



SIMATIC interface module IM152-1DP for ET200iSP, PROFIBUS connection standard, and redundant operation, Ex ib IIC T4 Gb, Ex ib I Mb

| General information                                                       |                                                                         |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Product type designation                                                  | IM 152-1                                                                |
| Vendor identification (VendorID)                                          | 8110H                                                                   |
| Product function                                                          |                                                                         |
| • Isochronous mode                                                        | No                                                                      |
| Installation type/mounting                                                |                                                                         |
| Rack mounting                                                             | No                                                                      |
| Front mounting                                                            | Yes                                                                     |
| Rail mounting                                                             | Yes                                                                     |
| Wall mounting/direct mounting                                             | Yes                                                                     |
| Supply voltage                                                            |                                                                         |
| Type of supply voltage                                                    | DC                                                                      |
| permissible range, lower limit (DC)                                       | 20.4 V                                                                  |
| permissible range, upper limit (DC)                                       | 28.8 V                                                                  |
| Input current                                                             |                                                                         |
| from load voltage (power bus), max.                                       | 30 mA                                                                   |
| Power loss                                                                |                                                                         |
| Power loss, typ.                                                          | 0.5 W                                                                   |
| Hardware configuration                                                    |                                                                         |
| Fieldbus connection via separate transceiver                              | No                                                                      |
| Time stamp                                                                |                                                                         |
| Description                                                               | for each digital input, digital input module, entire ET 200iSP          |
| Accuracy                                                                  | 20 ms                                                                   |
| Number of stampable digital inputs, max.                                  | 64; for accuracy class 20 ms                                            |
| Time format                                                               | RFC 1119 Internet (ISP)                                                 |
| Time resolution                                                           | 1 ms                                                                    |
| Time interval for transmitting the message buffer if a message is present | 1 000 ms                                                                |
| Time stamp on signal change                                               | rising / falling edge as signal entering or exiting                     |
| IO-Link                                                                   |                                                                         |
| IO-Link master                                                            | No                                                                      |
| Interfaces                                                                |                                                                         |
| Interfaces/bus type                                                       | RS 485                                                                  |
| Transmission rate, max.                                                   | 1.5 Mbit/s; 9,6 / 19,2 / 45,45 / 93,75 / 187,5 / 500 kbit/s; 1,5 Mbit/s |
| Protocols                                                                 |                                                                         |
| Supports protocol for PROFINET IO                                         | No                                                                      |
| PROFIsafe                                                                 | No                                                                      |
| PROFIBUS                                                                  | Yes                                                                     |
| PROFIBUS DP                                                               | Yes                                                                     |

|                                                                  |                                                                                                                  |
|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| EtherNet/IP                                                      | No                                                                                                               |
| <b>PROFIBUS DP</b>                                               |                                                                                                                  |
| <b>Services</b>                                                  |                                                                                                                  |
| — SYNC capability                                                | Yes                                                                                                              |
| — FREEZE capability                                              | Yes                                                                                                              |
| — Direct data exchange (slave-to-slave communication)            | Yes                                                                                                              |
| <b>Further protocols</b>                                         |                                                                                                                  |
| • CAN                                                            | No                                                                                                               |
| • DeviceNet                                                      | No                                                                                                               |
| • Foundation Fieldbus                                            | No                                                                                                               |
| • MODBUS                                                         | No                                                                                                               |
| • other bus systems                                              | No                                                                                                               |
| <b>Communication functions</b>                                   |                                                                                                                  |
| <b>Wireless communication</b>                                    |                                                                                                                  |
| • supported standards                                            |                                                                                                                  |
| — Radio standard WLAN 802.11                                     | No                                                                                                               |
| <b>Interrupts/diagnostics/status information</b>                 |                                                                                                                  |
| Alarms                                                           | Yes                                                                                                              |
| Diagnostics function                                             | Yes                                                                                                              |
| <b>Alarms</b>                                                    |                                                                                                                  |
| • acyclic function, interrupts                                   | Yes                                                                                                              |
| • acyclic function, parameters                                   | Yes                                                                                                              |
| <b>Diagnostics indication LED</b>                                |                                                                                                                  |
| • Bus fault BF (red)                                             | Yes                                                                                                              |
| • Group error SF (red)                                           | Yes                                                                                                              |
| • Monitoring 24 V voltage supply ON (green)                      | Yes                                                                                                              |
| <b>Ex(i) characteristics</b>                                     |                                                                                                                  |
| <b>maximum values for connecting terminals for gas group IIC</b> |                                                                                                                  |
| • U <sub>o</sub> (no-load voltage), max.                         | 3.9 V                                                                                                            |
| • I <sub>o</sub> (short-circuit current), max.                   | 136 mA                                                                                                           |
| • P <sub>o</sub> (power output), max.                            | 132 mW                                                                                                           |
| • U <sub>i</sub> (intrinsically safe input voltage), max.        | 4.2 V                                                                                                            |
| <b>Potential separation</b>                                      |                                                                                                                  |
| between electronic block and PROFIBUS DP                         | Yes                                                                                                              |
| between supply voltage and electronics                           | Yes                                                                                                              |
| <b>Degree and class of protection</b>                            |                                                                                                                  |
| IP degree of protection                                          | IP30                                                                                                             |
| <b>Standards, approvals, certificates</b>                        |                                                                                                                  |
| CE mark                                                          | CE 0344                                                                                                          |
| UKCA mark                                                        | DEKRA 21UKEX0029 Importer UK: Siemens plc Manchester M20 2UR                                                     |
| cULus                                                            | LISTED E334384                                                                                                   |
| FM approval                                                      | CLASSIFIED 3025852                                                                                               |
| Suitable for safety functions                                    | No                                                                                                               |
| INMETRO certificate                                              | UL-BR 12.0067                                                                                                    |
| reference designation according to IEC 81346-2 (2009)            | K                                                                                                                |
| <b>Use in hazardous areas</b>                                    |                                                                                                                  |
| • ATEX marking                                                   | II 2 G Ex ib IIC T4 Gb I M2 Ex ib I Mb                                                                           |
| • ATEX certificate                                               | KEMA 04 ATEX 1243                                                                                                |
| • IECEX                                                          | IECEX KEM 05.0005                                                                                                |
| • CCC Ex                                                         | 2020322316002940                                                                                                 |
| • EAC Ex                                                         | 1Ex ib IIC T4 Gb PB Ex ib I Mb                                                                                   |
| • FM marking                                                     | Class I, Zone 1 AEx ib IIC T4 Ex ib IIC T4 NI, Class I, Division 2, GP. A,B,C,D T4 DIP, Class II, III, GP. E,F,G |
| • Explosion protection category for gas                          | ATEX gas explosion protection, Zone 1                                                                            |
| • Explosion protection category for dust                         | No                                                                                                               |
| • associated equipment (Ex ia)                                   | No                                                                                                               |
| • associated equipment (Ex ib)                                   | Yes                                                                                                              |
| <b>Marine approval</b>                                           |                                                                                                                  |

- Germanischer Lloyd (GL)
- American Bureau of Shipping (ABS)
- Bureau Veritas (BV)
- Det Norske Veritas (DNV)

Yes  
Yes  
Yes  
Yes

#### Dimensions

|        |          |
|--------|----------|
| Width  | 30 mm    |
| Height | 129 mm   |
| Depth  | 136.5 mm |

#### Weights

|                 |       |
|-----------------|-------|
| Weight, approx. | 245 g |
|-----------------|-------|

#### Classifications

|        | Version | Classification |
|--------|---------|----------------|
| eClass | 14      | 27-24-26-08    |
| eClass | 12      | 27-24-26-08    |
| eClass | 9.1     | 27-24-26-08    |
| eClass | 9       | 27-24-26-08    |
| eClass | 8       | 27-24-26-08    |
| eClass | 7.1     | 27-24-26-08    |
| eClass | 6       | 27-24-26-08    |
| ETIM   | 10      | EC001604       |
| ETIM   | 9       | EC001604       |
| ETIM   | 8       | EC001604       |
| ETIM   | 7       | EC001604       |
| IDEA   | 4       | 3564           |
| UNSPSC | 15      | 32-15-17-05    |

#### Approvals / Certificates

##### General Product Approval



[Miscellaneous](#)



[China RoHS](#)

##### General Product Approval

For use in hazardous locations

[Manufacturer Declaration](#)



[FM](#)



[Miscellaneous](#)

##### For use in hazardous locations

##### Maritime application



[CCC-Ex](#)



[Miscellaneous](#)



##### Maritime application

##### Environment



[NK / Nippon Kaiji Kyokai](#)



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