SIEMENS

## Data sheet 6ES7532-8TF00-0AB0

SIMATIC S7-1500, analog output module AQ 8xHART HF, 16-bit resolution, accuracy 0.2%, 8 channels in groups of 8 diagnostics, substitute values, delivery including infeed element, shielding bracket and shield terminal; front connector (screw terminals or push-in) to be ordered separately

| | |
|---|---|
| **General information** | |
| Product type designation | AQ 8xHART HF |
| HW functional status | from FS01 |
| Firmware version | V1.0.0 |
| ● FW update possible | Yes |
| Product function | |
| ● I&M data | Yes; I&M0 to I&M3 |
| ● Isochronous mode | No |
| ● Prioritized startup | No |
| ● Output range scalable | No |
| Engineering with | |
| ● STEP 7 TIA Portal configurable/integrated from version | V18 and V19 with HSP0423 |
| ● STEP 7 configurable/integrated from version | V5.5 SP3 / - |
| ● PROFIBUS from GSD version/GSD revision | V1.0 / V5.1 |
| ● PROFINET from GSD version/GSD revision | V 2.43 / - |
| Operating mode | |
| ● Oversampling | No |
| ● MSO | Yes |
| **CiR - Configuration in RUN** | |
| Reparameterization possible in RUN | Yes |
| Calibration possible in RUN | Yes |
| **Supply voltage** | |
| Rated value (DC) | 24 V |
| permissible range, lower limit (DC) | 19.2 V |
| permissible range, upper limit (DC) | 28.8 V |
| Reverse polarity protection | Yes |
| **Input current** | |
| Current consumption (rated value) | 280 mA; 8x 20 mA with 750 ohm load resistance |
| Current consumption, max. | 370 mA |
| **Power** | |
| Power consumption from the backplane bus | 0.6 W |
| **Power loss** | |
| Power loss, typ. | 4.8 W; 8x 20 mA with 750 ohm load resistance |
| **Analog outputs** | |
| Number of analog outputs | 8 |
| Current output, no-load voltage, max. | 30 V |
| Cycle time (all channels), min. | 5 ms; independent of number of activated channels |
| Output ranges, current | |
| ● 0 to 10 mA | No |
| ● 0 to 20 mA | Yes |

| | |
|---|---|
| ● -20 mA to +20 mA | No |
| ● 4 mA to 20 mA | Yes |
| Connection of actuators | |
| ● for current output two-wire connection | Yes |
| Load impedance (in rated range of output) | |
| ● with current outputs, max. | 750 Ω |
| ● with current outputs, inductive load, max. | 10 mH |
| Cable length | |
| ● shielded, max. | 800 m |
| **Analog value generation for the outputs** | |
| Integration and conversion time/resolution per channel | |
| ● Resolution with overrange (bit including sign), max. | 16 bit |
| Settling time | |
| ● for resistive load | 3 ms; see additional description in the manual |
| ● for inductive load | 3 ms; see additional description in the manual |
| **Errors/accuracies** | |
| Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) | 0.02 % |
| Linearity error (relative to output range), (+/-) | 0.02 % |
| Temperature error (relative to output range), (+/-) | 0.002 %/K |
| Crosstalk between the outputs, max. | -100 dB |
| Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) | 0.02 % |
| note regarding accuracy | at temperatures below 0 °C, the figures for operating error and temperature error are doubled |
| Operational error limit in overall temperature range | |
| ● Current, relative to output range, (+/-) | 0.2 % |
| Basic error limit (operational limit at 25 °C) | |
| ● Current, relative to output range, (+/-) | 0.1 % |
| **Interrupts/diagnostics/status information** | |
| Diagnostics function | Yes |
| Substitute values connectable | Yes |
| Alarms | |
| ● Diagnostic alarm | Yes |
| Diagnoses | |
| ● Monitoring the supply voltage | Yes |
| ● Wire-break | Yes |
| ● Short-circuit | Yes |
| ● Overflow/underflow | Yes |
| Diagnostics indication LED | |
| ● RUN LED | Yes; green LED |
| ● ERROR LED | Yes; red LED |
| ● Monitoring of the supply voltage (PWR-LED) | Yes; green LED |
| ● Channel status display | Yes; green LED |
| ● for channel diagnostics | Yes; red LED |
| ● for module diagnostics | Yes; red LED |
| **Potential separation** | |
| Potential separation channels | |
| ● between the channels | No |
| ● between the channels, in groups of | 8 |
| ● between the channels and backplane bus | Yes |
| ● Between the channels and load voltage L+ | Yes |
| **Permissible potential difference** | |
| between different circuits | 60 V DC/30 V AC |
| **Isolation** | |
| Isolation tested with | 707 V DC (type test) |
| **Standards, approvals, certificates** | |
| Suitable for safety-related tripping of standard modules | No |
| **product functions / security / header** | |
| signed firmware update | Yes |
| data integrity | No |

| Ambient conditions | |
|---|---|
| Ambient temperature during operation | |
| ● horizontal installation, min. | -30 °C |
| ● horizontal installation, max. | 60 °C |
| ● vertical installation, min. | -30 °C |
| ● vertical installation, max. | 40 °C |
| Altitude during operation relating to sea level | |
| ● Installation altitude above sea level, max. | 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual |
| **Dimensions** | |
| Width | 35 mm |
| Height | 147 mm |
| Depth | 129 mm |
| **Weights** | |
| Weight, approx. | 300 g |

**Classifications**

| | Version | Classification |
|---|---|---|
| eClass | 14 | 27-24-22-01 |
| eClass | 12 | 27-24-22-01 |
| eClass | 9.1 | 27-24-22-01 |
| eClass | 9 | 27-24-22-01 |
| eClass | 8 | 27-24-22-01 |
| eClass | 7.1 | 27-24-22-01 |
| eClass | 6 | 27-24-22-01 |
| ETIM | 10 | EC001420 |
| ETIM | 9 | EC001420 |
| ETIM | 8 | EC001420 |
| ETIM | 7 | EC001420 |

**Approvals / Certificates**

| General Product Approval | | | | EMV | For use in hazardous locations |
|---|---|---|---|---|---|
| KC | Miscellaneous | UL | RCM | KC | UL |

**For use in hazardous locations**

| | | | | | |
|---|---|---|---|---|---|
| FM | CCC-Ex | ATEX | Type Examination Certificate | IECEx | Miscellaneous |

**Maritime application**

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|---|---|---|---|---|---|
| ABS | BUREAU VERITAS | DNV | LRS | NK / Nippon Kaiji Kyokai | RINA |

**Maritime application**

| | |
|---|---|
| CCS (China Classification Society) | KR |

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