

**Control interface**

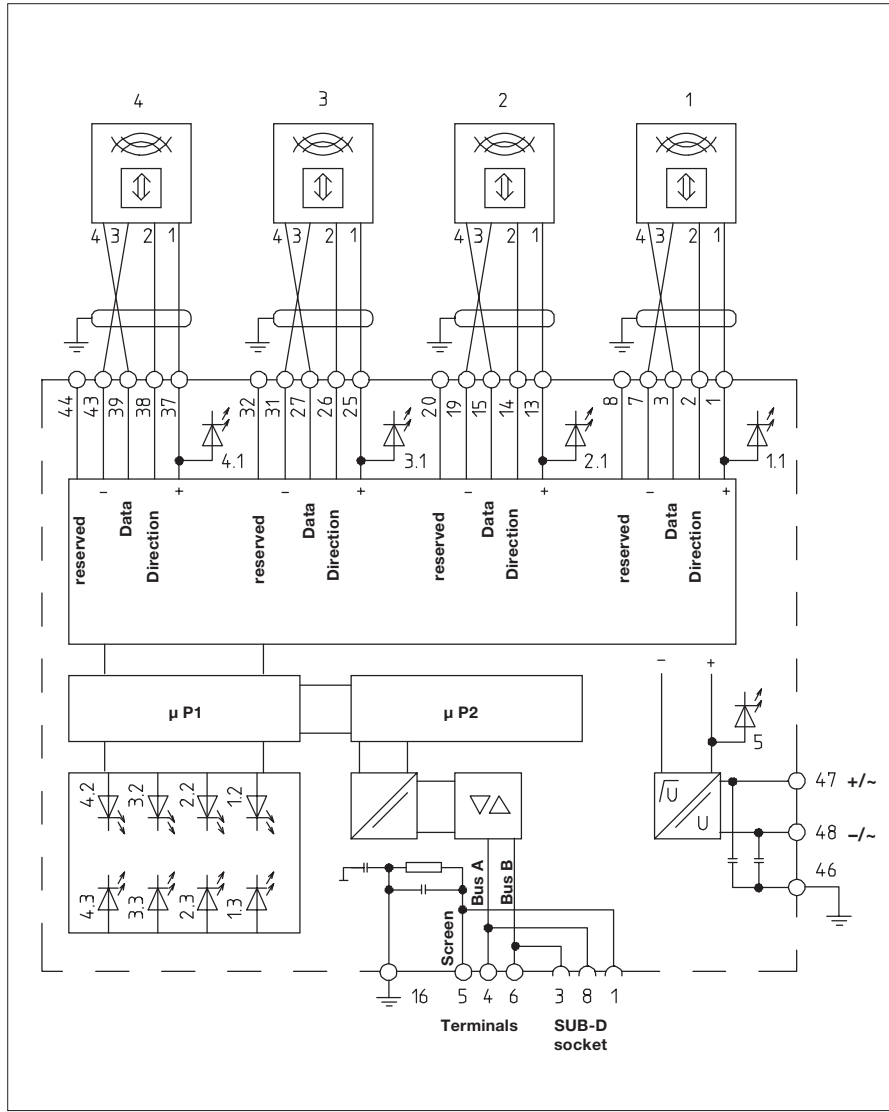


**unit with PROFIBUS-FMS**

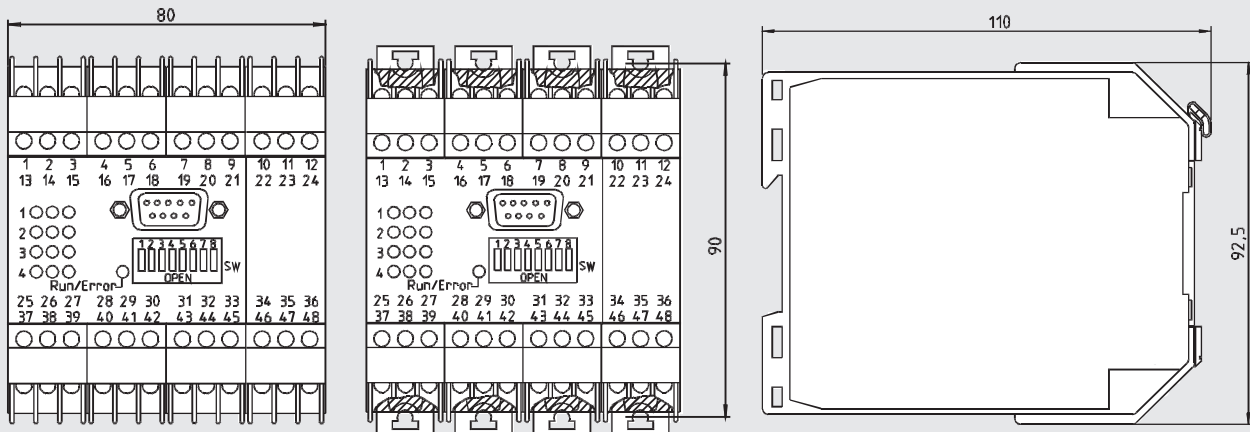
- Conforms to EN 50170
- Bus connections galvanically isolated from the supply voltage
- Bus connection: Terminals  
SUB-D socket
- Power supply: Terminals
- Connectable bus termination (Accessible through an opening in side of housing)
- Read/Write head connections: Terminals

**Function:**

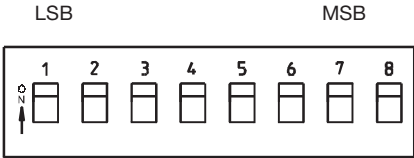
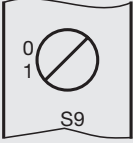
This control interface unit provides the complete read/write function by means of the PROFIBUS. All commands are storable in non-volatile memory. Up to 128 bytes of user data can be transmitted in a telegram.



**Dimensions**



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| <p><b>Service access points and connection types:</b></p>  | <p>SAP = Number of service access point</p> <table border="1"> <thead> <tr> <th>SAP</th> <th>Connection type</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>Default (NIL)</td> <td>MSZY</td> <td>Default SAP</td> </tr> <tr> <td>1</td> <td></td> <td>Reserved for data management</td> </tr> <tr> <td>2</td> <td>MSZY</td> <td>Open connection, master-slave cyclic</td> </tr> <tr> <td>3</td> <td>MSAZ</td> <td>Open connection, master-slave acyclic</td> </tr> <tr> <td>4</td> <td>MSAZ</td> <td>Open connection, master-slave acyclic</td> </tr> <tr> <td>5</td> <td>MSAZ</td> <td>Open connection, master-slave acyclic</td> </tr> <tr> <td>6</td> <td>MULT</td> <td>Open connection, multicast</td> </tr> <tr> <td>63</td> <td>BRCT</td> <td>Open connection, broadcast</td> </tr> </tbody> </table> <p>Max. PDU length: 242</p> |                                       | SAP  | Connection type  | Function | Default (NIL) | MSZY | Default SAP | 1 |  | Reserved for data management | 2 | MSZY | Open connection, master-slave cyclic | 3 | MSAZ | Open connection, master-slave acyclic | 4 | MSAZ | Open connection, master-slave acyclic | 5 | MSAZ | Open connection, master-slave acyclic | 6 | MULT | Open connection, multicast | 63 | BRCT | Open connection, broadcast |
|--|---|---------------------------------------|--|--|----------|---------------|------|-------------|---|--|------------------------------|---|------|--------------------------------------|---|------|---------------------------------------|---|------|---------------------------------------|---|------|---------------------------------------|---|------|----------------------------|----|------|----------------------------|
| SAP  | Connection type   | Function                              |  |  |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |
| Default (NIL)  | MSZY  | Default SAP                           |  |  |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |
| 1  |   | Reserved for data management          |  |  |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |
| 2  | MSZY  | Open connection, master-slave cyclic  |  |  |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |
| 3  | MSAZ  | Open connection, master-slave acyclic |  |  |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |
| 4  | MSAZ  | Open connection, master-slave acyclic |  |  |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |
| 5  | MSAZ  | Open connection, master-slave acyclic |  |  |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |
| 6  | MULT  | Open connection, multicast            |  |  |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |
| 63   | BRCT  | Open connection, broadcast            |  |  |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |
| <p><b>DIP switches:</b></p>  | <div style="text-align: center;">  </div> <p>Switches 1 - 7: Node address<br/>Switch 8: no function</p>   |                                       |  |  |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |
| <p><b>Bus termination:</b></p>   | <div style="text-align: center;">  </div> <p>Switch 9: Bus termination<br/>0 = OFF<br/>1 = ON</p>  |                                       |  |  |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |
| <p><b>Type coding</b></p>  | <p><b>IVI-KHD2-4HB1</b></p>   | <p><b>IVI-KHA6-4HB1</b></p>           |  |  |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |
| <p><b>Power supply</b><br/>Supply voltage<br/>Ripple<br/>Current consumption<br/>Quiescent current<br/>with active read/write head</p>   | <table border="1"> <tr> <td>20.4 V DC ... 27.6 V DC<br/>≤ 10 %<br/>Max. &lt; 450 mA<br/>120 mA (Typically)<br/>190 mA (Typically)</td> <td>85 V AC ... 253 V AC, 50 Hz ... 60 Hz<br/><br/>Max. &lt; 50 mA<br/>50 mA (Typically)</td> </tr> </table>   |                                       | 20.4 V DC ... 27.6 V DC<br>≤ 10 %<br>Max. < 450 mA<br>120 mA (Typically)<br>190 mA (Typically) | 85 V AC ... 253 V AC, 50 Hz ... 60 Hz<br><br>Max. < 50 mA<br>50 mA (Typically) |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |
| 20.4 V DC ... 27.6 V DC<br>≤ 10 %<br>Max. < 450 mA<br>120 mA (Typically)<br>190 mA (Typically)   | 85 V AC ... 253 V AC, 50 Hz ... 60 Hz<br><br>Max. < 50 mA<br>50 mA (Typically)  |                                       |  |  |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |
| <p><b>Indicators</b><br/><b>Ident</b><br/>Read/Write head active<br/>Code carrier detected<br/>Stability control<br/>Bus<br/>Run/Error green LED<br/>Run/Error red LED, red/green blinking</p> | <p>3 LEDs per read/write status<br/>- Green<br/>- Yellow<br/>- Red<br/>One device status LED (Two color)<br/>Device operational / Communication active<br/>Device error / Device status / Transmission error</p>  |                                       |  |  |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |
| <p><b>Housing</b></p>  | <p>K-System, 80 mm (4 TE)</p>   |                                       |  |  |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |
| <p><b>Bus connection</b><br/>Transmission rate<br/>Address setting<br/>Range of functions</p>  | <p>Conform to EN 50 170<br/>500 kbaud, 19.2 kbaud, 9.6 kbaud selfsynchronizing<br/>DIP switches<br/>Slave operation<br/>- Initiate            - Identify            - Write<br/>- Abort                - Get-OV<br/>- Status               - Read</p>   |                                       |  |  |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |
| <p><b>Environmental conditions</b><br/>Operating temperature<br/>Storage temperature<br/>Moisture<br/>Protection class to EN 60529</p>   | <p>248 Kelvin ... 343 Kelvin (-25 °C ... +70 °C)<br/>248 Kelvin ... 358 Kelvin (-25 °C ... +85 °C)<br/>Max. 75 % rel. humidity<br/>IP20</p>   |                                       |  |  |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |
| <p><b>Mechanical</b><br/>Construction<br/>Mounting<br/>Method of connection</p>  | <p>Makrolon modular terminal housing, flammability class to UL 94: V - 0<br/>By snapping on to standard 35 mm DIN rail or by screws through extendable latches<br/>Self opening instrument terminals.<br/>Maximum conductor cross sectional area 2 x 2.5 mm<sup>2</sup></p>   |                                       |  |  |          |               |      |             |   |  |                              |   |      |                                      |   |      |                                       |   |      |                                       |   |      |                                       |   |      |                            |    |      |                            |

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