



METER

NDVI SPECTRAL REFLECTANCE SENSOR



Monitor the Normalized Difference Vegetation Index.

Low cost-low maintenance

Apogee NDVI sensors are multiband radiometers that combine an ultra-rugged form with sophisticated cloud data delivery for an unbeatable price-to-performance ratio. They're inexpensive enough to deploy multiple sensors simultaneously, so you can maximize spatial coverage and explore spatial and temporal variability in canopy structure and function.

Deploy for months or even years

Apogee NDVI sensors are built for long-term exposure to the elements. Encased in a durable housing with an epoxy fill, they are watertight, weatherproof, and have fully sealed optics. Mount them on a fence post, tripod, or a meteorological tower. They're rugged enough to leave in the field for an entire growing season or longer.

Field ready and radiometrically calibrated

Each sensor is radiometrically calibrated to a NIST-traceable standard. Readings are output in units of radiant flux density. Calibration information is stored on board the sensor, so you never have to worry about keeping track of calibration coefficients.

Collect data and monitor remotely

To simplify your workflow, Apogee NDVI sensors are plug-and-play with ZL6 data loggers, which means automatic sensor recognition and zero programming. ZENTRA Cloud lets you monitor remote sites in near-real time from any internet-connected device. Observe field conditions, check and configure sensor and system function, or download data from the comfort of your home or office.

Work less. Measure more.

Apogee NDVI sensors are part of a complete system of affordable, easy-to-use sensors, loggers, and software that require little maintenance and put near-real-time data at your fingertips, so you can publish more and work less.



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Specifications

NDVI SENSOR SPECIFICATIONS

Calibration factor	Custom for each sensor and stored in firmware Note: The calibration factor (reciprocal of sensitivity) and output range are all approximations and variable from sensor to sensor
Calibration uncertainty	±5%
Output	SDI-12
Power supply	5.5 to 24 VDC
Wavelength ranges	Red detector = 650 nm ± 5 nm with 65 nm FWHM * NIR detector = 810 nm ± 5 nm with 65 nm FWHM* * FWHM = full-width half-maximum
Measurement range	2x full sunlight
Measurement repeatability	Less than 1%
Long-term drift	Less than 2% per year
Response time	Less than 0.6 s
Field of view	S2-411-SS (upward-looking): 180°
Directional (cosine) response	±2% at 45°, ±5% at 75° zenith angle
Temperature response	Less than 0.1% per °C
Housing	Anodized aluminum body with acrylic window
IP Rating	IP68
Operating environment	-40°C to 70°C; 0 to 100% relative humidity
Dimensions	S2-411-SS (upward-looking): 30.5 mm diameter, 34.5 mm height
Mass (with 5 m of cable)	S2-411-SS (upward-looking): 140 g
Cable	5 m of shielded, twisted-pair wire; TPR jacket (high water resistance, high UV stability, flexibility in cold conditions); pigtail lead wires; stainless steel (316), ZL6 stereo plug termination
Data logger compatibility	METER EM60 series, ZL6 series, ZSC, ProCheck