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	RCM	RCM	ATEX

For use in hazardous locations					Maritime application
FM	CCC	IECEx	Type Examination Certificate	ATEX	ABS

Maritime application







NK / Nippon Kaiji Kyokai





Maritime application



CCS (China Classification Society)

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