

Siemens
EcoTech



SIMATIC S7-1500, digital input module DI 16x 24...125 V UC HF, 16 channels in groups of 1; input delay 0.05...20 ms; Input type 3 (IEC 61131); Diagnostics, hardware interrupts: Front connector (screw terminals or push-in) to be ordered separately



General information

Product type designation	DI 16x24 ... 125 V UC HF
HW functional status	from FS01
Firmware version	from V1.0.0
• FW update possible	Yes

Product function

• I&M data	Yes; I&M0 to I&M3
• Isochronous mode	No
• Prioritized startup	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	V1.0 / V5.1
• PROFINET from GSD version/GSD revision	V2.3 / -

Operating mode

• DI	Yes
• Counter	Yes; from V1.1.0; only in DC operation
• Oversampling	No
• MSI	Yes

Power

Power consumption from the backplane bus	1.2 W
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Power loss

Power loss, typ.	2.2 W; At 24 V DC; 6.0 W at 125 V AC
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Digital inputs

Number of digital inputs	16
Digital inputs, parameterizable	Yes
Source/sink input	Yes
Input characteristic curve in accordance with IEC 61131, type 3	Yes; At 24 V DC

Digital input functions, parameterizable

• Counter	Yes; from FS04
— Number, max.	2; Channel 0 and 1
— Counting frequency, max.	6 kHz
— Counting width	32 bit
— Counting direction up/down	Yes; Up

Input voltage

• Rated value (DC)	24 V; 48 V, 125 V
• Rated value (AC)	24 V; 48 V, 125 V (50 - 60 Hz)

• for signal "0" • for signal "1"	-5 ... +5 V +11 ... +146 V
Input current	
• for signal "1", typ.	3 mA; At 24 V DC
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	Yes; 0.05 / 0.1 / 0.4 / 1.6 / 3.2 / 12.8 / 20 ms parameterizable with DC, 20 ms fixed with AC
— 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
for interrupt inputs	
— parameterizable	Yes
for technological functions	
— parameterizable	No
Cable length	
• shielded, max. • unshielded, max.	1 000 m 600 m
Encoder	
Connectable encoders	
• 2-wire sensor — permissible quiescent current (2-wire sensor), max.	Yes 1.5 mA
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
• Diagnostic alarm • Hardware interrupt	Yes Yes
Diagnoses	
• Monitoring the supply voltage • Wire-break • Short-circuit	No Yes; To I < 550 µA No
Diagnostics indication LED	
• RUN LED • ERROR LED • Monitoring of the supply voltage (PWR-LED) • Channel status display • for channel diagnostics • for module diagnostics	Yes; green LED Yes; red LED No Yes; green LED Yes; red LED Yes; red LED
Potential separation	
Potential separation channels	
• between the channels • between the channels, in groups of • between the channels and backplane bus	Yes 1 Yes
Permissible potential difference	
between different circuits	146 V DC/132 V AC
Isolation	
Isolation tested with	2 000 V DC
Standards, approvals, certificates	
Siemens Eco Profile (SEP)	Siemens EcoTech
Suitable for safety functions	No
Ecological footprint	
• environmental product declaration	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	18.9 kg
— global warming potential, (during production) [CO2 eq]	12.1 kg
— global warming potential, (during operation) [CO2 eq]	7.66 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-1.02 kg

product functions / security / header			
signed firmware update		Yes	
data integrity		No	
Ambient conditions			
Ambient temperature during operation			
• horizontal installation, min.		-30 °C; from FS04	
• horizontal installation, max.		60 °C	
• vertical installation, min.		-30 °C; from FS04	
• vertical installation, max.		40 °C	
Dimensions			
Width		35 mm	
Height		147 mm	
Depth		129 mm	
Weights			
Weight, approx.		240 g	
Classifications			
		Version	Classification
	eClass	14	27-24-22-04
	eClass	12	27-24-22-04
	eClass	9.1	27-24-22-04
	eClass	9	27-24-22-04
	eClass	8	27-24-22-04
	eClass	7.1	27-24-22-04
	eClass	6	27-24-22-04
	ETIM	10	EC001419
	ETIM	9	EC001419
	ETIM	8	EC001419
	ETIM	7	EC001419
	IDEA	4	3566
	UNSPSC	15	32-15-17-05
Approvals / Certificates			
General Product Approval			Test Certificates
			
			
Type Test Certificates/Test Report			
Test Certificates	Maritime application		other
Special Test Certificate			
			
			
Environment			
			Environmental Confirmations

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