

STALKER® Surface Velocity Speed Sensor

GENERAL SPECIFICATIONS

TYPE:	Surface Velocity Radar Sensor
OPERATING FREQUENCY:	34.7 GHz (Ka-band)
FREQ STABILITY:	± 100 MHz
POWER REQUIREMENTS:	Voltage: 9 - 16 VDC Current (at 12 VDC nominal) 380 mA
ENVIRONMENTAL:	Operating: -30°C to +70°C, 90% relative humidity Non-operating: -40°C to +85°C
MECHANICAL:	Weight – 0.52 kg (1.15 lb) Diameter – 6.7 cm (2.6 in.) Length – 11.8 cm (4.7 in.) Case Material – Aluminum die cast
ACCURACY₁:	± 0.03 m/s at 25°C ± 0.1 m/s at -30°C to +70°C
SPEED RANGE:	0.2 m/s to 18.0 m/s
MEASURENMENT CYCLE	100 seconds
SIGNAL STRENGTH	0 to 9 (9 signal level indications are provided)
VALID DISTANCE	0 to 100 m depending on velocity and surface condition

MICROWAVE SPECIFICATIONS

ANTENNA:	Conical horn
POLARIZATION:	Circular
3DB BEAMWIDTH:	12° ± 1°
RF SOURCE:	Gunn-Effect diode
RECEIVER TYPE:	Two direct-conversion homodyne receivers using four low-noise Schottky barrier mixer diodes
POWER OUTPUT:	20 mW minimum 25 mW nominal 50 mW maximum
POWER DENSITY:	2 mW/cm ² maximum at 5 cm from lens

OPERATOR ACTIONS

TRANSMIT	Turns the microwave transmitter On at power on
OUTPUT FORMAT	Current Averaged

RADAR ZONE:	In, Out or Auto velocity direction may be selected
HORIZONTAL ANGLE:	Angles from 0° to 60° may be selected in 5° increments
VERTICAL ANGLE:	Angles from 0° to 90° may be selected in 1° increments
SENSITIVITY:	4 levels of field sensitivity may be selected (1/2/3/4 max)
OUTPUT MODE:	2 types output mode may be selected: Streaming --- every averaging period --- every measurement period Request --- sends only one response for each data request
UNITS:	4 units may be selected: MPH (miles-per-hour) KP/H (kilometers-per-hour) M/S (meter-per-second) F/S (feet-per-second)
GET CONFIGURATION	This command gets sensor configuration
Get ID	This command gets sensor ID



STALKER

The World Leader
in Speed Measurement

STALKER RADAR

2609 Technology Drive

Plano, TX 75074



www.stalkerradar.com