MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6ES7153-2BA02-0XB0

PROFIBUS DP STATION INTERFACE MODULE

Used with the applicable SIMATIC ET 200M IM 153-2 configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens exact-article technical data, 6ES7153-2BA02-0XB0

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Data sheet 6ES7153-2BA02-0XB0



Figure similar

Spare part 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

General information	
Product type designation	IM 153-2 DP HF
Vendor identification (VendorID)	801Eh
Supply voltage	
Rated value (DC)	
• 24 V DC	Yes
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.	600 mA
Inrush current, typ.	3 A
I^2t	0.1 $A^2 \cdot s$

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Output voltage	
Rated value (DC)	5 V
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; 1ms at up to 8 modules; 10ms 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
Interface physics, RS 485	Yes
Interface physics, FOC	No
PROFIBUS DP	
• Node addresses	1 to 125 permitted
• automatic detection of transmission rate	Yes
• Output current, max.	70 mA
• Transmission rate, max.	12 Mbit/s
• SYNC capability	Yes
• FREEZE capability	Yes
• Direct data exchange (slave-to-slave communication)	Yes; Sender
• Design of electrical connection of PROFIBUS interface	9-pin sub D
1. Interface	
PROFIBUS DP slave	
• GSD file	SI04801.GSG

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• automatic baud rate search	Yes
Protocols	
Bus protocol/transmission protocol	PROFIBUS DP to EN 50170
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
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

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