SENSORS — OPTICAL

Optical sensors — general:

- Optical sensors for measuring Visibility and Cloud Height are traditionally used at airports and heliports, but are now also widely used offshore to improve safety in helicopter traffic. These sensors often use complicated lenses and optical components that is sensitive to vibration and mechanical shock. Special care therefore needs to be taken when locating and installing such sensors offshore, if possible shock absorbers should be used. Optical sensors are also very vulnerable to shadowing from parts of the structure and may also be influenced by exhaust, hot or dry air outlets.

Please contact us for advice.

Cloud Height sensors

- Cloud Height sensors are normally based on laser LIDAR (light detection and ranging) technology, where short, powerful laser pulses are transmitted out in a vertical or near-vertical plane. The reflection of light (backscatter) caused by clouds, precipitation or other obscuration is analyzed and used to determine the cloud base height. Ranges up to 25 000 ft (7,5 km) are available. Can be delivered as a separate item with specialized software, or integrated as part of a complete HMS system.

Visibility sensors

- The forward-scatter visibility meter evaluates the Meteorological Optical Range (MOR) by measuring the scatter of infrared light in air. Typical applications are visibility measurement at airports and onboard ships, fog detection and warning for highways, and meteorological observations at remote locations.
Ranges up to 75 000 meters are available. Low maintenance lens design will be very useful for offshore use.
See below for additional Present Weather option.

Present Weather sensors

Visibility sensors can also be delivered with a Present Weather option that automatically identifies and reports 7 different types of precipitation (rain, freezing rain, drizzle, freezing drizzle, mixed rain/snow, snow, ice pellets). This option can be very useful where operations may depend upon visibility
Please contact us for details.