

AiM Infotech

AiM car bike
pressure sensors

Release 1.00





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Introduction

AiM devices can sample and record data supplied by different pressure sensors. Multiple pressure sensors types are in fact available in our product range both ending with a Binder 719 (plastic) male connector or free wires. Here below they are all listed with the related **part numbers**.

Pressure range	Thread	Binder 719 Connector	Free wires	Part number
0-5 bar	M10	✓		X05PSA00005B10K
0-5 bar	M10		✓	X05PSA00005B10KFW
0-5 bar	3/8 24	✓		X05PSA00005B38K
0-5 bar	3/8 24		✓	X05PSA00005B38KFW
0-5 bar absolute	M10	✓		X05PSA00005B10AK
0-5 bar absolute	M10		✓	X05PSA00005B10AKFW
0-5 bar absolute	3/8 24	✓		X05PSA00005B38AK
0-5 bar absolute	3/8 24		✓	X05PSA00005B38AKFW
0-10 bar	M10	✓		X05PSA00010B10K
0-10 bar	M10		✓	X05PSA00010B10KFW
0-10 bar	1/8 NPT	✓		X05PSA00010B18K
0-10 bar	1/8 NPT		✓	X05PSA00010B18KFW
0-10 bar	3/8 24	✓		X05PSA00010B38K
0-10 bar	1/8 24		✓	X05PSA00010B38KFW
0-100 bar	M10	✓		X05PSA00100B10K
0-100 bar	M10		✓	X05PSA00100B10KFW
0-100 bar	3/8 24	✓		X05PSA00100B38K
0-100 bar	3/8 24		✓	X05PSA00100B38KFW
0-160 bar	M10	✓		X05PSA00160B10K
0-160 bar	M10		✓	X05PSA00160B10KFW

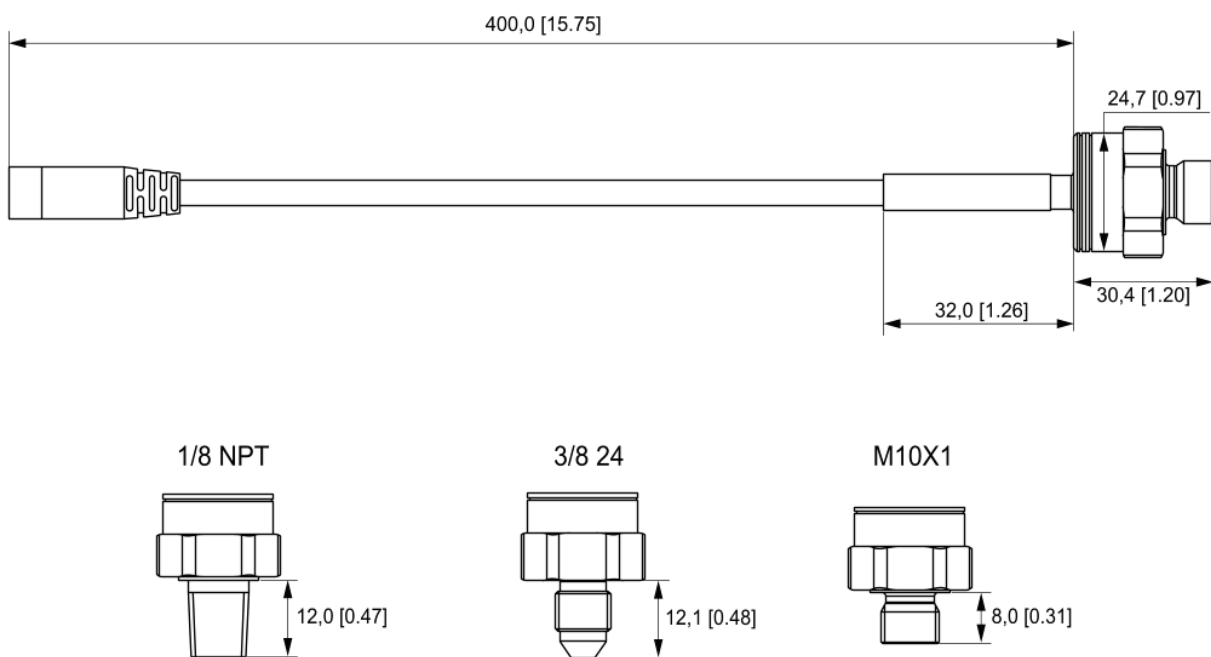


0-160 bar	3/8 24	✓		X05PSA00160B38K
0-160 bar	3/8 24		✓	X05PSA00160B38KFW
0-15 PSI	1/8 NPT	✓		X05PSA00015P18K
0-15 PSI	1/8 NPT		✓	X05PSA00015P18KFW
0-50 PSI	1/8 NPT	✓		X05PSA00050P18K
0-50 PSI	1/8 NPT		✓	X05PSA00050P18KFW
0-50 PSI Absolute	1/8 NPT	✓		X05PSA00050P18AK
0-50 psi absolute	1/8 NPT		✓	X05PSA00050P18AKFW
0-150 PSI	1/8 NPT	✓		X05PSA00150P18K
0-150 PSI	1/8 NPT		✓	X05PSA00150P18KFW
0-300 PSI	1/8 NPT	✓		X05PSA00300P18K
0-300 PSI	1/8 NPT		✓	X05PSA00300P18KFW
0-2000 PSI	1/8 NPT	✓		X05PSA02000P18K
0-2000 PSI	1/8 NPT		✓	X05PSA02000P18K

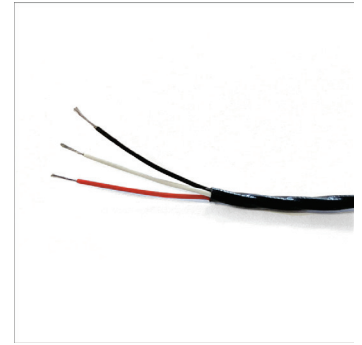
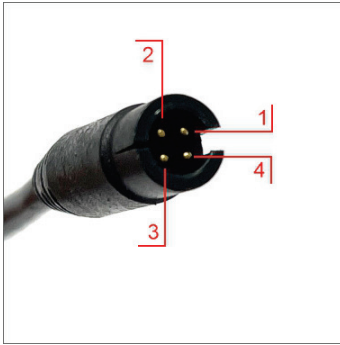
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Dimensions, pinout and technical characteristics

The drawing here below shows sensors dimensions in millimetres [inches] – in the example the sensor thread is M10 – and the different thread dimensions in mm [inches].



The sensor can be cabled with a 4 pins Binder 719 male connector or free wires. Here below you see the sensors connector on the left, AiM device harness connector central and the sensor free wires on the right; in the following table is connector pinout and wires colour.



Pin	Function	Cable colour
1	Analog signal	White
2	GND	Black
3	+Vb	Red
4	Not connected	

The table here below shows the sensor electrical characteristics.

Technical characteristics	Value
Supply	8-16 V
Accuracy	$< \pm 0.5\%$ FS (CLNH – combined non-linearity and hysteresis)
Characterisation	Start of scale: 500 mV End of scale: 4500 mV
Consumption	< 10 mA
Burst pressure	3 x rated pressure
Temperature working range	from -20°C to $+135^{\circ}\text{C}$
Waterproof	IP66
Housing	316 stainless steel
Weight	30 g
Cable length	400 mm
Available threads	M10 3/8 24 1/8 NPT

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Extension cables

The sensor is sold with a 40 cm cable. Standard length extension cables are available for the sensors ending with a Binder 719 (plastic) male connector and their part numbers change according to the length and to the product the sensor is to be connected to.

Extension cable for connection with:

- MX 1.2/1.3 systems (MXP included)
- MX 1.2/1.3 Strada systems (MXP Strada included)
- MXm
- EVO5
- MXL Systems

Part numbers:

- V02PCB05B** – cable length: 500mm
- V02PCB10B** – cable length: 1000mm
- V02PCB15B** – cable length: 1500mm
- V02PCB20B** – cable length: 2000mm
- V02PCB25B** – cable length: 2500mm
- V02PCB30B** – cable length: 3000mm



Extension cable for connection with:

- Channel Expansion
- EVO4
- EVO4S

Part numbers:

- V02PCB05BTXG** – cable length: 500mm
- V02PCB10BTXG** – cable length: 1000mm
- V02PCB15BTXG** – cable length: 1500mm
- V02PCB20BTXG** – cable length: 2000mm
- V02PCB25BTXG** – cable length: 2500mm
- V02PCB30BTXG** – cable length: 3000mm

