SIEMENS

Data sheet 6ES7350-1AH03-0AE0



SIMATIC S7-300, COUNTER MODULE FM 350-1 FOR S7-300, COUNTER FUNCTIONS UP TO 500 KHZ 1 CHANNEL FOR CONNECTION OF 5V AND 24V INCREMENTAL ENCODERS ISOCHRON MODE, MEASUREMENT MODE INCL. CONFIG. PACKAGE ON CD

Supply voltage	
Aux. voltage 1L+, load voltage 2L+	
• Rated value (DC)	24 V
Permissible range (ripple included)	
— dynamic, lower limit (DC)	18.5 V
— dynamic, upper limit (DC)	30.2 V
— static, lower limit (DC)	20.4 V
— static, upper limit (DC)	28.8 V
non-periodic skip	
— Duration	500 ms
— Recovery time	50 s
— Value	35 V
Input current	
from load voltage 1L+ (without load), max.	40 mA
from backplane bus 5 V DC, max.	160 mA
5 V encoder supply	
• 5 V	Yes; 5.2 V +/-2%
• Output current, max.	300 mA
24 V encoder supply	
• 24 V	Yes; 1L+ (-3 V)
• Output current, max.	400 mA
Power losses	
Power loss, typ.	4.5 W

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Digital inputs	
Number of digital inputs	3
Functions	1 for gate start, 1 for gate stop, 1 for setting the counter
Input voltage	
• for signal "0"	-28.8 ... +5V
• for signal "1"	+11 to +28.8V
Input current	
• for signal "1", typ.	9 mA

Digital outputs	
Number of digital outputs	2
short-circuit protection	Yes; Clocked electronically
Limitation of inductive shutdown voltage to	2L+ (-39 V)
Output voltage	
• for signal "0", max.	3 V
• for signal "1", min.	2L+ (-1,5 V)
Output current	
• for signal "1" rated value	0.5 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.	0.6 A
Output delay with resistive load	
• "0" to "1", max.	300 µs

Encoder	
Connectable encoders	
• Incremental encoder (symmetrical)	Yes; With 2 pulse trains offset by 90°
• Incremental encoder (asymmetrical)	Yes
• 24 V initiator	Yes
• 24 V directional element	Yes; 1 pulse train, 1 direction level

Counter	
Number of counter inputs	1
Counting range, description	32 bit or +/-31 bit
Minimum pulse width, adjustable	Yes; 2.5 or 25 µs
Counter input 5 V	
• Type	RS 422
• Terminating resistor	220 Ω
• Differential input voltage	1,3 V
• Counting frequency, max.	500 kHz
Counter input 24 V	
• Input voltage, for signal "0"	-28.8 ... +5V
• Input voltage, for signal "1"	+11 to +28.8V

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• Input current, for signal "1", typ.	9 mA
• Counting frequency, max.	200 kHz
• Minimum pulse width	2.5 µs

Parameter	
Remark	assigned binary addresses: 16 bytes

Potential separation	
Potential separation digital inputs	
• between the channels and the backplane bus	Yes; Optocoupler
Potential separation digital outputs	
• between the channels and the backplane bus	Yes; Optocoupler
Galvanic isolation counter	
• between the channels and the backplane bus	Yes; Optocoupler

Permissible potential difference	
between different circuits	75V DC/60V AC

Isolation	
Isolation checked with	500 V

Connection method	
required front connector	1x 20-pin

Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm

Weights	
Weight, approx.	250 g

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