

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

S7-300

6ES7357-4AH01-0AE0

FM 357-2 MULTI-AXIS POSITIONING MODULE

Applicable product family: SIMATIC S7-300 technology modules

OFFICIAL SOURCE

6ES7357-4AH01-0AE0.pdf

The following pages are selected from the supplied manufacturer document and retain their original page content.

AS SPARE PART ONLY! SIMATIC S7-300, FUNCTION MODULE
FM 357-2 (M80486 CPU) FOR POSITIONING AND PATH
CONTROL OF STEPPER AND SERVO MOTORS (4 MEASURING
CIRCUITS)



Figure similar

Supply voltage	
Rated value (DC)	
• 24 V DC	Yes
Input current	
from backplane bus 5 V DC, max.	100 mA
Encoder supply	
5 V encoder supply	
• 5 V	Yes
• Output current, max.	210 mA
• Cable length, max.	35 m
24 V encoder supply	
• 24 V	Yes
• Output current, max.	300 mA
• Cable length, max.	100 m
Power loss	
Power loss, typ.	15 W

Memory	
Type of memory	NC program memory
Memory size	750 kbyte
Digital inputs	
Number of digital inputs	18
Functions	4 BERO, 2 probes, 12 for any use
Input voltage	
• Rated value (DC)	24 V
• for signal "0"	-3 to +5V
• for signal "1"	+11 to +30V
Input current	
• for signal "0", max. (permissible quiescent current)	2 mA
• for signal "1", typ.	6 mA; 6 to 30 mA
Digital outputs	
Number of digital outputs	8
Functions	8 for any purpose
Output voltage	
• Rated value (DC)	24 V
• for signal "1", min.	UP -3 V
Output current	
• for signal "1" permissible range for 0 to 55 °C, max.	0.5 A; with UPmax
• for signal "0" residual current, max.	2 mA
Encoder	
Connectable encoders	
• Incremental encoder (symmetrical)	Yes
• Absolute encoder (SSI)	Yes
Encoder signals, incremental encoder (symmetrical)	
• Trace mark signals	A, notA, B, notB
• Zero mark signal	N, notN
• Input voltage	5 V difference signal (phys. RS 422)
• Input frequency, max.	1 MHz
Encoder signals, absolute encoder (SSI)	
• Input signal	5 V difference signal (phys. RS 422)
• Data signal	DATA, notDATA
• Clock signal	CL, notCL
• Telegram length, parameterizable	13, 21 or 25 bit
• Clock frequency, max.	1.5 Mbit/s
• Cable length, shielded, max.	250 m; At max. 187.5 kbit/s

Integrated Functions	
controlled positioning	
• Programmable traverse speed, max.	1 000 m/min
Drive interface	
Analog drive	
Setpoint signal	
— Rated voltage range	-10 to +10V
— Output current	-3 to +3 mA
— Cable length, max.	35 m
Output controller enable	
— Switching voltage, max.	50 V
— Switching current, max.	1 A
— Switching capacity, max.	30 V·A
Stepper drive	
• Differential output voltage, min.	2 V; $R_L = 100\ \Omega$
• Differential output voltage for signal "0", max.	1 V; $I_o = 20\ \text{mA}$
• Differential output voltage for signal "1", min.	3.7 V; $I_o = -20\ \text{mA}$
• Pulse frequency	750 kHz
• Cable length, shielded, max.	50 m; 35 m in hybrid mode with servo axes
Potential separation	
Potential separation digital inputs	
• Potential separation digital inputs	Yes
Potential separation digital outputs	
• Potential separation digital outputs	Yes
Degree and class of protection	
Degree of protection acc. to EN 60529	
• IP20	Yes
Connection method	
required front connector	1x 40-pin
Dimensions	
Width	200 mm
Height	125 mm
Depth	118 mm
Weights	
Weight, approx.	1 200 g
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