



Figure similar

\*\*\*spare part\*\*\* SIPLUS S7-300 SM 326F DQ8 based on 6ES7326-2BF41-0AB0 with conformal coating, -25...+60 °C, digital output F-DQ 8x 24 V DC/2A PM fail-safe digital output sinking-sourcing up to category 4 (EN 954-1), SIL 3 (IEC 61508)

| Supply voltage                                           |                                                                   |
|----------------------------------------------------------|-------------------------------------------------------------------|
| Rated value (DC)                                         | 24 V; 1L+                                                         |
| Reverse polarity protection                              | Yes                                                               |
| Load voltage L+                                          |                                                                   |
| • Rated value (DC)                                       | 24 V; 2L+, 3L+                                                    |
| • Reverse polarity protection                            | No                                                                |
| Input current                                            |                                                                   |
| from supply voltage 1L+, max.                            | 75 mA                                                             |
| from load voltage 2L+ (without load), max.               | 100 mA                                                            |
| from load voltage 3L+ (without load), max.               | 100 mA                                                            |
| from backplane bus 5 V DC, max.                          | 100 mA                                                            |
| Power loss                                               |                                                                   |
| Power loss, typ.                                         | 12 W                                                              |
| Digital outputs                                          |                                                                   |
| Number of digital outputs                                | 8                                                                 |
| Short-circuit protection                                 | Yes                                                               |
| Limitation of inductive shutdown voltage to              | L+ (-33 V)                                                        |
| Switching capacity of the outputs                        |                                                                   |
| • on lamp load, max.                                     | 5 W                                                               |
| Output voltage                                           |                                                                   |
| • for signal "1", min.                                   | L+ (-1.0 V)                                                       |
| Output current                                           |                                                                   |
| • for signal "1" rated value                             | 2 A                                                               |
| • for signal "1" permissible range for 0 to 40 °C, min.  | 7 mA                                                              |
| • for signal "1" permissible range for 0 to 40 °C, max.  | 2 A; with horizontal installation, 1 A with vertical installation |
| • for signal "1" permissible range for 40 to 60 °C, min. | 7 mA                                                              |
| • for signal "1" permissible range for 40 to 60 °C, max. | 1 A; for horizontal installation                                  |
| • for signal "0" residual current, max.                  | 0.5 mA                                                            |
| Switching frequency                                      |                                                                   |
| • with resistive load, max.                              | 30 Hz                                                             |
| • with inductive load, max.                              | 2 Hz                                                              |
| • on lamp load, max.                                     | 10 Hz                                                             |
| Total current of the outputs (per group)                 |                                                                   |
| horizontal installation                                  |                                                                   |
| — up to 40 °C, max.                                      | 7.5 A                                                             |
| — up to 60 °C, max.                                      | 4 A                                                               |
| vertical installation                                    |                                                                   |
| — up to 40 °C, max.                                      | 5 A                                                               |
| Cable length                                             |                                                                   |

|                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• shielded, max.</li> <li>• unshielded, max.</li> </ul>                                                                                                                                                              | 200 m; 200 m for SIL 3, AK 6, Cat 4<br>200 m                                                                                                                                                                                         |
| <b>Interrupts/diagnostics/status information</b>                                                                                                                                                                                                            |                                                                                                                                                                                                                                      |
| <b>Alarms</b>                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• Diagnostic alarm</li> </ul>                                                                                                                                                                                        | Yes; Parameterizable                                                                                                                                                                                                                 |
| <b>Diagnoses</b>                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• Diagnostic information readable</li> </ul>                                                                                                                                                                         | Yes                                                                                                                                                                                                                                  |
| <b>Diagnostics indication LED</b>                                                                                                                                                                                                                           |                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• Fail-safe operation</li> <li>• Group error SF (red)</li> </ul>                                                                                                                                                     | Yes<br>Yes                                                                                                                                                                                                                           |
| <b>Potential separation</b>                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                      |
| <b>Potential separation digital outputs</b>                                                                                                                                                                                                                 |                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• between the channels</li> <li>• between the channels, in groups of</li> <li>• between the channels and backplane bus</li> <li>• between the channels and the power supply of the electronics</li> </ul>            | Yes<br>4<br>Yes<br>Yes                                                                                                                                                                                                               |
| <b>Isolation</b>                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                      |
| Isolation tested with                                                                                                                                                                                                                                       | 500V AC for 1 min (internal voltage limiting to ±120V)                                                                                                                                                                               |
| <b>Standards, approvals, certificates</b>                                                                                                                                                                                                                   |                                                                                                                                                                                                                                      |
| CE mark                                                                                                                                                                                                                                                     | Yes                                                                                                                                                                                                                                  |
| RCM (formerly C-TICK)                                                                                                                                                                                                                                       | Yes                                                                                                                                                                                                                                  |
| KC approval                                                                                                                                                                                                                                                 | Yes                                                                                                                                                                                                                                  |
| EAC (formerly Gost-R)                                                                                                                                                                                                                                       | Yes                                                                                                                                                                                                                                  |
| <b>Highest safety class achievable in safety mode</b>                                                                                                                                                                                                       |                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• acc. to EN 954</li> <li>• Performance level according to ISO 13849-1</li> <li>• SIL acc. to IEC 61508</li> </ul>                                                                                                   | Cat. 4<br>e<br>SIL 3                                                                                                                                                                                                                 |
| <b>Railway application</b>                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• EN 50155</li> </ul>                                                                                                                                                                                                | Yes; Sections 4, 5 and 12; no further agreements apply; T1, Category 1, Class A/B, EN 50155:2007                                                                                                                                     |
| <b>Ambient conditions</b>                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                      |
| <b>Ambient temperature during operation</b>                                                                                                                                                                                                                 |                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• min.</li> <li>• max.</li> </ul>                                                                                                                                                                                    | -25 °C; = Tmin<br>60 °C; = Tmax; the rated temperature range of -25 ... +55 °C (T1) applies for the use on railway vehicles according to EN50155                                                                                     |
| <b>Altitude during operation relating to sea level</b>                                                                                                                                                                                                      |                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• Installation altitude above sea level, max.</li> <li>• Ambient air temperature-barometric pressure-altitude</li> </ul>                                                                                             | 2 000 m<br>Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m)                                                                                                                                                            |
| <b>Relative humidity</b>                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                      |
| <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)                                                                                                                                                  |
| <b>Resistance</b>                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                      |
| <b>Use in stationary industrial systems</b>                                                                                                                                                                                                                 |                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>— to biologically active substances according to EN 60721-3-3</li> <li>— to chemically active substances according to EN 60721-3-3</li> <li>— to mechanically active substances according to EN 60721-3-3</li> </ul> | Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request<br>Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *<br>Yes; Class 3S4 incl. sand, dust, * |
| <b>Use on land craft, rail vehicles and special-purpose vehicles</b>                                                                                                                                                                                        |                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>— to biologically active substances according to EN 60721-3-5</li> <li>— to chemically active substances according to EN 60721-3-5</li> <li>— to mechanically active substances according to EN 60721-3-5</li> </ul> | Yes; Class 5B2 mold, fungus and dry rot spores (with the exception of fauna); Class 5B3 on request<br>Yes; Class 5C3 (RH < 75 %) incl. salt spray acc. to EN 50155 (ST2); *<br>Yes; Class 5S3 incl. sand, dust; *                    |
| <b>Remark</b>                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>— Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04</li> </ul>                                                                                               | * The supplied plug covers must remain in place over the unused interfaces during operation!                                                                                                                                         |
| <b>connection method</b>                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                      |
| required front connector                                                                                                                                                                                                                                    | 40-pin                                                                                                                                                                                                                               |
| <b>Dimensions</b>                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                      |

|                 |        |
|-----------------|--------|
| Width           | 80 mm  |
| Height          | 125 mm |
| Depth           | 120 mm |
| Weights         |        |
| Weight, approx. | 465 g  |
| Classifications |        |

|        | Version | Classification |
|--------|---------|----------------|
| eClass | 14      | 27-24-22-04    |
| eClass | 12      | 27-24-22-04    |
| eClass | 9.1     | 27-24-22-04    |
| eClass | 9       | 27-24-22-04    |
| eClass | 8       | 27-24-22-04    |
| eClass | 7.1     | 27-24-22-04    |
| eClass | 6       | 27-24-22-04    |
| ETIM   | 9       | EC001419       |
| ETIM   | 8       | EC001419       |
| ETIM   | 7       | EC001419       |
| IDEA   | 4       | 3566           |
| UNSPSC | 15      | 32-15-17-05    |

|                          |     |
|--------------------------|-----|
| Approvals / Certificates |     |
| General Product Approval | EMV |

[Miscellaneous](#)

[Manufacturer Declaration](#)

[Declaration of Conformity](#)



[KC](#)



Test Certificates



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