Data sheet

6AG1314-1AG14-7AB0



SIPLUS S7-300 CPU 314 based on 6ES7314-1AG14-0AB0 with conformal coating, -25...+70 °C, central processing unit with MPI, integrated power supply 24 V DC, work memory 128 KB, Micro Memory Card required

Figure similar

| a sanda yaa | | |
|---|---|--|
| General information | | |
| Product type designation | CPU 314 | |
| based on | 6ES7314-1AG14-0AB0 | |
| Engineering with | | |
| Programming package | STEP 7 V5.5 + SP1 or higher or STEP 7 V5.2 + SP1 or higher with HSP 218 | |
| Supply voltage | | |
| Rated value (DC) | 24 V | |
| permissible range, lower limit (DC) | 19.2 V | |
| permissible range, upper limit (DC) | 28.8 V | |
| external protection for power supply lines (recommendation) | 2 A min. | |
| Mains buffering | | |
| Mains/voltage failure stored energy time | 5 ms | |
| Repeat rate, min. | 1 s | |
| Input current | | |
| Current consumption (rated value) | 650 mA | |
| Current consumption (in no-load operation), typ. | 140 mA | |
| Inrush current, typ. | 3.5 A | |
| l²t | 1 A²·s | |
| Power loss | | |
| Power loss, typ. | 4 W | |
| Memory | | |
| Work memory | | |
| • integrated | 128 kbyte | |
| expandable | No | |
| Load memory | | |
| • Plug-in (MMC) | Yes | |
| • Plug-in (MMC), max. | 8 Mbyte | |
| Data management on MMC (after last programming), min. | 10 a | |
| Backup | | |
| • present | Yes; Guaranteed by MMC (maintenance-free) | |
| without battery | Yes; Program and data | |
| CPU processing times | | |
| for bit operations, typ. | 0.06 μs | |
| for word operations, typ. | 0.12 μs | |
| for fixed point arithmetic, typ. | 0.16 µs | |
| for floating point arithmetic, typ. | 0.59 μs | |
| CPU-blocks | | |
| Number of blocks (total) | 1 024; (DBs, FCs, FBs); the maximum number of loadable blocks can be | |

| | reduced by the MMC used. | | |
|---|--|--|--|
| DB | | | |
| Number, max. | 1 024; Number range: 1 to 16000 | | |
| • Size, max. | 64 kbyte | | |
| FB | | | |
| Number, max. | 1 024; Number range: 0 to 7999 | | |
| • Size, max. | 64 kbyte | | |
| FC | | | |
| Number, max. | 1 024; Number range: 0 to 7999 | | |
| • Size, max. | 64 kbyte | | |
| OB | | | |
| Number, max. | see instruction list | | |
| • Size, max. | 64 kbyte | | |
| Number of free cycle OBs | 1; OB 1 | | |
| Number of time alarm OBs | 1; OB 10 | | |
| Number of delay alarm OBs | 2; OB 20, 21 | | |
| Number of cyclic interrupt OBs | 4; OB 32, 33, 34, 35 | | |
| Number of process alarm OBs | 1; OB 40 | | |
| Number of startup OBs | 1; OB 100 | | |
| Number of asynchronous error OBs | 4; OB 80, 82, 85, 87 | | |
| Number of synchronous error OBs | 2; OB 121, 122 | | |
| Nesting depth | | | |
| per priority class | 16 | | |
| additional within an error OB | 4 | | |
| Counters, timers and their retentivity | | | |
| S7 counter | | | |
| Number | 256 | | |
| Retentivity | | | |
| — adjustable | Yes | | |
| — preset | Z 0 to Z 7 | | |
| Counting range | | | |
| — lower limit | 0 | | |
| — upper limit | 999 | | |
| IEC counter | | | |
| • present | Yes | | |
| • Type | SFB | | |
| Number | Unlimited (limited only by RAM capacity) | | |
| S7 times | | | |
| Number | 256 | | |
| Retentivity | | | |
| — adjustable | Yes | | |
| — preset | No retentivity | | |
| Time range | | | |
| — lower limit | 10 ms | | |
| — upper limit | 9 990 s | | |
| IEC timer | | | |
| • present | Yes | | |
| • Type | SFB | | |
| • Number | Unlimited (limited only by RAM capacity) | | |
| Data areas and their retentivity | 200 | | |
| Retentive data area (incl. timers, counters, flags), max. | 64 kbyte | | |
| Flag | 0501.4 | | |
| • Size, max. | 256 byte | | |
| Retentivity available | Yes; MB 0 to MB 255 | | |
| • | MD 01 MD 45 | | |
| Retentivity preset | MB 0 to MB 15 | | |
| Retentivity preset Number of clock memories | MB 0 to MB 15 8; 1 memory byte | | |
| Retentivity presetNumber of clock memoriesData blocks | 8; 1 memory byte | | |
| Retentivity preset Number of clock memories Data blocks Retentivity adjustable | 8; 1 memory byte Yes; via non-retain property on DB | | |
| Retentivity preset Number of clock memories Data blocks Retentivity adjustable Retentivity preset | 8; 1 memory byte | | |
| Retentivity preset Number of clock memories Data blocks Retentivity adjustable | 8; 1 memory byte Yes; via non-retain property on DB | | |

| Figure F | Address area | | | |
|--|---|---|--|--|
| Propus | | | | |
| • Cutyusis 1024 byte 1024 | | 1 024 byte | | |
| Process image | | | | |
| • Notputs | | , | | |
| • Outputs | - | 1 024 byte | | |
| • npuls, adjustable 1024 byte 1024 128 byte 1024 102 | | | | |
| | | | | |
| • Outputs, default 128 byte | | | | |
| • Outputs, default 128 byte Digital channels 1 024 - of which central 1 024 • Outputs 1 024 - of which central 1 024 - of which central 258 - of which central 255 - of which central 255 - of which central 256 - own which central 3 - own which central 3 - own which central 256 - own which central 3 - own which central 3 - own which central 0 | | | | |
| Digital channels | • | | | |
| • Injusts | | | | |
| • Outputs | | 1 024 | | |
| of which central 1024 Analog channels of which central 256 of which central 2 | — of which central | 1 024 | | |
| Analog channels Inputs Outputs Output | Outputs | 1 024 | | |
| • Inputs | — of which central | 1 024 | | |
| - of which central 256 - Outputs 256 - Outputs 256 - Outputs 256 - Out which central 256 - Outputs | Analog channels | | | |
| • Outputs | • Inputs | 256 | | |
| — of which central 256 Hardware configuration | | 256 | | |
| Hardware configuration | Outputs | 256 | | |
| Number of expansion units, max. Number of DP masters integrated integrated integrated FM and CPs (recommended) FM & 8 CP, PIP B & 8 CP, PIP CP, LAN ID Rack Racks, max. Modules per rack, max. Modules per rack, max. Modules per rack, max. A * * * * * * * * * * * * * * * * * * | | 256 | | |
| Number of expansion units, max. Number of DP masters integrated integrated integrated FM and CPs (recommended) FM & 8 CP, PIP B & 8 CP, PIP CP, LAN ID Rack Racks, max. Modules per rack, max. Modules per rack, max. Modules per rack, max. A * * * * * * * * * * * * * * * * * * | Hardware configuration | | | |
| Integrated | | 3 | | |
| ● integrated 0 ● via CP 4 Number of operable FMs and CPs (recommended) 8 ● FM 8 ● CP, PP 8 ● CP, LAN 10 Racks, max. ● Racks, max. 4 ● Modules per rack, max. 8 Time of day Ves ● Hardware clock (real-time) Yes ● retentive and synchronizable Yes ● Backup time 6 wK; At 40 °C ambient temperature ● Deviation per day, max. 10 s; Typ.: 2 s ● Behavior of the clock following POWER-ON clock continues unning after POWER OFF ● Behavior of the clock following expiry of backup period the clock continues at the time of day it had when power was switched off Operating hours counter ● Number (analy) 1 ● Number (analy) 1 ● Range of values 0 to 2^31 hours (when using SFC 101) ● Granularity 1 h ● retentive Yes ● In MR, master Yes ● In MR, master Yes | | | | |
| Number of operable FMs and CPs (recommended) FM CP, PIP 8 CP, LAN 10 Rack Racks, max. 4 Modules per rack, max. 8 Hardware clock (real-time) Perletitive and synchronizable Backup time Deviation per day, max. 10 s; Typ: 2 s Behavior of the clock following expiry of backup perlod Behavior of the clock following expiry of backup perlod Poperating hours counter Number Number of angle of values Granularity referentive Supported Suppor | • integrated | 0 | | |
| FM | • via CP | 4 | | |
| FM | Number of operable FMs and CPs (recommended) | | | |
| ● CP, LAN 10 Racks 4 ● Modules per rack, max. 8 Time of day Clock ● Hardware clock (real-time) Yes • retentive and synchronizable Yes • Backup time 6 wk; At 40 °C ambient temperature • Deviation per day, max. 10 s; Typ.: 2 s • Behavior of the clock following POWER-ON Clock continues running after POWER OFF • Behavior of the clock following expiry of backup period the clock continues at the time of day it had when power was switched off Operating hours counter • Number 1 • Number range 0 • Range of values 0 to 2*31 hours (when using SFC 101) • Granularity 1 h • retentive Yes; Must be restarted at each restart Clock synchronization • supported Yes • to MPI, device Yes • in AS, device No Digital inputs 0 Number of digital inputs 0 Number of digital outputs 0 Numb | | 8 | | |
| Racks, max. • Racks, max. • Modules per rack, max. • Hardware clock (real-time) • retentive and synchronizable • Backup time • Deviation per day, max. • Behavior of the clock following POWER-ON • Behavior of the clock following expiry of backup period • Behavior of the clock following expiry of backup period • Number • Number • Number 1 • Number 2 • Number 3 • Range of values • Cranularity • retentive • Cranularity • retentive • Supported • Supported • to MPI, master • to MPI, master • to MPI, device • in AS, master • in AS, device No Digital inputs Number of digital inputs Number of digital outputs Number of digital outputs Number of digital outputs Number of analog inputs Ves Number of analog inputs | • CP, PtP | 8 | | |
| • Racks, max. • Modules per rack, max. • Modules per rack, max. 2 Name of day Clock • Hardware clock (real-time) • retentive and synchronizable • Backup time • Deviation per day, max. • Behavior of the clock following POWER-ON • Behavior of the clock following expiry of backup period • Number of digital inputs • Clock synchronization • Supported • Name • Number of digital outputs • On MPI, device • In AS, device • On MPI and of the clock following expires on the clock of the clock on the clock of the clock on the clock of the clock of the clock of the clock on the clock on the clock of the clock of the clock of the clock on the clock on the clock of the clock of the clock of the clock on the clock on the clock of the clock of the clock of the clock on the clock on the clock of the cl | • CP, LAN | 10 | | |
| • Modules per rack, max. Time of day Clock • Hardware clock (real-time) Yes • letentive and synchronizable Yes • Backup time 6 kw; At 40 °C ambient temperature • Deviation per day, max. 10 s; Typ.: 2 s • Behavior of the clock following POWER-ON Clock continues running after POWER OFF • Behavior of the clock following expiry of backup period the clock continues at the time of day it had when power was switched off Operating hours counter • Number • Number 1 • Number/Number range 0 • Range of values 0 to 2^31 hours (when using SFC 101) • Granularity 1 h • retentive Yes; Must be restarted at each restart Clock synchronization • supported Yes • to MPI, master Yes • on MPI, device Yes • in AS, master Yes • in AS, master Yes • in AS, device No Digital inputs Number of digital inputs 0 Number of digital outputs 0 Number of digital outputs 0 Number of analog inputs 0 Number of analog inputs 0 | Rack | | | |
| Time of day Clock Hardware clock (real-time) retentive and synchronizable Backup time Deviation per day, max. Behavior of the clock following POWER-ON Behavior of the clock following expiry of backup period Number of daylase Range of values Range of values Retentive Retentive Retentive Clock synchronization Supported Suppo | • Racks, max. | 4 | | |
| Clock Hardware clock (real-time) retentive and synchronizable Backup time Deviation per day, max. Behavior of the clock following POWER-ON Behavior of the clock following expiry of backup period Operating hours counter Number Number Range of values Granularity retentive Supported To MPI, master On MPI, device On MPI, | Modules per rack, max. | 8 | | |
| Hardware clock (real-time) retentive and synchronizable Backup time 6 wk; At 40 °C ambient temperature Deviation per day, max. Behavior of the clock following POWER-ON Behavior of the clock following expiry of backup period Departing hours counter Number Number/Number range Range of values O to 2^31 hours (when using SFC 101) Granularity retentive Pest Must be restarted at each restart Clock synchronization supported yes on MPI, device on MPI, device in AS, master in AS, device No Digital inputs Number of digital outputs O Analog inputs Number of analog inputs | Time of day | | | |
| retentive and synchronizable Backup time 6 wk; At 40 °C ambient temperature Deviation per day, max. 10 s; Typ.: 2 s Behavior of the clock following POWER-ON Behavior of the clock following expiry of backup period Derating hours counter Number Number Number/Number range Range of values 1 h retentive retentive supported to MPI, master on MPI, device on MPI, device in AS, master in AS, device No Digital inputs Number of digital inputs Number of digital outputs Number of analog inputs O | Clock | | | |
| Backup time Deviation per day, max. Deviation per day, max. Behavior of the clock following POWER-ON Behavior of the clock following expiry of backup period Devating hours counter Number Number Number fugues Granularity Fretentive Clock synchronization supported NumPI, device Fin AS, device NumPI asser Fin AS, device Number of digital inputs Number of digital outputs Number of analog inputs Number of analog inputs | Hardware clock (real-time) | Yes | | |
| Deviation per day, max. Behavior of the clock following POWER-ON Behavior of the clock following expiry of backup period Operating hours counter Number Number | retentive and synchronizable | Yes | | |
| Behavior of the clock following POWER-ON Behavior of the clock following expiry of backup period Operating hours counter Number Number Number 1 Number/Number range 0 Range of values 0 to 2^31 hours (when using SFC 101) Granularity 1 h retentive Yes; Must be restarted at each restart Clock synchronization Supported Yes Yes In AS, master Yes In AS, device No Digital inputs Number of digital outputs 0 Analog inputs Clock continues running after POWER OFF the clock continues at the time of day it had when power was switched off the clock continues at the time of day it had when power was switched off the clock continues at the time of day it had when power was switched off the clock continues at the time of day it had when power was switched off the clock continues at the time of day it had when power was switched off the clock continues at the time of day it had when power was switched off 1 Clock synchronization 1 Yes Must be restarted at each restart Yes Yes Yes No No Digital inputs Yes No No Digital inputs O Number of digital outputs O Number of digital outputs O Number of analog inputs O Number of analog inputs O | Backup time | 6 wk; At 40 °C ambient temperature | | |
| Behavior of the clock following expiry of backup period Operating hours counter Number Number Number 1 Number/Number range 0 Range of values 0 to 2^31 hours (when using SFC 101) Granularity 1 h Yes; Must be restarted at each restart Clock synchronization Supported Yes Yes On MPI, device Yes In AS, master Yes In AS, device No Digital inputs Number of digital inputs 0 Digital outputs Number of digital outputs 0 Analog inputs Number of analog inputs O to 2^31 hours (when using SFC 101) New Yes; Must be restarted at each restart O to 2^31 hours (when using SFC 101) New Pes Yes; Must be restarted at each restart O to 2^31 hours (when using SFC 101) New Pes Yes; Must be restarted at each restart O to 2^31 hours (when using SFC 101) New Pes Yes; Must be restarted at each restart O to 2^31 hours (when using SFC 101) New Pes Yes; Must be restarted at each restart O to 2^31 hours (when using SFC 101) New Pes Yes; Must be restarted at each restart O to 2^31 hours (when using SFC 101) New Pes Yes; Must be restarted at each restart O to 2^31 hours (when using SFC 101) New Pes Yes; Must be restarted at each restart O to 2^31 hours (when using SFC 101) New Pes Yes; Must be restarted at each restart O to 2^31 hours (when using SFC 101) New Pes Yes; Must be restarted at each restart O to 2^31 hours (when using SFC 101) New Pes Yes; Must be restarted at each restart O to 2^31 hours (when using SFC 101) New Pes Yes; Must be restarted at each restart O to 2^31 hours (when using SFC 101) New Pes Yes; Must be restarted at each restart O to 2^31 hours (when using SFC 101) New Pes Yes; Must be restarted at each restart O to 2^31 hours (when using SFC 101) New Pes Yes; Must be restarted at each restart O to 2^31 hours (when using SFC 101) New Pes Yes; Must be restarted at each restart O to 2^31 hours (when using SFC 101) | Deviation per day, max. | 10 s; Typ.: 2 s | | |
| Operating hours counter Our Number Number Number nange Our Number/Number range Our Number of values Our to 2^31 hours (when using SFC 101) Our the retentive Our teentive Our | Behavior of the clock following POWER-ON | Clock continues running after POWER OFF | | |
| ● Number 1 ● Number/Number range 0 ● Range of values 0 to 2^31 hours (when using SFC 101) ● Granularity 1 h ● retentive Yes; Must be restarted at each restart Clock synchronization ● supported Yes ● to MPI, master Yes ● on MPI, device Yes ● in AS, master Yes ● in AS, device No Digital inputs Number of digital inputs 0 Digital outputs Number of digital outputs 0 Analog inputs Number of analog inputs 0 | Behavior of the clock following expiry of backup period | the clock continues at the time of day it had when power was switched off | | |
| Number/Number range Range of values Clock synchronization supported On MPI, device On MPI, device On MPI, device On MS, master On MS, device | Operating hours counter | | | |
| Range of values Granularity Tetentive Yes; Must be restarted at each restart Clock synchronization Supported MPI, master On MPI, device In AS, master On AS, device No Digital inputs Number of digital outputs Number of digital outputs Number of analog inputs O to 2/31 hours (when using SFC 101) 1 h 1 h 1 h 1 h 1 h 1 h 1 h 1 h 1 h 1 | Number | 1 | | |
| Granularity retentive Yes; Must be restarted at each restart Clock synchronization supported to MPI, master on MPI, device in AS, master in AS, device No Digital inputs Number of digital inputs 0 Digital outputs Number of digital outputs Number of analog inputs 0 Number of analog inputs Number of analog inputs | Number/Number range | 0 | | |
| Yes; Must be restarted at each restart Clock synchronization supported to MPI, master on MPI, device in AS, master in AS, device No Digital inputs Number of digital inputs Number of digital outputs Number of digital outputs Number of analog inputs O | Range of values | 0 to 2 ³ 1 hours (when using SFC 101) | | |
| Clock synchronization • supported • to MPI, master • on MPI, device • in AS, master • in AS, device No Digital inputs Number of digital inputs Number of digital outputs Number of digital outputs Number of digital outputs Number of analog inputs O Analog inputs Number of analog inputs O | Granularity | 1 h | | |
| supported to MPI, master on MPI, device in AS, master in AS, device No Digital inputs Number of digital inputs 0 Digital outputs Number of digital outputs 0 Analog inputs Number of analog inputs Yes Yes No O Digital outputs 0 Analog inputs 0 O Analog inputs 0 O <td></td> <td>Yes; Must be restarted at each restart</td> | | Yes; Must be restarted at each restart | | |
| to MPI, master on MPI, device in AS, master in AS, device No Digital inputs Number of digital inputs Number of digital outputs Number of digital outputs Number of digital outputs Number of analog inputs Number of analog inputs Number of analog inputs 0 Analog inputs 0 Output O Duri No O Output Output O Output O O Output O O Output O <l< td=""><td></td><td></td></l<> | | | | |
| • on MPI, device • in AS, master • in AS, device No Digital inputs Number of digital inputs Number of digital outputs Number of digital outputs Number of adalog inputs Number of analog inputs O Digital outputs Digital outputs O Digital outputs | | | | |
| • in AS, master • in AS, device | | Yes | | |
| ● in AS, device No Digital inputs Number of digital inputs Digital outputs Number of digital outputs Number of digital outputs 0 Analog inputs Number of analog inputs 0 | | Yes | | |
| Digital inputs Number of digital inputs 0 Digital outputs 0 Number of digital outputs 0 Analog inputs 0 Number of analog inputs 0 | | | | |
| Number of digital inputs Digital outputs Number of digital outputs 0 Analog inputs Number of analog inputs 0 | | No | | |
| Digital outputs Number of digital outputs Analog inputs Number of analog inputs 0 | | | | |
| Number of digital outputs 0 Analog inputs Number of analog inputs 0 | | 0 | | |
| Analog inputs Number of analog inputs 0 | Digital outputs | | | |
| Number of analog inputs 0 | | 0 | | |
| | Analog inputs | | | |
| Interfaces | Number of analog inputs | 0 | | |
| | Interfaces | | | |

| A CROSSIES : C | | | |
|--|---|--|--|
| Number of PROFINET interfaces | 0 | | |
| Number of RS 485 interfaces | 1; MPI | | |
| Number of RS 422 interfaces | 0 | | |
| 1. Interface | | | |
| Interface type | Integrated RS 485 interface | | |
| Isolated | No | | |
| Interface types | | | |
| • RS 485 | Yes | | |
| Output current of the interface, max. | 200 mA | | |
| Protocols | | | |
| • MPI | Yes | | |
| PROFIBUS DP master | No | | |
| PROFIBUS DP device | No | | |
| Point-to-point connection | No | | |
| MPI | | | |
| Transmission rate, max. | 187.5 kbit/s | | |
| Services | | | |
| — PG/OP communication | Yes | | |
| — Routing | No | | |
| Global data communication | Yes | | |
| S7 basic communication | Yes | | |
| — S7 communication | Yes; Only server, configured on one side | | |
| S7 communication, as client | No | | |
| S7 communication, as server | Yes | | |
| Protocols | | | |
| PROFIsafe | No | | |
| communication functions / header | | | |
| PG/OP communication | Yes | | |
| Data record routing | No | | |
| Global data communication | | | |
| • supported | Yes | | |
| Number of GD loops, max. | 8 | | |
| Number of GD packets, max. | 8 | | |
| Number of GD packets, transmitter, max. | 8 | | |
| Number of GD packets, receiver, max. | 8 | | |
| Size of GD packets, max. | 22 byte | | |
| Size of GD packet (of which consistent), max. | 22 byte | | |
| S7 basic communication | -,, | | |
| • supported | Yes | | |
| User data per job, max. | 76 byte | | |
| User data per job (of which consistent), max. | 76 byte; 76 bytes (with X SEND or X RCV); 64 bytes (with X PUT or X GET | | |
| - 555. data ps. job (of fillott conditionity, flux. | as server) | | |
| S7 communication | | | |
| • supported | Yes | | |
| • as server | Yes | | |
| • as client | Yes; Via CP and loadable FB | | |
| User data per job, max. | 180 byte; With PUT/GET | | |
| User data per job (of which consistent), max. | 240 byte; as server | | |
| S5 compatible communication | | | |
| • supported | Yes; via CP and loadable FC | | |
| Number of connections | | | |
| overall | 12 | | |
| usable for PG communication | 11 | | |
| reserved for PG communication | 1 | | |
| adjustable for PG communication, min. | 1 | | |
| adjustable for PG communication, max. | . 11 | | |
| usable for OP communication | 11 | | |
| reserved for OP communication | 1 | | |
| adjustable for OP communication, min. | 1 | | |
| adjustable for OP communication, min. adjustable for OP communication, max. | 11 | | |
| usable for S7 basic communication, max. | 8 | | |
| - usable for or pasic continuincation | | | |

| reserved for S7 basic communication | 0 | | |
|---|---|--|--|
| adjustable for S7 basic communication, min. | 0 | | |
| adjustable for S7 basic communication, max. | 8 | | |
| S7 message functions | | | |
| Number of login stations for message functions, max. | 12; Depending on the configured connections for PG/OP and S7 basic communication | | |
| Process diagnostic messages | Yes | | |
| simultaneously active Alarm_S blocks, max. | 300 | | |
| Test commissioning functions | | | |
| Status block | Yes; Up to 2 simultaneously | | |
| Single step | Yes | | |
| Number of breakpoints | 4 | | |
| Status/control | | | |
| Status/control variable | Yes | | |
| Variables | Inputs, outputs, memory bits, DB, times, counters | | |
| Number of variables, max. | 30 | | |
| — of which status variables, max. | 30 | | |
| — of which control variables, max. | 14 | | |
| Forcing | | | |
| Forcing | Yes | | |
| Forcing, variables | Inputs, outputs | | |
| Number of variables, max. | 10 | | |
| Diagnostic buffer | | | |
| • present | Yes | | |
| Number of entries, max. | 500 | | |
| — adjustable | No | | |
| — of which powerfail-proof | 100; Only the last 100 entries are retained | | |
| Number of entries readable in RUN, max. | 499 | | |
| — adjustable | Yes; From 10 to 499 | | |
| — preset | 10 | | |
| Service data | | | |
| • can be read out | Yes | | |
| Standards, approvals, certificates | | | |
| CE mark | Yes | | |
| UL approval | Yes; File E239877 | | |
| RCM (formerly C-TICK) | Yes | | |
| KC approval | Yes | | |
| EAC (formerly Gost-R) | Yes | | |
| Use in hazardous areas | V | | |
| • ATEX | Yes | | |
| Ambient conditions | | | |
| Ambient temperature during operation | 25 °C: − Tmin | | |
| • min. | -25 °C; = Tmin 70 °C: = Tmay: 60 °C @ LII /cl.II ATEY and EM use | | |
| Max. Ambient temperature during storage/transportation. | 70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use | | |
| Ambient temperature during storage/transportation • min. | -40 °C | | |
| • min. • max. | 70 °C | | |
| Altitude during operation relating to sea level | | | |
| Installation altitude above sea level, max. | 5 000 m | | |
| Ambient air temperature-barometric pressure-altitude | 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 | a. 555 iii a 575 iii a (15 550 iii 15 500 iii) | | |
| With condensation, tested in accordance with IEC 60068- 2-38, max. | 100 %; RH incl. condensation/frost (no commissioning under condensation conditions) | | |
| 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, * | | |

| Lles en china/et ese | | | | | | |
|---|--|---|--|--|--|--|
| Use on ships/at sea — to biologically active substances according to EN | Yes; Class 6B2 mold and funga | al spores (excluding fau | na); Class 6B3 on | | | |
| 60721-3-6 — to chemically active substances according to EN | request | | | | | |
| 60721-3-6 — to mechanically active substances according to EN | Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * | | | | | |
| 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 trichlor | ethylene) | | | | |
| Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 | concentrations up to the limits of | 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 mus during operation! | * The supplied plug covers must remain in place over the unused interfaces during operation! | | | | |
| configuration / header | | | | | | |
| Configuration software | | | | | | |
| • STEP 7 | Yes; V5.2 SP1 or higher with H | W update | | | | |
| configuration / programming / header | | | | | | |
| Command set | see instruction list | | | | | |
| Nesting levels | 8 | | | | | |
| System functions (SFC) | see instruction list | | | | | |
| System function blocks (SFB) Programming language | see instruction list | | | | | |
| Programming language — LAD | Voc | | | | | |
| — FBD | Yes | Yes | | | | |
| — STL | Yes | | | | | |
| — SCL | Yes | | | | | |
| — CFC | Yes | | | | | |
| — GRAPH | Yes | | | | | |
| — HiGraph® | Yes | | | | | |
| Know-how protection | | | | | | |
| User program protection/password protection | Yes | | | | | |
| Block encryption | Yes; With S7 block Privacy | Yes; With S7 block Privacy | | | | |
| Dimensions | | | | | | |
| Width | 40 mm | | | | | |
| Height | 125 mm | 125 mm | | | | |
| Depth | 130 mm | | | | | |
| Weights | | | | | | |
| Weight, approx. | 280 g | | | | | |
| Classifications | | | | | | |
| | | Version | Classification | | | |
| | eClass | 14 | 27-24-22-07 | | | |
| | eClass | 12 | 27-24-22-07 | | | |
| | eClass | 9.1 | 27-24-22-07 | | | |
| | eClass | 9 | 27-24-22-07 | | | |
| | | | | | | |
| | eClass | 8 | 27-24-22-07 | | | |
| | | | | | | |
| | eClass | 7.1 | 27-24-22-07 | | | |
| | eClass eClass | 7.1 6 | 27-24-22-07 27-24-22-07 | | | |
| | eClass eClass ETIM | 7.1 6 9 | 27-24-22-07 27-24-22-07 EC000236 | | | |
| | eClass eClass ETIM ETIM | 7.1 6 | 27-24-22-07 27-24-22-07 | | | |
| | eClass eClass ETIM | 7.1 6 9 | 27-24-22-07 27-24-22-07 EC000236 | | | |
| | eClass eClass ETIM ETIM | 7.1 6 9 8 | 27-24-22-07 27-24-22-07 EC000236 EC000236 | | | |
| | eClass eClass ETIM ETIM ETIM | 7.1 6 9 8 7 | 27-24-22-07 27-24-22-07 EC000236 EC000236 EC000236 | | | |

Miscellaneous



Manufacturer Declaration





<u>KC</u>

EMV

For use in hazardous locations







CCC-Ex

last modified:

12/8/2024