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Data sheet 6ES7355-2SH00-0AE0



spare part SIMATIC S7-300, temperature Control Unit FM 355-2S, 4 channels, step and pulse, 4 AI+8 DI+8 DO incl. multi-language configuration package, manual and Getting Started (de, 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.	270 mA; typ. 220 mA
from backplane bus 5 V DC, max.	75 mA; typ. 50 mA
Power loss	
Power loss, typ.	5.5 W
Power loss, max.	6.9 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
Digital outputs	
Number of digital outputs	8
Short-circuit protection	Yes; Electronic
Limitation of inductive shutdown voltage to	L+ (-1.5 V)
Controlling a digital input	Yes
Switching capacity of the outputs	
● on lamp load, max.	5 W
Load resistance range	
● lower limit	240 Ω
● upper limit	4 kΩ
Output voltage	
● for signal "1", min.	L+ (-2.5 V)
Output current	
● for signal "1" rated value	0.1 A
● for signal "1" permissible range for 0 to 60 °C, min.	5 mA
● for signal "1" permissible range for 0 to 60 °C, max.	150 mA

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● for signal "0" residual current, max.	0.5 mA
Parallel switching of two outputs	
● for logic links	Yes
Switching frequency	
● with resistive load, max.	100 Hz
● with inductive load, max.	0.5 Hz
● on lamp load, max.	100 Hz
Total current of the outputs (per group)	
all mounting positions	
— up to 60 °C, max.	400 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	Yes
— Input resistance (0 to 20 mA)	50 Ω
● 0 to 23.5 mA	Yes
— Input resistance (0 to 23.5 mA)	50 Ω
● -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 Ω
Input ranges (rated values), thermocouples	
● Type B	Yes
— Input resistance (Type B)	10 MΩ
● Type E	Yes
— Input resistance (Type E)	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	

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● Parameterizable	Yes
— for thermocouples	Type B, E, J, K, R, S
— for resistance thermometer	Pt100 (standard)
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
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, (+/-)	0.06 %; ±0.06 to ±0.7%
● Current, relative to input range, (+/-)	0.06 %; ±0.06 to ±0.7%
● Resistance thermometer, relative to input range, (+/-)	0.06 %; ±0.06 to ±0.7%
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 %
Interrupts/diagnostics/status information	
Substitute values connectable	Yes; Parameterizable
Integrated Functions	
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
Classifications	

	Version	Classification
eClass	16	27-24-22-05
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

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ETIM	7	EC001422
IDEA	4	3567
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval

Miscellaneous | Manufacturer Declaration | Metrological Approval

General Product Approval

Manufacturer Declaration | China RoHS

EMV

For use in hazardous locations

For use in hazardous locations

Miscellaneous | CCC-Ex

Maritime application

Maritime application

NK / Nippon Kaiji Kyokai | CCS (China Classification Society)

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