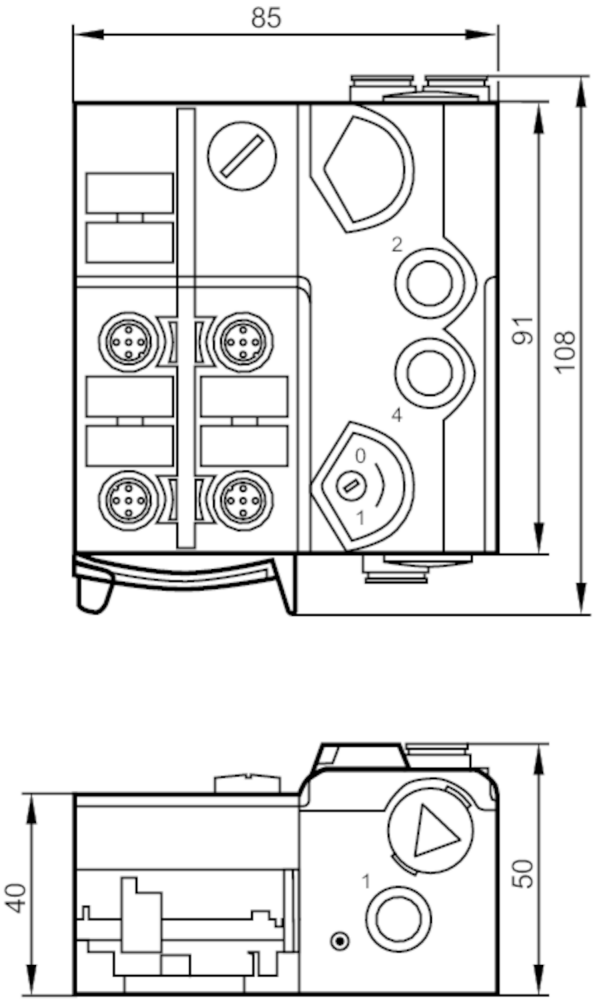
AC546A

AS-Interface Airbox with quick mounting technology

AirBox 5/2 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]	300
Integrated watchdog		yes
Inputs / outputs		
Number of inputs and outputs		Number of digital inputs: 4; Number of pneumatic outputs: 1
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		1				
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]	317				
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	4	-	-	-
Mechanical data						
Weight	[g]	404				
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)				
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.	

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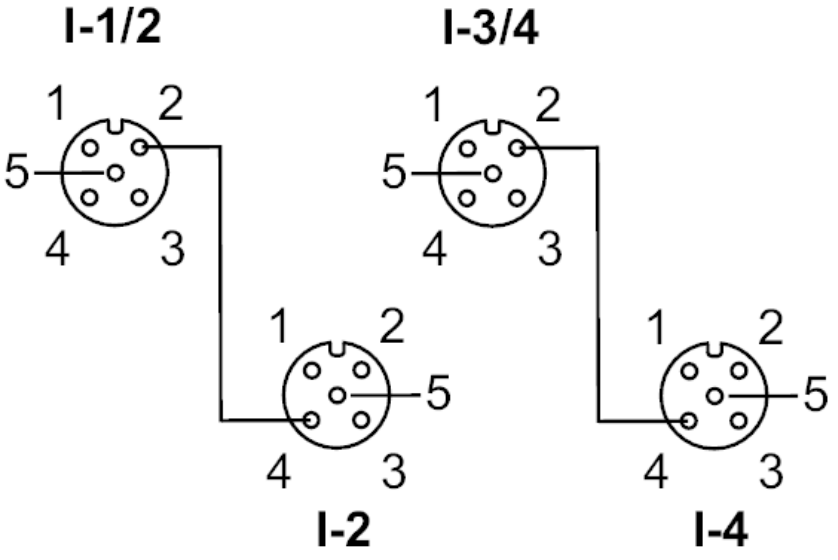
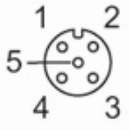
Electrical connection

quick mounting technology for AS-i flat cable: ; three orientations possible

Connection



Connector: M12; coding: A



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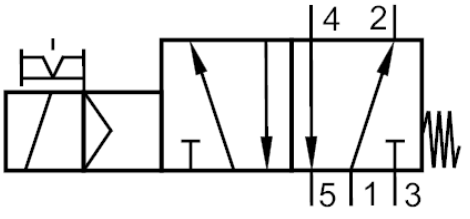
Connection

	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

Diagrams and graphs

Pneumatic symbol



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