



Figure similar

SIMATIC S7-300, Control Unit FM 355 C, 4 channels, continuous, 4 AI+8 DI+4 AO incl. multi-language configuration package, Manual and Getting Started (de, de, fr, en fr, it) on CD-ROM

Supply voltage

Load voltage L+

• Rated value (DC)	24 V
• permissible range, lower limit (DC)	20.4 V
• permissible range, upper limit (DC)	28.8 V

Input current

from load voltage L+ (without load), max.	310 mA; Typ. 260 mA
from backplane bus 5 V DC, max.	75 mA; typ. 50 mA

Power loss

Power loss, typ.	6.5 W
Power loss, max.	7.8 W

Digital inputs

Number of digital inputs	8
Input characteristic curve in accordance with IEC 61131, type 2	Yes

Input voltage

• Rated value (DC)	24 V
• for signal "0"	-3 to +5V
• for signal "1"	13 to 30V

Input current

• for signal "1", typ.	7 mA
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Cable length

• shielded, max.	1 000 m
• unshielded, max.	600 m

Analog inputs

Number of analog inputs	4
permissible input voltage for voltage input (destruction limit), max.	30 V
permissible input current for current input (destruction limit), max.	40 mA

Input ranges

• Voltage	Yes
• Current	Yes
• Thermocouple	Yes
• Resistance thermometer	Yes

Input ranges (rated values), voltages

• 0 to +10 V	Yes
— Input resistance (0 to 10 V)	100 kΩ
• -1.75 V to +11.75 V	Yes
— Input resistance (-1.75 V to +11.75 V)	100 kΩ
• -80 mV to +80 mV	Yes

— Input resistance (-80 mV to +80 mV)	10 MΩ
Input ranges (rated values), currents	
• 0 to 20 mA	Yes
— Input resistance (0 to 20 mA)	50 Ω
• 0 to 23.5 mA	Yes
— Input resistance (0 to 23.5 mA)	50 kΩ
• -3.5 mA to +23.5 mA	Yes
— Input resistance (-3.5 mA to +23.5 mA)	50 Ω
• 4 mA to 20 mA	Yes
— Input resistance (4 mA to 20 mA)	50 kΩ
Input ranges (rated values), thermocouples	
• Type B	Yes
— Input resistance (Type B)	10 MΩ
• Type J	Yes
— Input resistance (type J)	10 MΩ
• Type K	Yes
— Input resistance (Type K)	10 MΩ
• Type R	Yes
— Input resistance (Type R)	10 MΩ
• Type S	Yes
— Input resistance (Type S)	10 MΩ
Input ranges (rated values), resistance thermometer	
• Pt 100	Yes
— Input resistance (Pt 100)	10 MΩ
Thermocouple (TC)	
Temperature compensation	
— internal temperature compensation	Yes
— external temperature compensation with Pt100	Yes
Characteristic linearization	
• parameterizable	Yes
— for thermocouples	Type B, J, K, R, S
— for resistance thermometer	Pt100 (standard)
Cable length	
• shielded, max.	200 m; 50 m at 80 mV and thermocouples
Analog outputs	
Number of analog outputs	4
Voltage output, short-circuit protection	Yes
Voltage output, short-circuit current, max.	25 mA
Current output, no-load voltage, max.	18 V
Output ranges, voltage	
• 0 to 10 V	Yes
• -10 V to +10 V	Yes
Output ranges, current	
• 0 to 20 mA	Yes
• 4 mA to 20 mA	Yes
Connection of actuators	
• for voltage output two-wire connection	Yes
• for current output two-wire connection	Yes
Load impedance (in rated range of output)	
• with voltage outputs, min.	1 kΩ
• with voltage outputs, capacitive load, max.	1 μF
• with current outputs, max.	500 Ω
• with current outputs, inductive load, max.	1 mH
Cable length	
• shielded, max.	200 m; 50 m at 80 mV and thermocouples
Analog value generation for the inputs	
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	14 bit; 12 bit or 14 bit, parameterizable
Analog value generation for the outputs	
Settling time	

• for resistive load • for capacitive load • for inductive load	0.1 ms 3.3 ms 0.5 ms		
Encoder			
Connection of signal encoders			
• for voltage measurement • for current measurement as 4-wire transducer	Yes Yes		
Connectable encoders			
• 2-wire sensor — permissible quiescent current (2-wire sensor), max.	Yes 1.5 mA		
Errors/accuracies			
Operational error limit in overall temperature range			
• Voltage, relative to input range, (+/-) • Current, relative to input range, (+/-) • Resistance thermometer, relative to input range, (+/-) • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-)	0.6 %; ±0.6 to ±1% 0.6 %; ±0.6 to ±1% 0.6 %; ±0.6 to ±1% 0.5 % 0.6 %		
Basic error limit (operational limit at 25 °C)			
• Voltage, relative to input range, (+/-) • Current, relative to input range, (+/-) • Resistance thermometer, relative to input range, (+/-) • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-)	0.4 %; 80 mV: ±0.6 %; 250 to 1 000 mV: ±0.4 %; 2.5 to 10 V: ±0.6 %; 3.2 to 20 mA: ±0.5 % 0.4 %; ±0.4 to ±0.6 % 0.4 %; ±0.4 to ±0.6 % 0.3 % 0.5 %		
Interrupts/diagnostics/status information			
Substitute values connectable	Yes; Parameterizable		
Integrated Functions			
Counter	No		
Control technology			
• Number of closed-loop controllers	4		
Potential separation			
Potential separation controller			
• between the channels • between the channels and backplane bus	No Yes; Optocoupler		
Isolation			
Isolation tested with	500 V DC		
connection method			
required front connector	2x 20-pin		
Dimensions			
Width	80 mm		
Height	125 mm		
Depth	120 mm		
Weights			
Weight, approx.	470 g		
Classifications			
		Version	Classification
	eClass	14	27-24-22-05
	eClass	12	27-24-22-05
	eClass	9.1	27-24-22-05
	eClass	9	27-24-22-05
	eClass	8	27-24-22-05
	eClass	7.1	27-24-22-05
	eClass	6	27-24-22-05
	ETIM	9	EC001422
	ETIM	8	EC001422
	ETIM	7	EC001422
	IDEA	4	3567
	UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval

[Manufacturer Declaration](#)


EG-Konf.



[Miscellaneous](#)


UL


RCM

EMV

For use in hazardous locations


RCM


ATEX


UL


IECEx


ATEX

[Miscellaneous](#)

For use in hazardous locations

Marine / Shipping

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ABS




DNV


LRS

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Marine / Shipping


PRS


RINA

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