

SIEMENS

Product data sheet

6AU1410-0AA00-0AA0



Fig. similar

SIMOTION DRIVE-BASED CONTROL UNIT D410 DP;
PROGRAMMABLE SINGLE-AXIS MOTION
CONTROLLER;
INTERFACES: 4 DI, 4 DI/DO, 1 EP,
1 TEMP, 1 ENCODER, 1 DRIVE-CLIQ,
1 PROFIBUS

product brand name	SIMOTION
Product-type designation	D410 DP
Version of the motion control system	Single-axis system
PLC and motion control performance	
Maximum number of axes	1
• note	The value indicated refers to real axes; virtual axes can be used additionally.
Minimum PROFIBUS cycle clock	2 ms
Minimum servo cycle clock	2 ms
Minimum interpolator cycle clock	2 ms
Integrated drive control	
Maximum number of axes for integrated drive control	
• servo	1
• vector	1
• V/f	1

• note

Alternative control modes; drive control based on SINAMICS S120 CU310, firmware version V2.x

Memory

RAM (work memory)	38 Mbyte
Additional RAM work memory for Java applications	20 Mbyte
RAM disk (load memory)	23 Mbyte
Retentive memory	9 kbyte
Persistent memory (user data on CF)	300 Mbyte

Communications

Interfaces	1
Interfaces	1
• PROFIBUS	Equidistant and isochronous; Can be configured as master or slave

General technical data

Fan	Integrated
Supply voltage	
• rated value	24 V
Making current, typ.	3 A
Power loss, typ.	20 W
Ambient temperature	
• during storage	-40 ... +70 °C
• during transport	-40 ... +70 °C
• during operating	0 ... 55 °C
• note	Maximum 5000 m (16405 ft) above sea level. Above an altitude of 2000 m (6562 ft), the max. ambient temperature decreases by 7 °C (44.6 °F) every 1000 m (3281 ft).
Relative humidity / without condensation	
• during operating phase	5 ... 95 %
Air pressure	700 ... 1060 hPa
Protection class IP	IP20
Dimensions	183.2 mm
Dimensions	73 mm
Depth	89.6 mm
Weight, approx.	990 g

Digital inputs	
Number of digital inputs	4
DC input voltage	
• rated value	24 V
• for signal "1"	15 ... 30 V
• for signal "0"	-3 ... +5 V
Electrical isolation	Yes
• note	Yes, in groups of 4
Current consumption for "1" signal level, typ.	10 mA
Input delay time for	
• signal "0" → "1", typ.	50 µs
• signal "1" → "0", typ.	150 µs
Digital inputs/outputs	
Number of digital inputs/outputs	4
Parameterization possibility of the digital I/Os	parameterizable as DI, as DO, as measuring input input (max. 3), as output of output cam (max. 4)
If used as an input	
DC input voltage	
• rated value	24 V
• for signal "1"	15 ... 30 V
• for signal "0"	-3 ... +5 V
Electrical isolation	No
Current consumption for "1" signal level, typ.	10 mA
Input delay time for	
• signal "1" → "0", typ.	
•	5 µs
•	50 µs
•	can also be used as probe inputs
• signal "0" → "1", typ.	
•	50 µs
•	100 µs
Measuring input	
• reproducibility	5 µs
If used as an output	

Load voltage	
• rated value	24 V
• minimum	20.4 ... 28.8 V
Electrical isolation	No
Current carrying capacity for each output, max.	500 mA
Leakage current, max.	2 mA
Output delay for	
• signal "0" → "1", typ.	150 µs
• signal "0" → "1", max.	400 µs
• signal "1" → "0", typ.	75 µs
• signal "1" → "0", max.	100 µs
• note	Data for V _{cc} = 24 V; load 48 Ohm; "1" = 90 % V _{Out} , "0" = 10 % V _{Out}
Cam output	200 µs
• reproducibility	typ. 200 µs for 3 ms bus/servo cycle; typ. 300 µs for 6 ms bus/servo cycle
Switching frequency of the outputs for	
• resistive load, max.	100 Hz
• inductive load, max.	0.5 Hz
• lamp load, max.	10 Hz
Short-circuit protection	Yes
If used as an current input	
Encoder interface	optional incremental encoder TTL, incremental encoder HTL or absolute encoder SSI without incremental signals TTL/HTL
Encoder supply for	
• 24 VDC	0.35 A
• 5 VDC	0.35 A
Limiting frequency, max.	500 kHz
SSI baud rate	100 ... 250 kBd
Resolution of absolute position SSI	30 bit
Cable length for / TTL incremental encoder, max.	100 m
Cable length for / HTL incremental encoder for	
• unipolar signals, max.	100 m
• bipolar signals, max.	300 m

• note	TTL only bipolar signals; for bipolar signals, the signal lines must be twisted in pairs and shielded
Cable length for / SSI absolute encoder, max.	100 m
PTC/KTY interface	KTY84-130 or PTC
Backup of non-volatile data	
• of retentive data	unlimited buffer duration
• of real-time clock, min.	5 d
• note	Data buffering is maintenance-free
Approvals	
• USA	cULus
• Canada	cULus
Further information	

[Information and download center for Industry Automation and Drives](#)

[Technical documentation \(Motion Control\)](#)

[Industry Mall \(online ordering system\)](#)

[Service & Support \(FAQs, manuals, operating instructions, certificates, characteristics, ...\)](#)

last change:

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