



### KAP Series Differential Pressure Sensor

The KAP Series of cost effective High Performance Pressure Transducers have been designed for dynamic pressure measurements using a Pitot Tube in demanding motorsport and automotive applications; ideal for high precision data acquisition or control systems. These transducers can also be installed directly onto vehicles, as part of a test stand or dyno. Offering a high level of reliability and endurance the KAP is protected against the high vibration, shock and high temperatures found in motorsport. Also suitable for wet/wet installations.

With a modular construction and programmable amplifier, this provides a fast delivery time for standard and custom configurations. Pressure ranges are available between 25 to 75 mBar Differential.

Industry standard 3-wire electrical connections allow configuration with most common ECU's and data logging systems.

The KAP Series are race proven and can be found in many race series around the world. Please see our separate datasheet (KAPT) for details of the standard and custom Pitot Tubes that can be supplied.

### **TECHNICAL SPECIFICATIONS**

| Pressure Reference              | Differential  |  |
|---------------------------------|---|--|
| Standard Pressure Ranges (mBar) | 25, 50, 75  |  |
| Proof Pressure (Over range)     | 300% of Range   |  |
| Burst Pressure                  | 10x Range   |  |
| Accuracy                        | ±0.5% FS Combined Linearity & Hysteresis (CNLH)       |  |
| Thermal Accuracy                | Zero ±0.02% FS/°C (Sensitivity ±0.02% of Reading /°C) |  |
| Output                          | 0.5V to 4.5V (±0.5%)                                  |  |
| Supply                          | 5V (±0.5V) Ratiometric or 8-16Vdc                     |  |
| Operating Temperature Range     | -20°C to +85°C  |  |
| Compensated Temperature Range   | 0°C to +85°C  |  |
| Construction                    | Anodised Aluminium and Stainless Steel                |  |
| Electrical Connection           | 50cm 26AWG, 55Spec Wire + DR25 Sleeve                 |  |
| Process Connection              | Barb Fitting (To Suit 4mm ID Tube)                    |  |
| Protection Class                | IP65  |  |
| EMC Protection & Vibration      | EN E50082-1 and Mil-Std-810C, Curve L, 20G            |  |
| Weight                          | Sensor: 30g, Pitot Tube: 60g                          |  |
| Options                         | Cable Spec, Connector Fitted and Labelling            |  |

KA Sensors adopts a continuous development program which sometimes necessitates specification changes without notice.

Sensors For Motorsport

#### **Features**

- Miniature Size
- 5V or 8-16V Supply
- 25 to 75 mBar Range
- Rugged Design
- Amplified Output

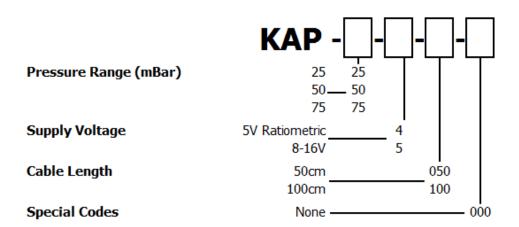
#### **Applications**

- Aerodynamics
- Air Speed

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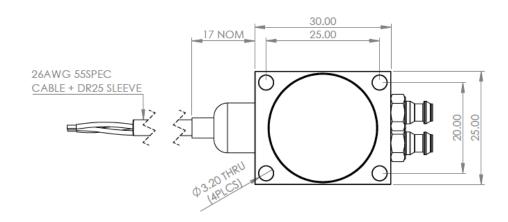
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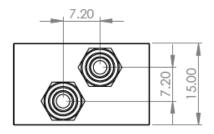
## PART NUMBER CONFIGURATOR



The KA configuration tool is used to specify a standard KA Sensor, other options are available.

## **M**ECHANICAL **D**ETAILS





# **CONNECTION DETAILS**

| +Ve Supply | <b>OV Supply</b> | Signal |
|------------|------------------|--------|
| Red        | Black            | White  |

Sense Analyse Control

#### Services for:

- Data Logging
- Telemetry
- Controls
- Wiring

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