

AC551A



AS-Interface Airbox with quick mounting technology

AirBox 5/2 bist. 4DI-Y II 3D



Application		
Application		AS-i ATEX module
Electrical data		
Operating voltage	[V]	26.5...31.6 DC
Max. current consumption from AS-i	[mA]	280
Integrated watchdog		yes
Inputs / outputs		
Number of inputs and outputs		Number of digital inputs: 4; Number of pneumatic outputs: 2
Inputs		
Number of digital inputs		4
Input circuit of digital inputs		PNP
Sensor supply of the inputs		AS-i
Power supply	[V]	20...30; (via flat cable)

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Max. total current rating of inputs	[mA]	200
Input current High	[mA]	6...10
Input current Low	[mA]	0...2
Switching level high	[V]	> 11
Digital inputs protected against short circuits		yes

Outputs

Electrical design	AS-i
Number of pneumatic outputs	2

Operating conditions

Ambient temperature	[°C]	-10...50
Protection		IP 50

Tests / approvals

ATEX marking	Ⓔ II 3D Ex tc IIIB T80°C Dc X IP50		
EMC	EN 50295		
	IEC 61000-6-2		
MTTF	[years]	258	

AS-i classification

AS-i version	2.11; 3.0				
AS-i addressing	addressing socket				
Extended addressing mode	yes				
AS-i master profile	M2; M3; M4				
AS-i profile	S-7.A.E				
AS-i I/O configuration	[hex]	7			
AS-i ID code	[hex]	A.E			
AS-i certificate pending	yes				
Assignment of the data bits	data bit	D0	D1	D2	D3
	input	1	2	3	4
	socket	I-1/2	I-1/2 I-2	I-3/4	I-3/4 I-4
	pin	4	2 4	4	2 4
	pneumatic output	2	4	-	-

Mechanical data

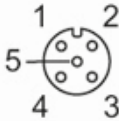
Weight	[g]	413.5
Type of mounting	quick mounting	
Materials	PA; POM; piercing contacts: CuSn6 nickel-plated and tin-plated	
Pneumatic system	1 x 5/2-way slide valve (free from overlapping); bistable	
Operating pressure range	[bar]	3...8
Operating pressure range	[MPa]	0.3...0.8
Air flow at 6/5 bar	[l/min]	500
Permissible compressed air	non-lubricated compressed air class 6-3-1; lubricated compressed air class 6-3-4	
Manual override	pressing/releasing or pressing/turning/locking	
Tube fittings	8 mm	
Exhaust	exhaust can be discharged through tube connection	

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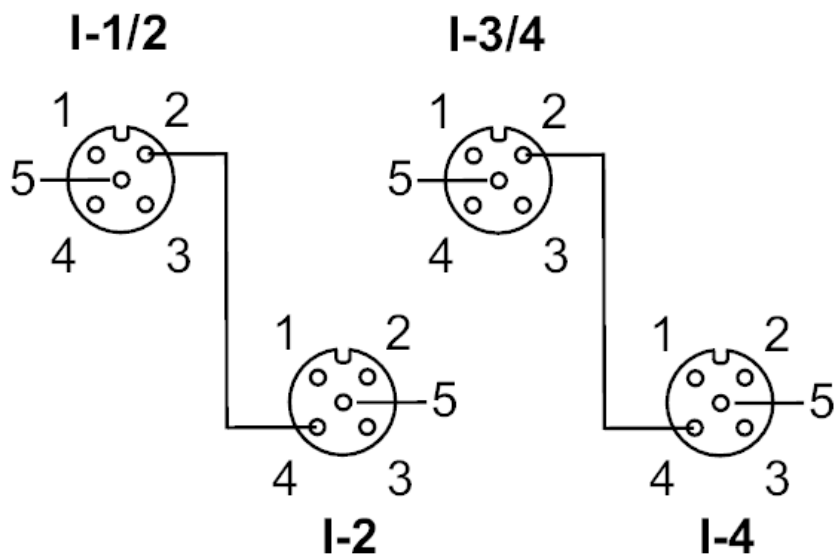
Displays / operating elements		
Display	operation	LED, green
	errors	LED, red
	function	LED, yellow
Electrical connection		
Module connection	Flat cables	
Accessories		
Items supplied	lower part	
Accessories (optional)	Mounting plate:, E74999	
	Module lower part:, E75000	
	Protective cap: M12, E73004	
	sealing plugs:, E75231	
	Impact protection housing:, E7000A	
	silencer:, E75232	
	Push-in L-fitting:, E75228	
	Push-in T-fitting:, E75227	
Remarks		
Remarks	Mechanical protection has to be implemented.	
	Otherwise the unit must be installed together with the impact protection housing (E7000A).	
	If not pneumatically operated, E75231 sealing plug must be inserted.	
	Avoid ingress of dirt and dust.	
	Do not connect any of the following points to an external potential:	
	L-, L+, I-1, I-2, I-3, I-4	
	The connections are electrically connected with the AS-i cable.	
	Please see the notes on compressed air and EMC/ESD under "Downloads"	
Pack quantity	1 pcs.	
Electrical connection		
quick mounting technology for AS-i flat cable: ; three orientations possible		
Connector: 4 x M12; coding: A		
		



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Connection



Inputs	
socket I-1/2	
1	Sensor supply L+
2	data input 2
3	Sensor supply L-
4	data input 1
5	not used
socket I-2	
1	Sensor supply L+
2	not used
3	Sensor supply L-
4	data input 2
5	not used
socket I-3/4	
1	power supply L+
2	data input 4
3	Sensor supply L-
4	data input 3
5	not used
socket I-4	
1	Sensor supply L+
2	not used
3	Sensor supply L-
4	data input 4
5	not used

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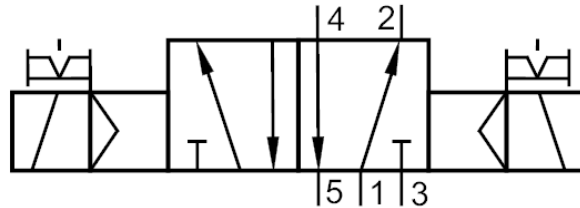


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Diagrams and graphs

Pneumatic symbol



1 x 5/2-way slide valve (free from overlapping); bistable