

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

S7-300

6ES7355-2CH00-0AE0

TEMPERATURE CONTROL MODULE

Used with the applicable S7-300 configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens official manufacturer documentation



Figure similar

SIMATIC S7-300, temperature Control Unit FM 355-2 C, 4 channels, continuous, 4 AI+8 DI+4 AO incl. multi-language configuration package, Manual and Getting Started (de, de, fr, en 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.	20 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
Input ranges (rated values), currents	

• 0 to 20 mA — Input resistance (0 to 20 mA) • 0 to 23.5 mA — Input resistance (0 to 23.5 mA) • -3.5 mA to +23.5 mA — Input resistance (-3.5 mA to +23.5 mA) • 4 mA to 20 mA — Input resistance (4 mA to 20 mA)	Yes 50 Ω Yes 50 Ω Yes 50 Ω Yes 50 Ω
Input ranges (rated values), thermocouples	
• Type B — Input resistance (Type B) • Type E — Input resistance (Type E) • Type J — Input resistance (type J) • Type K — Input resistance (Type K) • Type R — Input resistance (Type R) • Type S — Input resistance (Type S)	Yes 10 MΩ Yes 10 MΩ Yes 10 MΩ Yes 10 MΩ Yes 10 MΩ Yes 10 MΩ
Input ranges (rated values), resistance thermometer	
• Pt 100 — Input resistance (Pt 100)	Yes 10 MΩ
Thermocouple (TC)	
Temperature compensation	
— internal temperature compensation — external temperature compensation with Pt100	Yes Yes
Characteristic linearization	
• parameterizable — for thermocouples — for resistance thermometer	Yes Type B, E, J, K, R, S 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 • -10 V to +10 V	Yes Yes
Output ranges, current	
• 0 to 20 mA • 4 mA to 20 mA	Yes Yes
Connection of actuators	
• for voltage output two-wire connection • for current output two-wire connection	Yes Yes
Load impedance (in rated range of output)	
• with voltage outputs, min. • with voltage outputs, capacitive load, max. • with current outputs, max. • with current outputs, inductive load, max.	1 kΩ 1 μF 500 Ω 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
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 %; ± 0.6 to ± 0.7 %
• Current, relative to input range, (+/-)	0.6 %; ± 0.6 to ± 0.7 %
• Resistance thermometer, relative to input range, (+/-)	0.6 %; ± 0.6 to ± 0.7 %
• 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, (+/-)	0.04 %; ± 0.04 to ± 0.5 %
• Current, relative to input range, (+/-)	0.04 %; ± 0.04 to ± 0.5 %
• Resistance thermometer, relative to input range, (+/-)	0.04 %; ± 0.04 to ± 0.5 %
• Voltage, relative to output range, (+/-)	0.4 %
• 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	
required front connector	2x 20-pin
Dimensions	
Width	80 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	470 g

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