



Model number

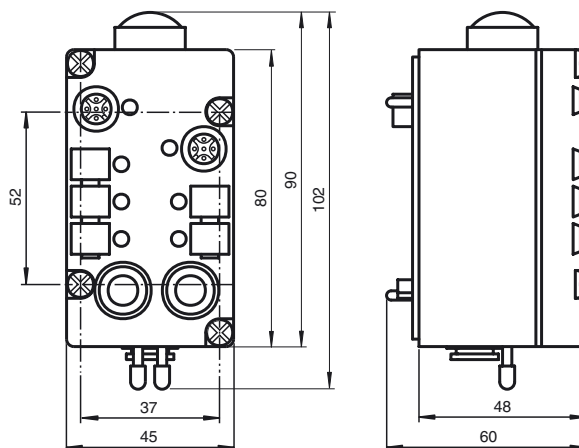
VBA-4E2A-G1-ZE/PEXT-S

Pneumatic module
4 inputs/2 pneumatic outputs

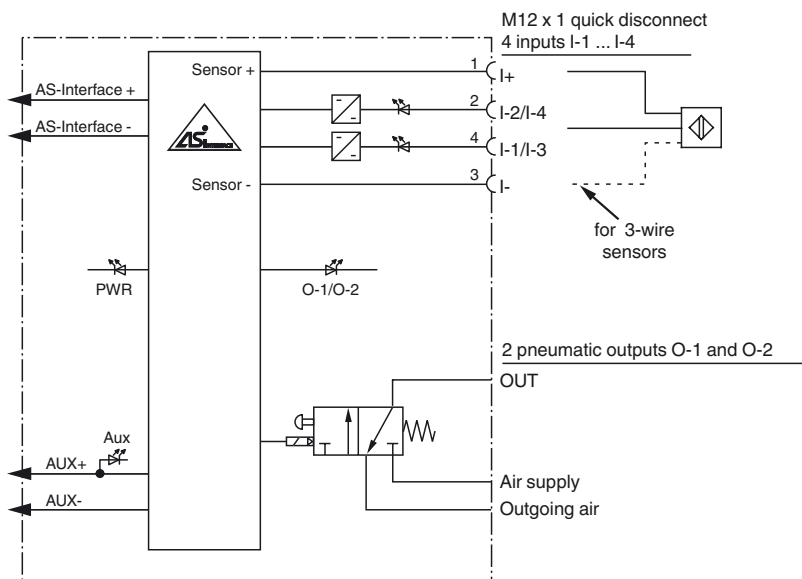
Features

- Flat or round cable connection (via standardized EEMS base, not included with delivery)
- Cable piercing method for flat cable
- Inputs for 2- and 3-wire sensors
- Function display for bus, ext. auxiliary voltage, inputs and outputs
- Direct connection of pneumatic cylinders

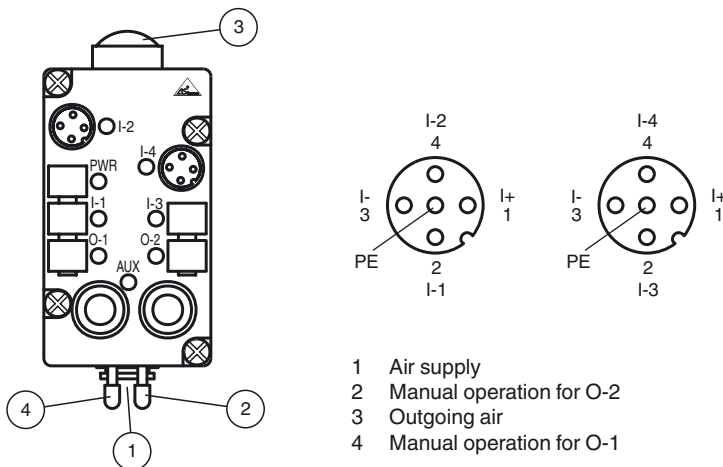
Dimensions



Electrical connection



Indicating / Operating means



- 1 Air supply
- 2 Manual operation for O-2
- 3 Outgoing air
- 4 Manual operation for O-1

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Technical data**General specifications**

Slave type	A/B slave
AS-Interface specification	V3.0
Required master specification	≥ V2.1

Functional safety related parameters

MTTF _d	44 a
Mission Time (T _M)	10 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

LED PWR	AS-Interface voltage; LED green
LED AUX	ext. auxiliary voltage U _{AUX} ; LED green
LED IN	switching state (input); 4 LED yellow
LED OUT	Switching state (output); 2 LED yellow

Electrical specifications

Auxiliary voltage (input)	U _{EXT}	24 V DC ± 15 % PELV
Rated operating voltage	U _e	26.5 ... 31.6 V from AS-Interface 24 V DC PELV according to IEC 364-4-41 from external auxiliary voltage U _{AUX}
Rated operating current	I _e	≤ 45 mA (without sensors) ≤ 200 mA (complete)

Input

Number/Type	2x 2 inputs for 2- or 3-wire sensors (PNP), DC
Supply	from AS-Interface
Current loading capacity	≤ 200 mA, short-circuit protected
Switching point	OFF: ≤ 1.5 mA ON: ≥ 5 mA, ≥ 10 V

Output

Number/Type	2 pneumatic outputs with separated 3/2-way valves
Supply	from external auxiliary voltage U _{AUX}
Voltage	20 ... 30 V DC, PELV
Current loading capacity	≤ 200 mA, short-circuit protected

Pneumatic output

Venting guide	Sinter filter
Compressed air	2 ... 8 bar, filtered (5 µm), oiled or unoled compressed air
Air throughput	550 NI/min at 6/0 bar 350 NI/min at 6/5 bar NI = Standard litre
Valve cross-section	5 mm

Directive conformity

Electromagnetic compatibility	
Directive 2014/30/EU	EN 62026-2:2013

Standard conformity

Electromagnetic compatibility	EN 61000-6-2, EN 61000-6-4
Degree of protection	EN 60529:2000
AS-Interface	EN 62026-2:2013
Noise immunity	EN 55011:1998 EN 62026-2:2013

Programming instructions

Profile	S-7.A.E
IO code	7
ID code	A
ID1 code	7
ID2 code	E

Data bits (function via AS-Interface)	input	output
D0	I-1	O-1
D1	I-2	O-2
D2	I-3	-
D3	I-4	-

Parameter bits (programmable via AS-i)	function
P0	not used
P1	not used
P2	not used
P3	not used

Ambient conditions

Ambient temperature	0 ... 55 °C (32 ... 131 °F)
Storage temperature	-20 ... 85 °C (-4 ... 185 °F)

Mechanical specifications

Degree of protection	IP65
Connection	cable piercing methos or terminals flat cable or standard round cable inputs: M12 x 1 quick disconnect outputs: plug-in hose connector (8 mm)
Material	
Housing	Pocan
Mass	approx. 200 g
Mounting	DIN rail or screw mounting

Function

The VBA-4E2A-G1-ZE/PEXT-S module has four inputs for the connection of 2 or 3 wire sensors and two pneumatic outputs with a high air throughput for direct control of pneumatic drives in the field. The module houses two separate 3/2 port directional control valves. The module as well as the sensors connected are supplied with energy by the bus line. The valves must be supplied by external power.

By means of the M12 x 1 round connectors, the sensors are connected up to the module; standard hose plug connectors (LEGRIS LF 3000, 8 mm) are used to attach the outputs to the pneumatic drive.

Various base units are available for the module. If the external energy supply of the valves is provided by a flat cable (EEMS), the connection of the AS-Interface is rendered by means of U-G1FF base (or U-G1PP). If the external power supply is provided by a round cable, the connection is established to the U-G1PP base.

Note:

Program the slave address prior to the initial operation (default setting 0).

Medium: filtered (5 µm), oiled or unoled compressed air (2 to 8 bar).

Warning:

Dangerous electric voltage may lead to electric shock and burns. De-energise the plant and the device prior to any work.

Accessories**VBP-HH1-V3.0-KIT**

AS-Interface Handheld with accessory

VBP-HH1-V3.0

AS-Interface Handheld

Matching system components**U-G1FF**

AS-Interface module mounting base for connection to flat cable (AS-Interface and external auxiliary power)

U-G1PP

AS-Interface module mounting base for connection to round cable (AS-Interface and external auxiliary power)

U-G1FFA

AS-Interface module mounting base with addressing jack for connection to flat cable (AS-Interface and external auxiliary power)

Notes

Examples for functions of the AS-Interface Airbox

