

SIPLUS S7-300 SM322 32 DO - 40-POLE -25 ... +70 DGR C WITH CONFORMAL COATING CONFORMITY WITH EN50155 T1 KAT 1 KL A/B BASED ON 6ES7322-1BL00-0AA0 . DIGITAL OUTPUT SM 322, OPTICALLY ISOLATED, 32DO, 24V DC, 0.5A, 1 X 40 PIN, SUM OF OUTPUT CURRENTS 4A/GROUP (16A/MODULE)



### Supply voltage

#### Load voltage L+

- |                                       |        |
|---------------------------------------|--------|
| • Rated value (DC)                    | 24 V   |
| • permissible range, lower limit (DC) | 20.4 V |
| • permissible range, upper limit (DC) | 28.8 V |

### Input current

- |   |        |
|---|--------|
| from load voltage L+ (without load), max. | 160 mA |
| from backplane bus 5 V DC, max.           | 110 mA |

### Power loss

- |                  |       |
|------------------|-------|
| Power loss, typ. | 6.6 W |
|------------------|-------|

### Digital outputs

- |   |            |
|---|------------|
| Number of digital outputs                   | 32         |
| Limitation of inductive shutdown voltage to | L+ (-53 V) |

#### Switching capacity of the outputs

- |                      |     |
|----------------------|-----|
| • on lamp load, max. | 5 W |
|----------------------|-----|

#### Load resistance range

- |               |      |
|---------------|------|
| • lower limit | 48 Ω |
|---------------|------|

• upper limit	4 kΩ
<b>Output voltage</b>	
• for signal "1", min.	L+ (-0.8 V)
<b>Output current</b>	
• for signal "1" rated value	0.5 A
• for signal "1" minimum load current	5 mA
• for signal "0" residual current, max.	0.5 mA
<b>Switching frequency</b>	
• with resistive load, max.	100 Hz
• on lamp load, max.	10 Hz
<b>Total current of the outputs (per group)</b>	
<b>horizontal installation</b>	
— up to 40 °C, max.	4 A
— up to 60 °C, max.	3 A
— up to 70 °C, max.	2 A
<b>vertical installation</b>	
— up to 40 °C, max.	2 A
<b>Cable length</b>	
• shielded, max.	1 000 m
• unshielded, max.	600 m
<b>Interrupts/diagnostics/status information</b>	
Diagnostic functions	No
<b>Alarms</b>	
• Diagnostic alarm	No
<b>Diagnostic messages</b>	
• Wire-break	No
• Short-circuit	No
• missing load voltage	No
<b>Diagnostics indication LED</b>	
• Rated load voltage PWR (green)	No
• Fuse OK FSG (green)	No
• Group error SF (red)	No
• Status indicator digital output (green)	Yes; per channel
• Channel fault indicator F (red)	No
<b>Potential separation</b>	
<b>Potential separation digital outputs</b>	
• between the channels	Yes
• between the channels, in groups of	8
• between the channels and backplane bus	Yes; Optocoupler
<b>Permissible potential difference</b>	
between different circuits	75 V DC/60 V AC

Isolation	
Isolation tested with	500 V DC
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes; File E239877
FM approval	Yes; CofC 3028431
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
Railway application	
<ul style="list-style-type: none"> <li>EN 50155</li> </ul>	Yes; T1 Category 1 Class A/B horizontal mounting position
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> <li>min.</li> <li>max.</li> </ul>	<p>-25 °C; = Tmin</p> <p>70 °C; = Tmax; for use on railway vehicles according to EN50155, the rated temperature range -25 ... +55 °C (T1) or 60 °C @ UL/ULhaz/ATEX/FM use applies</p>
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> <li>min.</li> <li>max.</li> </ul>	<p>-40 °C</p> <p>70 °C</p>
Extended ambient conditions	
<ul style="list-style-type: none"> <li>relative to ambient temperature-atmospheric pressure-installation altitude</li> </ul>	<p>Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)</p>
Relative humidity	
<ul style="list-style-type: none"> <li>With condensation, tested in accordance with IEC 60068-2-38, max.</li> </ul>	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance	
<ul style="list-style-type: none"> <li>against biologically active substances / conformity with EN 60721-3-3</li> <li>against chemically active substances / conformity with EN 60721-3-3</li> <li>against mechanically active substances / conformity with EN 60721-3-3</li> </ul>	<p>Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request</p> <p>Yes; Class 3C4 (RH &lt; 75%) incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!</p> <p>Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!</p>
Connection method	
required front connector	40-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm

## Weights

Weight, approx.

260 g

**last modified:**

05/31/2017