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Data sheet 6ES7131-6FD01-0BB1



SIMATIC ET 200SP, Digital input module, DI 4x 120..230V AC Standard, type 3 (IEC 61131), Packing unit: 1 piece, fits to BU-type B1, Colour Code CC41, module diagnostics



General information	
Product type designation	DI 4x120...230VAC ST
HW functional status	from FS04
Firmware version	V0.0
● FW update possible	No
usable BaseUnits	BU type B1
Color code for module-specific color-coded label	CC41
Product function	
● I&M data	Yes; I&M0 to I&M3
● Isochronous mode	No
● suitable for operation on PROFINET R1 IMs	Yes
Engineering with	
● STEP 7 TIA Portal configurable/integrated from version	V14
● STEP 7 configurable/integrated from version	V5.5 SP3
● PROFIBUS from GSD version/GSD revision	One GSD file each, Revision 3 and 5 and higher
● PROFINET from GSD version/GSD revision	GSDML V2.3
Operating mode	
● DI	Yes
● Counter	No
● Oversampling	No
● MSI	No
Supply voltage	
Rated value (AC)	230 V
permissible range, upper limit (AC)	264 V
Reverse polarity protection	No
Input current	
Current consumption (rated value)	10 mA
Encoder supply	
Number of outputs	4
Short-circuit protection	No; when using BU type B1, a fuse with 10 A tripping current must be provided
Output current	
● up to 60 °C, max.	10 A
Power loss	
Power loss, typ.	1 W; Active power, load voltage 230 V, all inputs connected with 230 V, 50 Hz
Address area	
Address space per module	

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● Address space per module, max.	1 byte; + 1 byte for QI information
Hardware configuration	
Automatic encoding	Yes
● Mechanical coding element	Yes
● Type of mechanical coding element	type C
Selection of BaseUnit for connection variants	
● 1-wire connection	BU type B1
● 2-wire connection	BU type B1
● 3-wire connection	BU type B1
● 4-wire connection	BU type B1 + potential distributor module
Digital inputs	
Number of digital inputs	4
Digital inputs, parameterizable	Yes
Sourcing/sinking input	P-reading
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Input voltage	
● Rated value (AC)	230 V
● for signal "0"	0V AC to 40V AC
● for signal "1"	74 V AC to 264 V AC
Input current	
● for signal "1", typ.	10.8 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— Parameterizable	No
— at "0" to "1", min.	1.5 ms
— at "0" to "1", max.	4 ms
— at "1" to "0", min.	10 ms
— at "1" to "0", max.	10 ms
Cable length	
● shielded, max.	1 000 m
● unshielded, max.	600 m
Encoder	
Connectable encoders	
● 2-wire sensor	Yes
Interrupts/diagnostics/status information	
Alarms	
● Diagnostic alarm	No
● Maintenance interrupt	No
● Hardware interrupt	No
Diagnoses	
● Monitoring the supply voltage	No
● Wire break	No
● short-circuit	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 the power supply of the electronics	No
Isolation	
Isolation tested with	2 545 V DC/2 s (routine test)
Standards, approvals, certificates	
Suitable for safety functions	No
Ecological footprint	

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● environmental product declaration	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	15.9 kg
— global warming potential, (during production) [CO2 eq]	3.69 kg
— global warming potential, (during operation) [CO2 eq]	12.7 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-0.495 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.	2 000 m; On request: Installation altitudes greater than 2 000 m
Absolute humidity	
● dew point, min.	-60 °C; suitable for dry room applications
Dimensions	
Width	20 mm
Height	73 mm
Depth	58 mm
Weights	
Weight, approx.	36 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
IDEA	4	3566
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval

Miscellaneous | Manufacturer Declaration

General Product Approval

China RoHS

EMV	For use in hazardous locations	Maritime application

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FM

Maritime application

NK / Nippon Kaiji Kyokai

CCS (China Classification Society)

KR (Korean Register of Shipping)

Environment

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