

# AC528A



## AS-Interface Airbox with quick mounting technology

AirBox 2x3/2 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] | 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]                            | 287 |  |

## 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]     | 415.5                                                                            |
| Type of mounting           |         | quick mounting                                                                   |
| Materials                  |         | PA; POM; piercing contacts: CuSn6 nickel-plated and tin-plated                   |
| Pneumatic system           |         | 2 x 3/2-way slide valves (free from overlapping)                                 |
| Operating pressure range   | [bar]   | 2...8                                                                            |
| Operating pressure range   | [MPa]   | 0.2...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.                                                                                     |             |



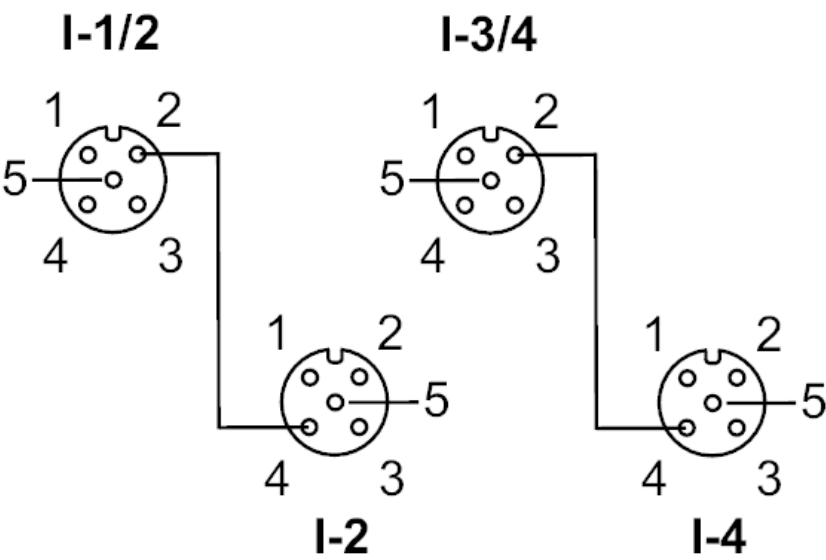
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Electrical connection

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

Connection

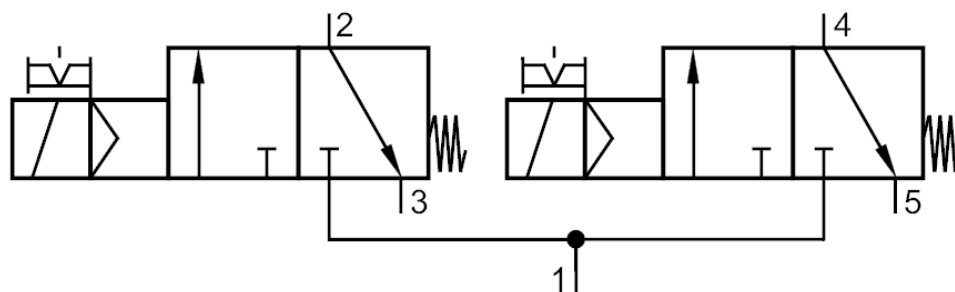


Connector: M12

| 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



2 x 3/2-way slide valves (free from overlapping)