

ASi Module for controlling damper actuators and for detection the damper position

Meets requirements for Switzerland (IG-BSK)

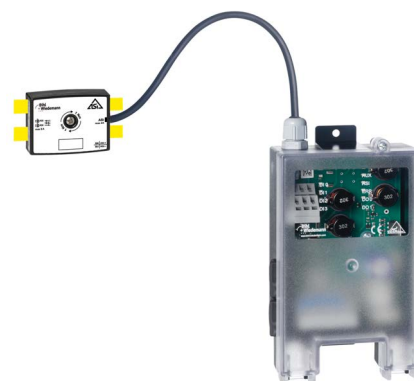
Supply of the motors out of ASi

AB address (up to 62 ASi nodes with AB addresses per ASi circuit)

Runtime monitoring of the damper motor in master possible

Connection by external profile cable terminal via insulation penetration technology

ASi Specifications 2.1



(Figure similar)



Article no. BW2080: ASi Module for controlling damper actuators, supply of inputs out of ASi, supply of outputs out of ASi

The ASi module to control damper actuators meets the requirements of the ASi Specifications 2.1. It is used to control the damper actuator and detect the damper position **damper open** and **damper closed** as well as the intermediate position „**damper opens**“ or „**damper closes**“. In addition external contact can be requested, e.g. of an smoke detector or an temperature switch.

O1 to the output can be connected in series with a smoke detector and an external fusible link. If they are not connected, the contacts have to be each bridged.

The connections are short-circuit -and overload protected. The integrated watchdog function, which switches the outputs to their currentless switching state if there is no communication on the ASi circuit, is integrated.

The transfer function is permanent monitored in the integrated ASi node and in the ASi Master. This module can be connected via cage clamp terminals or ready to plug via Belimo-compatible connector.

The module is equipped with advanced diagnostic capabilities and is able, by an short circuit at the outputs, to trigger a peripheral error message in the master.

Article no.	BW2080
Connection	
Connection to damper actuator	cage clamp terminals or Belimo-compatible connectors
ASi connection	Connection by external profile cable terminal via insulation penetration technology
Length of connector cable to motor	≤ 30 m ⁽²⁾
Cable length of the passive distributor	0.21 m ⁽³⁾
ASi	
Profile	S 7.A.E (ID1=7 default)
Address	1 AB address
Required Master profile	≥ M3
Since ASi specification	2.1
Operating voltage	30 V _{DC} (26,5 ... 31,6 V)
Max. current consumption	≤ 420 mA
Max. current consumption without sensor/ actuator supply	≤ 20 mA

Article no.	BW2080
Input	
Number	4
Power supply	out of ASi
Sensor supply	short-circuit and overload protected according to EN 61131-2
Supply of attached sensors	max. 400 mA $\sum (I_{In}/I_{Out}) \leq 400 \text{ mA}$
Switching threshold	$\leq 0,8 \text{ mA}$ (low); $\geq 5 \text{ mA}$ (high)
Output	
Number	2 x electronic
Power supply	out of ASi
Output	short-circuit and overload protected according to EN 61131-2
Max. output current	400 mA
Loading capacity	max. 400 mA per output $\sum (I_{In}/I_{Out}) \leq 400 \text{ mA}$
Display	
LED ASi (green)	on: ASi voltage on flashing: ASi voltage on, but peripheral fault ⁽⁴⁾ or address 0 off: no ASi voltage
LED ERR (red)	on: address 0 or offline flashing: peripheral fault ⁽³⁾ off: online
LEDs DI 0, 2, 3 (yellow)	state of inputs I1, I3, I4
LED DI 1 (blue ⁽¹⁾)	state of input I2
LED DO 0, 1 (yellow)	state of outputs O1, O2
Environment	
Applied standards	EN 60529 EN 61131-2 EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
Operating altitude	max. 2000 m
Operating temperature	-25 °C ... +60 °C
Storage temperature	-40 °C ... +70 °C
Housing	plastic, for screw mounting
Pollution degree	2
Protection category (acc. EN 60529)	IP54
Tolerable loading referring to humidity	according to EN 61131-2
Insulation voltage	$\geq 500 \text{ V}$
Weight	250 g
Dimensions (L / W / H in mm)	160 / 90 / 55

(1) from ident.No. ≥ 17304

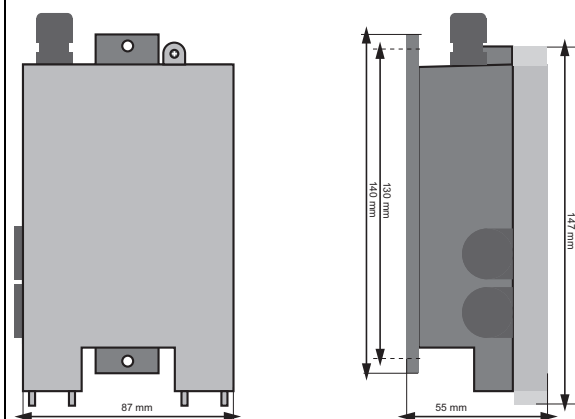
(2) Loop resistance $\leq 150 \Omega$

(3) $\pm 1 \text{ cm}$ manufacturing tolerance

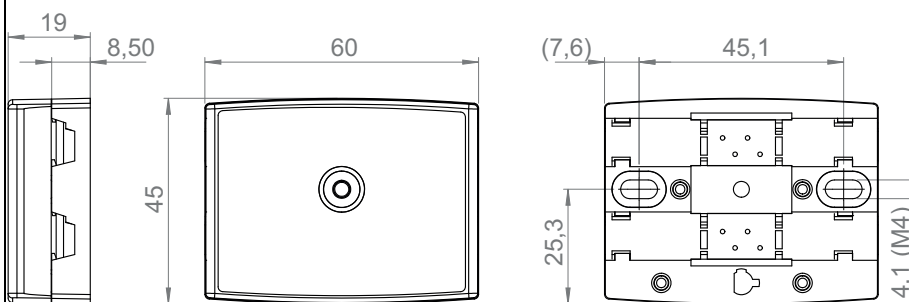
(4) See table "Peripheral fault indication"

Dimensional drawings

BW2080



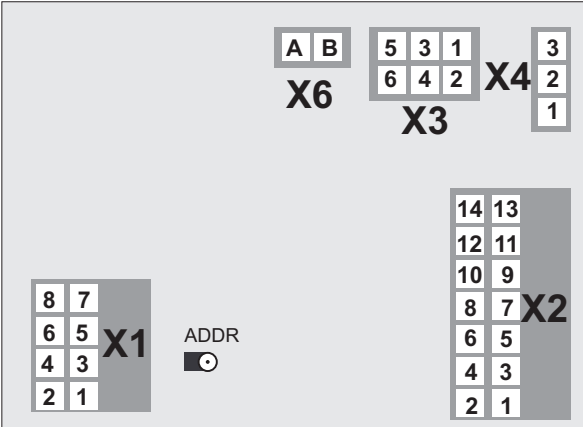
BW3186



Article no.	Peripheral fault indication		
	Overload sensor supply	Output short circuited	AUX voltage missing
BW2080	–	•	–

Programming	Bit assignment			
	D3	D2	D1	D0
Input	I4	I3	I2	I1
BW2080	reserved	external smoke detector, contact closed	damper open	damper closed
Output	O4	O3	O2	O1
BW2080	–	–	reserved	damper open up
Parameter bit	P3	P2	P1	P0
BW2080	not used	0= off / 1= on (peripheral fault)	not used	not used
Programming instructions				
BW2080	preset: address 0 changeable via bus master programming devices			

Terminal assignment:					
	X1	X2	X3 plug	X4 plug	X6
1	ASi +	RM A	+24 V _{out o} f ASi	O1	SL A
2	ASi +	0 V	+24 V _{out o} f ASi	0 V _{out of A} Si	SL B
3	ASi –	RM B / I3	n.c.	O2	
4	ASi –	+24 V _{out of ASi}	n.c.		
5	n.c.	I2	I1		
6	n.c.	+24 V _{out of ASi}	I2		
7	n.c.	I1			
8	n.c.	+24 V _{out of ASi}			
9		I4			
10		+24 V _{out of ASi}			
11		O1			
12		0 V _{out of ASi}			
13		O2			
14		0 V _{out of ASi}			
SD = smoke detector, FL = fusible link					



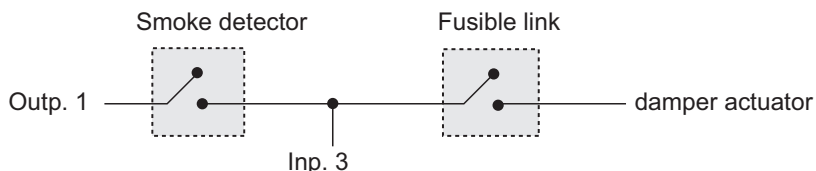
Variants with bridges

- 1-11: no smoke detector connected no fusible link X6 connected
- 1- 3: no smoke detector connected

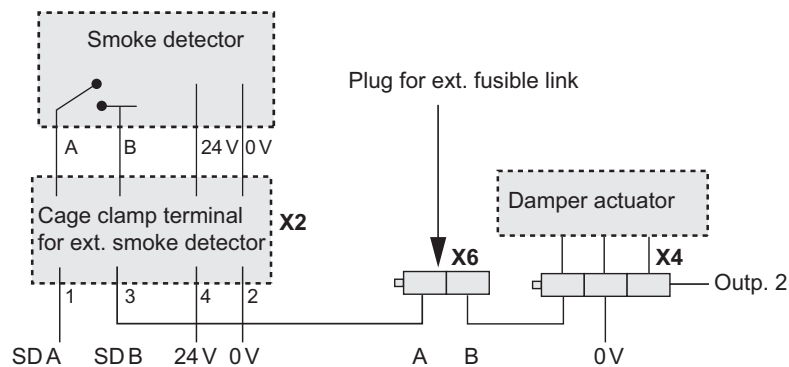
	Notice: • The controller can not recognize that by law bridges smoke detectors or fusible link are missing.
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Double-deck terminal block, 2 x 4/5/6/7 poles (pitch 5 mm)	
General	
Nominal cross section	2.5 mm ²
Conductor cross section	
Conductor cross section solid	0.8 ... 2.5 mm ²
Conductor cross section flexible	0.8 ... 2.5 mm ²
Conductor cross section flexible, with ferrule	without plastic sleeve: 0.25 ... 2.5 mm ²
	with plastic sleeve: 0.25 ... 1.5 mm ²
2 conductors with same cross section, stranded, with TWIN ferrules	–
AWG	28 ... 12
Stripped insulation length	6 mm

Circuit diagram:



Connection diagram:



Scope of delivery:

- Passive Distributor ASi to 1 x round cable/connecting wires, depth 19 mm, IP67 (art. no. BW3186)

Accessories:

- ASi-5/ASi-3 Address Programming Device (art. no. BW4925)