

Data sheet for SINAMICS \$120 control unit CU310-2 DP

Article No.: 6SL3040-1LA00-0AA0

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

 R_{i}





Inputs / outputs		Ele	
Digital inputs		Electronics power supply	
Number	11	Max. power consumption 5)	
Voltage	-3 30 V	Power loss, max.	
Low level	-3 5 V	Protection, max.	
High level	15 30 V	Cor	
Power consumption at 24 V DC, typ.	3.5 mA	Communication	
Delay time L→H, typ. 1)	50 μs		
Delay time H→L, typ. 1)	150 μs	On-board	
Pigital I/O		Encoder evaluation	
Number of bidirectional, not potential-free inputs 3)	8	max. load current at 24 V encoder	
As input		supply	
Voltage	-3 30 V	max. load current at 5 V encoder su	
Low level	-3 5 V	Encoder frequency, max.	
High level	15 30 V	SSI baudrate	
Power consumption at 24 V DC, typ.	3.5 mA	SSI absolute position resolution	
Delay time L→H 1)	5 μs	Line length, max.	
Delay time H→L 1)	50 μs	TTL encoder 6)	
As output		HTL encoder unipolar signal	
Continuous short-circuit proof	Yes	HTL encoder bipolar signal	
Voltage	DC 24 V	SSI encoder	
Load current per digital output, max.	500 mA	Environi Installation altitude	
Delay time L→H, typ./ max.	150 μs / 400 μs	Ambient temperature during	
Delay time H→L, typ./ max.	75 μs / 100 μs	-	
nalog inputs		Operation	
Number 4)	1	Storage	
As voltage input		Transport	
Voltage	-10 10 V	Relative humidity during	
Resolution	12 bit + sign (with respect to the maximum range that can be resolved - 11 +11 V)	Transport, max.	
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)		

Licetiie	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			
Communication				
Communication	Profibus DP			
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)			
	-40 70 °C (-40 158 °F)			
Transport				
Transport Relative humidity during				

>250 Ω



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Connections		
	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		
PROFIBUS	1	
RS232		
Ethernet	1	
Temperature sensor	1	
24 V	1	

Measuring sockets	3		
Number of slots			
Flash card	1		
Mechanical data			
Net weight	0.95 kg (2.09 lb)		
Dimensions			
Width	73.0 mm (2.87 in)		
Height	191.0 mm (7.52 in)		
Depth	75.0 mm (2.95 in)		
Standards			
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