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Data sheet 6ES7131-6BH60-0AA0



SIMATIC ET 200SP, digital input module, DI 16x24 V DC SRC BA, input type 1 (IEC 61131), source input, (NPN, sourcing input), packing unit: 1 unit, suitable for BU type A0, color code CC00, input delay 0.05..20 ms; module diagnostics for: supply voltage

General information	
Product type designation	DI 16x24VDC SRC BA
Firmware version	V0.0
● FW update possible	No
usable BaseUnits	BU type A0
Color code for module-specific color-coded label	CC00
Product function	
● I&M data	Yes; I&M0 to I&M3
● Isochronous mode	No
Engineering with	
● STEP 7 TIA Portal configurable/integrated from version	STEP 7 V19 or higher with HSP0433, integrated as of V21
● PROFIBUS from GSD version/GSD revision	One GSD file each, Revision 3 and 5 and higher
● PROFINET from GSD version/GSD revision	GSDML V2.43
Operating mode	
● DI	Yes
● Counter	No
● Oversampling	No
● MSI	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
Input current	
Current consumption (rated value)	8 mA; rated voltage, all channels active, no load
Current consumption, max.	65 mA; worst case voltage, all channels active, max. load, no derating
Encoder supply	
Short-circuit protection	No
Power loss	
Power loss, typ.	0.8 W; rated voltage, 50 % active channels
Address area	
Address space per module	
● Address space per module, max.	2 byte
● Inputs	2 byte
Hardware configuration	
Automatic encoding	Yes

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● Mechanical coding element	Yes
● Type of mechanical coding element	Type A
Selection of BaseUnit for connection variants	
● 1-wire connection	BU type A0
● 2-wire connection	BU type A0 with AUX terminals or potential distributor module
● 3-wire connection	BU type A0 with AUX terminals or potential distributor module
Digital inputs	
Number of digital inputs	16
Digital inputs, parameterizable	Yes
Sourcing/sinking input	Sourcing
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Number of simultaneously controllable inputs	
● Number of simultaneously controllable inputs	16
Input voltage	
● Rated value (DC)	24 V
● for signal "0"	30 V to -5 V (reference potential is L+)
● for signal "1"	-11 V to -30 V (reference potential is L+)
Input current	
● for signal "1", typ.	4 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	Yes; 0.05 / 0.1 / 0.4 / 0.8 / 1.6 / 3.2 / 12.8 / 20 ms (in each case + delay of 30 to 500 µs, depending on line length)
— at "0" to "1", min.	0.05 ms
— at "0" to "1", max.	20 ms
— at "1" to "0", min.	0.05 ms
— at "1" to "0", max.	20 ms
Cable length	
● shielded, max.	1 000 m
● unshielded, max.	200 m
Encoder	
Connectable encoders	
● 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	1.5 mA
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
● Diagnostic alarm	Yes
Diagnoses	
● Diagnostic information readable	Yes
● Monitoring the supply voltage	Yes
— Parameterizable	Yes
● Monitoring of encoder power supply	No
● Wire break	No
● Short-circuit	No
● Short-circuit to ground	No
● Short-circuit to L+	No
● Group error	No
Diagnostics indication LED	
● Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED
● Channel status display	Yes; green LED
● for channel diagnostics	No
● for module diagnostics	Yes; green/red DIAG LED
Potential separation	
Potential separation channels	
● between the channels	No
● between the channels and backplane bus	Yes
● Between the channels and load voltage L+	No

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Isolation	
Isolation tested with	707 V DC (type test)
Standards, approvals, certificates	
Suitable for safety functions	No
Ecological footprint	
● environmental product declaration	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	21 kg
— global warming potential, (during production) [CO2 eq]	4.25 kg
— global warming potential, (during operation) [CO2 eq]	1.75 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-0.743 kg
Ambient conditions	
Ambient temperature during operation	
● horizontal installation, min.	-30 °C
● horizontal installation, max.	60 °C
● vertical installation, min.	-30 °C
● vertical installation, max.	50 °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 ET 200SP system manual
Absolute humidity	
● dew point, min.	-60 °C; suitable for dry room applications
Dimensions	
Width	15 mm
Height	73 mm
Depth	58 mm
Weights	
Weight, approx.	30 g

Classifications

	Version	Classification
eClass	16	27-24-26-04
eClass	14	27-24-26-04
eClass	12	27-24-26-04
eClass	9.1	27-24-26-04
eClass	9	27-24-26-04
eClass	8	27-24-26-04
eClass	7.1	27-24-26-04
eClass	6	27-24-26-04
ETIM	10	EC001599
ETIM	9	EC001599
ETIM	8	EC001599
ETIM	7	EC001599

Approvals / Certificates

General Product Approval

Manufacturer Declaration | Miscellaneous | China RoHS

General Product Approval	EMV	For use in hazardous locations

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CCC-Ex FM

For use in hazardous locations					Maritime application
IECEx	ATEX	Miscellaneous	Type Examination Certificate	CCC-Ex	BUREAU VERITAS

Maritime application				Environment	
DNV	LRS	RINA	KR (Korean Register of Shipping)	EPD	Siemens EcoTech

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