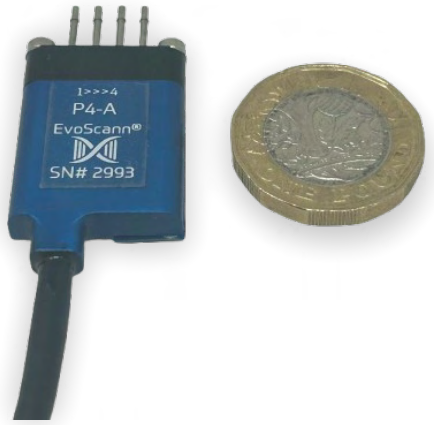
EVOLUTION
MEASUREMENT

EvoScann®

P4-A Absolute Pressure Scanner

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



KEY FEATURES:

- ✓ Smallest, lightest pressure scanner available
- ✓ Synchronous four-channel pressure measurement
- ✓ Lightweight construction
- ✓ Integral microcontroller
- ✓ High accuracy
- ✓ CAN/CAN-FD communications protocol
- ✓ Comprehensive range of industry-standard installation accessories
- ✓ Wide range of aerodynamic applications

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. The 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 <9g (without cable) and with compact dimensions, EvoScann® P-Series 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® P4-A is a pressure measurement and engineering unit converter in one package. With no requirement for external signal conditioning, EvoScann® P4-A transmits accurate, fast CANbus data, directly to the test article's computer/logging system. Using a single cable to provide the power and transmit the data and with a choice of industry-standard connectors, EvoScann® P4-A scanner is ready to plug-and-play, producing high-speed synchronous data within seconds of connection.

ROBUST

EvoScann® P4-A 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. A rugged, optional, mounting frame enables quick and easy attachment of the scanner to a surface and provides useful temperature and vibration isolation. A convenient removable manifold, with captive bolts, gives the user the option to remove pressure tubes and leave in-situ, when the scanner is dismounted.

ACCURATE

High-performance piezo-resistive pressure sensors ensure the highest accuracy and measurement of a complete aero section in one compact device. EvoScann® P4-A scanners measure Absolute pressure , across a wide selection of pressure ranges, including custom ranges. Integrated temperature sensors provide useful data, and 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® P4-A quickly and effectively into the test article, enabling measurement and data acquisition to start quickly, making efficient use of valuable testing time and resources.

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P4-A Absolute Mode Pressure Scanner

SPECIFICATION

Inputs (Px):	0.040" SS Bulged Tubulations
Full Scale Range:	600-1200 mbarA Custom ranges on request
Accuracy*:	0.2% Span
Scan Rate:	up to 1000Hz
Resolution:	0.01 mbar
Drift:	<1mbar / year

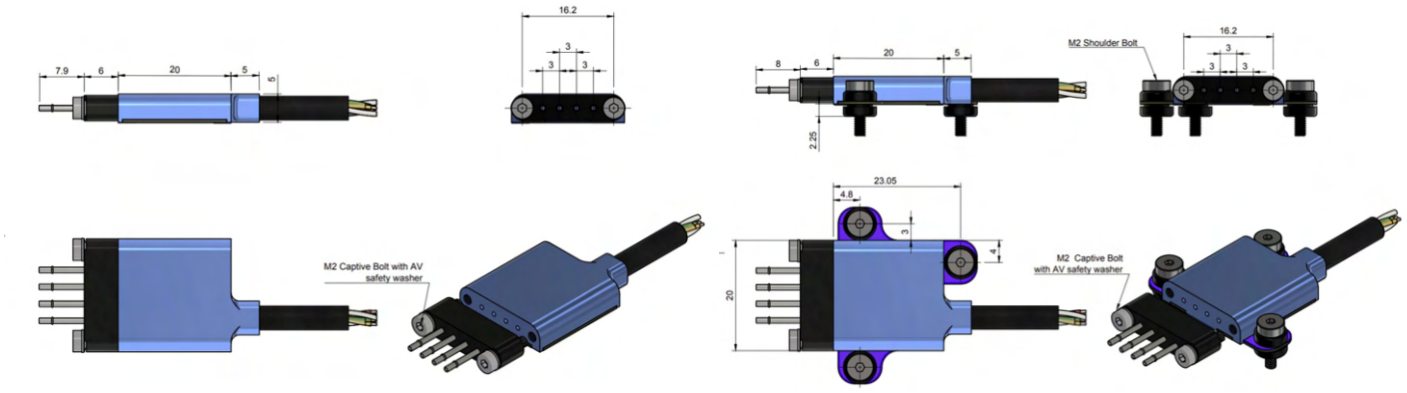
Construction materials:

Wetted parts:	Stainless Steel / Aluminium / Silicone
Outer case:	Anodised Aluminium
Mounting frame:	FR4 / Silicone Grommets
Tubulations:	Stainless Steel
Media:	Air - Avoid liquid contaminants

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

Environmental Conditions:	
Op. Temperature:	-20°C to +135°C
Vibration:	9 g / 1000Hz (24 hr)
FIA Homologated	
Communication Interface:	User selectable CANbus /CAN-FD (Optional CAN >USB Adapter)
Overpressure Capability:	5x calibrated range
Power:	9 to 36v DC
Current Consumption:	<20mA
Electrical Connector:	500mm "Flying lead" (no connectors) Connectors on request
Weight:	<17g (including 500mm cable) <9g (excluding cable)
Dimensions:	20 x 20 x 5 mm (Without Tubing Manifold)

Dimensions



Options and Accessories:

- Comprehensive catalogue upon request
- Wide range of tubes, connectors, pneumatic cables and fittings
- Optional spare manifolds

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