




# AirBox 1

**AirBox 1** is a pneumatic module of the AS-Interface family.

- AS-Interface slave 2 I / 2 OP
- 2 digital inputs via 2 x M12 sockets
- 2 integrated 3/2 way valves with 400 NI/min each at 6 bar
- Pneumatic connections via 8 mm fittings
- Manual override of valves
- Degree of protection IP 67 with common exhaust and IP 65 with sintered filter
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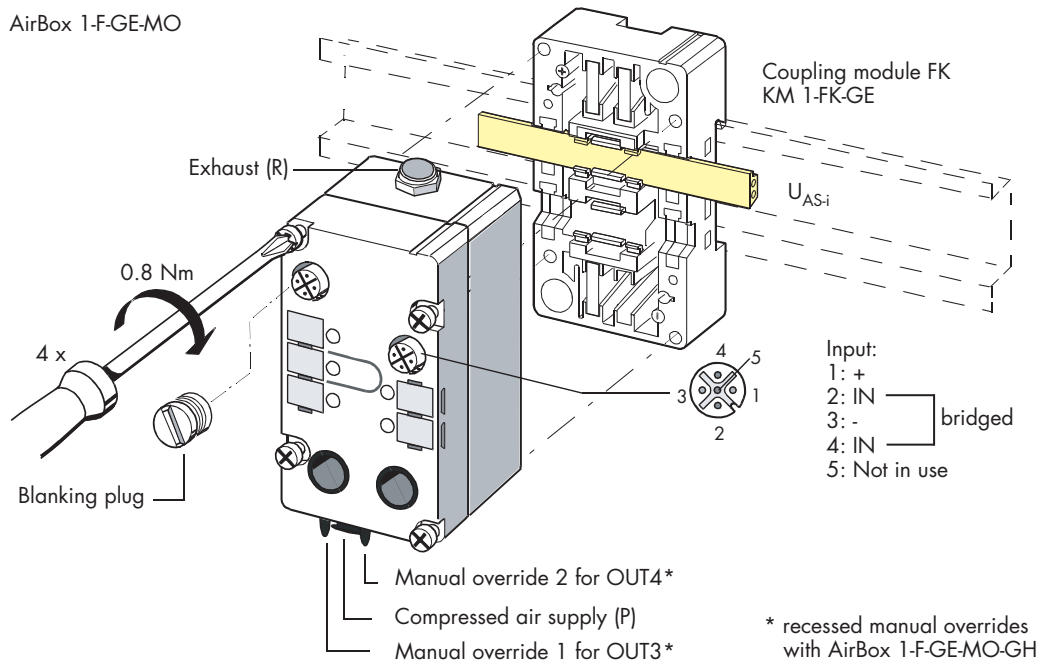
## Application

The **AirBox 1** has 2 inputs and 2 pneumatic outputs. You can wire up the input sockets directly with sensors (PNP, via M12 plugs) in 2- or 3-wire connection. The sensors are

supplied with energy from the pneumatic module. The outputs and the compressed air supply are connected to the module via a

8 mm plug-in tube connector. Use outside diameter tubing only.

## Installation / wiring



## Putting into service

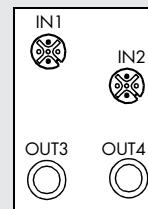
For putting the user module into service, the steps are as follows:

1. Set the address. To do this, use an addressing unit or a programming and service unit. Valid addresses are 1 to 31. Default address is 0. Use each address once per bus segment only.
2. Fit the AS-i cable in the guide(s) on the coupling module FK. Insert the yellow AS-i cable into the cable ducts of the coupling module FK-E.
3. Screw the pneumatic module tightly onto the coupling module. The green LED lights up when AS-i voltage is present.
4. Connect max. 2 sensors to the M12 sockets (inside thread).
5. Connect the compressed air supply (8 mm). Connect the pneumatic outputs (8 mm). Connect the exhaust extraction (8 mm) if necessary.

## Logical assignment

The table below shows the logical assignment of the data bits:

Data bit	Meaning	LEDs	Socket / Pin
I0	Input IN 1	yellow	1 / 2
I1	Input IN 2	yellow	2 / 2
O2	Output OUT 3	yellow	3 / -
O3	Output OUT 4	yellow	4 / -

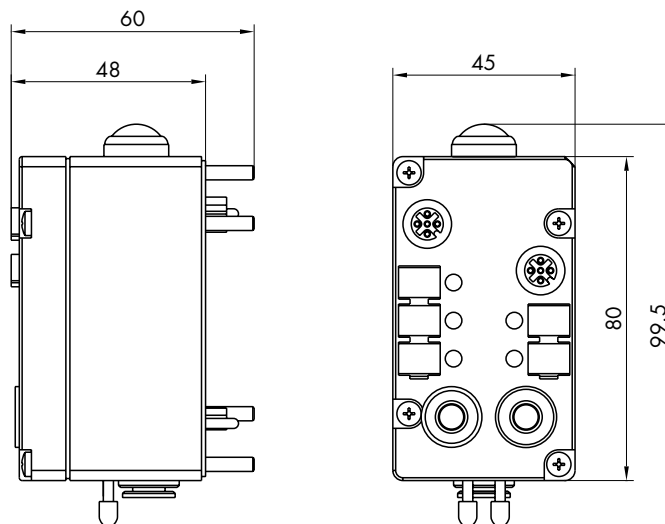


## Notes

Note the following:

- To attain degree of protection, insert blanking plugs in the M12 sockets not in use.
- In the event of overloading of the short-circuit-proof sensor power supply (Pin 1 and 3 of the input sockets), the pneumatic module interrupts communication with the master.
- Electrical control of the outputs has priority over manual control.
- Be sure to use properly treated compressed air (filtered 5 µm; non lubricated or lubricated). If lubricated air is used, the initial lubrication is removed. It is therefore necessary to carry on using lubricated air.

## Dimensions



## Technical data (as per AS-i specification)

<b>AS-i certificate number</b>	ZU no.	44701
<b>Electrical data</b>	I/O configuration, ID code (hex)	3, F, F, F
<b>U<sub>AS-i</sub> (yellow cable)</b>	Operational voltage	26.5 ... 31.6 V
	Total current input I	≤ 200 mA
	Own current requirements	≤ 45 mA
	Polarity reversal protection	integrated
<b>Inputs</b>	For signal "0", I <sub>in</sub>	≤ 1.5 mA
	For signal "1", U <sub>in</sub> / I <sub>in</sub>	≥ 10 V, ≥ 5 mA
<b>Sensor power supply</b>	Voltage range U <sub>out</sub>	20 ... 30 V DC
	Current carrying capacity I <sub>out</sub>	100 mA (short-circuit-proof)
	(Total current for all sensors)	
<b>Outputs</b>	Pneumatic outputs	2 pcs. 3/2 way valves
	Exhaust extraction	sintered filter or tube connector
<b>Compressed air</b>	Air flow rate	400 NI/min (standard litre/minute) at 6 bar
	Compressed air	filtered 5 µm; lubricated or non lubricated
	Pressure range	2 ... 8 bar
<b>Mechanical data</b>	Degree of protection	IP 65 (with sintered filter)
	(with coupling module)	IP 67 (with tube connector)
	Weight	approx. 200 g
<b>Temperature range</b>	Rated temperature T <sub>u</sub>	25 °C
	Ambient temperature T <sub>a</sub>	0 ... 55 °C
	Storage temperature T <sub>s</sub>	-20 ... 85 °C

## Order data

Part number	Description
<b>AirBox 1-F-GE-MO</b>	AirBox 1 filter <sup>1</sup> , AS-i cable yellow/yellow, monostable
<b>AirBox 1-S-GE-MO</b>	AirBox 1 tube <sup>2</sup> , AS-i cable yellow/yellow, monostable
<b>AirBox 1-F-GE-MO-GH</b>	AirBox 1 filter <sup>1</sup> , AS-i cable yellow/yellow, monostable, recessed manual overrides <sup>3</sup>
<b>AirBox 1-S-GE-MO-VA</b>	AirBox 1 tube <sup>2</sup> , AS-i cable yellow/yellow, monostable, stainless steel <sup>4</sup>
<b>KM 1-FK-GE</b>	Coupling module FK (AS-i flat cable yellow/yellow) for AirBox 1, 32 or PowerBox

<sup>1</sup> Exhaust filtered

<sup>2</sup> Common exhaust; 8 mm plug-in tube connector

<sup>3</sup> Recessed manual overrides to be operated with adequate tools only.

<sup>4</sup> All accessible metal parts made of stainless steel; sealing material: Viton