



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

Figure similar

Supply voltage	
Load voltage L+	
<ul style="list-style-type: none"> <li>Rated value (DC)</li> </ul>	24 V
<ul style="list-style-type: none"> <li>permissible range, lower limit (DC)</li> </ul>	20.4 V
<ul style="list-style-type: none"> <li>permissible range, upper limit (DC)</li> </ul>	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	
<ul style="list-style-type: none"> <li>Rated value (DC)</li> </ul>	24 V
<ul style="list-style-type: none"> <li>for signal "0"</li> </ul>	-3 to +5V
<ul style="list-style-type: none"> <li>for signal "1"</li> </ul>	13 to 30V
Input current	
<ul style="list-style-type: none"> <li>for signal "1", typ.</li> </ul>	7 mA
Cable length	
<ul style="list-style-type: none"> <li>shielded, max.</li> </ul>	1 000 m
<ul style="list-style-type: none"> <li>unshielded, max.</li> </ul>	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	
<ul style="list-style-type: none"> <li>Voltage</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Current</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Thermocouple</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Resistance thermometer</li> </ul>	Yes
Input ranges (rated values), voltages	
<ul style="list-style-type: none"> <li>0 to +10 V</li> </ul>	Yes
<ul style="list-style-type: none"> <li>— Input resistance (0 to 10 V)</li> </ul>	100 kΩ
<ul style="list-style-type: none"> <li>-1.75 V to +11.75 V</li> </ul>	Yes
<ul style="list-style-type: none"> <li>— Input resistance (-1.75 V to +11.75 V)</li> </ul>	100 kΩ
<ul style="list-style-type: none"> <li>-80 mV to +80 mV</li> </ul>	Yes

— Input resistance (-80 mV to +80 mV)	10 MΩ
<b>Input ranges (rated values), currents</b>	
• 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
<b>Input ranges (rated values), thermocouples</b>	
• 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
<b>Input ranges (rated values), resistance thermometer</b>	
• Pt 100	Yes
— Input resistance (Pt 100)	10 MΩ
<b>Thermocouple (TC)</b>	
<b>Temperature compensation</b>	
— internal temperature compensation	Yes
— external temperature compensation with Pt100	Yes
<b>Characteristic linearization</b>	
• parameterizable	Yes
— for thermocouples	Type B, J, K, R, S
— for resistance thermometer	Pt100 (standard)
<b>Cable length</b>	
• shielded, max.	200 m; 50 m at 80 mV and thermocouples
<b>Analog outputs</b>	
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
<b>Output ranges, voltage</b>	
• 0 to 10 V	Yes
• -10 V to +10 V	Yes
<b>Output ranges, current</b>	
• 0 to 20 mA	Yes
• 4 mA to 20 mA	Yes
<b>Connection of actuators</b>	
• for voltage output two-wire connection	Yes
• for current output two-wire connection	Yes
<b>Load impedance (in rated range of output)</b>	
• 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
<b>Cable length</b>	
• shielded, max.	200 m; 50 m at 80 mV and thermocouples
<b>Analog value generation for the inputs</b>	
<b>Integration and conversion time/resolution per channel</b>	
• Resolution with overrange (bit including sign), max.	14 bit; 12 bit or 14 bit, parameterizable
<b>Analog value generation for the outputs</b>	
<b>Settling time</b>	

<ul style="list-style-type: none"> <li>• for resistive load</li> <li>• for capacitive load</li> <li>• for inductive load</li> </ul>	0.1 ms	
	3.3 ms	
	0.5 ms	
<b>Encoder</b>		
Connection of signal encoders		
<ul style="list-style-type: none"> <li>• for voltage measurement</li> <li>• for current measurement as 4-wire transducer</li> </ul>	Yes	
	Yes	
Connectable encoders		
<ul style="list-style-type: none"> <li>• 2-wire sensor</li> <li>— permissible quiescent current (2-wire sensor), max.</li> </ul>	Yes	
	1.5 mA	
<b>Errors/accuracies</b>		
Operational error limit in overall temperature range		
<ul style="list-style-type: none"> <li>• Voltage, relative to input range, (+/-)</li> <li>• Current, relative to input range, (+/-)</li> <li>• Resistance thermometer, relative to input range, (+/-)</li> <li>• Voltage, relative to output range, (+/-)</li> <li>• Current, relative to output range, (+/-)</li> </ul>	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"> <li>• Voltage, relative to input range, (+/-)</li> <li>• Current, relative to input range, (+/-)</li> <li>• Resistance thermometer, relative to input range, (+/-)</li> <li>• Voltage, relative to output range, (+/-)</li> <li>• Current, relative to output range, (+/-)</li> </ul>	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 %	
<b>Interrupts/diagnostics/status information</b>		
Substitute values connectable	Yes; Parameterizable	
<b>Integrated Functions</b>		
Counter	No	
Control technology		
<ul style="list-style-type: none"> <li>• Number of closed-loop controllers</li> </ul>	4	
<b>Potential separation</b>		
Potential separation controller		
<ul style="list-style-type: none"> <li>• between the channels</li> <li>• between the channels and backplane bus</li> </ul>	No	
	Yes; Optocoupler	
<b>Isolation</b>		
Isolation tested with	500 V DC	
<b>connection method</b>		
required front connector	2x 20-pin	
<b>Dimensions</b>		
Width	80 mm	
Height	125 mm	
Depth	120 mm	
<b>Weights</b>		
Weight, approx.	470 g	
<b>Classifications</b>		
	<b>Version</b>	<b>Classification</b>
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

EMV

[Manufacturer Declaration](#)



EG-Konf.



UL



RCM



RCM

For use in hazardous locations



ATEX



UL



IECEX



ATEX

[Miscellaneous](#)

[CCC-Ex](#)

Marine / Shipping



ABS



BUREAU  
VERITAS



DNV



LRS

[NK / Nippon Kaiji Kyokai](#)



PRS

Marine / Shipping



RINA

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

last modified:

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