SIEMENS

Data sheet 6ES7452-1AH00-0AE0



SIMATIC S7-400, cam control system FM 452, electronic incl. configuration package on CD

Supply voltage	
Rated value (DC)	24 V
Input current	
Current consumption, max.	500 mA
Encoder supply	
5 V encoder supply	
● 5 V	Yes
● Output current, max.	300 mA
● Cable length, max.	32 m
24 V encoder supply	
● 24 V	Yes
● Output current, max.	300 mA
● Cable length, max.	100 m
Power loss	
Power loss, typ.	8.1 W
Digital inputs	
Number of digital inputs	11
Functions	Reference point switch, flying actual value setting/length measurement, brake release, enable track output no. 3 to 10
Input voltage	
● Rated value (DC)	24 V
● for signal "0"	-28.8 ... +5V
● for signal "1"	+11 to +28.8V
Input current	
● for signal "0", max. (permissible quiescent current)	2 mA
● for signal "1", typ.	9 mA
Digital outputs	
Number of digital outputs	16
Functions	Cam track
Short-circuit protection	Yes
Output voltage	
● Rated value (DC)	24 V
● for signal "1", min.	UP - 0.8 V
Output current	
● for signal "1" permissible range for 0 to 55 °C, max.	600 mA; with UPmax
● for signal "0" residual current, max.	0.5 mA
Encoder	
Connectable encoders	
● Incremental encoder (symmetrical)	Yes

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● Incremental encoder (asymmetrical)	Yes
● Absolute encoder (SSI)	Yes
● 2-wire sensor	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, incremental encoder (asymmetrical)	
● Trace mark signals	A, B
● Zero mark signal	N
● Input voltage	24 V
● Input frequency, max.	50 kHz; 50 kHz for 25 m cable length; 25 kHz for 100 m cable length
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 or 25 bit serial
● Clock frequency, max.	1 MHz
● Gray code	Yes
● Cable length, shielded, max.	300 m; at max. 125 kHz
Potential separation	
Potential separation digital inputs	
● Potential separation digital inputs	No
Potential separation digital outputs	
● Potential separation digital outputs	No
Ambient conditions	
Ambient temperature during operation	
● min.	0 °C
● max.	55 °C
Ambient temperature during storage/transportation	
● min.	-40 °C
● max.	70 °C
Connection method	
required front connector	1x 48-pin
Dimensions	
Width	25 mm
Height	290 mm
Depth	210 mm
Weights	
Weight, approx.	650 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

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	UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval

Miscellaneous

General Product Approval | EMV | For use in hazardous locations

China RoHS | Miscellaneous | Manufacturer Declaration

For use in hazardous locations | Maritime application

FM | Type Examination Certificate

Maritime application

NK / Nippon Kaiji Kyokai

Maritime application

CCS (China Classification Society)

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