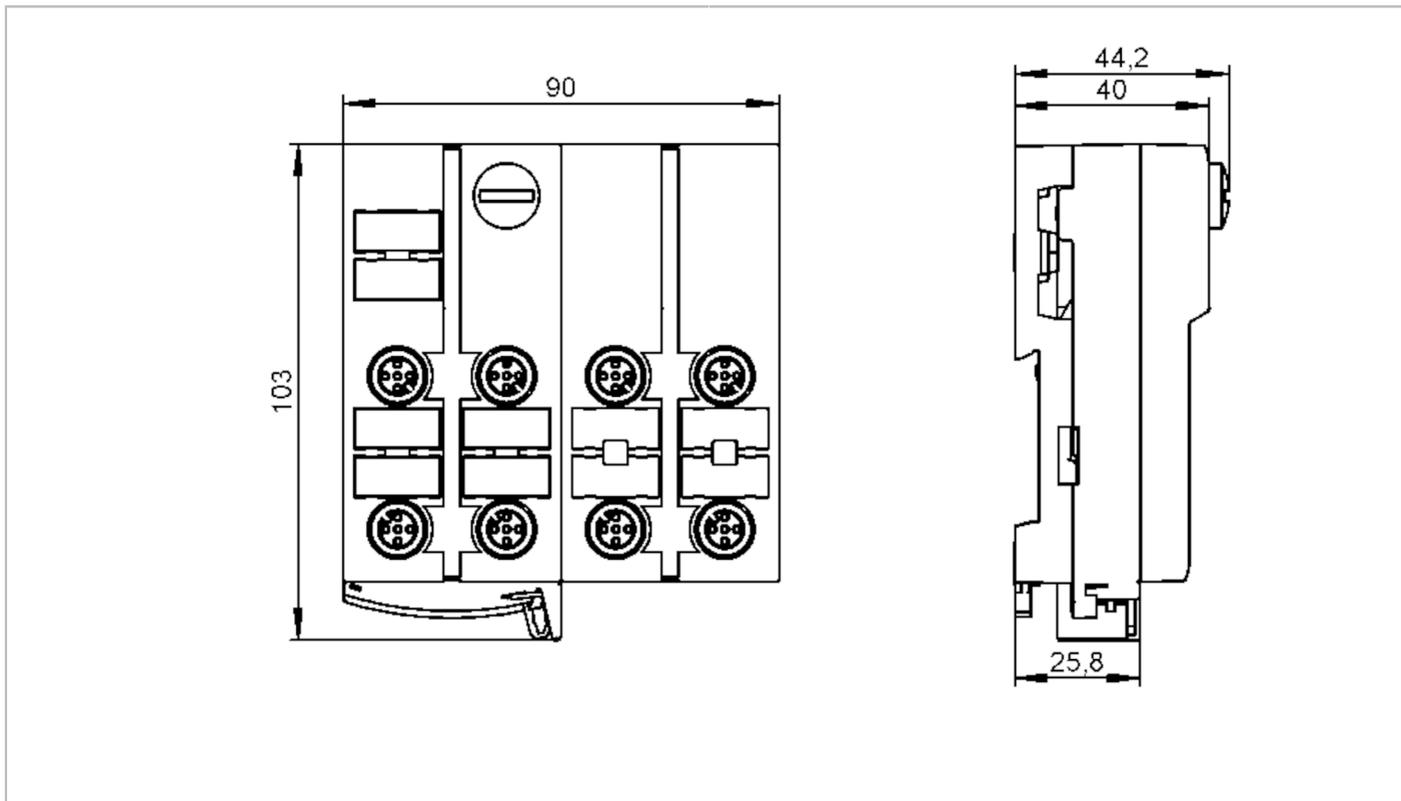


# AC535A



## AS-Interface ClassicLine module with quick mounting technology

ClassicL 4DI-Y 4DO-Y II 3D



| Application                                     |   |
|---|---|
| Design  | only for operation with AS-i masters with the profile M4  |
| Application                                     | AS-i ATEX module  |
| Electrical data                                 |   |
| Operating voltage [V]                           | 26.5...31.6 DC  |
| Max. current consumption from AS-i [mA]         | 250   |
| Max. current load total [A]                     | 2   |
| Integrated watchdog                             | yes   |
| Inputs / outputs                                |   |
| Number of inputs and outputs                    | Number of digital inputs: 4; Number of digital outputs: 4 |
| Inputs  |   |
| Number of digital inputs                        | 4   |
| Input circuit of digital inputs                 | PNP   |
| Sensor supply of the inputs                     | AS-i  |
| Power supply [V]                                | 18...30; (via flat cable)                                 |
| 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   |

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ClassicL 4DI-Y 4DO-Y II 3D

| Outputs                           |  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
|-----------------------------------|--|-------------|-------|-----------|----|----|-------|---|---|---|---|--------|-------|-----------|-------|-----------|-----|---|-----|---|-----|--------|---|---|---|---|--------|-------|----------|-------|-----------|-----|---|-----|---|-----|
| Number of digital outputs         | 4  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| Circuit                           | PNP  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| Voltage range DC [V]              | 15...30; (to PELV; via flat cable)   |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| Max. current load per output [mA] | 1000; (utilisation category DC-13 (control of electromagnets): 20 W (IEC 60947-5-1))   |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| Short-circuit proof               | yes  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| Electrically separated            | yes  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| 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<br>IEC 61000-6-2  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| MTTF [years]                      | 155  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| AS-i classification               |  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| AS-i version                      | 3.0  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| AS-i addressing                   | addressing socket  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| Extended addressing mode          | yes  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| AS-i master profile               | M4   |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| AS-i profile                      | S-7.A.7  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| AS-i I/O configuration [hex]      | 7  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| AS-i ID code [hex]                | A.7  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| AS-i certificate pending          | yes  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| Assignment of the 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>Output</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>socket</td> <td>O-1/2</td> <td>O-1/2 O2</td> <td>O-3/4</td> <td>O-3/4 O-4</td> </tr> <tr> <td>pin</td> <td>4</td> <td>2 4</td> <td>4</td> <td>2 4</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 | Output | 1 | 2 | 3 | 4 | socket | O-1/2 | O-1/2 O2 | O-3/4 | O-3/4 O-4 | pin | 4 | 2 4 | 4 | 2 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       |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| Output                            | 1  | 2           | 3     | 4         |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| socket                            | O-1/2  | O-1/2 O2    | O-3/4 | O-3/4 O-4 |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| pin                               | 4  | 2 4         | 4     | 2 4       |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| Mechanical data                   |  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| Weight [g]                        | 322  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| Housing                           | housing for DIN rail mounting  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| Type of mounting                  | AS-i flat cables directly connectable  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| Dimensions [mm]                   | 103 x 90 x 40  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| Materials                         | PA; piercing contacts: CuSn6 nickel-plated and tin-plated  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| Displays / operating elements     |  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| Display                           | operation  | LED, green  |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
|                                   | errors   | LED, red    |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
|                                   | function   | LED, yellow |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| Electrical connection             |  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |
| Module connection                 | Flat cables  |             |       |           |    |    |       |   |   |   |   |        |       |           |       |           |     |   |     |   |     |        |   |   |   |   |        |       |          |       |           |     |   |     |   |     |

# AC535A



## AS-Interface ClassicLine module with quick mounting technology

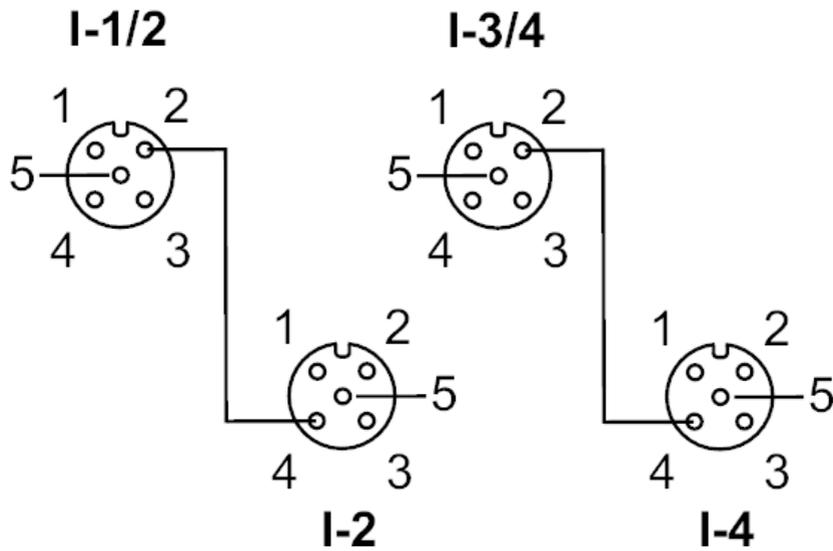
ClassicL 4DI-Y 4DO-Y II 3D

| Accessories            |  |
|------------------------|--|
| Items supplied         | lower part   |
| Accessories (optional) | Protective cap: M12, E73004<br>Impact protection housing: E7000A   |
| Remarks                |  |
| Remarks                | Mechanical protection has to be implemented.<br>Otherwise the unit must be installed together with the impact protection housing (E7000A).<br>Do not connect any of the following points to an external potential:<br>I-, I+, I1, I2, I3, I4<br>The connections are electrically connected with the AS-i cable.<br>Inputs and outputs must be electrically isolated. |
| Pack quantity          | 1 pcs.   |

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

### Electrical connection - Inputs

Connection



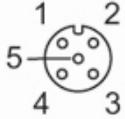
# AC535A



## AS-Interface ClassicLine module with quick mounting technology

ClassicL 4DI-Y 4DO-Y II 3D

Connector: M12; coding: A



|   | 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         |

# AC535A

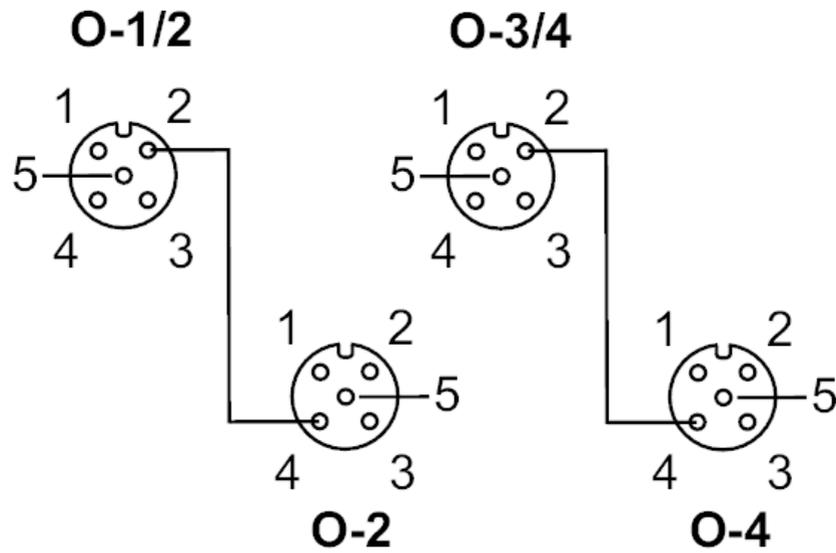


## AS-Interface ClassicLine module with quick mounting technology

ClassicL 4DI-Y 4DO-Y II 3D

### Electrical connection - Outputs

#### Connection



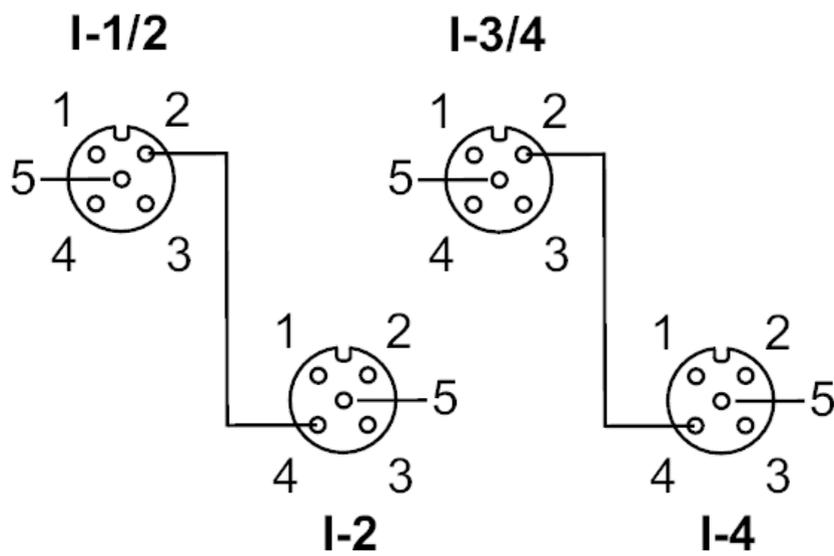
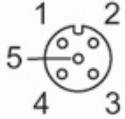
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## AS-Interface ClassicLine module with quick mounting technology

ClassicL 4DI-Y 4DO-Y II 3D

Connector: M12; coding: A



|   | Outputs                |
|---|------------------------|
|   | socket O-1/2           |
| 1 | not used               |
| 2 | switching output 2     |
| 3 | external voltage AUX - |
| 4 | switching output 1     |
| 5 | not used               |
|   | socket O-2             |
| 1 | not used               |
| 2 | not used               |
| 3 | external voltage AUX - |
| 4 | switching output 2     |
| 5 | not used               |
|   | socket O-3/4           |
| 1 | not used               |
| 2 | switching output 4     |
| 3 | external voltage AUX - |
| 4 | switching output 3     |
| 5 | not used               |
|   | socket O-4             |
| 1 | not used               |
| 2 | not used               |
| 3 | external voltage AUX - |
| 4 | switching output 4     |
| 5 | not used               |

# AC535A

AS-Interface ClassicLine module with quick mounting technology

ClassicL 4DI-Y 4DO-Y II 3D

