



Figure similar

spare part 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, 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
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	

<ul style="list-style-type: none"> • for resistive load • for capacitive load • for inductive load 	0.1 ms	
	3.3 ms	
	0.5 ms	
Encoder		
Connection of signal encoders		
<ul style="list-style-type: none"> • for voltage measurement • for current measurement as 4-wire transducer 	Yes	
	Yes	
Connectable encoders		
<ul style="list-style-type: none"> • 2-wire sensor — permissible quiescent current (2-wire sensor), max. 	Yes	
	1.5 mA	
Errors/accuracies		
Operational error limit in overall temperature range		
<ul style="list-style-type: none"> • 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)		
<ul style="list-style-type: none"> • 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		
<ul style="list-style-type: none"> • Number of closed-loop controllers 	4	
Potential separation		
Potential separation controller		
<ul style="list-style-type: none"> • 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	10	EC001422
ETIM	9	EC001422
ETIM	8	EC001422
ETIM	7	EC001422
IDEA	4	3567

Approvals / Certificates

General Product Approval

[Manufacturer Declaration](#)[Miscellaneous](#)

EMV

For use in hazardous locations

[Miscellaneous](#)

For use in hazardous locations

Maritime application

[CCC-Ex](#)[NK / Nippon Kaiji Kyokai](#)

Maritime application

[CCS \(China Classification Society\)](#)

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