

## EvoScann®

### P16-D TRUE DIFFERENTIAL PRESSURE SCANNER

EvoScann® P16-D provides high accuracy pressure scanning in a compact, rugged package to excel in the most demanding aerodynamic applications.

#### KEY FEATURES:

- ✓ High accuracy output directly in engineering units
- ✓ Smallest, lightest pressure scanners available
- ✓ Multi-channel measurement
- ✓ True-differential measurement, shared static reference
- ✓ Lightweight, rugged, carbon fibre case
- ✓ Integral microprocessor
- ✓ CANbus/CANbus FD interface
- ✓ Comprehensive range of industry-standard installation accessories



EvoScann® P-Series are highly-miniaturised pressure scanners 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, P-Series is at the forefront of pressure measurement in challenging aerodynamic locations. P-Series has been designed, from the start, with physical size, weight, accuracy and functionality in-mind and is available in a variety of configurations.

#### SMALL and LIGHT

In many aerodynamic testing applications, weight and size limits the ability to measure in difficult locations. Weighing-in at <45g and with compact dimensions, EvoScann® P16-D 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 CANbus data communications technology, EvoScann® P-Series is a pressure measurement and engineering unit converter in one package. With no requirement for external signal conditioning, EvoScann® P-Series 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, EvoScann® P-Series scanner is ready to plug-and-play, producing high-speed synchronous data within seconds of connection.

#### ROBUST

EvoScann® P-Series is 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

High-performance piezo-resistive pressure sensors provide true-differential pressure measurement to ensure the highest possible accuracy and evaluation of a complete test section in one compact device. Integrated temperature sensors provide useful data, but also apply temperature correction, 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® P-Series 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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#### SPECIFICATION

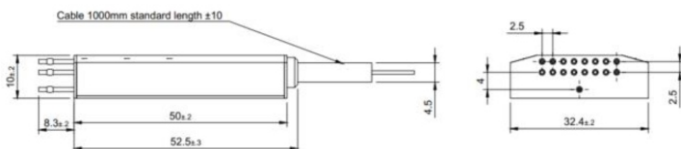
<b>Inputs (Px/Ref):</b>	16 x 0.040" O.D. / 1 x 0.040" O.D.	<b>Environmental Conditions:</b>	
<b>Full Scale Range:</b>	20, 50, 100 and 200 mbar	<b>Op. Temperature:</b>	-20°C to +90°C
<b>Accuracy*:</b>	>=100 mbar +/- 0.10% FS <100 mbar +/-0.15% FS	<b>Vibration:</b>	9g / 1000Hz (24 hr)
<b>Overpressure Capability:</b>	5x calibrated range	<b>Communication interface:</b>	Direct CANbus / CAN-FD optional CAN / USB Adapter
<b>Resolution:</b>	0.0006 mbar @ ± 20 mbar range 0.003 mbar @ ± 100 mbar range 0.006 mbar @ ± 200 mbar range	<b>Scan Rate:</b>	Variable up to 1000Hz / Channel
<b>Drift:</b>	<0.1% FS / year	<b>Power:</b>	9 to 36v DC
<b>Construction materials:</b>		<b>Current Consumption:</b>	<30 mA
<b>Wetted parts:</b>	Stainless Steel / Aluminium / Silicone	<b>Electrical Connector:</b>	Flying Lead (connectors optional)
<b>Outer case:</b>	Carbon Fibre	<b>Weight:</b>	<45 g (including 1 m cable)
<b>Tubulations:</b>	Stainless Steel	<b>Dimensions:</b>	50.0 x 32.4 x 10.0 mm
<b>Media:</b>	Air - Avoid liquid contaminants		

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

#### Model Coding:

EvoScann®									
	Measurement: P - Pressure	Channels: 16	Mode: D - Differential	Range: ± 20 mbar ± 50 mbar ± 100 mbar ± 200 mbar	Comms: A - CANbus X - Other	Cable: 1000 mm X - Custom	Connector: A - None B - Deutsch C - Lemo D - Harwin	Calibration: A - Standard X - Other	Special Instructions: A - None X - Check Notes

#### Dimensions



#### Options and Accessories:

- CANbus to USB adapter c/w software interface
- Full range of installation accessories including tubing, tools and connectors
- Special ranges / calibrations
- FIA Homologation (Pending)