

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 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

<ul style="list-style-type: none"> Mains/voltage failure stored energy time 	5 ms
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Input current

Current consumption, max.	650 mA
Inrush current, typ.	3 A
I^2t	0.1 A ² ·s

Output current

for backplane bus (5 V DC), max.	1.5 A
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Power loss

Power loss, typ.	5.5 W
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Address area

Addressing volume	
<ul style="list-style-type: none"> Inputs 	244 byte
<ul style="list-style-type: none"> Outputs 	244 byte

Hardware configuration

Number of modules per DP slave interface, max.	12
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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	
<ul style="list-style-type: none"> • Output current of the interface, max. • Design of the connection 	70 mA 9-pin sub D socket
PROFIBUS DP slave	
<ul style="list-style-type: none"> • GSD file • automatic baud rate search 	SI05801E.GSD Yes

Protocols

Bus protocol/transmission protocol	PROFIBUS DP to EN 50170
PROFIBUS DP	
<ul style="list-style-type: none"> • 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
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Isolation

Isolation tested with	Isolation voltage 500 V
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Degree and class of protection

IP degree of protection	IP20
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Ambient conditions

Ambient temperature during operation	
<ul style="list-style-type: none"> • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. 	-25 °C 60 °C -25 °C 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

last modified: 07/15/2020