

# 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.

These are ideal for high precision data acquisition or control systems. The transducers can be installed directly onto vehicles or as part of a test stand or dyno.

The transducers offer a high level of reliability and endurance, they are protected against the high vibration, shock and high temperatures found in motorsport. The sensor is also suitable for wet/wet installations.

The modular construction and programmable amplifier provide a fast delivery time for standard and custom configurations. Pressure ranges are available between 25 mbar 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.

See the separate datasheet (KAPT) for details of the standard and custom Pitot Tubes that can be supplied.

### TECHNICAL SPECIFICATIONS

|  |   |
|--|---|
| <b>Pressure Datum</b>                    | Differential  |
| <b>Standard Pressure Ranges (mBar)</b>   | 25, 50 and 75   |
| <b>Safe Over Range</b>                   | 3 times range   |
| <b>Burst Pressure</b>                    | 10 times range  |
| <b>Accuracy</b>                          | ±0.5% FS combined linearity & hysteresis (CNLH)       |
| <b>Thermal Effects</b>                   | Zero ±0.02% FS/°C (Sensitivity ±0.02% of reading /°C) |
| <b>Output</b>                            | 0.5V to 4.5V  |
| <b>Supply</b>                            | 5V (±0.5V) ratiometric or 8-16Vdc                     |
| <b>Operating Temperature Range</b>       | -20°C to +85°C  |
| <b>Compensated Temperature Range</b>     | 0°C to +85°C  |
| <b>Construction</b>                      | Anodised aluminium and stainless steel                |
| <b>Electrical Connection</b>             | 50cm, 26AWG 55spec wire + DR25 sleeve                 |
| <b>Pressure Connection (Thread Size)</b> | Tube Fitting  |
| <b>Protection Class</b>                  | IP65  |
| <b>EMC Protection &amp; Vibration</b>    | EN 50082-1 and Mil-Std-810C, curve L, 20G             |
| <b>Weight</b>                            | 30g for Sensor and 60g for the pitot tube             |
| <b>Options</b>                           | Cable assembly, connector fitted and labelling        |

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

## Sense Measure Control

### Features

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

### Applications

- *Aerodynamics*
- *Air Speed*

### Contact us

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**KA**librated solutions for motorsport

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# KAfigurator

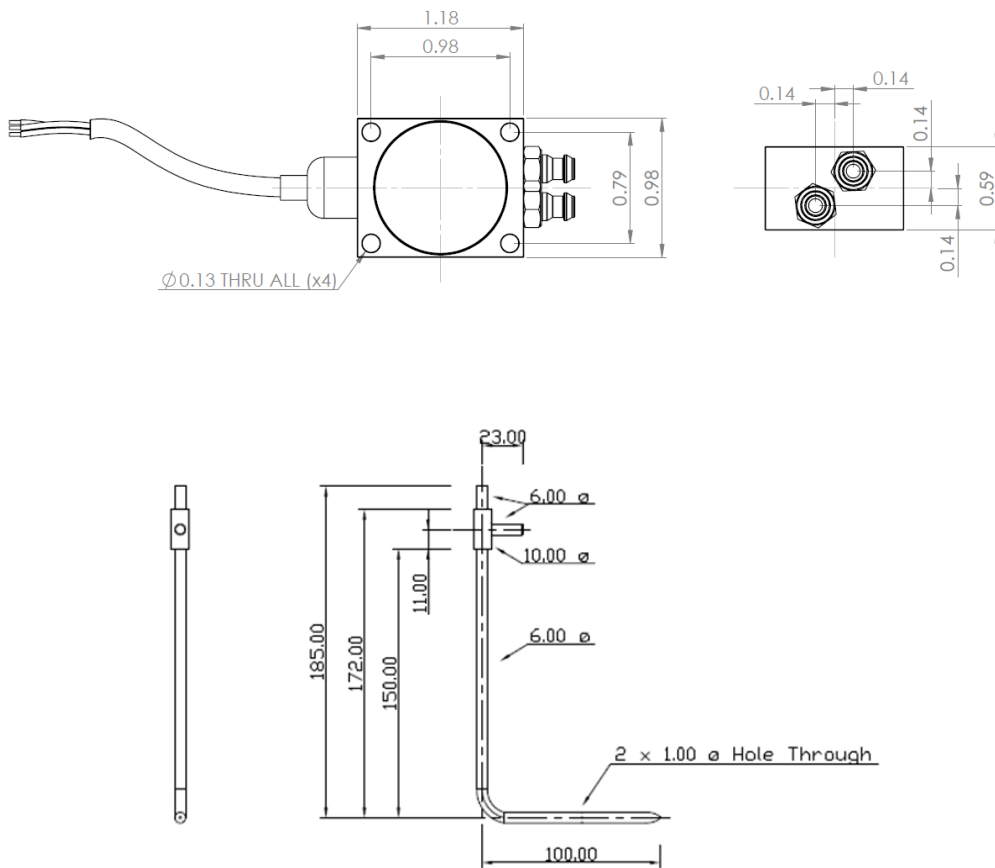
|     |    |   |     |     |
|-----|----|---|-----|-----|
| KAP | 75 | 5 | 050 | 000 |
|-----|----|---|-----|-----|

|                       |                |    |   |     |
|-----------------------|----------------|----|---|-----|
| Pressure Range (mbar) | 25             | 25 |   |     |
|                       | 50             | 50 |   |     |
|                       | 75             | 75 |   |     |
| Supply Voltage        | 5V ratiometric |    | 4 |     |
|                       | 8-16V          |    | 5 |     |
| Cable Length          | 50 cm          |    |   | 050 |
| Special Codes         | None           |    |   | 000 |

**Sense  
Measure  
Control**

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

## MECHANICAL DETAILS



## Sensors for

- Temperature
- Acceleration
- Pressure
- Position
- Torque
- Speed
- Angle
- Force

## Services for

- Data Logging
- Telemetry
- Controls
- Wiring
- Design

## KA Sensors are

- Engineering led
- Confidential
- Experienced
- Responsive
- Dynamic
- Friendly

## CONNECTION DETAILS

| +Ve Supply | 0V Supply | Signal |
|------------|-----------|--------|
| Red        | Blue      | Yellow |

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