



Figure similar

Article No. : 6SL3040-0JA01-0AA0

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

Item no. :  
Consignment no. :  
Project :

### Inputs / outputs

#### Digital inputs

|                                    |             |
|------------------------------------|-------------|
| Number                             | 5           |
| Voltage                            | -3 ... 30 V |
| Low level                          | -3 ... 5 V  |
| High level                         | 15 ... 30 V |
| Power consumption at 24 V DC, typ. | 6.0 mA      |
| Delay time L→H, typ. <sup>1)</sup> | 15 µs       |
| Delay time H→L, typ. <sup>1)</sup> | 55 µs       |

#### Fail-safe digital inputs

|                      |   |
|----------------------|---|
| Number <sup>2)</sup> | 3 |
|----------------------|---|

#### Digital I/O

|                      |   |
|----------------------|---|
| Number <sup>3)</sup> | 4 |
|----------------------|---|

#### As input

|                                    |             |
|------------------------------------|-------------|
| Voltage                            | -3 ... 30 V |
| Low level                          | -3 ... 5 V  |
| High level                         | 15 ... 30 V |
| Power consumption at 24 V DC, typ. | 6.0 mA      |
| Delay time L→H <sup>1)</sup>       | 5 µs        |
| Delay time H→L <sup>1)</sup>       | 5 µs        |

#### As output

|                                       |         |
|---------------------------------------|---------|
| Continuous short-circuit proof        | Yes     |
| Voltage                               | DC 24 V |
| Load current per digital output, max. | 100 mA  |
| Delay time, approx.                   | 150 µs  |

#### As fail-safe digital output

|        |   |
|--------|---|
| Number | 1 |
|--------|---|

#### Analog inputs

|                   |               |
|-------------------|---------------|
| Number            | 1             |
| Voltage           | -10 ... 10 V  |
| Resolution        | 12 bit + sign |
| Internal resistor | 15 kOhm       |

### Electrical data

|                                      |                      |
|--------------------------------------|----------------------|
| Power supply voltage                 | DC 24 V -15 % + 20 % |
| Max. power consumption <sup>5)</sup> | 0.8 A                |
| Power loss, max.                     | 20 W                 |
| Protection, max.                     | 20 A                 |

### Communication

|               |          |
|---------------|----------|
| Communication | PROFINET |
|---------------|----------|

#### On-board encoder interface

|                                  |                                                                                 |
|----------------------------------|---------------------------------------------------------------------------------|
| Encoder evaluation               | optional incremental encoder TTL/HTL or encoder SSI without incremental signals |
| Current consumption at 24 V DC   | 0.35 A                                                                          |
| Current consumption at 5 V DC    | 0.35 A                                                                          |
| Encoder frequency, max.          | 500 kHz                                                                         |
| SSI baudrate                     | 100 ... 250 kBaud<br>The baud rate depends on cable length                      |
| SSI absolute position resolution | 30 bit                                                                          |

#### Line length, max.

|                             |                   |
|-----------------------------|-------------------|
| TTL encoder <sup>6)</sup>   | 100 m (328.08 ft) |
| HTL encoder unipolar signal | 100 m (328.08 ft) |
| HTL encoder bipolar signal  | 300 m (984.25 ft) |
| SSI encoder                 | 100 m (328.08 ft) |

### Environmental conditions

|                                   |                                |
|-----------------------------------|--------------------------------|
| Installation altitude             | 1,000 m (3,280.84 ft)          |
| <b>Ambient temperature during</b> |                                |
| Operation                         | 0 ... 55 °C (32 ... 131 °F)    |
| Storage                           | -25 ... 70 °C (-13 ... 158 °F) |
| Transport                         | -40 ... 70 °C (-40 ... 158 °F) |
| <b>Relative humidity during</b>   |                                |
| Transport, max.                   | 95 % at 40 °C (104 °F)         |

### Connections

|                              |                              |
|------------------------------|------------------------------|
| PE connection                | M5 screw                     |
| Supply voltage, max.         | 2.5 mm <sup>2</sup> (AWG 14) |
| Digital inputs, max.         | 1.5 mm <sup>2</sup> (AWG 16) |
| Digital inputs/outputs, max. | 1.5 mm <sup>2</sup> (AWG 16) |

### Mechanical data

|                   |                    |
|-------------------|--------------------|
| Net weight        | 0.95 kg (2.09 lb)  |
| <b>Dimensions</b> |                    |
| Width             | 73.0 mm (2.87 in)  |
| Height            | 195.0 mm (7.68 in) |
| Depth             | 71.0 mm (2.80 in)  |

### Standards

|                           |       |
|---------------------------|-------|
| Compliance with standards | cULus |
|---------------------------|-------|

## Data sheet for SINAMICS S110 Control Unit CU305 PN

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Figure similar

<sup>1)</sup> 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.

<sup>2)</sup> 3 parameterizable, fail-safe digital inputs (floating), or alternatively 6 parameterizable digital inputs (floating)

<sup>3)</sup> Parameterizable as DI or DO

<sup>5)</sup> Power requirement 0.8 A for CU305 incl. 350 mA for HTL encoder + 0.5 A for PM340

<sup>6)</sup> TTL only bipolar signals; for bipolar signals, the signal lines must be twisted in pairs and shielded