

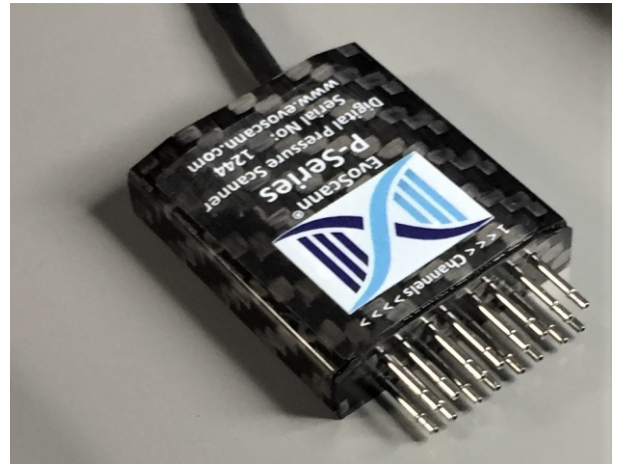
## EvoScann®

### P16-A ABSOLUTE MODE PRESSURE SCANNERS

EvoScann® P-Series provide high accuracy pressure scanning in a compact, rugged package to excel in the most demanding requirements.

#### KEY FEATURES:

- ✓ Smallest, lightest pressure scanners available
- ✓ Multi-channel measurement
- ✓ Absolute or calculated Differential measurement
- ✓ Lightweight carbon fibre external construction
- ✓ Integral microprocessor
- ✓ High accuracy output directly in engineering units
- ✓ CANbus output
- ✓ Comprehensive range of industry-standard installation accessories



EvoScann® P16-A is a highly-miniaturised pressure scanner designed specifically to meet the stringent demands of the aerodynamic testing industry where development is rapid and continuous. Utilising the latest in miniature scanner technology, P16-A is at the forefront of pressure measurement in challenging aerodynamic locations. The P16-A has been designed, from the start, with physical size, weight, accuracy and functionality in-mind and is available in a variety of configurations for multiple pressure channels.

#### SMALL and LIGHT

Weighing-in at <18g and with compact dimensions, the EvoScann® P16-A can be located within the tightest of spaces where rapid pressure mapping is needed, enabling aerodynamicists and engineers to quickly gather valuable data that has never been easy to access before. Measurement without compromise.

#### PLUG and PLAY

Using the latest high-speed data communications technology, EvoScann® P16-A is a pressure measurement and engineering unit converter in one package. With no requirement for external signal conditioning, the EvoScann® P16-A transmits accurate, fast data, in engineering units, directly to the test article's central processing unit. Using a single cable to provide the power and transmit the data and with a choice of industry-standard connectors, the EvoScann® P16-A scanner is ready to plug-and-play, producing high-speed synchronous data within seconds of connection.

#### ROBUST

EvoScann® P16-A is designed to be insignificantly light, has integral impact and splash-protection and can be fitted into the smallest of aerofoil or aerodynamic profiles with minimal external influences. A high maximum operating temperature means that even use in proximity to hot vehicle parts is possible, extending measurement to the most critical areas.

#### ACCURATE

Sixteen high-performance piezo-resistive pressure sensors ensure the highest accuracy and measurement of a complete aero section in one compact device. EvoScann® P16-A scanners can be supplied in Absolute or calculated Differential modes across a wide selection of pressure ranges, including custom ranges. Integrated temperature sensors provide useful data, but also apply temperature correction to every pressure sensor, at source, to ensure optimal performance and minimal ambient temperature effects.

Complementing the sensor is the widest range of pressure scanner accessories. Tubulations, tubing and tools help the user integrate EvoScann® P16-A quickly and effectively into the test article, enabling measurement and data acquisition to start quickly, making efficient use of expensive testing time and resources.

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### P16-A ABSOLUTE MODE PRESSURE SCANNERS

#### SPECIFICATION

|                                 |                                                                      |                                  |                                                      |
|---------------------------------|----------------------------------------------------------------------|----------------------------------|------------------------------------------------------|
| <b>Inputs (Px):</b>             | 16 x 0.040" O.D. (Tube Bulge: 0.046" to 0.056")                      | <b>Tubulations:</b>              | Stainless Steel                                      |
| <b>Full Scale Range:</b>        | 0-1200mbarA,<br>600-1100mbarA,<br>600-1200mbarA                      | <b>Media:</b>                    | Air - Avoid liquid contaminants                      |
| <b>Accuracy*:</b>               | Absolute: 0.1%FS*<br>Calculated Differential: 0.2%FS*<br>(20-85°C)** | <b>Environmental Conditions:</b> |                                                      |
| <b>Overpressure Capability:</b> | 5x calibrated range (6 bar)                                          | <b>Op. Temperature:</b>          | -20°C to +115°C                                      |
| <b>Resolution:</b>              | 0.01 mbar (0.03 mbar at 1000Hz)                                      | <b>Vibration:</b>                | 9 G / 1000Hz (24 hr)                                 |
| <b>Drift:</b>                   | <1mbar / year                                                        | <b>Communication Interface:</b>  | Direct CANbus, optional CAN / USB Adapter            |
| <b>Construction materials:</b>  |                                                                      | <b>Scan Rate:</b>                | Variable up to 1000Hz/Channel                        |
| <b>Wetted parts:</b>            | Stainless Steel / Aluminium / Viton®                                 | <b>Power:</b>                    | 9-24v DC                                             |
| <b>Outer case:</b>              | Carbon Fibre                                                         | <b>Current Consumption:</b>      | <18mA                                                |
|                                 |                                                                      | <b>Electrical Connector:</b>     | Deutsch, Harwin, Lemo or Flying lead (no connectors) |
|                                 |                                                                      | <b>Weight:</b>                   | <18g                                                 |
|                                 |                                                                      | <b>Dimensions:</b>               | 37 x 32.4x 9.2mm                                     |

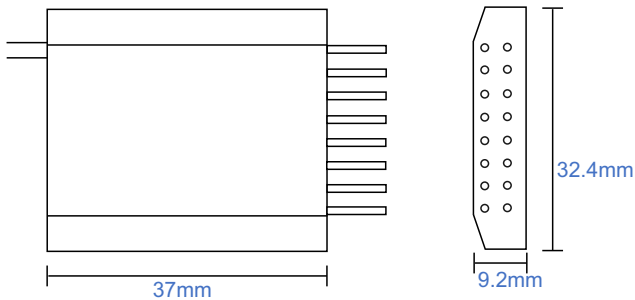
\*includes the effects of non-linearity, repeatability and hysteresis

\*\* Expands to 0.25% (abs) & 0.5% (diff) to outer temperature limits

#### Model Coding:

| EvoScann® |                              |                  |                                                        |                 |                                   |                                |                                                                 |                                           |                                                      |
|-----------|------------------------------|------------------|--------------------------------------------------------|-----------------|-----------------------------------|--------------------------------|-----------------------------------------------------------------|-------------------------------------------|------------------------------------------------------|
|           | Measurement:<br>P - Pressure | Channels:<br>16A | Mode:<br>A - Absolute<br>B - Differential<br>X - Other | Range:<br>X - X | Comms:<br>A - CANbus<br>X - Other | Cable:<br>1000mm<br>X - Custom | Connector:<br>A - None<br>B - Deutsch<br>C - Lemo<br>D - Harwin | Calibration:<br>A - Standard<br>X - Other | Special Instructions:<br>A - None<br>X - Check Notes |

#### Dimensions



#### Options and Accessories:

- CANbus to USB adapter c/w software interface
- Full range of tubes, connectors and extension cables
- Special ranges / calibrations
- FIA Homologated