MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6ES7650-8PH00-0AA0

REDUNDANT PROFIBUS STATION INTERFACE

Used with the applicable SIMATIC ET 200PA SMART IM 650-8 PH configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens 6ES7650-8PH00-0AA0 original product data, applicable source pages 1, 2, 3.

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Data sheet 6ES7650-8PH00-0AA0

SIMATIC DP, interface for ET 200PA SMART 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 +++



Figure similar

General information	
Product type designation	IM 650-8 PH
HW functional status	01
Firmware version	V1.0.0
Vendor identification (VendorID)	81BBh
Supply voltage	
Rated value (DC)	24 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 voltage	

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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; 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
1. Interface	
Interface types	
• RS 485	Yes
• Output current of the interface, max.	70 mA
• Design of the connection	9-pin sub D
Interface types	
RS 485	
• Transmission rate, max.	12 Mbit/s
• automatic detection of transmission rate	Yes
Protocols	
PROFIBUS	Yes
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; Sender

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Potential separation	
Potential separation exists	Yes

Isolation	
Isolation tested with	Isolation voltage 500 V

Ambient conditions	
Ambient temperature during operation	
• 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

Dimensions	
Width	40 mm
Height	125 mm
Depth	117 mm

Weights	
Weight, approx.	360 g

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