

ASi Module to control damper actuators and for detection of the damper position

Meets requirements for Switzerland (IG-BSK)

Supply of motors by external 24V

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

Runtime monitoring of the damper motor in master possible

Connection by cage clamp terminals or external profile cable terminal via passive distributor

ASi Specifications 2.1



(figure similar)



Article no. BW2081: ASi Module to control damper actuators, supply of inputs out of AUX, supply of outputs out of AUX

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 close** as well as the intermediate position „**damper opens**“ or „**damper closes**“.

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. A watchdog function, which switches the outputs to their current-

less 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.

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Connections	
Damper actuator	cage clamp terminals or Belimo-compatible connectors
ASi	Connection by cage clamp terminals or external profile cable terminal via passive distributor
Length of connector cable to motor	≤ 30 m ⁽²⁾
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	≤20mA
Max. current consumption without sensor/ actuator supply	≤20 mA
AUX	
Voltage	24 V _{DC} (18 ... 30V)
Max. current consumption	400 mA

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Input	
Number	4
Power supply	out of AUX
Sensor supply	short-circuit and overload protected according to EN 61131-2
Power supply of attached sensors	max. 400 mA $\sum (In/Out) \leq 400 \text{ mA}$
Switching threshold	$\leq 0,8\text{mA}$ (low) $\geq 5\text{mA}$ (high)
Output	
Number	2 x electronic
Power supply	out of AUX
Output	short-circuit and overload protected according to EN 61131-2
Max. output current	400 mA
Loading capacity	400 mA per output $\sum (In/Out) \leq 400 \text{ mA}$
Display	
LED AUX (green)	on: 24 V _{DC} AUX off: no 24 V _{DC} AUX
LED ASi (green)	on: ASi voltage on flashing: ASi voltage on, but peripheral fault ⁽³⁾ 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 (blue ⁽¹⁾)	state of input I2
LEDs DO 1, 2 (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	IP54
Tolerable loading referring to humidity	according to EN 61131-2
Voltage of insulation	$\geq 500 \text{ V}$
Weight	250
Dimensions (W / H / D in mm)	90 / 160 / 55

(1) from Ident.No. ≥ 17349 .

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

(3) See table "Peripheral fault indication"

Article no.	Peripheral fault indication		
	Overload sensor supply	Output short circuited	AUX voltage missing
BW2081	-	•	•

Programmierung	Bit setting			
	D3	D2	D1	D0
Input	I4	I3	I2	I1
BW2081	Jumper	external smoke detector, contact closed	damper open	damper closed
Output	O4	O3	O2	O1
BW2081	–	–	reserved	open damper
Parameter bit	P3	P2	P1	P0
BW2081	not used	0= off / 1= on (peripheral fault)	not used	not used
Programming				
BW2081	preset: address 0 changeable via busmaster-programming devices			

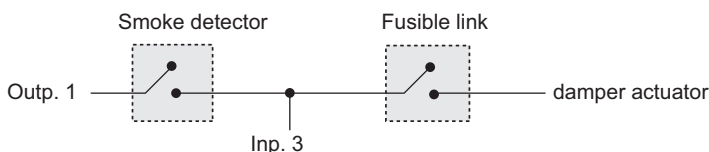
Terminal assignment:						
	X1	X2	X3	X4	X5	X6
1	ASi +	RM A	+24 V _{ext.out}	O1	I4	SL A
2	ASi +	0 V _{ext.out}	+24 V _{ext.out}	0 V _{ext.out}	+24 V _{ext.out}	SL B
3	ASi –	RM B / I3	n.c.	O2		
4	ASi –	+24 V _{ext.out}	n.c.			
5	+24 V _{ext. in}	I2	I1			
6	+24 V _{ext. in}	+24 V _{ext.out}	I2			
7	0 V _{ext. in}	I1				
8	0 V _{ext. in}	+24 V _{ext.out}				
9		I4				
10		+24 V _{ext.out}				
11		O1				
12		0 V _{ext.out}				
13		O2				
14		0 V _{ext.out}				

Variants with bridges:	
• 1-11: no smoke detector connected no fusible link X6 connected	
• 1- 3: no smoke detector connected	

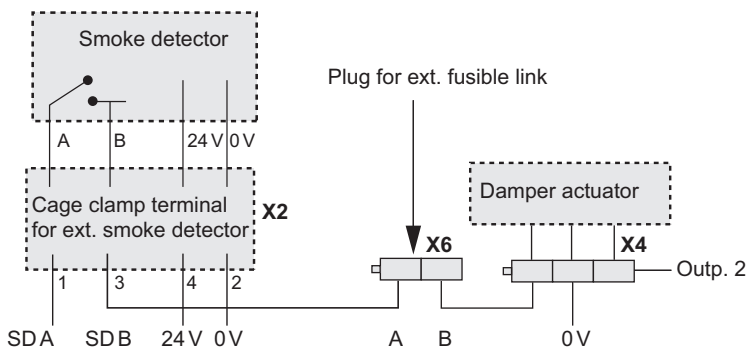
SD = smoke detector, FL = fusible link

Warning: The controller can not recognize that by law bridges smoke detectors or fusible link are missing.

Circuit diagram:



Connection diagram:



Accessories:

- Passive Distributor ASi/AUX to 1 x round cable/connecting wires, depth 19 mm, IP67 (art. no. BW3314)
- ASi-5/ASi-3 Address Programming Device (art. no. BW4925)