




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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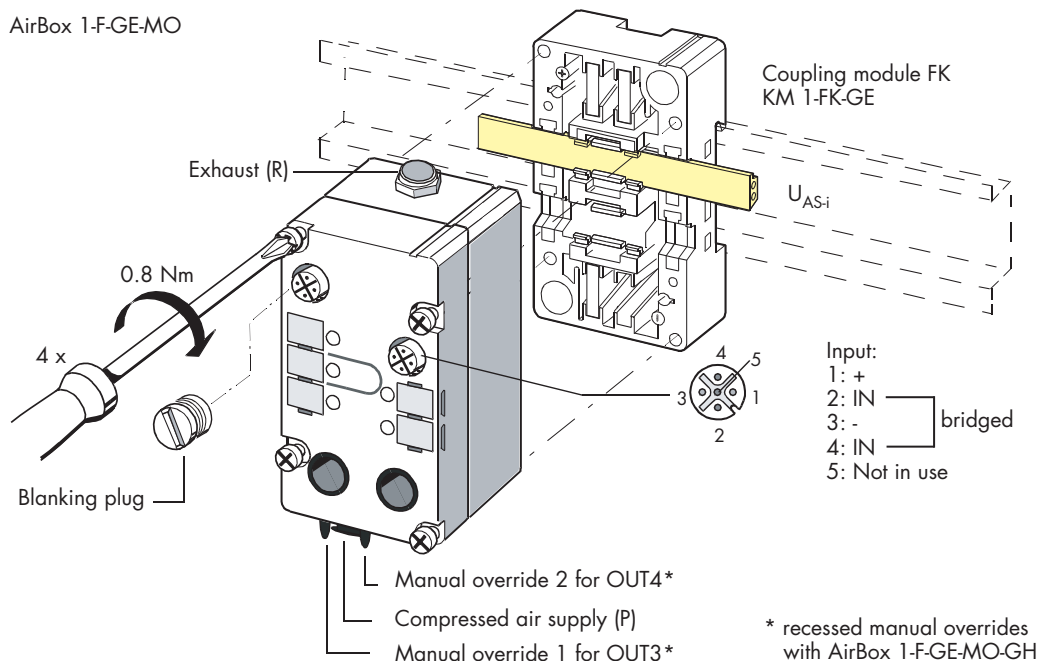
Application

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

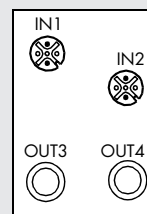
For putting the user module into service, the steps are as follows:

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 / -

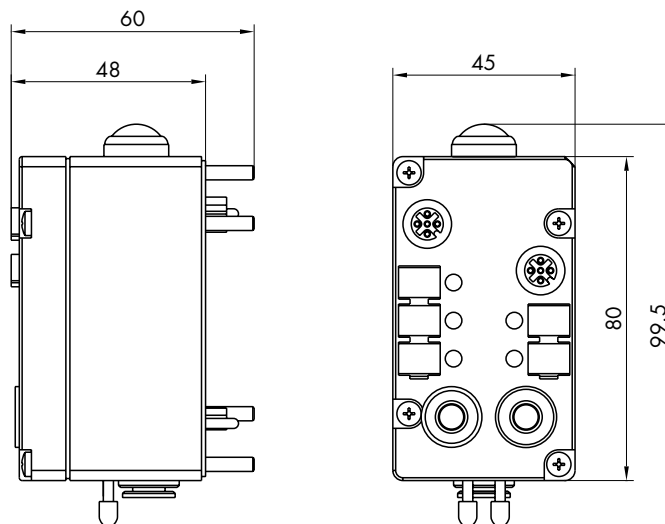


Notes

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)

AS-i certificate number	ZU no.	44701
Electrical data	I/O configuration, ID code (hex)	3, F, F, F
U_{AS-i} (yellow cable)	Operational voltage	26.5 ... 31.6 V
	Total current input I	≤ 200 mA
	Own current requirements	≤ 45 mA
	Polarity reversal protection	integrated
Inputs	For signal "0", I _{in}	≤ 1.5 mA
	For signal "1", U _{in} / I _{in}	≥ 10 V, ≥ 5 mA
Sensor power supply	Voltage range U _{out}	20 ... 30 V DC
	Current carrying capacity I _{out}	100 mA (short-circuit-proof)
	(Total current for all sensors)	
Outputs	Pneumatic outputs	2 pcs. 3/2 way valves
	Exhaust extraction	sintered filter or tube connector
Compressed air	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
Mechanical data	Degree of protection	IP 65 (with sintered filter)
	(with coupling module)	IP 67 (with tube connector)
	Weight	approx. 200 g
Temperature range	Rated temperature T _u	25 °C
	Ambient temperature T _a	0 ... 55 °C
	Storage temperature T _s	-20 ... 85 °C

Order data

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

¹ Exhaust filtered

² Common exhaust; 8 mm plug-in tube connector

³ Recessed manual overrides to be operated with adequate tools only.

⁴ All accessible metal parts made of stainless steel; sealing material: Viton