**The Stalker Surface Velocity Sensor**

**General Specifications**

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| Type | Surface Velocity Radar Sensor |
| Operating Frequency | 34.7 GHz (Ka-Band) |
| Stability | +/-100 MHz |
| Power Requirements | **Voltage:** 9-24 VDC  **Current:** (at 12 VDC nominal) Transmitter on: 470 mA Transmitter off: 100 mA |
| Environmental | Operating: -22° F (-30° C) to +158° F (+70° C) , 90% relative humidity, Non-operating: -40° F (-40° C) to +185° F (+85° C) |
| Mechanical | Weight:  1.15 lb. (0.52 kg) Diameter:  2.6 in. (6.7 cm) Length: 4.7 in. (11.8 cm) Case Material: Aluminum Die Cast |
| Accuracy | +/- 0.1 m/s |
| Auto Self-Test | Performed every 10 minutes while transmitting |
| Speed Range | 0.2 m/s to 18 m/s |

**Microwave Specifications:**

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| 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 battier mixer diodes |
| Power Output | 20 mW minimum 25 mW nominal 50 mW maximum |
| Power Density | 2 mW/cm2 maximum at 5 cm from lens |

**Factory Configuration (defaults in bold)**

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| Units | ft/s (feet.sec), m/s (meters/sec), mph (miles/hour), or km/h (kilometers/hour) |
| Serial Port Baud Rate | **9600** |
| Serial Port Data Format | Current Speed only or longer messages with speed, strength, and averages. |
| Communications Protocol | RS-232 and RS-485 |

**Field Configuration (defaults in bold)**

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| Radar Zone | Away, **Closing** or Auto directional sensitivity may be selected |
| Horizontal Angle | Angles from 0° to 70° may be selected in 5° increments |
| Vertical Angle | Angles from 0° to 70° may be selected in 5° increments |
| Sensitivity | 4 levels of field sensitivity may be selected (1/2/3/**4 max**) |