



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

Digital inputs	
Number of digital inputs	3
Functions	1 for gate start, 1 for gate stop, 1 for setting the counter
Input voltage	
<ul style="list-style-type: none"> for signal "0" for signal "1" 	-28.8 ... +5V +11 to +28.8V
Input current	
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> for signal "0", max. for signal "1", min. 	3 V 2L+ (-1,5 V)
Output current	
<ul style="list-style-type: none"> for signal "1" rated value for signal "1" permissible range for 0 to 60 °C, min. for signal "1" permissible range for 0 to 60 °C, max. 	0.5 A 5 mA 0.6 A
Output delay with resistive load	
<ul style="list-style-type: none"> "0" to "1", max. 	300 µs
Encoder	
Connectable encoders	
<ul style="list-style-type: none"> Incremental encoder (symmetrical) Incremental encoder (asymmetrical) 24 V initiator 24 V directional element 	Yes; With 2 pulse trains offset by 90° Yes Yes 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	
<ul style="list-style-type: none"> Type Terminating resistor Differential input voltage Counting frequency, max. 	RS 422 220 Ω 1,3 V 500 kHz
Counter input 24 V	
<ul style="list-style-type: none"> Input voltage, for signal "0" Input voltage, for signal "1" 	-28.8 ... +5V +11 to +28.8V

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

Parameter

Remark assigned binary addresses: 16 bytes

Galvanic isolation

Galvanic isolation digital inputs

- between the channels and the backplane bus Yes; Optocoupler

Galvanic isolation 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

last modified: 12.03.2015