

SIPLUS ET 200S EM 4DO Standard -25...+70 °C with conformal coating based on 6ES7132-4BD02-0AA0 . Electronic module 24 V DC/0.5A 15 mm width, 5 units per packing unit



### Supply voltage

Reverse voltage protection	Yes; when using the same load voltage as on the power module
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### Load voltage L+

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>Rated value (DC)</li> </ul>            | 24 V; From power module  |
| <ul style="list-style-type: none"> <li>Reverse polarity protection</li> </ul> | Yes; polarity reversal can lead to the digital outputs being connected through |

### Input current

from load voltage L+ (without load), max.	10 mA; Per channel
from backplane bus 3.3 V DC, max.	10 mA

### Power loss

Power loss, typ.	0.8 W
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### Address area

Address space per module	
<ul style="list-style-type: none"> <li>with packing</li> </ul>	4 bit
<ul style="list-style-type: none"> <li>without packing</li> </ul>	1 byte

### Digital outputs

Number of digital outputs	4
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Short-circuit protection	Yes
<ul style="list-style-type: none"> <li>• Response threshold, typ.</li> </ul>	1 to 1.5 A
Controlling a digital input	Yes
<b>Switching capacity of the outputs</b>	
<ul style="list-style-type: none"> <li>• on lamp load, max.</li> </ul>	5 W
<b>Load resistance range</b>	
<ul style="list-style-type: none"> <li>• lower limit</li> </ul>	48 Ω
<ul style="list-style-type: none"> <li>• upper limit</li> </ul>	3 400 Ω
<b>Output voltage</b>	
<ul style="list-style-type: none"> <li>• for signal "1", min.</li> </ul>	L+ (-1 V)
<b>Output current</b>	
<ul style="list-style-type: none"> <li>• for signal "1" rated value</li> </ul>	0.5 A
<ul style="list-style-type: none"> <li>• for signal "1" permissible range, min.</li> </ul>	7 mA
<ul style="list-style-type: none"> <li>• for signal "1" permissible range, max.</li> </ul>	600 mA
<ul style="list-style-type: none"> <li>• for signal "0" residual current, max.</li> </ul>	0.3 mA
<b>Output delay with resistive load</b>	
<ul style="list-style-type: none"> <li>• "0" to "1", max.</li> </ul>	45 μs; Typical value
<ul style="list-style-type: none"> <li>• "1" to "0", max.</li> </ul>	90 μs; Typical value
<b>Parallel switching of two outputs</b>	
<ul style="list-style-type: none"> <li>• for uprating</li> </ul>	No
<ul style="list-style-type: none"> <li>• for redundant control of a load</li> </ul>	Yes; per module
<b>Switching frequency</b>	
<ul style="list-style-type: none"> <li>• with resistive load, max.</li> </ul>	800 Hz
<ul style="list-style-type: none"> <li>• with inductive load, max.</li> </ul>	2 Hz
<ul style="list-style-type: none"> <li>• on lamp load, max.</li> </ul>	10 Hz
<b>Total current of the outputs</b>	
<ul style="list-style-type: none"> <li>• Current per module, max.</li> </ul>	2 A
<b>Cable length</b>	
<ul style="list-style-type: none"> <li>• shielded, max.</li> </ul>	1 000 m
<ul style="list-style-type: none"> <li>• unshielded, max.</li> </ul>	600 m
<b>Isochronous mode</b>	
Isochronous operation (application synchronized up to terminal)	Yes
<b>Interrupts/diagnostics/status information</b>	
Diagnostic functions	No
<b>Diagnostics indication LED</b>	
<ul style="list-style-type: none"> <li>• Status indicator digital output (green)</li> </ul>	Yes
<b>Parameter</b>	
Remark	1 byte
<b>Potential separation</b>	
Potential separation digital outputs	

- between the channels
- between the channels and backplane bus

No

Yes

## Isolation

Isolation tested with 500 V DC

## Ambient conditions

### Ambient temperature during operation

- min. -25 °C; = Tmin
- max. 70 °C; = Tmax

### Altitude during operation relating to sea level

- Installation altitude above sea level, max. 5 000 m
- Ambient air temperature-barometric pressure-altitude  
Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)

### Relative humidity

- With condensation, tested in accordance with IEC 60068-2-38, max. 100 %; RH incl. condensation/frost (no commissioning under condensation conditions)

## Resistance

### Use in stationary industrial systems

- to biologically active substances according to EN 60721-3-3 Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
- to chemically active substances according to EN 60721-3-3 Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); \*
- to mechanically active substances according to EN 60721-3-3 Yes; Class 3S4 incl. sand, dust, \*

### Use on ships/at sea

- to biologically active substances according to EN 60721-3-6 Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
- to chemically active substances according to EN 60721-3-6 Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); \*
- to mechanically active substances according to EN 60721-3-6 Yes; Class 6S3 incl. sand, dust; \*

### from supply voltage 1L+

- Note regarding classification of environmental conditions acc. to EN 60721 \* The supplied plug covers must remain in place over the unused interfaces during operation!

## Dimensions

Width 15 mm

Height 81 mm

Depth 52 mm

## Weights

Weight, approx. 40 g

last modified:

05/18/2018