CDS Catalog Supplement — Sensors



DISPLACEMENT SENSOR

SEN-20-(Range)

Measures: Suspension travel, steering, any other displacement **Ranges:** 2", 3", 4", 6", 8", 10"

- Rod ends (heim joints) at both ends for easy mounting
- Very rugged, durable design



PRESSURE SENSOR (High accuracy)

SEN-9 (see price list for ranges) **Measures:** Any fluid pressure

- Instrumentation grade sensor has accuracy as high as 1/2%
- Used for oil, water, fuel, brake, turbo or blower boost pressures
- 1/8" MPT connection



AIR TEMPERATURE SENSOR

SEN-31

Range: 32 - 300 Degrees F

- For intake air, cowl, or other air temperature measurements
- 3/8" MPT connection



4 CHANNEL AERO SENSOR

SEN-10DQ +/- 140 in. of water **Measures:** Aero Pressures

- Used for airbox, cowl, ground effect pressures
- Ideal for evaluating aerodynamics in real world setting
- Low and high pressure ports for reference measurements



DISPLACEMENT SENSOR

SEN-11

Measures: Throttle position, brake pedal travel, or any other short range displacement.

Range: 0 - 1.5"

Spring return plunger for easy installation.



PRESSURE SENSOR (Low Cost)

SEN-33a 0-30 PSI SEN-33b 0-80 PSI SEN-33c 0-150 PSI

Measures: Any fluid pressure

- Low cost, 5% accuracy
- 1/8" MPT connection
- Ideal for oil & fuel pressure measurements



(Actual Size)

INFRARED TEMP. SENSOR

SEN-22 (up to 300 Deg. F.) SEN-22H (up to 1470 Deg. F.)

These tiny sensors are designed specifically for reading race tire temperatures and brake rotor & caliper temperatures.

- 22 degree field of view
- 0-5 volt output (no amplifier required)



1 CHANNEL AERO SENSOR

SEN-10D +/- 140 in. of water Measures: Aero Pressures

- Used for airbox, cowl, ground effect pressures
- Ideal for evaluating aerodynamics in real world setting
- Low and high pressure ports for reference measurements



ROTARY DISPLACEMENT SENSOR

SEN-34

Range: 0 - 90 degrees

- Used typically for throttle position
- Can be mounted directly to most carburetors and fuel injection throttles.



MANIFOLD VACUUM

SEN-39

Range: 0 to Full Vacuum

Measures: Manifold Pressure

- Used for measuring manifold vacuum in normally aspirated engines.
- Can be calibrated in PSI, mm of Hg, or Inches of water.



SHAFT RPM SENSOR

SEN-4 (15/32 thread x 1" long)

Measures: Engine, Wheel, or Shaft RPM

- Uses a small magnet (provided) to detect RPM
- Functions at sensor-to-magnet gaps of up to 1/8 "



SEN-2

- Use with SEN-10 aero sensors.
- Essential for making precise aero pressure measurements
- Static and dynamic taps for a stable reference & air speed



STRINGPOT SENSOR

SEN-38-F (firm spring) SEN-38-S (soft spring) Measures: Displacement

Range: 0 - 9 inches

- Easy and quick installation.
- Firm spring for steering, soft spring for throttle measurement.



RATE SENSOR

SEN-37

Measures: Rate of rotation **Range:** +/- 80 Degrees Per Sec.

- +/- 1% overall accuracy.
- Generates circuit maps in motorcycle applications.
- Can be used to measure pitch rate, roll rate, or yaw rate.



FLUID TEMPERATURE SENSOR

SEN-30

Range: 32 - 300 Degrees F

- For water, oil, or other fluid temperature measurements
- 1/8" MPT connection



LASER RIDE HEIGHT

SEN-41

Range: 2 to 12 Inches

- Measures ride actual height
- Can be used along with Suspension sensors to determine tire compression.
- Formula cars typically use 3, stock cars typically use 4 sensors.

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EGT PROBE & FITTING

SEN-16

Range: 32 - 1830 Degrees F

- These EGT probes have been developed specially for on track racing applications
- Exposed tip design provides quick response
- Installs using weld type compression fitting (included)



HIGH FLOW FLOW METER

SEN-36

Ranges: available up to 600 GPH (gallons per hour)

- 1/2% accuracy
- Has AN type end fittings



ACCELEROMETER

SEN-28s Single Axis SEN-28d Dual Axis SEN-28t Triple Axis

Measures: G forces **Range:** +/- 5 G

- Size: 2" x 1.38" x .75"
- Solid state unit custom built for racing applications
- · Built-in filtering
- Suitable for any race car from showroom stock to Indy.
- Other G ranges available (such as +/- 50 g for spindles) on special order.
- Primarily used in Commander 2 Systems



CYLINDER HEAD TEMP PROBE

SEN-3

Range: 32 - 1000 Degrees F

- These probes have been developed specially for on track racing applications
- Installs under spark plug
- Ideal for all air cooled engines
- Available in 12, 14 and 18 mm diameter.



3 & 4 CHAN THERMOCOUPLE AMP

SEN-5t, 5q

Size: 3.75" x 2.4" x 1.4"

- Amplifies and provides cold junction compensation to type K thermocouples or infrared sensors
- Ideal for measuring EGT (with SEN-16) or Tire temps (with SEN-21)



1 CHAN THERMOCOUPLE AMP

SEN-5s

Size: 2" x 1" x 1"

- Amplifies and provides cold junction compensation to type K thermocouples or infrared sensors
- Terminal strip connection for easy field replacement of thermocouple



LOW COST FLOW METER

SEN-35

Measures fuel flows up to 80 GPH with 2% accuracy

- Has 1/4" Fpt type end fittings
- Measures fuel flows up to 80 GPH with 2% accuracy



DUAL WIDE BAND AIR FUEL

WBAF-2

Low cost wide band sensor and controller

- Measures actual Air Fuel ratio
- Miniature waterproof 2 channel controller suitable for race car use.
- Linear 0-5 volt output connects to any data system.
- Easy calibration. Simple, accurate, repeatable, and reliable



STRAIN GAUGE / LOAD CELL AMP

SEN-12

- Amplifies millivolt signals from strain gauges and load cells, and converts to 1– 5 volt output
- Measure Pushrod load, sway bar loads, etc.



WIDE BAND AIR FUEL WITH DISPLAY AND LOGGING

WBAF-3

- Logs and displays actual Air Fuel ratio PLUS RPM and 1 analog.
- Miniature, waterproof, suitable for race car use.
- Linear 0-5 volt output connects to any data system.
- Easy calibration. Simple, accurate, repeatable, and reliable



The GPS-2 "synthesizes" a wheel speed and beacon signal it is compatible with most data systems and dashes.

- Accurate, consistent and RELIABLE lap times without setting out a beacon
- Speed data free from errors caused by wheelspin, brake lock, tire squish, and wheel lift
- Plug-and-play compatible with all CDS systems

ALSO available:

 Plug-and-play kits for use with Aim, Pi, Stack, Motec, and other systems



Sensors are available with connectors for most data systems!

www.competitiondata.com

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