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Data sheet 6ES7350-1AH03-0AE0



spare part SIMATIC S7-300, counter module FM 350-1 for S7-300, counter functions up to 500 kHz 1 channel for connection of 5 V and 24 V incremental encoders isochronous mode; measuring range types incl. configuration package on CD

Supply voltage	
Auxiliary voltage 1L+, load voltage 2L+	
● Rated value (DC)	24 V
● permissible range, lower limit (DC)	20.4 V; Dynamic 18.5 V
● permissible range, upper limit (DC)	28.8 V; dynamic 30.2 V
Input current	
from load voltage 1L+ (without load), max.	40 mA
from backplane bus 5 V DC, max.	160 mA
Encoder supply	
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 loss	
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	
● 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	

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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; 32 bit or ±31 bit
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
● Input current for signal "1", typ.	9 mA
● Counting frequency, max.	200 kHz
● Minimum pulse width	2.5 µs
Potential separation	
Potential separation digital inputs	
● between the channels and backplane bus	Yes; Optocoupler
Potential separation digital outputs	
● between the channels and backplane bus	Yes; Optocoupler
Potential separation counter	
● between the channels and backplane bus	Yes; Optocoupler
Isolation	
Isolation tested 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

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

Approvals / Certificates

General Product Approval

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Miscellaneous

Manufacturer Declaration

General Product Approval	EMV	For use in hazardous locations

China RoHS

For use in hazardous locations	Maritime application

Miscellaneous

CCC-Ex

Maritime application

NK / Nippon Kaiji Kyokai

CCS (China Classification Society)

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