

\*\*\*spare part\*\*\* SIMATIC DP, connection ET 200M IM 153-2 High Feature for max. 12 S7-300 modules with redundancy capability, time stamping suitable for isochronous mode new features: up to 12 modules can be used Device 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 notes in manual+++

| General information                                                       |                                                          |
|---------------------------------------------------------------------------|----------------------------------------------------------|
| Product type designation                                                  | IM 153-2 DP HF                                           |
| Firmware version                                                          | V6.0.0                                                   |
| 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; with 24 V DC supply                              |
| Inrush current, typ.                                                      | 3 A                                                      |
| $I^2t$                                                                    | 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                                                              |                                                          |
| Address space per module                                                  |                                                          |
| • Inputs                                                                  | 244 byte                                                 |
| • Outputs                                                                 | 244 byte                                                 |
| Hardware configuration                                                    |                                                          |
| number of modules per DP device interface, max.                           | 12                                                       |
| Time stamp                                                                |                                                          |
| 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                                       |
| PROFIBUS DP device                                                        |                                                          |
| • GSD file                                                                | SI05801E.GSG                                             |
| • automatic baud rate search                                              | Yes                                                      |

| Protocols                                             |                                                             |         |                |
|-------------------------------------------------------|-------------------------------------------------------------|---------|----------------|
| Bus protocol/transmission protocol                    | PROFIBUS DP to EN 50170                                     |         |                |
| Protocols (Ethernet)                                  |                                                             |         |                |
| • TCP/IP                                              | No                                                          |         |                |
| PROFIBUS DP                                           |                                                             |         |                |
| • Number of node addresses, max.                      | 1 to 125 permitted                                          |         |                |
| Services                                              |                                                             |         |                |
| — 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 |         |                |
| Potential separation                                  |                                                             |         |                |
| Potential separation exists                           | Yes                                                         |         |                |
| Isolation                                             |                                                             |         |                |
| Isolation tested with                                 | Isolation voltage 500 V                                     |         |                |
| Degree and class of protection                        |                                                             |         |                |
| IP degree of protection                               | IP20                                                        |         |                |
| Ambient conditions                                    |                                                             |         |                |
| Ambient temperature during operation                  |                                                             |         |                |
| • min.                                                | 0 °C                                                        |         |                |
| • max.                                                | 60 °C                                                       |         |                |
| • horizontal installation, min.                       | 0 °C                                                        |         |                |
| • horizontal installation, max.                       | 60 °C                                                       |         |                |
| • vertical installation, min.                         | 0 °C                                                        |         |                |
| • vertical installation, max.                         | 40 °C                                                       |         |                |
| Altitude during operation relating to sea level       |                                                             |         |                |
| • Installation altitude above sea level, max.         | 3 000 m                                                     |         |                |
| Configuration                                         |                                                             |         |                |
| Configuration software                                |                                                             |         |                |
| • STEP 7                                              | Yes; STEP 7 / COM PROFIBUS / non-Siemens tools via GSD file |         |                |
| Dimensions                                            |                                                             |         |                |
| Width                                                 | 40 mm                                                       |         |                |
| Height                                                | 125 mm                                                      |         |                |
| Depth                                                 | 117 mm                                                      |         |                |
| Weights                                               |                                                             |         |                |
| Weight, approx.                                       | 360 g                                                       |         |                |
| Classifications                                       |                                                             |         |                |
|                                                       |                                                             | Version | Classification |
|                                                       | eClass                                                      | 16      | 27-24-26-08    |
|                                                       | 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                              |                                                             |         |                |



[Manufacturer Declaration](#)

[Miscellaneous](#)



#### General Product Approval

#### EMV



[China RoHS](#)

[Manufacturer Declaration](#)



#### EMV

#### For use in hazardous locations



[FM](#)



[Miscellaneous](#)



#### For use in hazardous locations

#### Maritime application

[CCC-Ex](#)



[NK / Nippon Kaiji Kyokai](#)

#### Maritime application

#### Industrial Communication



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

[KR \(Korean Register of Shipping\)](#)



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