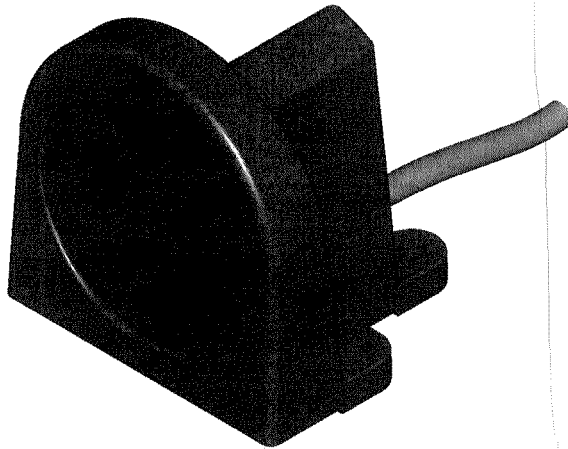


Vansco True Ground Speed Sensor

MODEL 740

The True Ground Speed Sensor uses a microwave signal and the Doppler effect to measure ground speed accurately for mobile equipment.



Our Mission is to develop and manufacture products that consistently exceed customer expectations in reliability, performance, and on-time delivery.

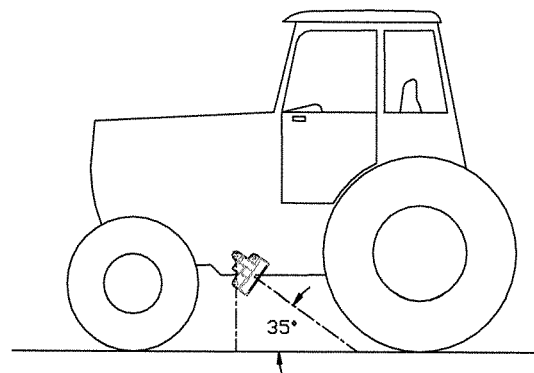
*Vansco Electronics Ltd. –
An ISO 9001 Company*

The True Ground Speed Sensor combines state-of-the-art electronics design and manufacturing. The electronics are encapsulated in a rugged plastic enclosure to ensure reliable operation in harsh environments. Complete testing and certification of the product has been done to deliver a reliable and accurate speed signal for the OEM or retrofit electronics markets.

The radar provides a standard square wave output. This industry-standard output gives a continuous ground speed signal whenever the vehicle is moving.

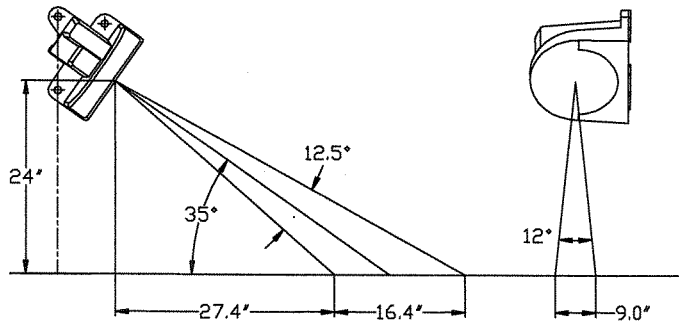
The sensor can be installed at a height between 2 and 4 feet (0.6 – 1.2 m) above the ground or above the top of a crop. The small size of the sensor simplifies mounting on the vehicle.

The True Ground Speed Sensor has been subjected to the full spectrum of tests specified in the ASAE EP-455 Standard for electronics on mobile equipment, including temperature, vibration, moisture, dust, electrical, and electromagnetic tests. Test results show that this sensor meets and exceeds the standards set by government agencies and industry committees for North American use.

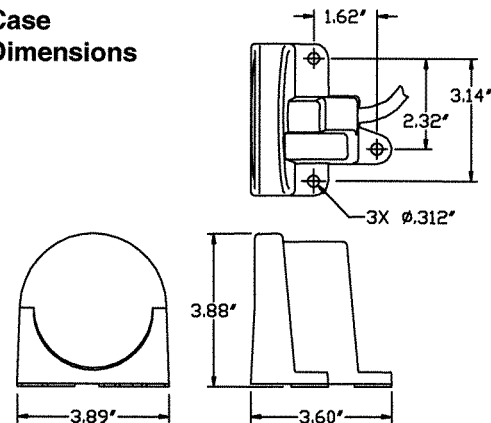


Vansco True Ground Speed Sensor

Projected Area of Beam for Standard Mounting Height



Case Dimensions



Specifications - MODEL 740000

Velocity Range	0.6 to 44 mph (1 to 70 km/hr)	Electrical Supply	Max. 120 mA @ 12 V DC +9 to 16V DC input voltage range
Accuracy	< $\pm 3\%$ for 0.6-2 mph (1-3 km/hr) < $\pm 1\%$ for 2-44 mph (3-70 km/hr)	Output Frequency	58.9 Hz/mph @ 35° mounting angle Other frequencies are available by custom order
Beam Footprint	Elliptical, 16.4" (41.7 cm) major axis & 9.0" (22.9 cm) minor axis at 24" (61 cm) mounting height	Square Wave Output	ZOH $\approx$ 1000 ohms ZOL $\leq$ 100 ohms VOH = +V(battery) - 1.0 V VOL $\leq$ 1.0 V at 15 mA I out (max.) = 25 mA
Beam Pattern	12.5° in the vertical plane & 12° wide, symmetric around centerline of sensor	Electrical Protection	Signal to ground & signal to power supply protection Electrical transient protection per ASAE EP-455 Standard
Mounting Angle	35° depressed below horizontal, rear facing (preferred to reduce potential damage) or forward facing	Step Response	$\leq$ 200 milliseconds delay
Mounting Height	12" to 48" (0.3 to 1.2 m) above the ground or above the top of the crop, typical mounting height 24" (0.6 m)	Start/Stop Delay	$\leq$ 12 inches (25 cm)
Mounting Fasteners	Three (3) of 1/4" - 20 UNC cap screws or M6 screws	Microwave Freq.	24.125 GHz (standard) Tolerance $\pm$ 50 MHz
Overall Dimensions	3.9" x 3.9" x 3.6" (9.9 cm x 9.9 cm x 9.2 cm)	Microwave Power	500mW, EIRP
Weight Materials	Approximately 460 grms w/ cable Enclosure: black Nylon, glass reinforced	Approvals	RSS-210 (Industry Canada) FCC (Part 15, USA)
Cable	Cable: water resistant 18 AWG 4/C SJOW Cable length: $\approx$ 20' ($\approx$ 51 cm)	Environmental Compliance	EN ISO 14982 ASAE EP-455 which includes standards for reverse polarity, EMI, electrical transients (such as load dump, inductive load switching), chemical corrosion, dust, salt spray, rain, wash, mechanical shock, and vibration.
Connector	Standard: FMC, F20B-14A624-EA Pin 1 +12V DC (nominal 12V battery voltage) Pin 2 "Radar Present Line" +12V unless otherwise specified Pin 3 Ground Pin 4 Speed Signal Output	Operating Temp.	-40C to +85C (-40F to 185F)
Mating Connector	FMC, E6DB-14A464-NA Other connectors available by custom order.		