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## Data sheet 6ES7153-2BA70-0XB0

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 |
| $I^2t$ | 0.1 $A^2 \cdot s$ |
| **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 |


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| | |
|---|---|
| **Protocols** | |
| Bus protocol/transmission protocol | PROFIBUS DP to EN 50170 |
| 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 | |
| ● horizontal installation, min. | -25 °C |
| ● horizontal installation, max. | 60 °C |
| ● vertical installation, min. | -25 °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


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| General Product Approval | | | For use in hazardous locations | | |
|---|---|---|---|---|---|
| China RoHS | Manufacturer Declaration | Miscellaneous | IECEx | ATEX | Type Examination Certificate |

| For use in hazardous locations | | | Maritime application | | |
|---|---|---|---|---|---|
| FM | CCC | CCC-Ex | BUREAU VERITAS | CCS (China Classification Society) | KR (Korean Register of Shipping) |

| Environment |
|---|
| EPD |

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