SIEMENS

Data sheet for SINAMICS S120 control unit CU310-2 PN

Article No. :

6SL3040-1LA01-0AA0

Client order no. :
Order no. :
Offer no. :
Remarks :

Inputs /	outputs			
Digital inputs				
Number	11			
Voltage	-3 30 V			
Low level	-3 5 V			
High level	15 30 V			
Power consumption at 24 V DC, typ.	3.5 mA			
Delay time L \rightarrow H, typ. ¹⁾	50 µs			
Delay time H \rightarrow L, typ. ¹⁾	150 µs			
Digital I/O				
Number of bidirectional, not potential-free inputs ³⁾	8			
As input				
Voltage	-3 30 V			
Low level	-3 5 V			
High level	15 30 V			
Power consumption at 24 V DC, typ.	3.5 mA			
Delay time L \rightarrow H ¹⁾	5 µs			
Delay time H→L ¹⁾	50 µs			
As output				
Continuous short-circuit proof	Yes			
Voltage	DC 24 V			
Load current per digital output, max.	500 mA			
Delay time L→H, typ./ max.	150 μs / 400 μs			
Delay time H→L, typ./ max.	75 μs / 100 μs			
Analog inputs				
Number ⁴⁾	1			
As voltage input				
Voltage	-10 10 V			
Resolution	12 bit + sign (with respect to the maximum range that can be resolved - 11 +11 V)			
R _i	>100 kΩ			
As current input				
Voltage	-20 20 mA			
Resolution	11 bit + sign (with respect to -22 22 mA); Maximum range that can be resolved -44 +44 mA)			
R _i	>250 Ω			

ltem no. : Consignment no. : Project :

Electric	al data
Electronics power supply	DC 24 V (20.4 28.8 V)
Max. power consumption 5)	0.8 A
Power loss, max.	20 W
Protection, max.	20 A
Commu	nication
Communication	PROFINET, EtherNet/IP
On-board enc	oder interface
Encoder evaluation	optional incremental encoder TTL/HTL or encoder SSI without incremental signals
max. load current at 24 V encoder supply	0.35 A
max. load current at 5 V encoder supply	0.35 A
Encoder frequency, max.	300 kHz
SSI baudrate	100 1,000 kBaud
SSI absolute position resolution	30 bit
Line length, max.	
TTL encoder ⁶⁾	100 m (328.08 ft)
HTL encoder unipolar signal	100 m (328.04 ft)
HTL encoder bipolar signal	300 m (984.25 ft)
SSI encoder	100 m (328.08 ft)
Environment	al conditions
Installation altitude	2,000 m (6,561.68 ft)
Ambient temperature during	
Operation	0 55 °C (32 131 °F)
Storage	-25 55 °C (-13 131 °F)
Transport	-40 70 °C (-40 158 °F)
Relative humidity during	
Transport, max.	95 % at 40 °C (104 °F)



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Connections			
PE connection	1 (M5 screw)		
Supply voltage, max.	2.5 mm ² (AWG 14)		
Digital inputs, max.	1.5 mm² (AWG 16)		
Digital inputs/outputs, max.	1.5 mm² (AWG 16)		
DRIVE-CLIQ	1		
PROFINET	2		
PROFIBUS			
RS232			
Ethernet	1		
Temperature sensor	1		
24 V	1		

neight	131.0 mm (7.32 m)		
Width Height	73.0 mm (2.87 in) 191.0 mm (7.52 in)		
Dimensions			
Net weight	0.95 kg (2.09 lb)		
Mechanical data			
Flash card	1		
Number of slots			
Measuring sockets	3		

Compliance with standards

CE, KC, cULus, EAC, C-Tick (RCM)

¹⁾The specified delay times refer to the hardware. The actual reaction time depends on the time slot in which the digital input or output is processed.

³⁾ can be parameterized - as DI - as DO

⁴⁾The analog input can be switched between current and voltage input.

⁵⁾ without taking into account digital outputs. Option slot extension, DRIVE-CLiQ supply and Power Module PM340

⁶⁾Signal cables twisted in pairs and shielded

