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Data sheet 6ES7147-4AB00-0AA0



Figure similar

SIMATIC DP, electronic modules for ET 200pro EM 2 Count 24 V counter module for 2 incremental encoders 24 V incl. bus module, connection module ET 200pro CM Count 2 x M12 6ES7194-4CC10-0AA0 to be ordered separately

General information	
Product function	
● I&M data	Yes
● Isochronous mode	No
Engineering with	
● STEP 7 TIA Portal configurable/integrated from version	STEP 7 V19 or higher
● PROFINET from GSD version/GSD revision	GSDML V2.35
Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes
Input current	
from supply voltage 1L+, max.	30 mA; without output current for the 24 V Encoder supply
from backplane bus 3.3 V DC, max.	20 mA
Encoder supply	
Number of outputs	2
24 V encoder supply	
● 24 V	Yes; L+ (-0.8 V)
● Short-circuit protection	Yes; electronic/thermal
● Output current, max.	200 mA; Per channel
Power loss	
Power loss, typ.	0.65 W
Address area	
Address space per module	
● Address space per module, max.	8 byte
● Inputs	8 byte
● Outputs	0 byte
Digital inputs	
Cable length	
● shielded, max.	30 m
Encoder	
Connectable encoders	
● Incremental encoder (asymmetrical)	Yes
● 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	1.5 mA
Encoder signals, incremental encoder (asymmetrical)	
● Input voltage	24 V
● Input frequency, max.	200 kHz
● Counting frequency, max.	800 kHz

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● Cable length, shielded, max.	30 m
● Signal filter, parameterizable	Yes
● Incremental encoder with A/B tracks, 90° phase offset	Yes
● Incremental encoder with A/B tracks, 90° phase offset and zero track	Yes
● pulse encoder	Yes
● pulse encoder with direction	Yes
● pulse encoder with one impulse signal per count direction	Yes
Interface types	
● Sourcing/sinking input	Yes
● Input characteristic curve in accordance with IEC 61131, type 3	Yes
Interrupts/diagnostics/status information	
Diagnostics function	Yes; Parameterizable
Alarms	
● Diagnostic alarm	Yes
Diagnoses	
● Diagnostic information readable	Yes
● Wire break	Yes
● Short-circuit	Yes; Encoder supply to M, channel by channel
● A/B transition error at incremental encoder	Yes
Diagnostics indication LED	
● ERROR LED	Yes
● Channel status display	Yes
● for channel diagnostics	Yes
Integrated Functions	
Counter	Yes
● Number of counters	2
● Counting frequency, max.	800 kHz; with quadruple evaluation
Fast mode	Yes
Position detection	
● Incremental acquisition	Yes
Potential separation	
Potential separation channels	
● between the channels	No
● between the channels and backplane bus	Yes
● Between the channels and load voltage L+	No
Isolation	
Isolation tested with	707 V DC (type test)
Security	
signed firmware update	Yes
Connection method	
Design of electrical connection	M12, 5-pole
Dimensions	
Width	45 mm
Height	130 mm
Depth	35 mm
Weights	
Weight, approx.	150 g
Classifications	

	Version	Classification
eClass	16	27-24-26-05
eClass	14	27-24-26-05
eClass	12	27-24-26-05
eClass	9.1	27-24-26-05
eClass	9	27-24-26-05
eClass	8	27-24-26-05
eClass	7.1	27-24-26-05

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eClass	6	27-24-26-05
ETIM	10	EC001601
ETIM	9	EC001601
ETIM	8	EC001601
ETIM	7	EC001601

Approvals / Certificates

General Product Approval

Miscellaneous | Manufacturer Declaration | China RoHS

General Product Approval | EMV | Maritime application

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

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