

## Data sheet

**6ES7155-5BA00-0AB0**


SIMATIC ET 200MP. PROFIBUS connection IM 155-5 DP ST for max. 12 S7-1500 modules including PROFIBUS connection plug (6ES7972-0BB70-0XA0); product phase-out planned - see SIOS 109989704

| General information                                      |                                    |
|----------------------------------------------------------|------------------------------------|
| Product type designation                                 | IM 155-5 DP ST                     |
| HW functional status                                     | from FS01                          |
| Firmware version                                         | V2.0.0                             |
| • FW update possible                                     | Yes                                |
| Vendor identification (VendorID)                         | 81AAh                              |
| Product function                                         |                                    |
| • I&M data                                               | Yes; I&M0 to I&M3                  |
| • Module swapping during operation (hot swapping)        | No                                 |
| • Isochronous mode                                       | No                                 |
| • IRT                                                    | No                                 |
| • Tool changer                                           | No                                 |
| • Local coupling, IO data                                | No                                 |
| Engineering with                                         |                                    |
| • STEP 7 TIA Portal configurable/integrated from version | V13                                |
| • STEP 7 configurable/integrated from version            | use GSD file                       |
| • PROFIBUS from GSD version/GSD revision                 | V1.0 / V5.1                        |
| Configuration control                                    |                                    |
| via dataset                                              | No                                 |
| Supply voltage                                           |                                    |
| Rated value (DC)                                         | 24 V                               |
| permissible range, lower limit (DC)                      | 19.2 V                             |
| permissible range, upper limit (DC)                      | 28.8 V                             |
| Reverse polarity protection                              | Yes                                |
| Short-circuit protection                                 | Yes                                |
| Mains buffering                                          |                                    |
| • Mains/voltage failure stored energy time               | 5 ms                               |
| Input current                                            |                                    |
| Current consumption (rated value)                        | 0.2 A; at 24 V DC and without load |
| Current consumption, max.                                | 1.2 A; at 20.4 V DC and max. load  |
| Inrush current, max.                                     | 4 A                                |
| $I^2t$                                                   | 0.09 A <sup>2</sup> ·s             |
| from interface 5 V DC, max.                              | 80 mA                              |
| Power                                                    |                                    |
| Infeed power to the backplane bus                        | 14 W                               |
| Power loss                                               |                                    |
| Power loss, typ.                                         | 4 W                                |
| Address area                                             |                                    |
| Address space per module                                 |                                    |

|                                                      |                                                  |
|------------------------------------------------------|--------------------------------------------------|
| • Address space per module, max.                     | 64 byte; For input and output data respectively  |
| Address space per station                            |                                                  |
| • Address space per station, max.                    | 244 byte; For input and output data respectively |
| <b>Hardware configuration</b>                        |                                                  |
| Integrated power supply                              | Yes; 14 W                                        |
| System power supply can be plugged in to left of IM  | No                                               |
| Number of permissible power segments                 | 1; incl. interface module                        |
| <b>Rack</b>                                          |                                                  |
| • Modules per rack, max.                             | 12; I/O modules                                  |
| <b>Interfaces</b>                                    |                                                  |
| Number of PROFIBUS interfaces                        | 1; 1 port                                        |
| <b>1. Interface</b>                                  |                                                  |
| <b>Interface types</b>                               |                                                  |
| • RS 485                                             | Yes                                              |
| • Number of ports                                    | 1                                                |
| • integrated switch                                  | No                                               |
| • BusAdapter (PROFINET)                              | No                                               |
| <b>Protocols</b>                                     |                                                  |
| • PROFIBUS DP device                                 | Yes                                              |
| <b>PROFINET IO Device</b>                            |                                                  |
| <b>Services</b>                                      |                                                  |
| — IRT                                                | No                                               |
| <b>Interface types</b>                               |                                                  |
| <b>RS 485</b>                                        |                                                  |
| • Transmission rate, max.                            | 12 Mbit/s                                        |
| <b>Protocols</b>                                     |                                                  |
| Supports protocol for PROFINET IO                    | No                                               |
| PROFIsafe                                            | Yes                                              |
| PROFIBUS                                             | Yes                                              |
| EtherNet/IP                                          | No                                               |
| Modbus TCP                                           | No                                               |
| <b>PROFIBUS DP</b>                                   |                                                  |
| <b>Services</b>                                      |                                                  |
| — SYNC capability                                    | Yes                                              |
| — FREEZE capability                                  | Yes                                              |
| — DPV1                                               | Yes                                              |
| <b>Interrupts/diagnostics/status information</b>     |                                                  |
| Status indicator                                     | Yes                                              |
| Alarms                                               | Yes                                              |
| Diagnostics function                                 | Yes                                              |
| <b>Diagnostics indication LED</b>                    |                                                  |
| • RUN LED                                            | Yes; green LED                                   |
| • ERROR LED                                          | Yes; red LED                                     |
| • MAINT LED                                          | Yes; Yellow LED                                  |
| • Connection display DP                              | Yes; green LED                                   |
| <b>Potential separation</b>                          |                                                  |
| between backplane bus and electronics                | No                                               |
| between PROFIBUS DP and all other circuit components | Yes                                              |
| between supply and all other circuits                | No                                               |
| <b>Permissible potential difference</b>              |                                                  |
| between different circuits                           | Safety extra low voltage SELV                    |
| <b>Isolation</b>                                     |                                                  |
| Isolation tested with                                | 707 V DC (type test)                             |
| <b>Standards, approvals, certificates</b>            |                                                  |
| Siemens Eco Profile (SEP)                            | Siemens EcoTech                                  |
| <b>Ecological footprint</b>                          |                                                  |
| • environmental product declaration                  | Yes                                              |
| <b>Global warming potential</b>                      |                                                  |

|                                                                |           |
|----------------------------------------------------------------|-----------|
| — global warming potential, (total) [CO2 eq]                   | 64.1 kg   |
| — global warming potential, (during production) [CO2 eq]       | 11.1 kg   |
| — global warming potential, (during operation) [CO2 eq]        | 53.6 kg   |
| — global warming potential, (after end of life cycle) [CO2 eq] | -0.669 kg |

Ambient conditions

|                                                 |                                                                        |
|-------------------------------------------------|------------------------------------------------------------------------|
| Ambient temperature during operation            |                                                                        |
| • horizontal installation, min.                 | -25 °C; from FS04                                                      |
| • horizontal installation, max.                 | 60 °C                                                                  |
| • vertical installation, min.                   | -25 °C; from FS04                                                      |
| • vertical installation, max.                   | 40 °C                                                                  |
| Altitude during operation relating to sea level |                                                                        |
| • Installation altitude above sea level, max.   | 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual |
| Absolute humidity                               |                                                                        |
| • dew point, min.                               | -60 °C; suitable for dry room applications                             |

Connection method

|                  |    |
|------------------|----|
| ET-Connection    |    |
| • via BU/BA Send | No |

Dimensions

|        |        |
|--------|--------|
| Width  | 35 mm  |
| Height | 147 mm |
| Depth  | 129 mm |

Weights

|                 |       |
|-----------------|-------|
| Weight, approx. | 360 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



[Manufacturer Declaration](#)

[Miscellaneous](#)

[China RoHS](#)



General Product Approval

For use in hazardous locations



[FM](#)



[FM](#)

[CCC-Ex](#)

For use in hazardous locations

Maritime application



IECEX



ATEX

[Type Examination Certificate](#)

[Miscellaneous](#)

[CCC-Ex](#)



ABS

Maritime application



DNV



LRS

[NK / Nippon Kaiji Kyokai](#)



RINA



RMRS

Maritime application

Environment

Industrial Communication

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

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



Profibus

last modified:

2/4/2026

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