## **SIEMENS**

## Data sheet

## 6AG1315-2AH14-7AB0

SIPLUS S7-300 CPU 315-2DP -25...+70 °C with conformal coating based on 6ES7315-2AH14-0AB0 . Central processing unit with MPI Integr. power supply 24 V DC Work memory 256 KB 2nd interface DP master/ slave Micro Memory Card required



Figure similar

General information	
HW functional status	01
Firmware version	V3.3
Engineering with	
<ul> <li>Programming package</li> </ul>	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 DC	Yes
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	
<ul> <li>Mains/voltage failure stored energy time</li> </ul>	5 ms
• Repeat rate, min.	1 s
Input current	

Current concurrentian (rate develue)	950 m A
Current consumption (rated value)	850 mA 150 mA
Current consumption (in no-load operation), typ. Inrush current, typ.	3.5 A
	1 A <sup>2</sup> ·s
	17.3
Power loss	
Power loss, typ.	4.5 W
Memory	
Work memory	
• integrated	256 kbyte
• expandable	No
<ul> <li>Size of retentive memory for retentive data blocks</li> </ul>	128 kbyte
Load memory	
• Plug-in (MMC)	Yes
<ul> <li>Plug-in (MMC), max.</li> </ul>	8 Mbyte
<ul> <li>Data management on MMC (after last programming), min.</li> </ul>	10 у
Backup	
• present	Yes; Guaranteed by MMC (maintenance-free)
• without battery	Yes; Program and data
CDLL processing times	
CPU processing times for bit operations, typ.	0.05 µs
for word operations, typ.	0.09 µs
for fixed point arithmetic, typ.	0.12 µs
for floating point arithmetic, typ.	0.45 µs
CPU-blocks	4.024: (DDa EQa EDa), the mentioner symbol of landable blacks
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	
Description	see instruction list
• Size, max.	64 kbyte
<ul> <li>Number of free cycle OBs</li> </ul>	1; OB 1

<ul> <li>Number of delay alarm OBs</li> </ul>	2; OB 20, 21
<ul> <li>Number of cyclic interrupt OBs</li> </ul>	4; OB 32, 33, 34, 35
<ul> <li>Number of process alarm OBs</li> </ul>	1; OB 40
<ul> <li>Number of DPV1 alarm OBs</li> </ul>	3; OB 55, 56, 57
<ul> <li>Number of isochronous mode OBs</li> </ul>	1; OB 61
Number of startup OBs	1; OB 100
<ul> <li>Number of asynchronous error OBs</li> </ul>	5; OB 80, 82, 85, 86, 87
<ul> <li>Number of synchronous error OBs</li> </ul>	2; OB 121, 122
Nesting depth	
• per priority class	16
<ul> <li>additional within an error OB</li> </ul>	4
Counters, timers and their retentivity	
S7 counter	
• Number	256
Retentivity	
— adjustable	Yes
— lower limit	0
— upper limit	255
— preset	Z 0 to Z 7
Counting range	
— lower limit	0
— upper limit	999
IEC counter	
• Number	Unlimited (limited only by RAM capacity)
S7 times	
• Number	256
Retentivity	
— adjustable	Yes
— lower limit	0
— upper limit	255
— preset	No retentivity
Time range	
— lower limit	10 ms
— upper limit	9 990 s
	9 990 s
— upper limit	Yes
— upper limit IEC timer	
<ul><li>upper limit</li><li>IEC timer</li><li>present</li></ul>	Yes
— upper limit IEC timer • present • Type	Yes SFB

Flag	
• Number, max.	2 048 byte
<ul> <li>Retentivity available</li> </ul>	Yes; MB 0 to MB 2047
<ul> <li>Retentivity preset</li> </ul>	MB 0 to MB 15
<ul> <li>Number of clock memories</li> </ul>	8; 1 memory byte
Data blocks	
Retentivity adjustable	Yes; via non-retain property on DB
Retentivity preset	Yes
Local data	
<ul> <li>per priority class, max.</li> </ul>	32 kbyte; Max. 2 KB per block
Address area	
I/O address area	
● Inputs	2 048 byte
Outputs	2 048 byte
of which distributed	
— Inputs	2 048 byte
— Outputs	2 048 byte
Process image	
● Inputs	2 048 byte
Outputs	2 048 byte
<ul> <li>Inputs, adjustable</li> </ul>	2 048 byte
<ul> <li>Outputs, adjustable</li> </ul>	2 048 byte
● Inputs, default	128 byte
<ul> <li>Outputs, default</li> </ul>	128 byte
Subprocess images	
<ul> <li>Number of subprocess images, max.</li> </ul>	1
Digital channels	
Inputs	16 384
— of which central	1 024
Outputs	16 384
— of which central	1 024
Analog channels	
Inputs	1 024
— of which central	256
Outputs	1 024
— of which central	256
Hardware configuration	
Number of expansion units, max.	3
Number of DP masters	
• integrated	1
● via CP	4

Number of operable FMs and CPs (recommended)	
• FM	8
• CP, PtP	8
• CP, LAN	10
Rack	
● Racks, max.	4
<ul> <li>Modules per rack, max.</li> </ul>	8
Time of day	
Clock	
<ul> <li>Hardware clock (real-time)</li> </ul>	Yes
<ul> <li>retentive and synchronizable</li> </ul>	Yes
Backup time	6 wk; At 40 °C ambient temperature
<ul> <li>Deviation per day, max.</li> </ul>	10 s; Typ.: 2 s
<ul> <li>Behavior of the clock following POWER-ON</li> </ul>	Clock continues running after POWER OFF
<ul> <li>Behavior of the clock following expiry of backup</li> </ul>	Clock continues to run with the time at which the power failure
period	occurred
Operating hours counter	
• Number	1
<ul> <li>Number/Number range</li> </ul>	0
<ul> <li>Range of values</li> </ul>	0 to 2^31 hours (when using SFC 101)
• retentive	Yes; Must be restarted at each restart
Clock synchronization	
• supported	Yes
• to MPI, master	Yes
● to MPI, slave	Yes
• to DP, master	Yes; With DP slave only slave clock
● to DP, slave	Yes
• in AS, master	Yes
● in AS, slave	No
Digital inputs	
Number of digital inputs	0
Digital outputs	
Number of digital outputs	0
Analog inputs	
Number of analog inputs	0
Analog outputs	
Number of analog outputs	0
Interfaces	
Interfaces Number of industrial Ethernet interfaces	0
Number of PROFINET interfaces	0

Number of RS 485 interfaces	2; MPI and PROFIBUS DP
Number of RS 422 interfaces	0
1. Interface	
Interface type	Integrated RS 485 interface
Physics	RS 485
Isolated	No
Power supply to interface (15 to 30 V DC), max.	200 mA
Functionality	
• MPI	Yes
<ul> <li>PROFIBUS DP master</li> </ul>	No
PROFIBUS DP slave	No
<ul> <li>Point-to-point connection</li> </ul>	No
MPI	
<ul> <li>Transmission rate, max.</li> </ul>	187.5 kbit/s
Services	
— PG/OP communication	Yes
— Routing	Yes
— 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
2. Interface	
Interface type	Integrated RS 485 interface
Physics	RS 485
Isolated	Yes
Power supply to interface (15 to 30 V DC), max.	200 mA

Isolated	Yes
Power supply to interface (15 to 30 V DC), max.	200 mA
Functionality	
• MPI	No
<ul> <li>PROFIBUS DP master</li> </ul>	Yes
PROFIBUS DP slave	Yes
<ul> <li>Point-to-point connection</li> </ul>	No
DP master	
<ul> <li>Number of connections, max.</li> </ul>	16
<ul> <li>Transmission rate, max.</li> </ul>	12 Mbit/s
<ul> <li>Number of DP slaves, max.</li> </ul>	124; Per station
Services	
— PG/OP communication	Yes
— Routing	Yes
— Global data communication	No
— S7 basic communication	Yes; I blocks only

— S7 communication	Yes; Only server, configured on one side
— S7 communication, as client	Νο
— S7 communication, as server	Yes
— Equidistance	Yes
— Isochronous mode	Yes; OB 61
- SYNC/FREEZE	Yes
<ul> <li>Activation/deactivation of DP slaves</li> </ul>	Yes
— Number of DP slaves that can be	8
simultaneously activated/deactivated, max.	
— DPV1	Yes
Address area	
— Inputs, max.	2 048 byte
— Outputs, max.	2 048 byte
User data per DP slave	
— Inputs, max.	244 byte
— Outputs, max.	244 byte
DP slave	
• GSD file	The latest GSD file is available at:
	http://www.siemens.com/profibus-gsd
• Transmission rate, max.	12 Mbit/s
automatic baud rate search	Yes; only with passive interface
Address area, max.	32 22 h.t.
• User data per address area, max.	32 byte
Services	Yee.
— PG/OP communication	Yes
— Routing	Yes; Only with active interface
— Global data communication	No
— S7 basic communication	No
— S7 communication	Yes
— S7 communication, as client	No
— S7 communication, as server	Yes
<ul> <li>Direct data exchange (slave-to-slave communication)</li> </ul>	Yes
— DPV1	No
Transfer memory	
— Inputs	244 byte
— Outputs	244 byte
Isochronous mode	Ver
Isochronous operation (application synchronized up to terminal)	Yes
Communication functions	

Communication functions

PG/OP communication	Yes
Data record routing	Yes
Global data communication	
supported	Yes
<ul> <li>Number of GD loops, max.</li> </ul>	8
<ul> <li>Number of GD packets, max.</li> </ul>	8
<ul> <li>Number of GD packets, transmitter, max.</li> </ul>	8
<ul> <li>Number of GD packets, receiver, max.</li> </ul>	8
<ul> <li>Size of GD packets, max.</li> </ul>	22 byte
<ul> <li>Size of GD packet (of which consistent), max.</li> </ul>	22 byte
S7 basic communication	
• supported	Yes
<ul> <li>User data per job, max.</li> </ul>	76 byte
<ul> <li>User data per job (of which consistent), max.</li> </ul>	76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT or X_GET 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
<ul> <li>User data per job (of which consistent), max.</li> </ul>	240 byte; as server
S5 compatible communication	
• supported	Yes; via CP and loadable FC
Number of connections	
• overall	16
<ul> <li>usable for PG communication</li> </ul>	15
<ul> <li>reserved for PG communication</li> </ul>	1
— adjustable for PG communication, min.	1
<ul> <li>adjustable for PG communication, max.</li> </ul>	15
<ul> <li>usable for OP communication</li> </ul>	15
- reserved for OP communication	1
— adjustable for OP communication, min.	1
— adjustable for OP communication, max.	15
<ul> <li>usable for S7 basic communication</li> </ul>	12
- reserved for S7 basic communication	0
— adjustable for S7 basic communication, min.	0
<ul> <li>— adjustable for S7 basic communication, max.</li> </ul>	12
S7 message functions	
	16; Depending on the configured connections for PG/OP and S7 basic communication

simultaneously active Alarm-S blocks, max. 300 Test commissioning functions Status block Yes; Up to 2 simultaneously Single step Yes Number of treakpoints 4 Status/control variables, max. 30 - of which status variables, max. 400 - Status variables, max. 400 - Of which status variables, max. 400 - Of which status variables, max. 400 - Status variables, max. 400 - of which status variables variables, variable, variable, variable	Process diagnostic messages	Yes
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       • Variables     30       - of which status variables, max.     30       - of which status variables, max.     14       Forcing     Yes       • Forcing, variables, max.     10       Diagnostic buffer     Yes       • Number of variables, max.     10       Diagnostic buffer     Yes       • Investert     Yes       • Number of entries, max.     500       - a dijustable     No       - of which powerfail-proof     100: Only the last 100 entries are retained       • Number of entries readable in RUN, max.     -       - can be set     Yes; From 10 to 499       - preset     10       Standards, approvals, certificates     Yes       CE mark     Yes       CE mark     Yes       UL approval     Yes; File E339877       FM approval     Yes       FAC (formerly C-TICK)     Yes       FAC (formerly Gost-R)     Yes       Us in hazardous areas     Yes       • ATEX     Yes </td <td>simultaneously active Alarm-S blocks, max.</td> <td>300</td>	simultaneously active Alarm-S blocks, max.	300
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       • Variables     30       - of which status variables, max.     30       - of which status variables, max.     14       Forcing     Yes       • Forcing, variables, max.     10       Diagnostic buffer     Yes       • Number of variables, max.     10       Diagnostic buffer     Yes       • Investert     Yes       • Number of entries, max.     500       - a dijustable     No       - of which powerfail-proof     100: Only the last 100 entries are retained       • Number of entries readable in RUN, max.     -       - can be set     Yes; From 10 to 499       - preset     10       Standards, approvals, certificates     Yes       CE mark     Yes       CE mark     Yes       UL approval     Yes; File E339877       FM approval     Yes       FAC (formerly C-TICK)     Yes       FAC (formerly Gost-R)     Yes       Us in hazardous areas     Yes       • ATEX     Yes </td <td>Test commissioning functions</td> <td></td>	Test commissioning functions	
Number of breakpoints         4           Status/control            • Status/control variable         Inputs, outputs, memory bits, DB, times, counters           • Variables         Inputs, outputs, memory bits, DB, times, counters           • Variables, max.         30           - of which status variables, max.         30           - of which control variables, max.         14           Forcing         Ves           • Forcing, variables         Inputs, outputs           • Forcing, variables, max.         10           Diagnostic buffer         Ves           • present         Yes           • Number of variables, max.         500           • Number of entries, max.         500           - adjustable         No           - adjustable         No           - adjustable         No           - adjustable         No           - adjustable         Ves; From 10 to 499           - preset         10           Standards, approvals, certificates         Ves; Frie E239877           CE mark         Yes           UL approval         Yes           RCM (formerly C-TICK)         Yes           Nationat conditions         Yes           Attext<		Yes; Up to 2 simultaneously
Status/control variable       Yes         • Status/control variables       Inputs, outputs, memory bits, DB, times, counters         • Variables       Inputs, outputs, memory bits, DB, times, counters         • Or which status variables, max.       30         - of which control variables, max.       14         Forcing       Yes         • Forcing or variables       Inputs, outputs         • Forcing or variables, max.       10         • Number of variables, max.       500         • Number of entries, max.       500         - adjustable       No         - adjustable       No         - of which powerfail-proof       100 contries are retained         • Number of entries, max.       500         - adjustable       No         - adjustable       No         - adjustable       No         - can be set       Yes; From 10 to 499         - preset       10         Standards, approvals, certificates       Yes         CE mark       Yes         UL approval       Yes         RCM (formerly C-TICK)       Yes         KC approval       Yes         LBsc In hazardous areas       -         • ATEX       Yes	Single step	Yes
• Status/control variablesYes• VariablesInputs, outputs, memory bits, DB, times, counters• Number of variables, max.30- of which status variables, max.31- of which control variables, max.14ForcingYes• Forcing, variablesInputs, outputs• Number of variables, max.10Diagnostic bufferYes• presentYes• norset500• Number of variables, max.500• Number of entries, max.500- adjustableNo- adjustableNo- of which powerfail-proof100; Only the last 100 entries are retained• Number of entries readable in RUN, max can be set- can be setYes; From 10 to 499- presetYes; File E2398777Et markYesKC approvalYesKC approvalYesKC approvalYesAttEXYesAttEXYesAttEXYesAttEXYesAttEXYesAttext temperature during operation-25 °C; = Tmin• min25 °C; = Tmin• min25 °C; = Tmin• min40 °C• max40 °C• max.<	Number of breakpoints	4
•VariablesInputs, outputs, memory bits, DB, times, counters• Number of variables, max.30- of which status variables, max.30- of which control variables, max.30- of which control variables, max.30ForcingVes• Forcing, variablesInputs, outputs• Forcing, variables, max.10Diagnostic bufferVes• Number of variables, max.500- adjustableNo- of which powerfail-proof100; Only the last 100 entries are retained• Number of entries, max.500- adjustableNo- of which powerfail-proof100; Only the last 100 entries are retained• Number of entries readable in RUN, max can be set- and be setVes; From 10 to 499- presetVes; Frie E239877EtamakVesCE markVes; CoIC 3028431CL approvalYes; CoIC 3028431RCM (formerly Co-TICK)YesKC approvalVesVesVesATEXVesATEXVesAttextVesAttextVesAttextVesAttextVesAttextVesAttextVesAttextVesAttextVesAttextVesAttextVesAttextVesAttextVesAttextVesAttextVesAttextVesAttextVesAttext	Status/control	
• Number of variables, max.30- of which status variables, max.30- of which control variables, max.14ForcingYes- Forcing, variablesInputs, outputs- Number of variables, max.10Diagnostic bufferYes- endystable, max.500- adjustableNo- adjustableNo- of which powerfail-proof00 (n) the last 100 entries are retained- Number of entries, readable in RUN, max adjustable- can be setYes; From 10 to 499- preset10Standards, approvals, certificatesCE markYes; From 10 to 499- preset10Standards, approvals, certificatesCE markYes; From 20 to 499- presetYes; From 20 to 499- presetYesCE markYesVes (Grogoval)Yes; From 20 to 499- presetYesVesYesFM approvalYesFM approvalYesFM approvalYesAct ExYesArtExYesArtExYesArtExYesArtiset temperature during operation-25 °C; = Tmin• min25 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM useArtiset temperature during storage/transportation-26 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use• min40 °C• max.70 °C	Status/control variable	Yes
of which status variables, max.30 of which control variables, max.14ForcingYes Forcing, variablesInputs, outputs Forcing, variables, max.10Diagnostic bufferVes presentYes of which powerfail-proof100; Only the last 100 entries are retained of which powerfail-proof100; Only the last 100 entries are retained ora be setYes; From 10 to 499 presetYes; From 10 t	Variables	Inputs, outputs, memory bits, DB, times, counters
of which control variables, max.14ForcingYes• Forcing, variablesInputs, outputs• Number of variables, max.10Diagnostic bufferYes• presentS00• Number of entries, max.500• Number of entries, max.500• of which powerfail-proof100: Only the last 100 entries are retained• Number of entries readable in RUN, max can be setYes; From 10 to 499- preset10Standards, approvals, certificatesCE markYesUL approvalYes; Folle E239877FM approvalYes; CofC 3024311RCM (formerly C-TICK)YesKC approvalYesKC approvalYesATEXYesAttextYesAttextYesAttextYesAttextYesAttextYesInhazardous areasYes• ATEXYesAttextYes	<ul> <li>Number of variables, max.</li> </ul>	30
Forcing         Yes                Forcing, variables             Forcing             Forcing             Forcing, variables             Forcing, variables             Forcing, variables             Forcing	— of which status variables, max.	30
ForcingYesForcing, variablesInputs, outputsNumber of variables, max.10Diagnostic bufferYes• presentYes• Number of entries, max.500 adjustableNo of which powerfail-proof100; Only the last 100 entries are retained• Number of entries readable in RUN, max can be set can be set10 preset10Standards, approvals, certificatesCE markYes; From 10 to 499 preset10Standards, approvals, certificatesCE markYes; Ford 20028431RCM (formerly C-TICK)Yes; CofC 3028431RCM (formerly Gost-R)YesI base in hazardous areasYes• ATEXYesAmbient temperature during operation-25 °C; = Tmin• min25 °C; = Tmin• max.70 °C; = Tmax; 60 °C @ UL/CUL, ATEX and FM useAmbient temperature during storage/transportation-40 °C• min40 °C• max.70 °C	— of which control variables, max.	14
Forcing, variablesInputs, outputs• Number of variables, max.10Diagnostic bufferYes• presentYes• Number of entries, max.500- adjustableNo- of which powerfail-proof100; Only the last 100 entries are retained• Number of entries readable in RUN, max can be set- can be setYes; From 10 to 499- preset10Standards, approvals, certificatesCE markYes; Frie E239877UL approvalYes; CofC 3028431RCM (formerly C-TICK)YesKC approvalYesKC approvalYesLuse in hazardous areasYes• ATEXYesAmbient temperature during operation-25 °C; = Tmin• min25 °C; = Tmin• min25 °C; = Tmin• min40 °C• min40 °C• min40 °C• min40 °C• min40 °C• min40 °C• max.70 °C	Forcing	
• Number of variables, max.10Diagnostic buffer• presentYes• Number of entries, max.500- adjustableNo- of which powerfail-proof100; Only the last 100 entries are retained• Number of entries readable in RUN, max can be setYes; From 10 to 499- preset10Standards, approvals, certificatesCE markYesUL approvalYes; File E239877FM approvalYes; CofC 3028431RCM (formerly C-TICK)YesKC approvalYesKC approvalYesAntiperature during operationYes• ATEXYesAmbient temperature during operation-• min25 °C; = Tmin• max.70 °C; = Tmax; 60 °C @ UL/CUL, ATEX and FM use• min40 °C• max.70 °C	Forcing	Yes
Diagnosic 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.       -         - can be set       Yes; From 10 to 499         - preset       10         Standards, approvals, certificates       Yes; File E239877         CE mark       Yes; CofC 3028431         UL approval       Yes; CofC 3028431         RCM (formerly C-TICK)       Yes         KC approval       Yes         KC approval       Yes         ATEX       Yes         Anbient temperature during operation       -25 °C; = Tmin         • max.       70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use         Ambient temperature during storage/transportation       -40 °C         • min.       -40 °C         • max.       70 °C	• Forcing, variables	Inputs, outputs
• presentYes• Number of entries, max.500- adjustableNo- of which powerfail-proof100; Only the last 100 entries are retained• Number of entries readable in RUN, max can be setYes; From 10 to 499- preset10Standards, approvals, certificates-CE markYesUL approvalYes; File E239877FM approvalYes; CofC 3028431RCM (formerly C-TICK)YesKC approvalYesEAC (formerly Gost-R)YesUse in hazardous areas-• ATEXYesAmbient temperature during operation-25 °C; = Tmin• max.70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM useAmbient temperature during storage/transportation-40 °C• max.70 °C	<ul> <li>Number of variables, max.</li> </ul>	10
ProtectS00- adjustableNo- of which powerfail-proof100; Only the last 100 entries are retained• Number of entries readable in RUN, max.Yes; From 10 to 499- can be set10- preset10Standards, approvals, certificatesCE markYes; From 10 to 499UL approvalYes; File E239877FM approvalYes; CofC 3028431RCM (formerly C-TICK)YesKC approvalYesEAC (formerly Gost-R)YesUse in hazardous areasYes• ATEXYesAmbient temperature during operation-25 °C; = Tmin• min25 °C; = Tmin• max.70 °C• min40 °C• max.70 °C	Diagnostic buffer	
AdjustableNo of which powerfail-proof100; Only the last 100 entries are retained• Number of entries readable in RUN, max can be set can be setYes; From 10 to 499 preset10Standards, approvals, certificatesCE markYesUL approvalYes; File E239877FM approvalYes; CofC 3028431RCM (formerly C-TICK)YesKC approvalYesEAC (formerly Gost-R)YesUse in hazardous areas	• present	Yes
InstructInstruct- of which powerfail-proof100; Only the last 100 entries are retained• Number of entries readable in RUN, max can be setYes; From 10 to 499- preset10Standards, approvals, certificatesCE markYesUL approvalYes; File E239877FM approvalYes; CofC 3028431RCM (formerly C-TICK)YesKC approvalYesEAC (formerly Gost-R)YesUse in hazardous areasYes• ATEXYesAmbient temperature during operation-25 °C; = Tmin ro °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM useAmbient temperature during storage/transportation-40 °C rO °C; = Tomax; 60 °C @ UL/cUL, ATEX and FM use	<ul> <li>Number of entries, max.</li> </ul>	500
• Number of entries readable in RUN, max.Yes; From 10 to 499- can be set10- preset10Standards, approvals, certificatesCE markYesUL approvalYes; File E239877FM approvalYes; CofC 3028431RCM (formerly C-TICK)YesKC approvalYesKC approvalYesEAC (formerly Gost-R)YesUse in hazardous areasYes• ATEXYesAmbient temperature during operation-25 °C; = Tmin nmin.• min25 °C; = Tmin• min70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use• min40 °C• min40 °C• max.70 °C	— adjustable	No
- can be set - presetYes; From 10 to 499 10Standards, approvals, certificatesCE markYes0L approvalYes; File E239877UL approvalYes; CofC 3028431RCM (formerly C-TICK)YesRCM (formerly C-TICK)YesEAC (formerly Gost-R)YesUse in hazardous areasYes• ATEXYesAmbient temperature during operation-• min25 °C; = Tmin• max25 °C; = Tmin• min25 °C; = Tmin <td>— of which powerfail-proof</td> <td>100; Only the last 100 entries are retained</td>	— of which powerfail-proof	100; Only the last 100 entries are retained
- can be set - presetYes; From 10 to 499 10Standards, approvals, certificatesCE markYes0L approvalYes; File E239877UL approvalYes; CofC 3028431RCM (formerly C-TICK)YesRCM (formerly C-TICK)YesEAC (formerly Gost-R)YesUse in hazardous areasYes• ATEXYesAmbient temperature during operation-• min25 °C; = Tmin• max25 °C; = Tmin• min25 °C; = Tmin <td></td> <td></td>		
Standards, approvals, certificates         CE mark       Yes         UL approval       Yes; File E239877         FM approval       Yes; CofC 3028431         RCM (formerly C-TICK)       Yes         KC approval       Yes         KC approval       Yes         KC approval       Yes         LEAC (formerly Gost-R)       Yes         Use in hazardous areas       Yes         • ATEX       Yes         Ambient conditions       -25 °C; = Tmin         • min.       -25 °C; = Tmin         • max.       70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use         Ambient temperature during storage/transportation       -40 °C         • max.       70 °C		Yes; From 10 to 499
CE markYesUL approvalYes; File E239877FM approvalYes; CofC 3028431RCM (formerly C-TICK)YesKC approvalYesEAC (formerly Gost-R)YesUse in hazardous areasYes• ATEXYesAmbient conditionsYesAmbient temperature during operation-25 °C; = Tmin ro °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use• min40 °C ro °C• max.70 °C	— preset	10
CE markYesUL approvalYes; File E239877FM approvalYes; CofC 3028431RCM (formerly C-TICK)YesKC approvalYesEAC (formerly Gost-R)YesUse in hazardous areasYes• ATEXYesAmbient conditionsYesAmbient temperature during operation-25 °C; = Tmin ro °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use• min40 °C ro °C• max.70 °C	Otorstanda energy also southington	
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FM approvalYes; CofC 3028431RCM (formerly C-TICK)YesKC approvalYesKC approvalYesEAC (formerly Gost-R)YesUse in hazardous areasYes• ATEXYesAmbient conditions• min25 °C; = Tmin• max.70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use• min40 °C• max.70 °C		
RCM (formerly C-TICK)YesKC approvalYesEAC (formerly Gost-R)YesUse in hazardous areasYes• ATEXYesAmbient conditionsAmbient temperature during operation• min. • max25 °C; = Tmin 70 °C; = Tmax; 60 °C @ UL/CUL, ATEX and FM useAmbient temperature during storage/transportation-40 °C 70 °C• max40 °C 70 °C		
KC approvalYesEAC (formerly Gost-R)YesUse in hazardous areasYes• ATEXYesAmbient conditionsYesAmbient temperature during operation-25 °C; = Tmin• max.70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM useAmbient temperature during storage/transportation-40 °C• max.70 °C		
EAC (formerly Gost-R)       Yes         Use in hazardous areas       Yes         • ATEX       Yes         Ambient conditions       -         Ambient temperature during operation       -25 °C; = Tmin         • max.       70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use         Ambient temperature during storage/transportation       -40 °C         • max.       70 °C;		
Use in hazardous areas       Yes         Ambient conditions       Ambient temperature during operation         • min.       -25 °C; = Tmin         • max.       70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use         Ambient temperature during storage/transportation       -40 °C         • max.       70 °C;		
Ambient conditions         Ambient temperature during operation         • min.       -25 °C; = Tmin         • max.       70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use         Ambient temperature during storage/transportation         • min.       -40 °C         • max.       70 °C;		
Ambient temperature during operation         • min.       -25 °C; = Tmin         • max.       70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use         Ambient temperature during storage/transportation       -40 °C         • min.       -40 °C         • max.       70 °C	• ATEX	Yes
Ambient temperature during operation         • min.       -25 °C; = Tmin         • max.       70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use         Ambient temperature during storage/transportation       -40 °C         • min.       -40 °C         • max.       70 °C	Ambient conditions	
• min.         -25 °C; = Tmin           • max.         70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use           Ambient temperature during storage/transportation         -40 °C           • min.         -40 °C           • max.         70 °C		
Ambient temperature during storage/transportation          • min.           • max.		-25 °C; = Tmin
Ambient temperature during storage/transportation          • min.           • max.             • C           • max.	• max.	70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use
• min40 °C • max. 70 °C	Ambient temperature during storage/transportation	
		-40 °C
	• max.	70 °C
	Altitude during operation relating to sea level	

Installation altitude above and loval may	5 000 m
Installation altitude above sea level, max.	Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m) //
<ul> <li>Ambient air temperature-barometric pressure- altitude</li> </ul>	Tmin (Tmax - 10 K) at 795 hPa 658 hPa (+2 000 m +2 000 m) // m) // Tmin (Tmax - 20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m)
Relative humidity	
<ul> <li>With condensation, tested in accordance with IEC 60068-2-38, max.</li> </ul>	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance	
Use in stationary industrial systems	
<ul> <li>— to biologically 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
<ul> <li>— to chemically active substances according to EN 60721-3-3</li> </ul>	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2- 52 (severity degree 3); *
<ul> <li>— to mechanically active substances according to EN 60721-3-3</li> </ul>	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea	
<ul> <li>— to biologically active substances according to EN 60721-3-6</li> </ul>	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
<ul> <li>— to chemically active substances according to EN 60721-3-6</li> </ul>	Yes; Class 6C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2- 52 (severity degree 3); *
<ul> <li>— to mechanically active substances according to EN 60721-3-6</li> </ul>	Yes; Class 6S4 incl. sand, dust; *
from supply voltage 1L+	
<ul> <li>Note regarding classification of environmental conditions acc. to EN 60721</li> </ul>	* The supplied plug covers must remain in place over the unused interfaces during operation!
Configuration	
Configuration software	
• STEP 7	Yes; V5.2 SP1 or higher with HW update
Programming	
Command set	see instruction list
<ul> <li>Nesting levels</li> </ul>	8
<ul> <li>System functions (SFC)</li> </ul>	see instruction list
<ul> <li>System function blocks (SFB)</li> </ul>	see instruction list
Programming language	
— LAD	Yes
— FBD	Yes
— STL	Yes
— SCL	Yes
— CFC	Yes
— GRAPH	Yes
— HiGraph®	Yes

User program protection/password protection

Dimensions	
Width	40 mm
Height	125 mm
Depth	130 mm
Weights	
Weight, approx.	290 g

Yes

last modified:

04/06/2018