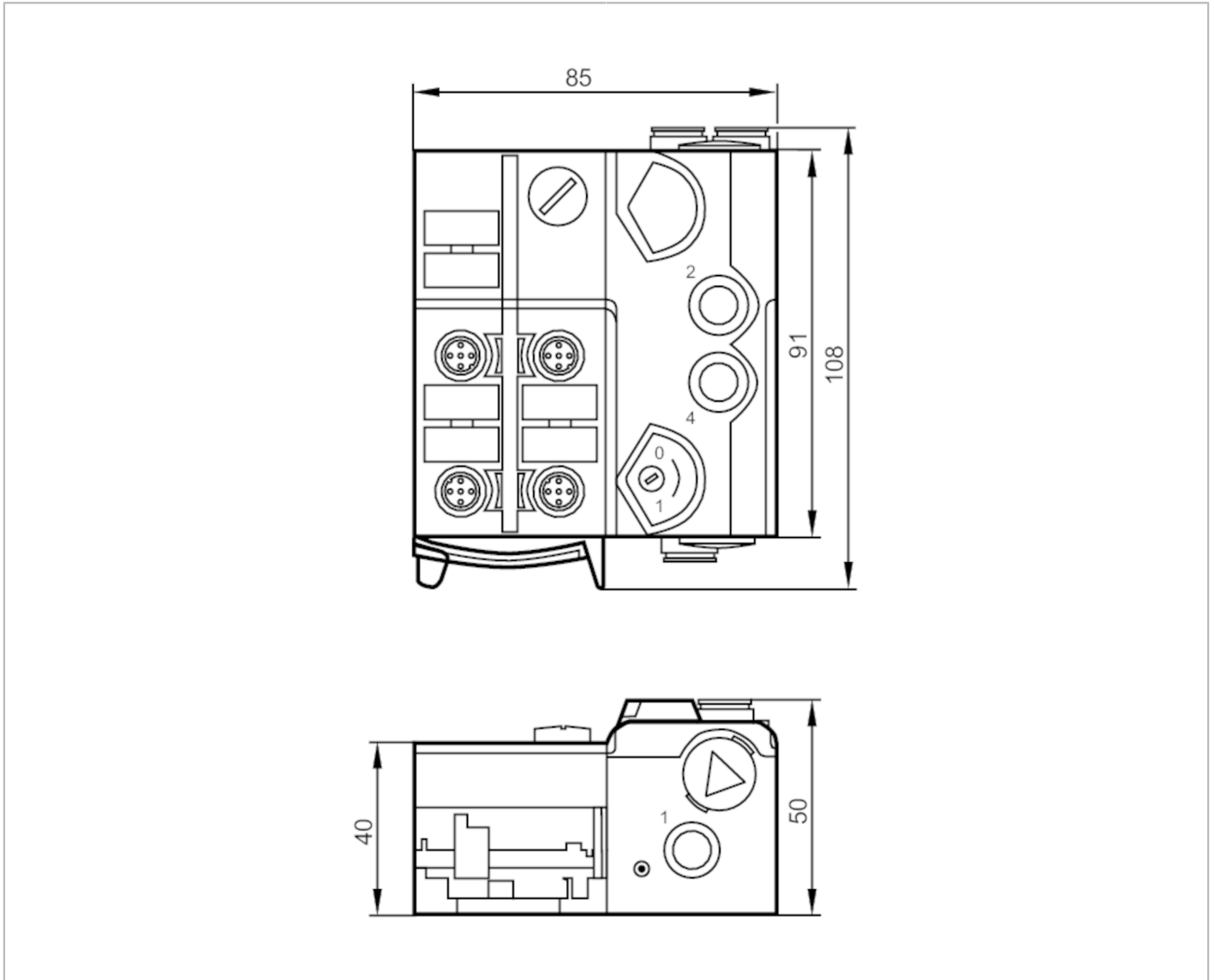


AC546A



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 |

AC546A



AS-Interface Airbox with quick mounting technology

AirBox 5/2 4DI-Y II 3D

| Inputs | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|----------|-----------|-------|-----------|----|-------|---|---|---|---|--------|-------|-----------|-------|-----------|-----|---|-----|---|-----|------------------|---|---|---|---|
| Number of digital inputs | 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Input circuit of digital inputs | PNP | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sensor supply of the inputs | AS-i | | | | | | | | | | | | | | | | | | | | | | | | | |
| Voltage supply [V] | 20...30; (via flat cable) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. total current rating of inputs [mA] | 200 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Input current High [mA] | 6...10 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Input current low [mA] | 0...2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Min. switching level high signal [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 profile | S-7.A.E | | | | | | | | | | | | | | | | | | | | | | | | | |
| AS-i I/O configuration [hex] | 7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| AS-i ID code [hex] | A.E | | | | | | | | | | | | | | | | | | | | | | | | | |
| AS-i certificate pending | yes | | | | | | | | | | | | | | | | | | | | | | | | | |
| Data bits | <table border="1"> <thead> <tr> <th>Data bit</th> <th>D0</th> <th>D1</th> <th>D2</th> <th>D3</th> </tr> </thead> <tbody> <tr> <td>Input</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>Socket</td> <td>I-1/2</td> <td>I-1/2 I-2</td> <td>I-3/4</td> <td>I-3/4 I-4</td> </tr> <tr> <td>Pin</td> <td>4</td> <td>2 4</td> <td>4</td> <td>2 4</td> </tr> <tr> <td>pneumatic output</td> <td>4</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table> | 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 | - | - | - |
| | 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 | - | - | - | | | | | | | | | | | | | | | | | | | | | | |

AC546A



AS-Interface Airbox with quick mounting technology

AirBox 5/2 4DI-Y II 3D

| Mechanical data | | |
|--|--|-------------|
| Weight [g] | 404 | |
| Type of mounting | quick mounting | |
| Material | 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 | |
| Displays / operating elements | | |
| Display | Power | LED, green |
| | errors | LED, red |
| | Function | LED, yellow |
| Electrical connection | | |
| AS-i bus connection | Flachkabel | |
| Accessories | | |
| Items supplied | lower part | |
| Accessories (optional) | Mounting plate:, E74999 | |
| | Module lower part:, E75000 | |
| | Protective cap: M12, E73004 | |
| | sealing plug:, 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. | |

AC546A



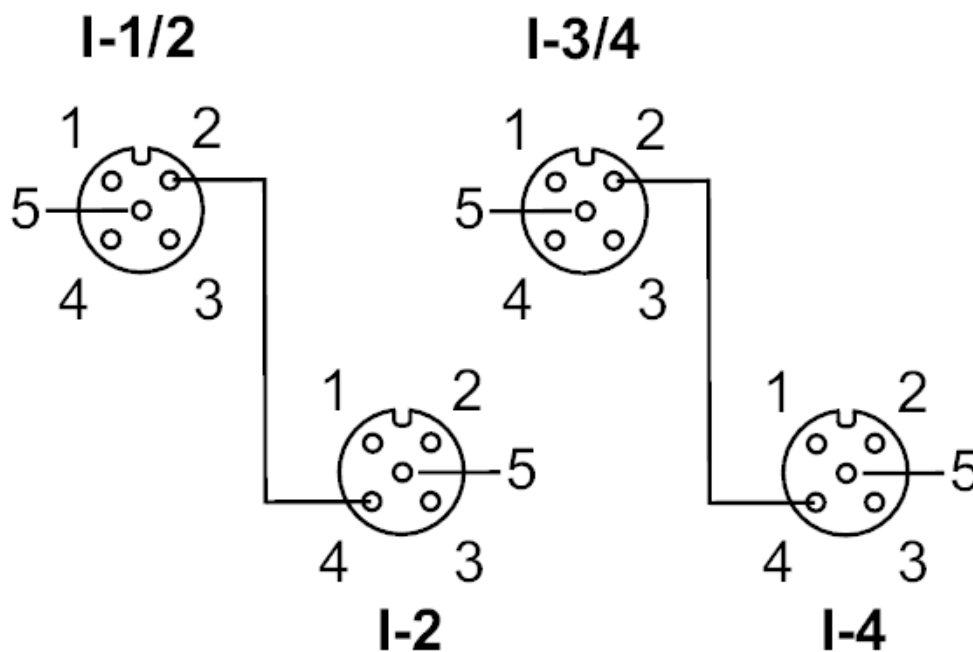
AS-Interface Airbox with quick mounting technology

AirBox 5/2 4DI-Y II 3D

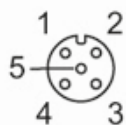
Electrical connection

quick mounting technology for AS-i flat cable: ; three selectable directions

Connection



Connector: M12



Connection



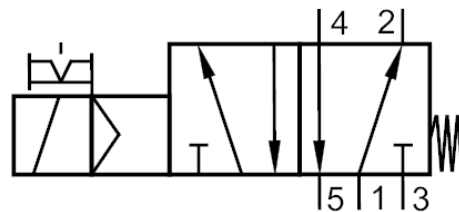
AS-Interface Airbox with quick mounting technology

AirBox 5/2 4DI-Y II 3D

| | |
|---|-------------------|
| | 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 | voltage 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