

SIMATIC S7-1200, ANALOG INPUT, SM 1231RTD, 8 X AI RTD MODULE,



| Supply voltage | |
|--|------------------------------------|
| Rated value (DC) | |
| <ul style="list-style-type: none"> • 24 V DC | Yes |
| Input current | |
| Current consumption, typ. | 40 mA |
| from backplane bus 5 V DC, typ. | 80 mA |
| Power loss | |
| Power loss, typ. | 1.5 W |
| Analog inputs | |
| Number of analog inputs | 8; Resistance thermometer |
| permissible input voltage for current input (destruction limit), max. | ± 35 V |
| Technical unit for temperature measurement adjustable | Degrees Celsius/degrees Fahrenheit |
| Input ranges | |
| <ul style="list-style-type: none"> • Voltage • Current • Thermocouple | No |
| | No |
| | No |

| | |
|--|---|
| • Resistance thermometer | Yes; Resistance-type transmitter: Pt10, Pt50, Pt100, Pt200, Pt500, Pt1000, Ni100, Ni120, Ni200, Ni500, Ni1000, Cu10, Cu50, Cu100, LG-Ni1000 |
| • Resistance | Yes; 150 Ω, 300 Ω, 600 Ω |
| Input ranges (rated values), resistance thermometer | |
| • Cu 10 | Yes |
| • Input resistance (Cu 10) | 10 Ω |
| • Ni 100 | Yes |
| • Input resistance (Ni 100) | 100 Ω |
| • Ni 1000 | Yes |
| • Input resistance (Ni 1000) | 1 000 Ω |
| • LG-Ni 1000 | Yes |
| • Input resistance (LG-Ni 1000) | 1 000 Ω |
| • Ni 120 | Yes |
| • Input resistance (Ni 120) | 120 Ω |
| • Ni 200 | Yes |
| • Input resistance (Ni 200) | 200 Ω |
| • Ni 500 | Yes |
| • Input resistance (Ni 500) | 500 Ω |
| • Pt 100 | Yes |
| • Input resistance (Pt 100) | 100 Ω |
| • Pt 1000 | Yes |
| • Input resistance (Pt 1000) | 1 000 Ω |
| • Pt 200 | Yes |
| • Input resistance (Pt 200) | 200 Ω |
| • Pt 500 | Yes |
| • Input resistance (Pt 500) | 500 Ω |
| Input ranges (rated values), resistors | |
| • 0 to 150 ohms | Yes |
| • 0 to 300 ohms | Yes |
| • 0 to 600 ohms | Yes |
| Thermocouple (TC) | |
| Temperature compensation | |
| — parameterizable | No |
| Analog value generation for the inputs | |
| Measurement principle | integrating |
| Integration and conversion time/resolution per channel | |
| • Resolution with overrange (bit including sign), max. | 15 bit; + sign |
| • Integration time, parameterizable | No |
| • Interference voltage suppression for interference frequency f1 in Hz | 85 dB at 50 / 60 / 400 Hz |

| Errors/accuracies | |
|---|---|
| Temperature error (relative to input range), (+/-) | 25 °C ±0.1%, to 55 °C ±0.2% total measurement range |
| Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) | 0.05 % |
| Interference voltage suppression for $f = n \times (f_1 \pm 1 \%)$, $f_1 =$ interference frequency | |
| <ul style="list-style-type: none"> • Common mode interference, min. | 120 dB |
| Interrupts/diagnostics/status information | |
| Alarms | Yes |
| Diagnostic functions | Yes; Can be read out |
| Alarms | |
| <ul style="list-style-type: none"> • Diagnostic alarm | Yes |
| Diagnostic messages | |
| <ul style="list-style-type: none"> • Monitoring the supply voltage | Yes |
| <ul style="list-style-type: none"> • Wire-break | Yes |
| Diagnostics indication LED | |
| <ul style="list-style-type: none"> • for status of the inputs | Yes |
| <ul style="list-style-type: none"> • for maintenance | Yes |
| Degree and class of protection | |
| Degree of protection acc. to EN 60529 | |
| <ul style="list-style-type: none"> • IP20 | Yes |
| Standards, approvals, certificates | |
| CE mark | Yes |
| CSA approval | Yes |
| FM approval | Yes |
| RCM (formerly C-TICK) | Yes |
| Ambient conditions | |
| Free fall | |
| <ul style="list-style-type: none"> • Fall height, max. | 0.3 m; five times, in product package |
| Ambient temperature during operation | |
| <ul style="list-style-type: none"> • min. | -20 °C |
| <ul style="list-style-type: none"> • max. | 60 °C |
| <ul style="list-style-type: none"> • horizontal installation, min. | -20 °C |
| <ul style="list-style-type: none"> • horizontal installation, max. | 60 °C |
| <ul style="list-style-type: none"> • vertical installation, min. | -20 °C |
| <ul style="list-style-type: none"> • vertical installation, max. | 50 °C |
| Ambient temperature during storage/transportation | |
| <ul style="list-style-type: none"> • min. | -40 °C |
| <ul style="list-style-type: none"> • max. | 70 °C |
| Air pressure acc. to IEC 60068-2-13 | |
| <ul style="list-style-type: none"> • Operation, min. | 795 hPa |

| | |
|---|--|
| • Operation, max. | 1 080 hPa |
| • Storage/transport, min. | 660 hPa |
| • Storage/transport, max. | 1 080 hPa |
| Relative humidity | |
| • Operation at 25 °C without condensation, max. | 95 % |
| Pollutant concentrations | |
| • SO2 at RH < 60% without condensation | SO2: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free |
| Connection method | |
| required front connector | Yes |
| Mechanics/material | |
| Enclosure material (front) | |
| • Plastic | Yes |
| Dimensions | |
| Width | 70 mm |
| Height | 100 mm |
| Depth | 75 mm |
| Weights | |
| Weight, approx. | 220 g |
| last modified: | 11/28/2017 |

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Clock Drivers & Distribution](#) category:

Click to view products by [Siemens](#) manufacturer:

Other Similar products are found below :

[8501BYLF](#) [854S015CKI-01LF](#) [8T33FS6221EPGI](#) [NB7V72MMNHTBG](#) [Si53314-B-GMR](#) [4RCD0124KC0ATG](#) [P9090-0NLGI8](#)
[SY100EP33VKG](#) [850S1201BGILF](#) [8004AC-13-33E-125.00000X](#) [ISPPAC-CLK5520V-01T100C8P](#) [4RCD0124KC0ATG8](#) [854110AKILF](#)
[PI6C4931504-04LIE](#) [SI53305-B-GMR](#) [83210AYLF](#) [NB6VQ572MMNG](#) [4RCD0229KB1ATG](#) [PI6C4931502-04LIE](#) [8SLVD1212ANLGI](#)
[PI6C4931504-04LIE](#) [AD9508BCPZ-REEL7](#) [NBA3N200SDR2G](#) [8T79S308NLGI](#) [SI53315-B-GMR](#) [NB7NQ621MMUTWG](#)
[49FCT3805DPYGI8](#) [49FCT805BTPYG](#) [49FCT805PYGI](#) [RS232-S5](#) [542MILFT](#) [6ES7390-1AF30-0AA0](#) [74FCT3807PYGI](#) [SY89873LMG](#)
[SY89875UMG-TR](#) [853S011BGILFT](#) [853S9252BKILF](#) [8P34S1102NLGI8](#) [8T53S111NLGI](#) [CDCVF2505IDRQ1](#) [CDCUA877ZQLT](#)
[CDCE913QPWRQ1](#) [CDC2516DGGR](#) [8SLVP2104ANBGI/W](#) [8S73034AGILF](#) [LV5609LP-E](#) [5T9950PFGI](#) [STCD2400F35F](#)
[74FCT3807QGI8](#) [74FCT3807PYGI8](#)