

Air Gauge Interface Module (AGM)



AGM-A



AGM-B

- Easy Setup and **Mastering** using PC software or onboard display
- Very high stability
- Resolution < 0.1 μm
- Pressure range 0 to 30 psi
- Choice of AGM Module with Setup screen (AGM-A) or without screen (AGM-B)

Air Gauging and Orbit® - Full Connectivity

Solartron Metrology's Orbit® Air Gauge Interface Module (AGM) makes connecting air gauge measurement probes to the Orbit® Digital Measurement Network simple, allowing the user to mix air gauges with contact and non contact sensors. With Orbit®, the user can easily output data to PC Software or PLCs.



Precision. Quality. Reliability

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Technical Specifications

Products	AGM - A		AGM - B	
Specifications				
AGM Pressure Measurement Performance				
Recommended Input Pressure (Note 1)	30 Psi, 2.06 bar, 206 kPa			
Recommended Working Pressure (Note 2)	1 to 29 PSI, 0.07 bar to 1.99 bar, 6.8kPa to 199 kPa			
Pressure Linearity	0.03% FSO over range 1 PSI to 28 PSI			
AGM Typical Measurement Performance with Gauge Head (Note 3)				
Measuring Range	Typical 100 µm			
Resolution (µm)	<0.1 µm			
Repeatability (Note 1)	Typical < 1 µm			
Features				
Mastering	Min Max			
Integrated colour display	Used for set up and display of measurement		N/A	
Units	mm , inches or mil			
Interfaces				
Orbit3 Electronics	Fully compatible with ALL Solartron Orbit Controllers and Measurement Modes			
No of AGM powered by USBIM Controller (Note 4)	3		4	
No of AGM powered by 1 PSIM (Note 4)	25		25	
No of AGM-B that can be Connected to 1 AGM-B Interface Module	N/A		20	
Air Gauge Interface	Single Channel			
Air Input Connection	Push Fit 8 mm diameter pipe			
Gauge Head Air Connection (Option 1)	Push Fit 6 mm diameter pipe			
Gauge Head Air Connection (Option 2)	MBP6400-4-4-O-RR (G1/4-19)			
Environmental				
Sealing	IP65 (excludes air connections)			
Operating and Storage Temperature °C	0 to 60			
EMC Emissions	EN61000-6-3			
EMC Susceptibility	EN61000-6-2			
Mechanical				
Mounting	Din Mount			
Materials	Aluminium / Steel / ABS			

Note 1 : The AGM will operate with an input air pressure between 10 to 30 PSI, 0.7 to 2 bar.

Note 2 : The AGM should be set so that the min master pressure is within the specified working range.

Note 3 : Actual performance depends on Air Gauge Head fitted values are typical

Note 4 : Solartron advise checking power requirements for any Orbit Configuration issuing the power calculator supplied with the Orbit Suite.

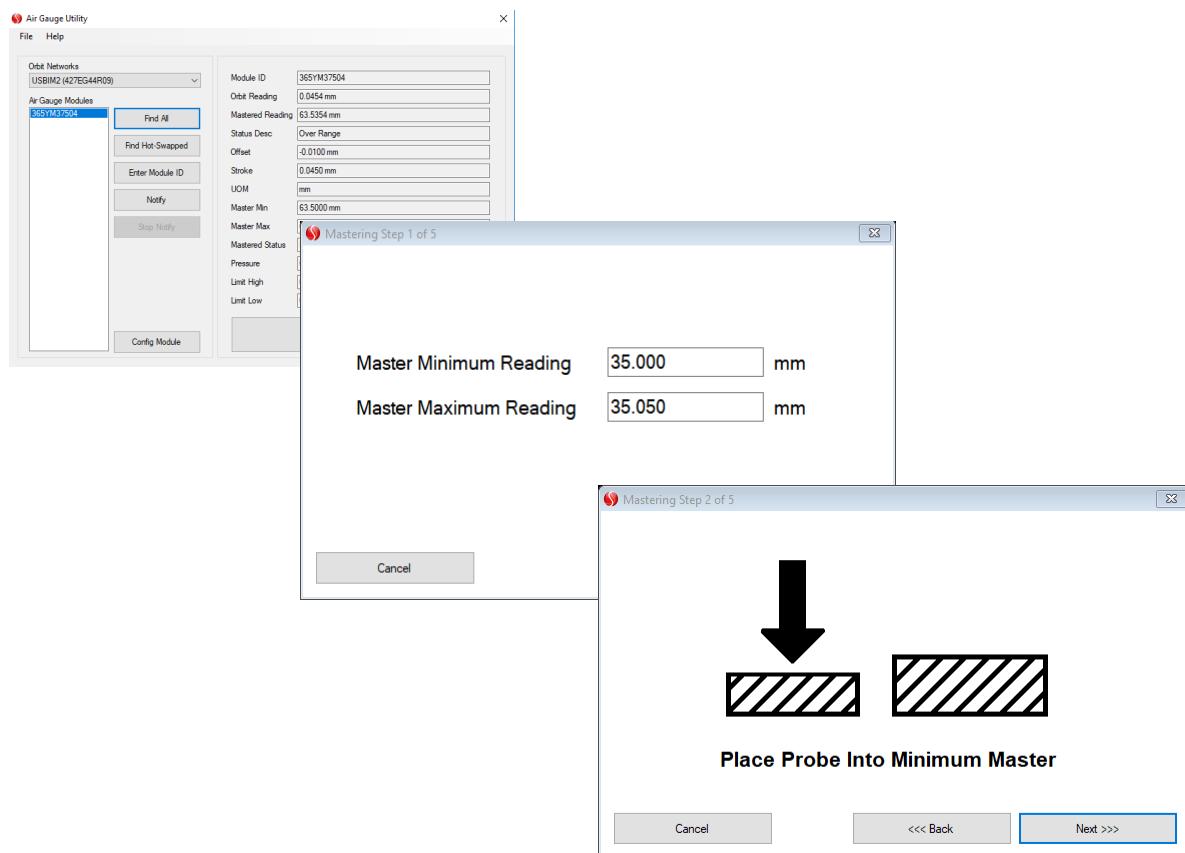
To achieve full performance a precision regulator and filter is highly recommended

Do not exceed 30 PSI into AGM

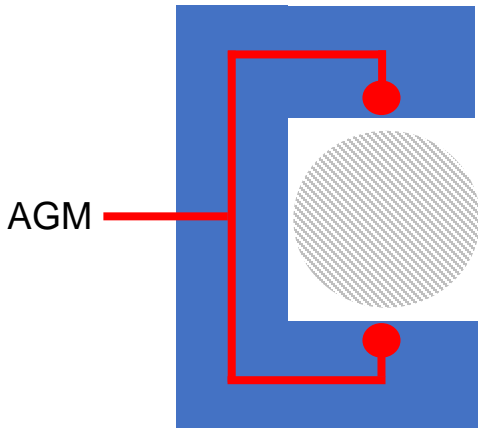


Easy Mastering

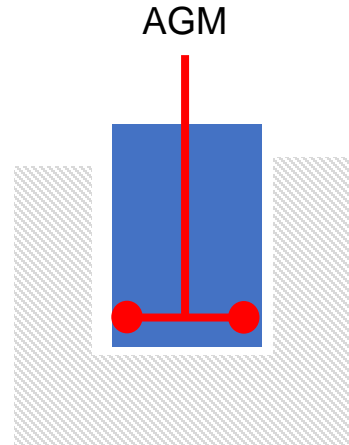
Orbit® Software Drivers include an AGM Mastering Software for easy set-up. For AGM-A, mastering can also be performed on module.



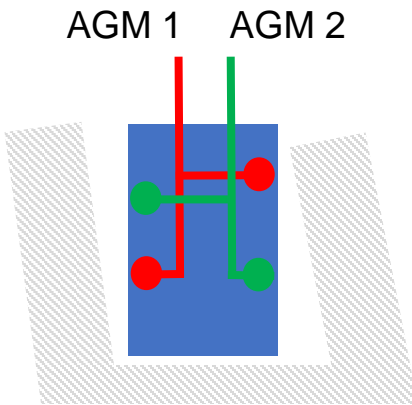
Applications



OD Check

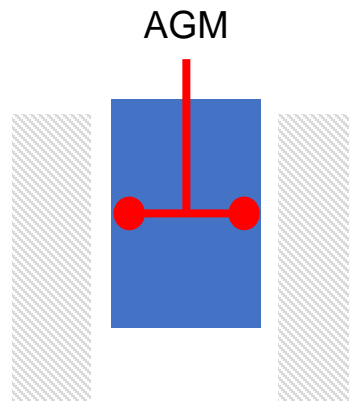


ID Check
(Blind Hole)

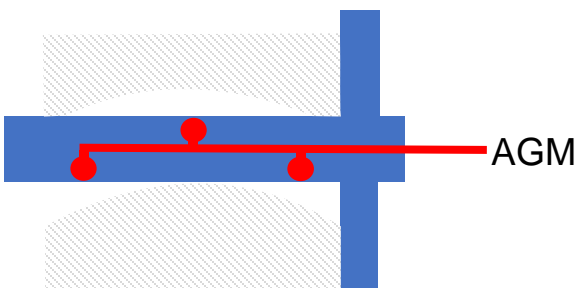


Parallel or Square
Check

(2 Air Circuits connected to 2 AGM
Parallelism = AGM 1 – AGM 2)

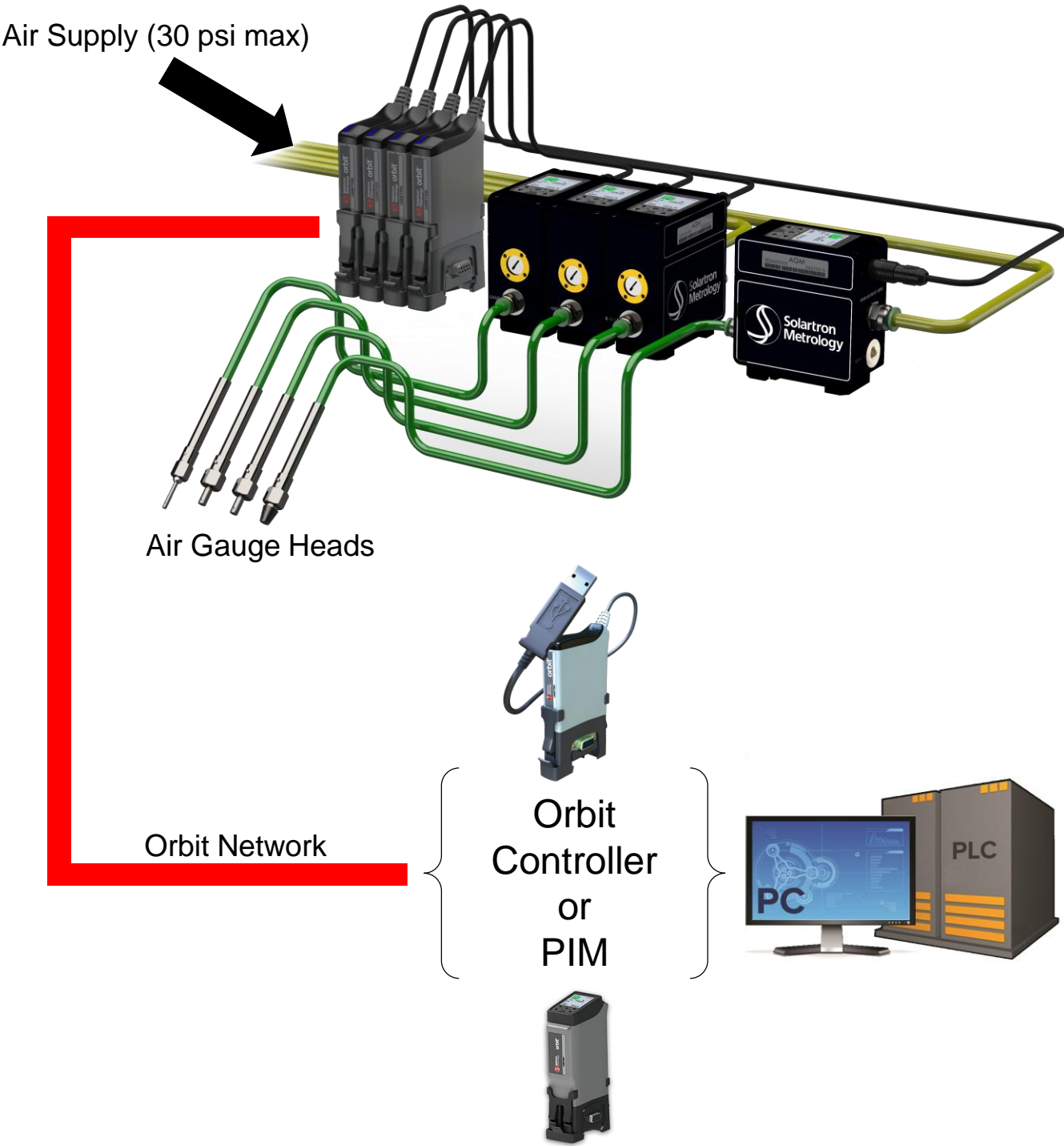


ID Check
(Open Hole)

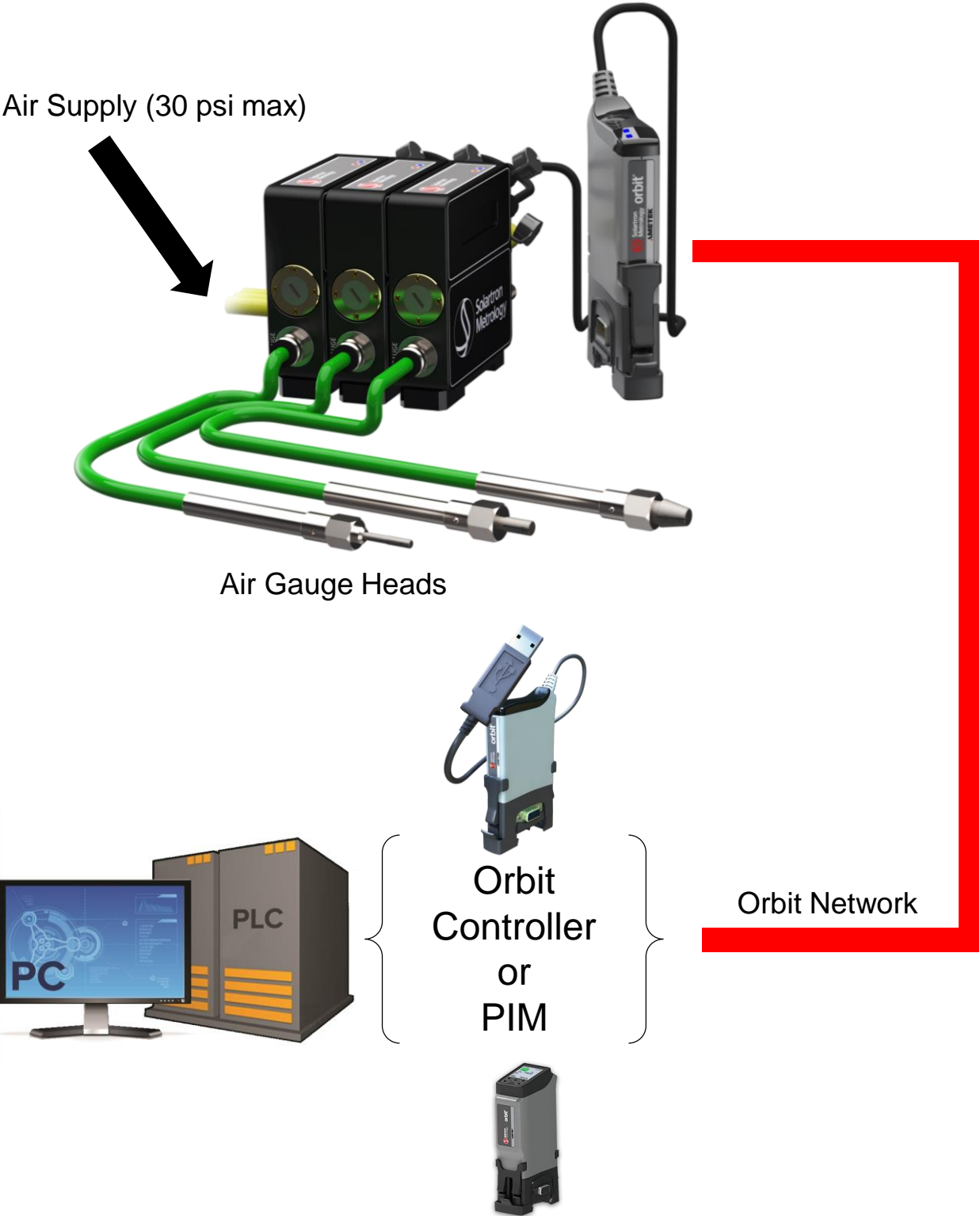


Straightness or Bow

Connectivity for Type A Module



Connectivity for Type B Module



Safety

The AGM and associated Air Gauging heads use compressed air and are for industrial use only by competent personnel. The air supply must be dry and filtered to prevent ingress of contamination into the AGM. Ensure that you comply with the relevant regulations for use of compressed air for the location where the AGM is installed.

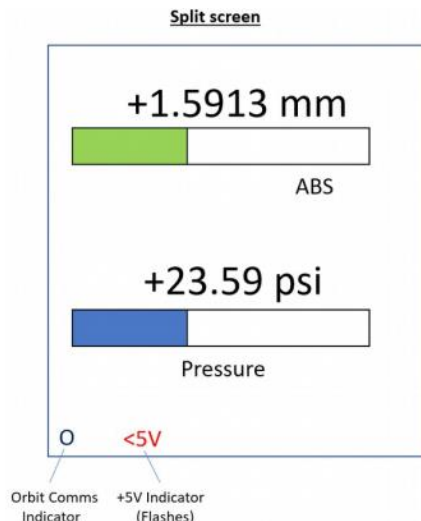
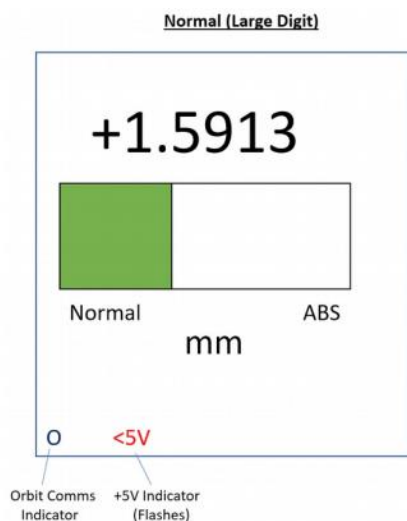
Use and Mastering

The AGM can be configured and Min Max Mastered in 2 ways:

- Locally, using On Screen Display (AGM-A only)
- Via the Air Gauge Mastering Utility (which is installed as part of the Orbit suite of programs).

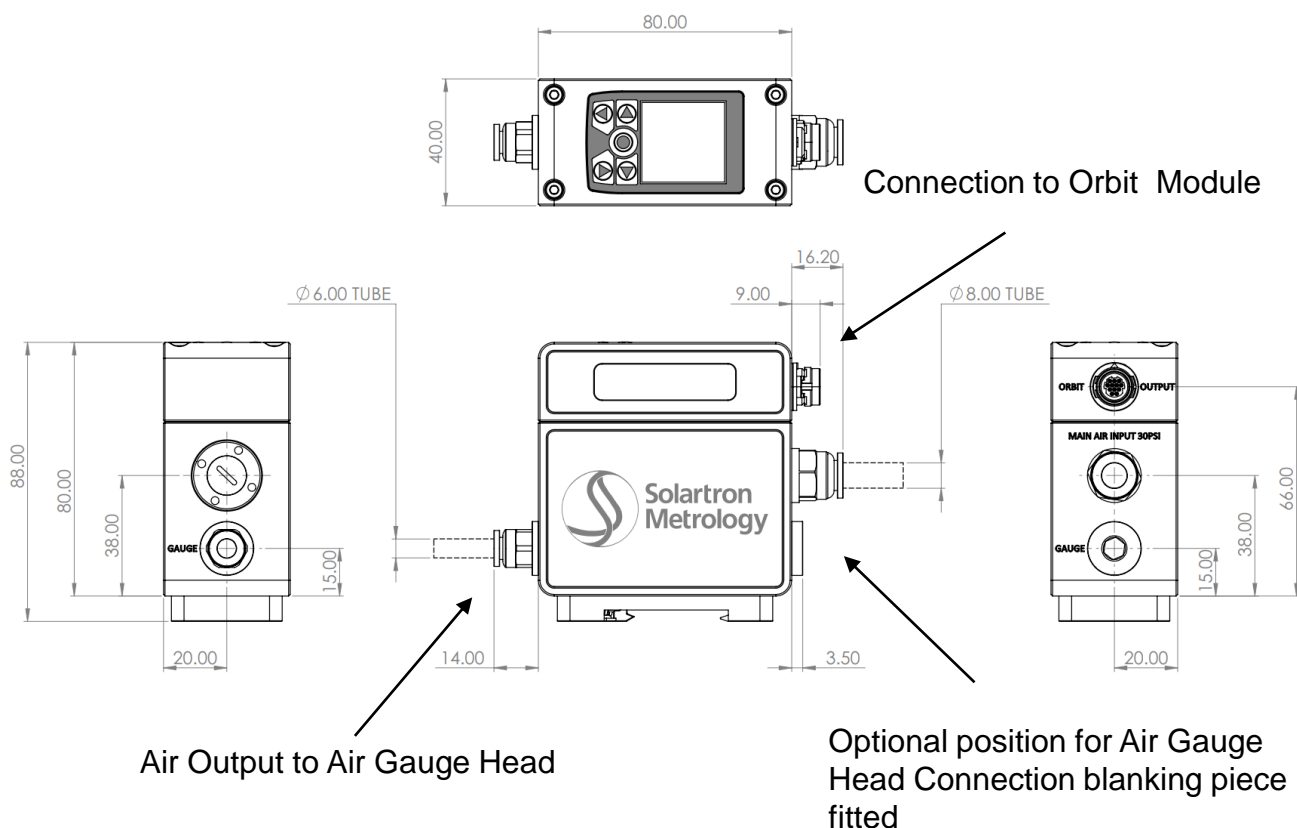
On Screen Display

The AGM-A has its own on-screen colour display, complete with keypad and five control buttons. This enables readings, and a simple menu to be displayed. High and Low limits can also be set.



See Orbit3 Module Manual 502914 for more details

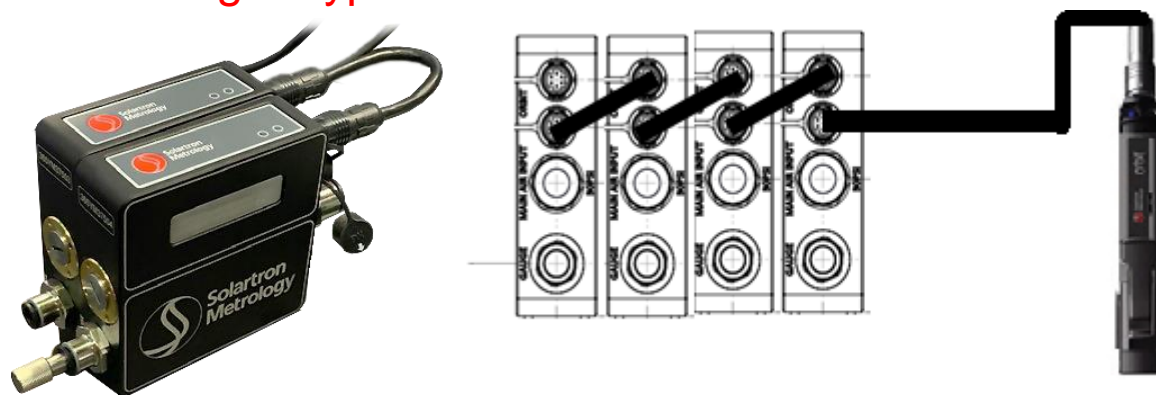
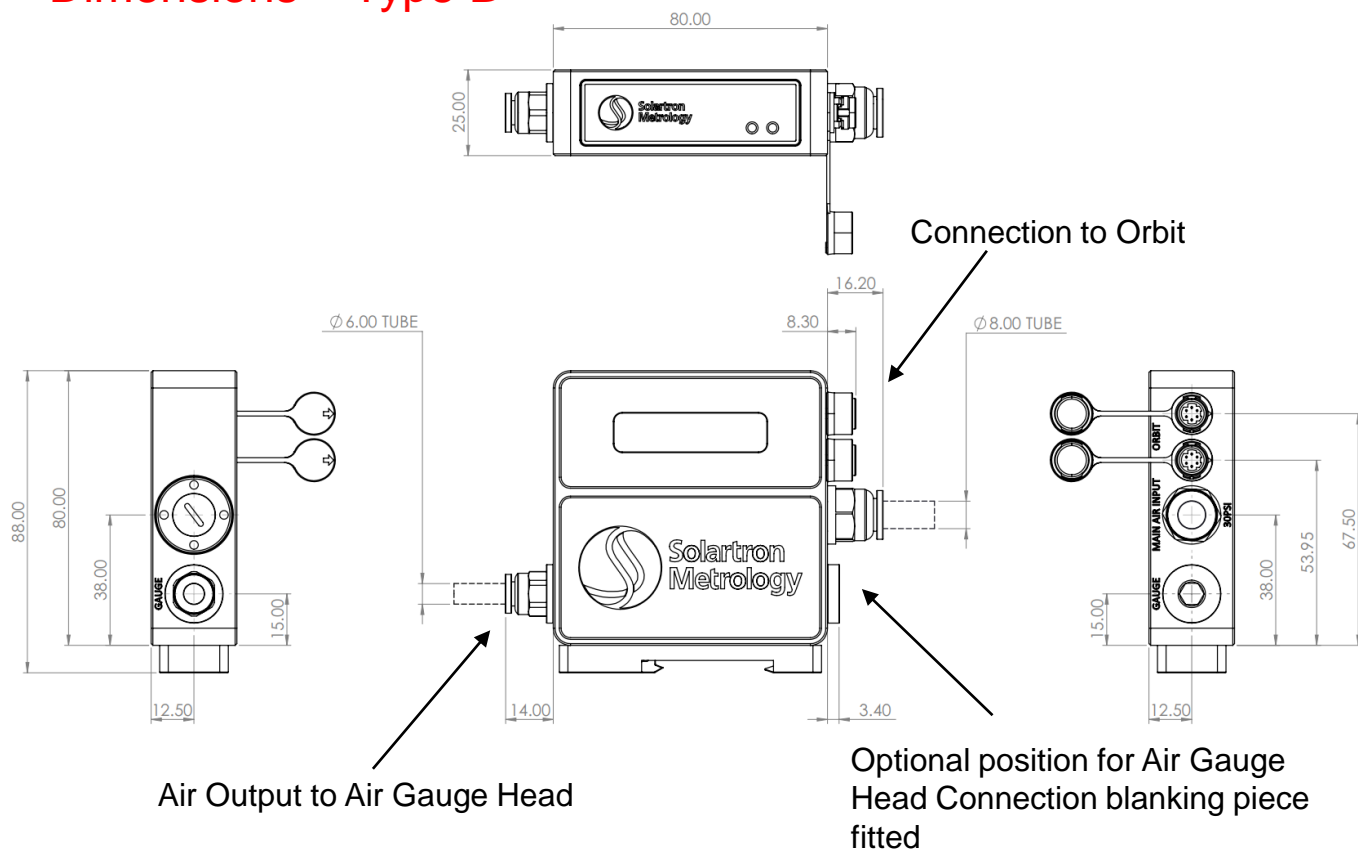
Dimensions – Type A



The AGM-A is normally supplied with push fit pipe connectors 8 mm diameter for pressure in and 6 mm for air gauge heads (2x). The threads on the AGM are ¼ inch BSPP, if these need to be replaced for a different fitting.

Connecting – Type A

The AGM – A is supplied connected to a PIE Module (as shown) for easy integration to the Solartron Orbit Digital Measurement Network. For dimensions of the PIE Module see Orbit catalogue.



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In the laboratory, on the shop floor or in the field, Solartron Metrology's products provide precise linear measurements for quality control, test and measurement and machine control. Solartron Metrology is a world leader in the innovation, design and manufacture of precision digital and analogue dimensional LVDT gauging probes, displacement sensors, optical linear encoders and associated instrumentation.

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