



Figure similar

SIPLUS S7-400 IF 964-DP based on 6ES7964-2AA04-0AB0 with conformal coating, -25...+70 °C, interface module DP master

| General information                                             |                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| based on                                                        | <a href="#">6ES7964-2AA04-0AB0</a>                                                                                                                                                                                                                                                                                                                            |
| Input current                                                   |                                                                                                                                                                                                                                                                                                                                                               |
| Current consumption, max.                                       | 150 mA; Current consumption from S7-400 bus: The module uses no current at 24 V, it provides this voltage only at the DP interface. Total current consumption of the components connected to the DP interface, but maximum 150 mA. Current carrying capacity of the isolated 5 V (P5ext) maximum 90 mA, current carrying capacity of the 24 V maximum 150 mA. |
| Power loss                                                      |                                                                                                                                                                                                                                                                                                                                                               |
| Power loss, typ.                                                | 1 W                                                                                                                                                                                                                                                                                                                                                           |
| Interfaces                                                      |                                                                                                                                                                                                                                                                                                                                                               |
| PROFIBUS DP                                                     |                                                                                                                                                                                                                                                                                                                                                               |
| • Cable length, max.                                            | 1 200 m; At 9.6 kbit/s: max. 1 200 m; at 12 Mbit/s: max. 100 m                                                                                                                                                                                                                                                                                                |
| 1. Interface                                                    |                                                                                                                                                                                                                                                                                                                                                               |
| Isolated                                                        | Yes                                                                                                                                                                                                                                                                                                                                                           |
| Protocols                                                       |                                                                                                                                                                                                                                                                                                                                                               |
| • PROFIBUS DP master                                            | Yes; Default setting                                                                                                                                                                                                                                                                                                                                          |
| • PROFIBUS DP device                                            | Yes                                                                                                                                                                                                                                                                                                                                                           |
| PROFIBUS DP master                                              |                                                                                                                                                                                                                                                                                                                                                               |
| • Transmission rate, max.                                       | 12 Mbit/s                                                                                                                                                                                                                                                                                                                                                     |
| • max. number of DP devices                                     | 125; depending on the CPU used                                                                                                                                                                                                                                                                                                                                |
| Services                                                        |                                                                                                                                                                                                                                                                                                                                                               |
| — PG/OP communication                                           | Yes                                                                                                                                                                                                                                                                                                                                                           |
| — Equidistance                                                  | Yes                                                                                                                                                                                                                                                                                                                                                           |
| — SYNC/FREEZE                                                   | Yes                                                                                                                                                                                                                                                                                                                                                           |
| — Direct data exchange (slave-to-slave communication)           | Yes                                                                                                                                                                                                                                                                                                                                                           |
| Address area                                                    |                                                                                                                                                                                                                                                                                                                                                               |
| — Inputs, max.                                                  | device-dependent                                                                                                                                                                                                                                                                                                                                              |
| — Outputs, max.                                                 | device-dependent                                                                                                                                                                                                                                                                                                                                              |
| 1st interface / DP master / payload data per DP Device / header |                                                                                                                                                                                                                                                                                                                                                               |
| — Inputs, max.                                                  | 244 byte                                                                                                                                                                                                                                                                                                                                                      |
| — Outputs, max.                                                 | 244 byte                                                                                                                                                                                                                                                                                                                                                      |
| communication functions / header                                |                                                                                                                                                                                                                                                                                                                                                               |
| Number of connections                                           |                                                                                                                                                                                                                                                                                                                                                               |
| • overall                                                       | device-dependent                                                                                                                                                                                                                                                                                                                                              |
| Ambient conditions                                              |                                                                                                                                                                                                                                                                                                                                                               |
| Ambient temperature during operation                            |                                                                                                                                                                                                                                                                                                                                                               |
| • min.                                                          | -25 °C; = Tmin                                                                                                                                                                                                                                                                                                                                                |
| • max.                                                          | 70 °C; = Tmax; @ 60°C for UL/ATEX/FM use                                                                                                                                                                                                                                                                                                                      |

|                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Altitude during operation relating to sea level                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>● Installation altitude above sea level, max.</li> <li>● Ambient air temperature-barometric pressure-altitude</li> </ul>                                                                                                                                                                                                                 | 5 000 m<br>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                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                            |
| <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 permitted (no commissioning in bedewed state)                                                                                                                                           |
| 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; *                                                                                                                                                                                         |
| Usage in industrial process technology                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                            |
| — Against chemically active substances acc. to EN 60654-4                                                                                                                                                                                                                                                                                                                       | Yes; Class 3 (excluding trichlorethylene)                                                                                                                                                                                  |
| — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04                                                                                                                                                                                                                                                                                    | Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)                                        |
| Remark                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                            |
| — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04                                                                                                                                                                                                                                                                     | * The supplied plug covers must remain in place over the unused interfaces during operation!                                                                                                                               |
| Conformal coating                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>● Coatings for printed circuit board assemblies acc. to EN 61086</li> <li>● Protection against fouling acc. to EN 60664-3</li> <li>● Military testing according to MIL-I-46058C, Amendment 7</li> <li>● Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A</li> </ul> | Yes; Class 2 for high reliability<br><br>Yes; Type 1 protection<br>Yes; Discoloration of coating possible during service life<br>Yes; Conformal coating, Class A                                                           |
| Dimensions                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                            |
| Width                                                                                                                                                                                                                                                                                                                                                                           | 26 mm                                                                                                                                                                                                                      |
| Height                                                                                                                                                                                                                                                                                                                                                                          | 54 mm                                                                                                                                                                                                                      |
| Depth                                                                                                                                                                                                                                                                                                                                                                           | 130 mm                                                                                                                                                                                                                     |
| Weights                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                            |
| Weight, approx.                                                                                                                                                                                                                                                                                                                                                                 | 65 g                                                                                                                                                                                                                       |

last modified:

5/29/2024 