



### Main

|                           |                                                                                |
|---------------------------|--------------------------------------------------------------------------------|
| Range of product          | Preventa Safety automation                                                     |
| Product or component type | Preventa safety PLC compact                                                    |
| Safety module name        | XPSMF35                                                                        |
| Safety module application | For numerous machine safety functions and for the protection of personnel      |
| Safety use category       | Category 4 conforming to EN 954-1/ISO 13849-1<br>SIL 3 conforming to IEC 61508 |
| Structure type            | 10BASE-T/100BASE-TX Modbus TCP/IP<br>10BASE-T/100BASE-TX safe Ethernet         |

### Complementary

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Function of module           | Closed circuit scanning of input channels for analogue input circuit<br>Measuring 0 to 20 mA currents using shunt for analogue input circuit<br>Monitoring safety actuators for discrete output<br>Monitoring safety detection for discrete input<br>Monitoring safety dialogue for discrete input<br>Monitoring safety dialogue for discrete output<br>Single-pole measuring of 0 to 10 V voltages for analogue input circuit |
| [Us] rated supply voltage    | 24 V DC (- 15...20 %)                                                                                                                                                                                                                                                                                                                                                                                                          |
| No load current              | 0.75 A                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Protection type              | Internal fuse                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Clock                        | With, supplied by backup capacitor for 1 week following loss of supply                                                                                                                                                                                                                                                                                                                                                         |
| Response time                | Depending on size of application                                                                                                                                                                                                                                                                                                                                                                                               |
| Memory description           | User logic 250 kB for application<br>User logic 250 kB for data                                                                                                                                                                                                                                                                                                                                                                |
| Discrete input number        | 24, not isolated                                                                                                                                                                                                                                                                                                                                                                                                               |
| Voltage state 0 guaranteed   | $\leq 5$ V for discrete input                                                                                                                                                                                                                                                                                                                                                                                                  |
| Voltage state1 guaranteed    | 24...30 V for discrete input                                                                                                                                                                                                                                                                                                                                                                                                   |
| Current state 0 guaranteed   | 1...1.5 mA, discrete input                                                                                                                                                                                                                                                                                                                                                                                                     |
| Current state 1 guaranteed   | 3.5...4.5 mA, discrete input                                                                                                                                                                                                                                                                                                                                                                                                   |
| Discrete input voltage       | 20 V                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Discrete input current       | 100 mA                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Input protection type        | Protected against short-circuit to earth<br>Protected against short-circuit                                                                                                                                                                                                                                                                                                                                                    |
| Maximum overvoltage on input | -4...15 V for analogue input circuit<br>500 V for discrete input IEC 61000-4-5                                                                                                                                                                                                                                                                                                                                                 |
| Discrete output number       | 8                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Discrete output voltage      | 24 V DC                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Output voltage tolerance     | +/- 2 %                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Discrete output current      | $\leq 7$ mA (all channels)<br>1 A at 60 °C (channels 4 and 8)<br>2 A at 50 °C (channels 4 and 8)<br>0.5 A at 60 °C (channels 1 to 3 and 5 to 7)                                                                                                                                                                                                                                                                                |
| Minimum load                 | 2 mA per discrete output                                                                                                                                                                                                                                                                                                                                                                                                       |
| Leakage current              | $\leq 1$ mA, at 2 V at state 0 for discrete output                                                                                                                                                                                                                                                                                                                                                                             |
| Overload protection          | Shutdown of outputs concerned with cyclic reconnection                                                                                                                                                                                                                                                                                                                                                                         |
| Analogue input number        | 8                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Analogue output type         | Not isolated                                                                                                                                                                                                                                                                                                                                                                                                                   |
| External resistance          | 250 Ohm for analogue input circuit<br>500 Ohm for analogue input circuit                                                                                                                                                                                                                                                                                                                                                       |

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Analogue input range        | 0...10 V<br>0...20 mA with 500 Ohm shunt                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Input voltage limits        | 0.1...11.5 V analogue input circuit                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Input current limits        | 0.4...23 mA 500 Ohm analogue input circuit                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Analogue input resolution   | 12 bits                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Safety accuracy             | +/- 2 % for analogue input circuit                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Internal input resistance   | <= 500 MOhm for signal source for analogue input circuit<br>1 kOhm for analogue input circuit<br>3.7 Ohm for counting inputs                                                                                                                                                                                                                                                                                                                                       |
| Counting input number       | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Counting input type         | Non isolated                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Counting frequency          | 100 kHz                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Operating threshold         | 0...0.05 V, 5 V low for counting inputs<br>13...33 V, 24 V high for counting inputs<br>-3...5 V, 24 V low for counting inputs<br>4...6 V, 5 V high for counting inputs                                                                                                                                                                                                                                                                                             |
| Counter inputs resolution   | 24 bits                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| DV/Dt                       | 1 V/ $\mu$ s counting inputs                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Communication port protocol | Modbus RTU with 1 SUB-D 9-pin female port(s), RS485, medium: shielded dual twisted pair cable<br>Modbus TCP/IP with 4 RJ45 port(s), transmission rate: 100 Mbps, 10 Mbps, medium: dual twisted pair cable, category 5D or better<br>Profibus with 1 SUB-D 9-pin female port(s), RS485, medium: shielded dual twisted pair cable<br>Safe Ethernet with 4 RJ45 port(s), transmission rate: 100 Mbps, 10 Mbps, medium: dual twisted pair cable, category 5D or better |
| Exchange mode               | Half duplex, full duplex, autonegotiation, Modbus TCP/IP<br>Half duplex, full duplex, autonegotiation, safe Ethernet                                                                                                                                                                                                                                                                                                                                               |
| Method of access            | Slave Modbus<br>Slave Modbus TCP/IP<br>Slave Profibus                                                                                                                                                                                                                                                                                                                                                                                                              |
| Number of addresses         | 122 Modbus                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Concept                     | Transparent Ready Modbus TCP/IP                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Web server                  | Class A10 Modbus TCP/IP                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Web services                | Modbus identification request Modbus TCP/IP<br>Modbus TCP/IP messaging (reading/writing of data words) Modbus TCP/IP<br>Modbus TCP/IP server Modbus TCP/IP<br>Standard 502 Modbus TCP/IP                                                                                                                                                                                                                                                                           |
| Operating distance          | <= 100 m (between station) discrete input<br><= 100 m (between station) discrete output<br><= 300 m (between station) analogue input circuit<br><= 500 m (between station) shielded dual twisted pair cable counting inputs                                                                                                                                                                                                                                        |
| Number of terminal blocks   | 1 for counting inputs<br>1 for power supply<br>2 for discrete output<br>4 for analogue input circuit<br>5 for discrete input                                                                                                                                                                                                                                                                                                                                       |

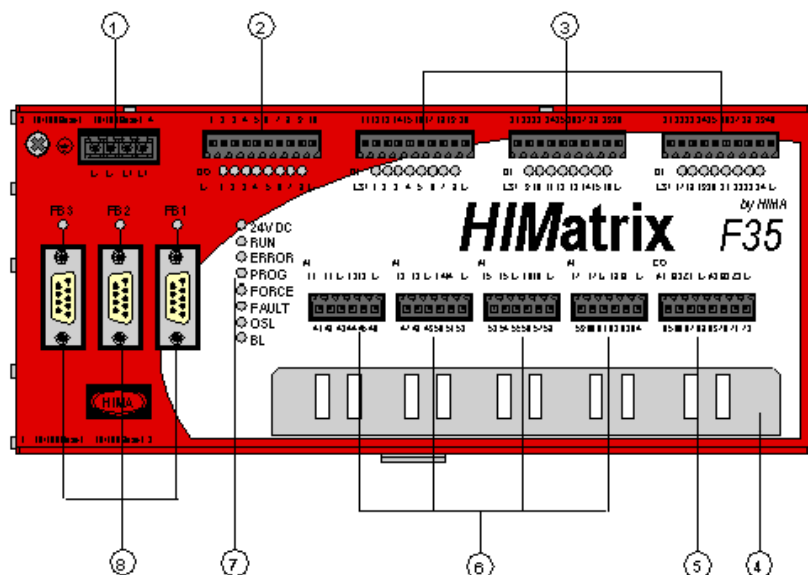
|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Connections - terminals | <p>Captive screw clamp terminals, clamping capacity: 1 x 0.14...1 x 1.5 mm<sup>2</sup>, AWG 28...16 flexible without cable end for analogue input circuit</p> <p>Captive screw clamp terminals, clamping capacity: 1 x 0.14...1 x 1.5 mm<sup>2</sup>, AWG 28...16 flexible without cable end for counting inputs</p> <p>Captive screw clamp terminals, clamping capacity: 1 x 0.14...1 x 1.5 mm<sup>2</sup>, AWG 28...16 flexible without cable end for discrete input/output circuit</p> <p>Captive screw clamp terminals, clamping capacity: 1 x 0.14...1 x 1.5 mm<sup>2</sup>, AWG 28...16 solid without cable end for analogue input circuit</p> <p>Captive screw clamp terminals, clamping capacity: 1 x 0.14...1 x 1.5 mm<sup>2</sup>, AWG 28...16 solid without cable end for counting inputs</p> <p>Captive screw clamp terminals, clamping capacity: 1 x 0.14...1 x 1.5 mm<sup>2</sup>, AWG 28...16 solid without cable end for discrete input/output circuit</p> <p>Captive screw clamp terminals, clamping capacity: 1 x 0.2...1 x 2.5 mm<sup>2</sup>, AWG 24...12 flexible without cable end for power supply</p> <p>Captive screw clamp terminals, clamping capacity: 1 x 0.2...1 x 2.5 mm<sup>2</sup>, AWG 24...12 solid without cable end for power supply</p> <p>Captive screw clamp terminals, clamping capacity: 1 x 0.25...1 x 0.5 mm<sup>2</sup>, AWG 22...20 flexible with cable end for analogue input circuit</p> <p>Captive screw clamp terminals, clamping capacity: 1 x 0.25...1 x 0.5 mm<sup>2</sup>, AWG 22...20 flexible with cable end for counting inputs</p> <p>Captive screw clamp terminals, clamping capacity: 1 x 0.25...1 x 0.5 mm<sup>2</sup>, AWG 22...20 flexible with cable end for discrete input/output circuit</p> <p>Captive screw clamp terminals, clamping capacity: 1 x 0.25...1 x 1.5 mm<sup>2</sup>, AWG 22...16 flexible without cable end for analogue input circuit</p> <p>Captive screw clamp terminals, clamping capacity: 1 x 0.25...1 x 1.5 mm<sup>2</sup>, AWG 22...16 flexible without cable end for counting inputs</p> <p>Captive screw clamp terminals, clamping capacity: 1 x 0.25...1 x 1.5 mm<sup>2</sup>, AWG 22...16 flexible without cable end for discrete input/output circuit</p> <p>Captive screw clamp terminals, clamping capacity: 1 x 0.25...1 x 2.5 mm<sup>2</sup>, AWG 22...16 flexible with cable end for power supply</p> <p>Captive screw clamp terminals, clamping capacity: 1 x 0.25...1 x 2.5 mm<sup>2</sup>, AWG 22...16 flexible without cable end for power supply</p> <p>Captive screw clamp terminals, clamping capacity: 2 x 0.14...2 x 0.5 mm<sup>2</sup>, AWG 28...20 solid without cable end for analogue input circuit</p> <p>Captive screw clamp terminals, clamping capacity: 2 x 0.14...2 x 0.5 mm<sup>2</sup>, AWG 28...20 solid without cable end for counting inputs</p> <p>Captive screw clamp terminals, clamping capacity: 2 x 0.14...2 x 0.5 mm<sup>2</sup>, AWG 28...20 solid without cable end for discrete input/output circuit</p> <p>Captive screw clamp terminals, clamping capacity: 2 x 0.14...2 x 0.75 mm<sup>2</sup>, AWG 28...18 flexible without cable end for analogue input circuit</p> <p>Captive screw clamp terminals, clamping capacity: 2 x 0.14...2 x 0.75 mm<sup>2</sup>, AWG 28...18 flexible without cable end for counting inputs</p> <p>Captive screw clamp terminals, clamping capacity: 2 x 0.14...2 x 0.75 mm<sup>2</sup>, AWG 28...18 flexible without cable end for discrete input/output circuit</p> <p>Captive screw clamp terminals, clamping capacity: 2 x 0.2...1 x 1.5 mm<sup>2</sup>, AWG 24...12 solid without cable end for power supply</p> <p>Captive screw clamp terminals, clamping capacity: 2 x 0.2...2 x 1.5 mm<sup>2</sup>, AWG 24...12 flexible without cable end for power supply</p> <p>Captive screw clamp terminals, clamping capacity: 2 x 0.25...2 x 0.34 mm<sup>2</sup>, AWG 22 flexible without cable end for analogue input circuit</p> <p>Captive screw clamp terminals, clamping capacity: 2 x 0.25...2 x 0.34 mm<sup>2</sup>, AWG 22 flexible without cable end for counting inputs</p> <p>Captive screw clamp terminals, clamping capacity: 2 x 0.25...2 x 0.34 mm<sup>2</sup>, AWG 22 flexible without cable end for discrete input/output circuit</p> <p>Captive screw clamp terminals, clamping capacity: 2 x 0.25...2 x 1 mm<sup>2</sup>, AWG 22...18 flexible without cable end for power supply</p> <p>Captive screw clamp terminals, clamping capacity: 2 x 0.5 mm<sup>2</sup>, AWG AWG 20 flexible with cable end for analogue input circuit</p> <p>Captive screw clamp terminals, clamping capacity: 2 x 0.5 mm<sup>2</sup>, AWG AWG 20 flexible with cable end for counting inputs</p> <p>Captive screw clamp terminals, clamping capacity: 2 x 0.5 mm<sup>2</sup>, AWG AWG 20 flexible with cable end for discrete input/output circuit</p> <p>Captive screw clamp terminals, clamping capacity: 2 x 0.5...2 x 1.5 mm<sup>2</sup>, AWG 22...16 flexible with cable end for power supply</p> |
| Tightening torque       | 0.22...0.25 N.m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Wire stripping length   | 9 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Current consumption     | 9 A at 24 V DC on power supply                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Mounting support        | 35 mm symmetrical DIN rail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Depth                   | 66.5 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Height                  | 113 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Width                   | 253 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Product weight          | 1.2 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

## Environment

|                                            |                                                                                           |
|--------------------------------------------|-------------------------------------------------------------------------------------------|
| Standards                                  | DIN V 0801<br>DIN V 19250<br>EN 50156 pending<br>IEC 61131                                |
| Immunity to microbreaks                    | 10 ms                                                                                     |
| IP degree of protection                    | IP20 (enclosure)                                                                          |
| Ambient air temperature for operation      | 0...60 °C conforming to EN 61131-2                                                        |
| Ambient air temperature for storage        | -40...85 °C conforming to EN 61131-2                                                      |
| Relative humidity                          | 95 % (supply not connected)                                                               |
| Operating altitude                         | < 2000 m                                                                                  |
| Pollution degree                           | 2                                                                                         |
| Class of protection against electric shock | Class II conforming to EN/IEC 61131-2                                                     |
| Electromagnetic compatibility              | EN/IEC 61131-2                                                                            |
| Vibration resistance                       | 1 gn, 10...150 Hz conforming to EN 61131-2                                                |
| Shock resistance                           | 15 gn for 11 ms conforming to EN 61131-2                                                  |
| Resistance to electrostatic discharge      | 4 kV contact conforming to EN/IEC 61000-4-2<br>8 kV on air conforming to EN/IEC 61000-4-2 |
| Resistance to electromagnetic fields       | 10 V/m (26 MHz...1 GHz), conforming to EN/IEC 61000-4-3                                   |

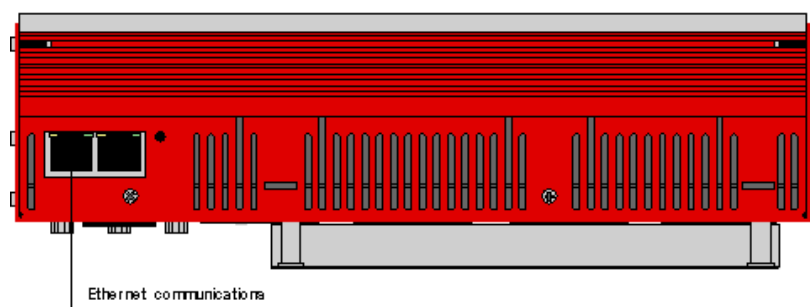
## Housing Elements

### Front View

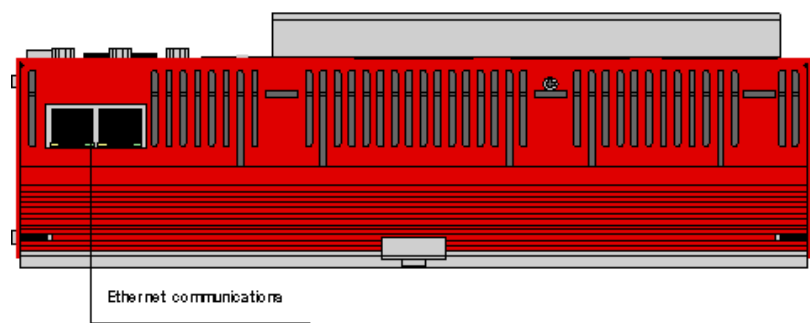


| No. | Description           |
|-----|-----------------------|
| 1   | Power Supply Input    |
| 2   | Digital Outputs       |
| 3   | Digital Inputs        |
| 4   | Earth Rail            |
| 5   | Counter Inputs        |
| 6   | Analog Inputs         |
| 7   | Indicators            |
| 8   | Field Bus Connections |

### Top View

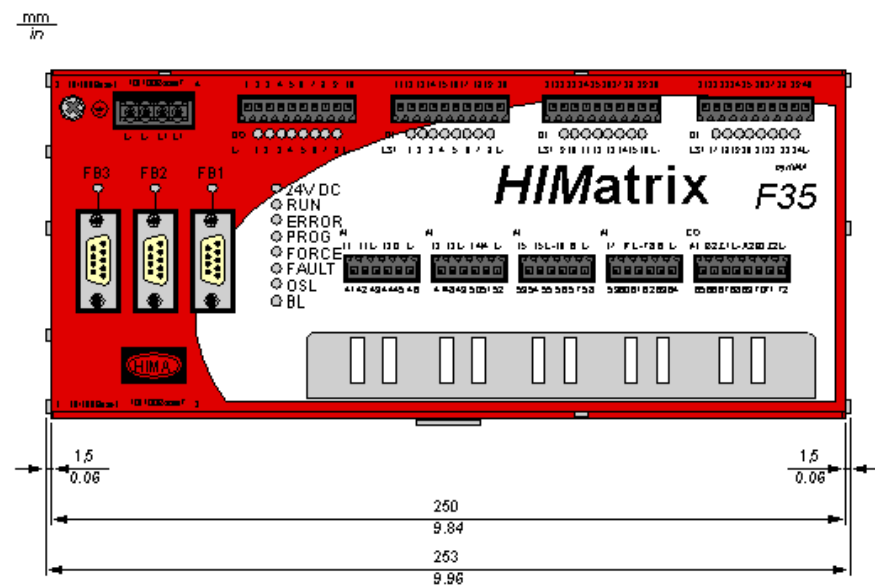


## Bottom View

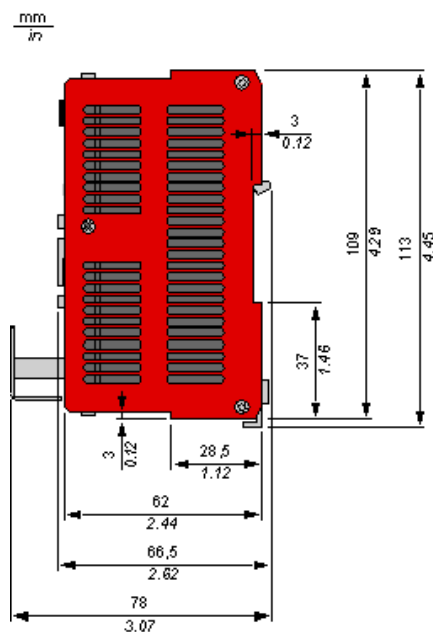


## Dimensions

### Front View

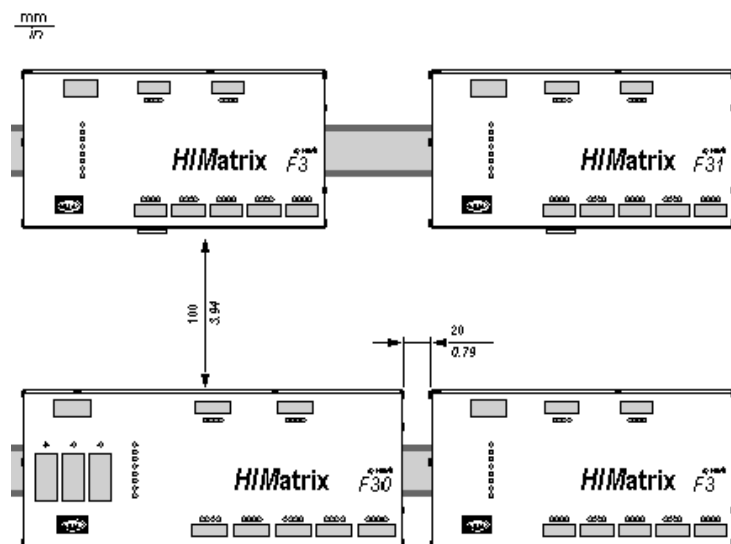


### Side View

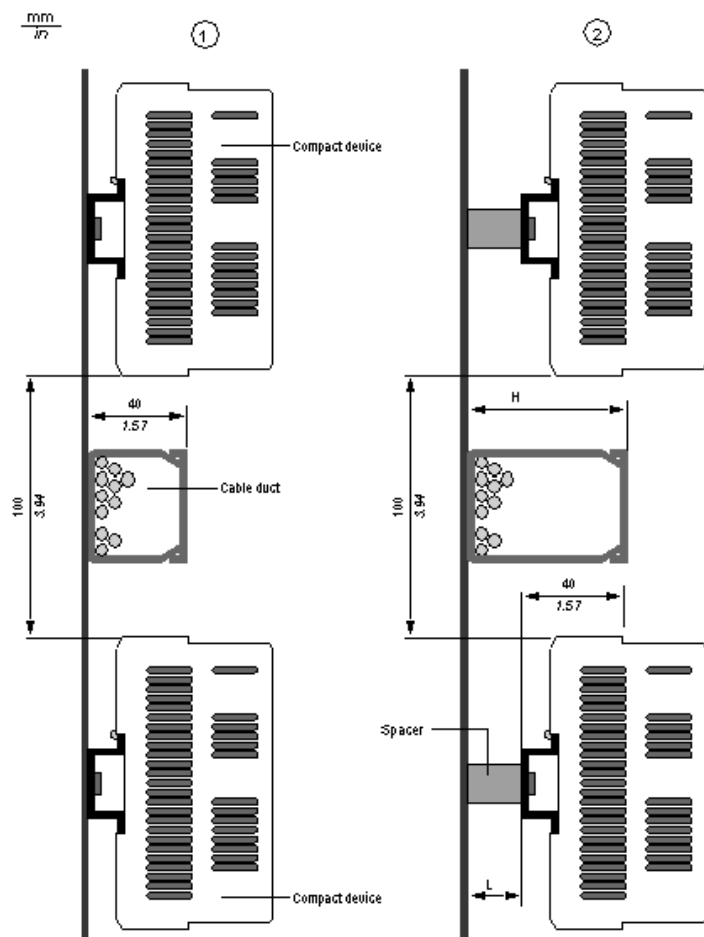


## Mounting

### Minimum Clearances



### Air Circulation





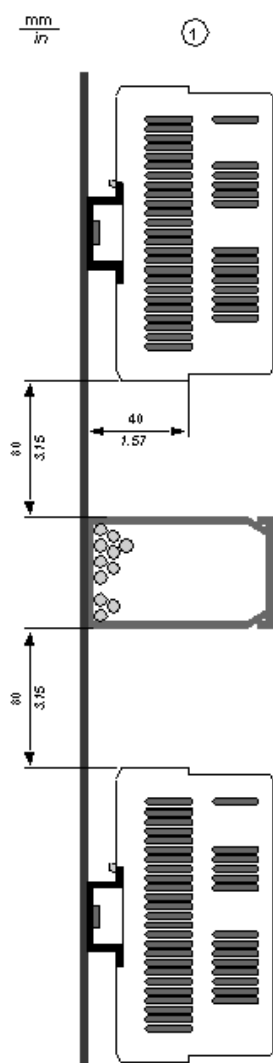
| No. | Description                                                    |
|-----|----------------------------------------------------------------|
| 1   | The height of the cable ducts is less than 40 mm / 1.57 in.    |
| 2   | The height of the cable ducts is greater than 40 mm / 1.57 in. |

$L = H - 40 \text{ mm} / 1.57 \text{ in.}$

$L$  = length of the spacer

$H$  = height of the cable duct

Minimum clearance when  $H > 40 \text{ mm}/1.57 \text{ in.}$  and no spacer

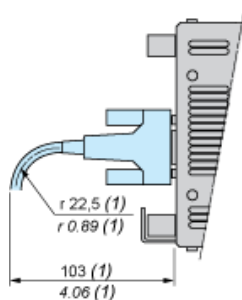


## Mounting Precautions Relating to Connectors

### Access to Modbus Serial Link (RTU)

SUB-D 9-pin connector

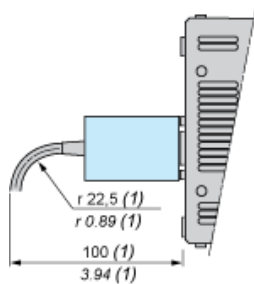
$\frac{\text{mm}}{\text{in.}}$



(1) minimum value

## Adaptor XPS MFADAPT

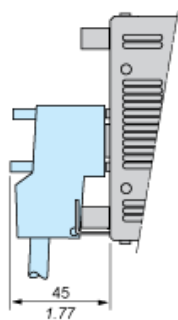
$\frac{\text{mm}}{\text{in.}}$



(1) minimum value

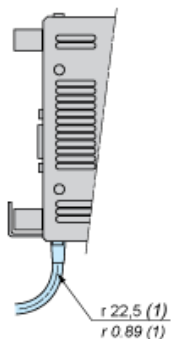
## Access to PROFIBUS DP

$\frac{\text{mm}}{\text{in.}}$



## Access to Ethernet Network

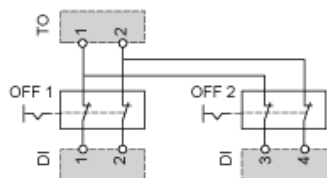
$\frac{\text{mm}}{\text{in.}}$



(1) minimum value

## Wiring Diagrams

### Emergency Stop Connections (Line Control)



### Actuator Connections to the Outputs

