



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+	
<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

— 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
<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

Analog value generation for the outputs	
Settling time	
• for resistive load	0.1 ms
• for capacitive load	3.3 ms
• for inductive load	0.5 ms
Encoder	
Connection of signal encoders	
• for voltage measurement	Yes
• for current measurement as 4-wire transducer	Yes
Connectable encoders	
• 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	1.5 mA
Errors/accuracies	
Operational error limit in overall temperature range	
• Voltage, relative to input range, (+/-)	0.6 %; $\pm 0.6$ to $\pm 1\%$
• Current, relative to input range, (+/-)	0.6 %; $\pm 0.6$ to $\pm 1\%$
• Resistance thermometer, relative to input range, (+/-)	0.6 %; $\pm 0.6$ to $\pm 1\%$
• Voltage, relative to output range, (+/-)	0.5 %
• Current, relative to output range, (+/-)	0.6 %
Basic error limit (operational limit at 25 °C)	
• Voltage, relative to input range, (+/-)	0.4 %; 80 mV: $\pm 0.6$ %; 250 to 1 000 mV: $\pm 0.4$ %; 2.5 to 10 V: $\pm 0.6$ %; 3.2 to 20 mA: $\pm 0.5$ %
• Current, relative to input range, (+/-)	0.4 %; $\pm 0.4$ to $\pm 0.6$ %
• Resistance thermometer, relative to input range, (+/-)	0.4 %; $\pm 0.4$ to $\pm 0.6$ %
• Voltage, relative to output range, (+/-)	0.3 %
• Current, relative to output range, (+/-)	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	No
• between the channels and backplane bus	Yes; Optocoupler
Isolation	
Isolation tested with	500 V DC
connection method / header	
required front connector	2x 20-pin
Dimensions	
Width	80 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	470 g
<b>last modified:</b>	1/17/2021 