

SIMATIC DP, interface DP/PA-Link and ET200M IM153-2 HF for extended temperature range for max. 12 S7-300 modules with redundancy capability, Timestamping suitable for isochronous mode New features: up to 12 modules can be used Slave Initiative for Drive ES and Switch ES Expanded quantity structure for HART auxiliary variables Operation of the 64-channel modules 32 signals / slot  
+++ Observe compatibility instructions in manual +++

| General information                                                       |                                                          |
|---------------------------------------------------------------------------|----------------------------------------------------------|
| Product type designation                                                  | IM 153-2 OD                                              |
| Firmware version                                                          | V6.1                                                     |
| Vendor identification (VendorID)                                          | 801Eh                                                    |
| Supply voltage                                                            |                                                          |
| Rated value (DC)                                                          | 24 V                                                     |
| permissible range, lower limit (DC)                                       | 20.4 V                                                   |
| permissible range, upper limit (DC)                                       | 28.8 V                                                   |
| external protection for power supply lines (recommendation)               | 2,5 A                                                    |
| Mains buffering                                                           |                                                          |
| • Mains/voltage failure stored energy time                                | 5 ms                                                     |
| Input current                                                             |                                                          |
| Current consumption, max.                                                 | 650 mA                                                   |
| Inrush current, typ.                                                      | 3 A                                                      |
| I <sup>2</sup> t                                                          | 0.1 A <sup>2</sup> ·s                                    |
| Output current                                                            |                                                          |
| for backplane bus (5 V DC), max.                                          | 1.5 A                                                    |
| Power loss                                                                |                                                          |
| Power loss, typ.                                                          | 5.5 W                                                    |
| Address area                                                              |                                                          |
| Addressing volume                                                         |                                                          |
| • Inputs                                                                  | 244 byte                                                 |
| • Outputs                                                                 | 244 byte                                                 |
| Hardware configuration                                                    |                                                          |
| number of modules per DP device interface, max.                           | 12                                                       |
| Time stamping                                                             |                                                          |
| Accuracy                                                                  | 1 ms; 1 ms at up to 8 modules; 10 ms at up to 12 modules |
| Number of message buffers                                                 | 15                                                       |
| Messages per message buffer                                               | 20                                                       |
| Number of stampable digital inputs, max.                                  | 128; Max. 128 signals/station; max. 32 signals/slot      |
| Time format                                                               | RFC 1119                                                 |
| Time resolution                                                           | 0.466 ns                                                 |
| 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      |
| Interfaces                                                                |                                                          |
| Transmission procedure                                                    | RS 485                                                   |
| Transmission rate, max.                                                   | 12 Mbit/s                                                |
| 1. Interface                                                              |                                                          |
| automatic detection of transmission rate                                  | Yes                                                      |
| Interface types                                                           |                                                          |
| • Output current of the interface, max.                                   | 70 mA                                                    |
| • Design of the connection                                                | 9-pin sub D socket                                       |
| 1st interface / PROFIBUS DP device / header                               |                                                          |
| • GSD file                                                                | SI05801E.GSG                                             |
| • automatic baud rate search                                              | Yes                                                      |
| Protocols                                                                 |                                                          |
| Bus protocol/transmission protocol                                        | PROFIBUS DP to EN 50170                                  |

|                                                        |                                                             |
|--------------------------------------------------------|-------------------------------------------------------------|
| <b>PROFIBUS DP</b>                                     |                                                             |
| • Number of node addresses, max.                       | 1 to 125 permitted                                          |
| <b>Services</b>                                        |                                                             |
| — SYNC capability                                      | Yes                                                         |
| — FREEZE capability                                    | Yes                                                         |
| — Direct data exchange (slave-to-slave communication)  | Yes; as publisher with all IO, as subscriber with F-IO only |
| <b>Potential separation</b>                            |                                                             |
| Potential separation exists                            | Yes                                                         |
| <b>Isolation</b>                                       |                                                             |
| Isolation tested with                                  | Isolation voltage 500 V                                     |
| <b>Degree and class of protection</b>                  |                                                             |
| IP degree of protection                                | IP20                                                        |
| <b>Ambient conditions</b>                              |                                                             |
| <b>Ambient temperature during operation</b>            |                                                             |
| • horizontal installation, min.                        | -25 °C                                                      |
| • horizontal installation, max.                        | 60 °C                                                       |
| • vertical installation, min.                          | -25 °C                                                      |
| • vertical installation, max.                          | 40 °C                                                       |
| <b>Altitude during operation relating to sea level</b> |                                                             |
| • Installation altitude above sea level, max.          | 3 000 m                                                     |
| <b>configuration / header</b>                          |                                                             |
| <b>Configuration software</b>                          |                                                             |
| • STEP 7                                               | Yes; STEP 7 / COM PROFIBUS / non-Siemens tools via GSD file |
| <b>Dimensions</b>                                      |                                                             |
| Width                                                  | 40 mm                                                       |
| Height                                                 | 125 mm                                                      |
| Depth                                                  | 117 mm                                                      |
| <b>Weights</b>                                         |                                                             |
| Weight, approx.                                        | 360 g                                                       |
| <b>Classifications</b>                                 |                                                             |

|        | 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   | 9       | EC001604       |
| ETIM   | 8       | EC001604       |
| ETIM   | 7       | EC001604       |
| IDEA   | 4       | 3564           |
| UNSPSC | 15      | 32-15-17-05    |

|                                 |  |
|---------------------------------|--|
| <b>Approvals / Certificates</b> |  |
| <b>General Product Approval</b> |  |

[Manufacturer Declaration](#)



[Miscellaneous](#)



**For use in hazardous locations**



[Type Examination Certificate](#)

[FM](#)



[CCC-Ex](#)



[CCS \(China Classification Society\)](#)

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