{C}$

Storage : -40°C to $+70^\circ\text{C}$

Humidity : 0 to 100%

Class Protection : IP65

Wind : up to 50 m/s



DEGREANE HORIZON reserve the right to change above mentioned specifications without prior notice.