

Siemens 6ES7153-2BA10-0XB0 Manual

Brand	Siemens
Product Series	Siemens
Product Type	designation IM 153-2 DP HF

Description

6ES7153-2BA10-0XB0

SIMATIC DP, Connection ET 200M IM 153-2 High Feature 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 notes in manual+++

General information

Product type designation IM 153-2 DP HF

Firmware version V6.0.0

Vendor identification (VendorID) 801Eh

Supply voltage

www.AutoDCSTech.com

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 A²·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 slave 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.GSD
- 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 / header

Configuration software

- STEP 7 Yes; STEP 7 / COM PROFIBUS / non-Siemens tools via GSD file

Dimensions

Width 40 mm

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Height 125 mm

Depth 117 mm

Weights

Weight, approx. 360 g

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