SIEMENS

Data sheet

6ES7214-1BG40-0XB0



SIMATIC S7-1200, CPU 1214C, compact CPU, AC/DC/relay, onboard I/O: 14 DI 24 V DC; 10 DO relay 2 A; 2 AI 0-10 V DC, Power supply: AC 85-264 V AC at 47-63 Hz, Program/data memory 100 KB

| General information | |
|---|--|
| Product type designation | CPU 1214C AC/DC/relay |
| Engineering with | |
| Programming package | STEP 7 V17 or higher |
| Supply voltage | |
| Rated value (AC) | |
| • 120 V AC | Yes |
| • 230 V AC | Yes |
| permissible range, lower limit (AC) | 85 V |
| permissible range, upper limit (AC) | 264 V |
| Line frequency | |
| permissible range, lower limit | 47 Hz |
| permissible range, upper limit | 63 Hz |
| Input current | |
| Current consumption (rated value) | 100 mA at 120 V AC; 50 mA at 240 V AC |
| Current consumption, max. | 300 mA at 120 V AC; 150 mA at 240 V AC |
| Inrush current, max. | 20 A; at 264 V |
| ²t | 0.8 A ² ·s |
| Output current | |
| for backplane bus (5 V DC), max. | 1 600 mA; Max. 5 V DC for SM and CM |
| Encoder supply | |
| 24 V encoder supply | |
| • 24 V | 20.4 to 28.8V |
| Power loss | |
| Power loss, typ. | 14 W |
| Memory | |
| Work memory | |
| integrated | 100 kbyte |
| expandable | No |
| Load memory | |
| integrated | 4 Mbyte |
| Plug-in (SIMATIC Memory Card), max. | with SIMATIC memory card |
| Backup | |
| • present | Yes |
| maintenance-free | Yes |
| without battery | Yes |
| CPU processing times | |

| for bit operations, typ. 0.08 µs; / instruction for word operations, typ. 1.7 µs; / instruction for floating point arithmetic, typ. 2.3 µs; / instruction CPU-blocks 2.3 µs; / instruction Number of blocks (total) DBs, FCs, FBs, counters and timers. The maximum number of addressable blocks ranges from 1 to 65535. There is no restruction OB • Number, max. Limited only by RAM for code Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. Flag • Size, max. 8 kbyte; Size of bit memory address area Local data • per priority class, max. 16 kbyte; Priority class 1 (program cycle): 16 KB, priority class 1 (brogram cycle): 16 KB, pri | iction, the |
|---|--------------|
| for floating point arithmetic, typ. 2.3 µs; / instruction CPU-blocks Number of blocks (total) DBs, FCs, FBs, counters and timers. The maximum number of addressable blocks ranges from 1 to 65535. There is no restrientire working memory can be used OB • Number, max. Limited only by RAM for code Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. 14 kbyte Flag • Size, max. • Size, max. 8 kbyte; Size of bit memory address area Local data • per priority class, max. • per priority class, max. 16 kbyte; Priority class 1 (program cycle): 16 KB, priority class KB Address area • linputs, adjustable • linputs, adjustable 1 kbyte Hardware configuration 1 kbyte | iction, the |
| CPU-blocks Number of blocks (total) DBs, FCs, FBs, counters and timers. The maximum number of addressable blocks ranges from 1 to 65535. There is no restrientire working memory can be used OB • Number, max. Limited only by RAM for code Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. 14 kbyte Flag • Size, max. 8 kbyte; Size of bit memory address area Local data • per priority class, max. 16 kbyte; Priority class 1 (program cycle): 16 KB, priority class KB Address area Process image • Inputs, adjustable 1 kbyte 1 kbyte Hardware configuration | iction, the |
| Number of blocks (total) DBs, FCs, FBs, counters and timers. The maximum number of addressable blocks ranges from 1 to 65535. There is no restrientire working memory can be used OB • Number, max. Limited only by RAM for code Data areas and their retentivity Etentive data area (incl. timers, counters, flags), max. 14 kbyte Flag • Size, max. 8 kbyte; Size of bit memory address area Local data • per priority class, max. 16 kbyte; Priority class 1 (program cycle): 16 KB, priority class KB Address area Process image 1 kbyte • Inputs, adjustable 1 kbyte • Qutputs, adjustable 1 kbyte | iction, the |
| Number, max. Limited only by RAM for code Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. 14 kbyte Flag Size, max. Skbyte; Size of bit memory address area Local data oper priority class, max. 16 kbyte; Priority class 1 (program cycle): 16 KB, priority class KB Address area Process image Inputs, adjustable I kbyte Hardware configuration | s 2 to 26: 6 |
| Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. 14 kbyte Flag 8 kbyte; Size of bit memory address area • Size, max. 8 kbyte; Size of bit memory address area Local data 6 kbyte; Priority class 1 (program cycle): 16 KB, priority class KB Address area 16 kbyte; Priority class 1 (program cycle): 16 KB, priority class KB Process image 1 kbyte • Inputs, adjustable 1 kbyte • Outputs, adjustable 1 kbyte | s 2 to 26: 6 |
| Retentive data area (incl. timers, counters, flags), max. 14 kbyte Flag • Size, max. 8 kbyte; Size of bit memory address area Local data • per priority class, max. 16 kbyte; Priority class 1 (program cycle): 16 KB, priority class KB Address area • Process image • Inputs, adjustable 1 kbyte • Outputs, adjustable 1 kbyte 1 kbyte | s 2 to 26: 6 |
| Flag 8 kbyte; Size of bit memory address area Local data 8 kbyte; Size of bit memory address area • per priority class, max. 16 kbyte; Priority class 1 (program cycle): 16 KB, priority class KB Address area 16 kbyte; Priority class 1 (program cycle): 16 KB, priority class KB Process image 1 kbyte • Inputs, adjustable 1 kbyte • Outputs, adjustable 1 kbyte | s 2 to 26: 6 |
| Size, max. 8 kbyte; Size of bit memory address area Local data o per priority class, max. 16 kbyte; Priority class 1 (program cycle): 16 KB, priority class KB Address area Process image o Inputs, adjustable outputs, adjustable 1 kbyte Hardware configuration | s 2 to 26: 6 |
| Local data • per priority class, max. 16 kbyte; Priority class 1 (program cycle): 16 KB, priority class KB Address area Process image • Inputs, adjustable • Outputs, adjustable 1 kbyte Hardware configuration | s 2 to 26: 6 |
| • per priority class, max. 16 kbyte; Priority class 1 (program cycle): 16 KB, priority class KB Address area Process image • Inputs, adjustable • Outputs, adjustable • Outputs, adjustable 1 kbyte Hardware configuration | s 2 to 26: 6 |
| Process image • Inputs, adjustable • Outputs, adjustable • Outputs, adjustable 1 kbyte Hardware configuration | |
| Inputs, adjustable Outputs, adjustable Adjustable I kbyte I kbyte Hardware configuration | |
| Outputs, adjustable 1 kbyte Hardware configuration | |
| Hardware configuration | |
| | |
| Number of modules per system, max. 3 comm. modules, 1 signal board, 8 signal modules | |
| | |
| Time of day | |
| Clock | |
| Hardware clock (real-time) Yes | |
| Backup time 480 h; Typical | |
| • Deviation per day, max. ±60 s/month at 25 °C | |
| Digital inputs | |
| Number of digital inputs 14; Integrated | |
| of which inputs usable for technological functions 6; HSC (High Speed Counting) | |
| Source/sink input Yes | |
| Number of simultaneously controllable inputs | |
| all mounting positions | |
| — up to 40 °C, max. 14 | |
| Input voltage | |
| • Rated value (DC) 24 V | |
| • for signal "0" 5 V DC at 1 mA | |
| • for signal "1" 15 V DC at 2.5 mA | |
| Input delay (for rated value of input voltage) | |
| for standard inputs | |
| — parameterizable 0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, in groups of four — at "0" to "1", min. 0.2 ms | selectable |
| — at "0" to "1", max. 12.8 ms | |
| for interrupt inputs | |
| – parameterizable Yes | |
| for technological functions | |
| parameterizable Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 8 @ 30 kHz | 0 kHz & 3 |
| Cable length | |
| • shielded, max. 500 m; 50 m for technological functions | |
| unshielded, max. 300 m; for technological functions: No | |
| Digital outputs | |
| Number of digital outputs 10; Relays | |
| Switching capacity of the outputs | |
| • with resistive load, max. 2 A | |
| on lamp load, max. 30 W with DC, 200 W with AC | |
| Output delay with resistive load | |
| • "0" to "1", max. 10 ms; max. | |

| • "1" to "0", max. | 10 ms; max. |
|---|--|
| Relay outputs | 10 mo, max. |
| Number of relay outputs | 10 |
| Number of operating cycles, max. | mechanically 10 million, at rated load voltage 100 000 |
| Cable length | incontaincaily to minion, attacta load tonago too ooo |
| • shielded, max. | 500 m |
| • unshielded, max. | 150 m |
| Analog inputs | |
| Number of analog inputs | 2 |
| Input ranges | 2 |
| Voltage | Yes |
| Input ranges (rated values), voltages | |
| • 0 to +10 V | Yes |
| — Input resistance (0 to 10 V) | ≥100k ohms |
| Cable length | |
| • shielded, max. | 100 m; twisted and shielded |
| Analog outputs | |
| Number of analog outputs | 0 |
| Analog value generation for the inputs | |
| Integration and conversion time/resolution per channel | |
| | 10 bit |
| Resolution with overrange (bit including sign), max. Integration time, parameterizable | Yes |
| Conversion time (per channel) | |
| · · · | 625 µs |
| Encoder | |
| Connectable encoders | Vee |
| 2-wire sensor | Yes |
| 1. Interface | |
| Isolated | Yes |
| automatic detection of transmission rate | Yes |
| Autonegotiation | Yes |
| Autocrossing | Yes |
| Interface types | Vee |
| RJ 45 (Ethernet) | Yes |
| Number of ports | 1 |
| integrated switch | No |
| Protocols PROFINET IO Controller | Yes |
| PROFINET IO Controller PROFINET IO Device | Yes |
| SIMATIC communication | Yes |
| Open IE communication | Yes; Optionally also encrypted |
| Web server | Yes |
| Media redundancy | No |
| PROFINET IO Controller | INO |
| Transmission rate, max. | 100 Mbit/s |
| Services | |
| — PG/OP communication | Yes; encryption with TLS V1.3 pre-selected |
| — Isochronous mode | No |
| — IRT | No |
| — PROFlenergy | No |
| - Prioritized startup | Yes |
| — Number of IO devices with prioritized startup, | 16 |
| max. | |
| - Number of connectable IO Devices, max. | 16 |
| — Number of connectable IO Devices for RT, | 16 |
| max. | |
| — of which in line, max. | 16 |
| Activation/deactivation of IO Devices | Yes |
| — Number of IO Devices that can be | 8 |

| — Updating time The minimum value of the update time also depends on the communication component set for PGCFINET (I). On the number of (I) devices and the quantity of configured user data. PROFINET IG Device Services — PGOP communication Yes: encryption with TLS V1.3 pre-selected — INT No — PROFILE Yes: encryption with TLS V1.3 pre-selected — Number of IO Controllers with shared device. 2 Protocol Yes: Supports protocol for PROFINET IO Yes: PROFILES Yes: CM 1243-5 (master) or CM 1242-5 (alave) required OPE UA Yes: CM 1243-5 (master) or CM 1242-5 (alave) required PROFILES Yes: CM 1243-5 (master) or CM 1242-5 (alave) required PROFILES Yes: CM 1243-5 (master) or CM 1242-5 (alave) required PROFILES Yes: CM 1243-5 (master) or CM 1242-5 (alave) required PROFILES Yes: CM 1243-5 (master) or CM 1242-5 (alave) required Protocols Yes: CM 1243-5 (master) or CM 1242-5 (alave) required Protocols Yes: CM 1243-5 (master) or CM 1242-5 (alave) required Protocols Yes: CM 1243-5 (master) or CM 1242-5 (master) for CM 1242-5 (master) for CM 1242-5 (master) for CM 1242-5 (ma | aimultaneously activated/deastivated_may | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|--|-----------------------|--|--|----------|-----|--|---------------------|---------|--|----------------------|-----|--|---------------------|---------|---|-------|--|---|---------------------|------------|---|--|--|---|-----------|-----|--|--|-----|---|--------|--|---|--------------------------|-------------------------------|---|--|--|--|------------------------------|--|--|-----------------------|--|--|--|----|--|---|----|--|---------------------------|--------|--|-----------------------------|--------|---|----------------------------------|----|--|-----------------------------------|-------|---|-------------------------------------|---|--|---|-------|----------------|---|--|--|--|-----|--|-------------------------|--|
| communication component set for PROFINET I/O, on the number of I/O devices and the quantity of configured user data. PROFINET I/O Device Services PROFINET I/O Device Services PROFINET I/O Device Services PROFILE I/O Device Services Service Services Services Service Services Service | simultaneously activated/deactivated, max. | The minimum value of the undete time class depende on the | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| devices and the quantity of configured user data. PROFINET 10 Device Services | — Opdating time | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Services Yes; encryption with TLS V1.3 pre-selected PGOP communication Yes; encryption with TLS V1.3 pre-selected IRT No PROFIenergy Yes Shared device Yes Mumber of IO Controllers with shared device, max. 2 Mumber of IO Controllers with shared device, max. 2 Supports protocol for PROFINET IO Yes OPC UA Yes; CM 1243-5 (master) or CM 1242-5 (slave) required OPC UA Yes; CM 1243-2 required Protocol [Ethemeth] Yes - TOP/IP Yes • DPC/P Yes • DC/P Yes • DC/P Yes • DC/P Yes • DLP Yes • DC/P Yes • ST routing Yes • DC/P Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PGOP communication Ves; encryption with TLS V1.3 pre-selected Isochronous mode No PROFILE Shared device When and device Nomber of ID Controllers with shared device, max. Profile Supports protocol for PROFINET IO Yes Profile Supports protocol for PROFINET IO Yes Profile Supports protocol for PROFINET IO Yes Profile Yes Profile Yes Profile Yes Profile Yes Profile Yes Profile Yes Yes Profile Yes < | PROFINET IO Device | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Services | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| - IRT No - PROFIDENERGY Yes - Number of IO Controllers with shared device, max. 2 Protocols Supports protocol for PROFINET IO Yes Supports protocol for PROFINET IO Yes; CM 1243-5 (master) or CM 1242-5 (slave) required PROFIBUS Yes; CM 1243-2 (required OPC UA Yes; CM 1243-2 (required PROFIBUS Yes; CM 1243-2 (required OPC UA Yes - TCP/IP Yes • DPCP Yes • MRP No - MRP No - MRP No - Data length, max. 8 kbyte • STorolling Yes Open IE communication Yes • TCP/IP Yes - Data length, max. 8 kbyte • UDP Yes - Data length, max. 8 kbyte • UDP Yes; 'data access (read, write, subscribe), method call, runtime license required • OPC UA Yes; 'data access (read, write, subscribe), method call, runtime license required • OPC UA Yes; 'data access (read, writ | — PG/OP communication | Yes; encryption with TLS V1.3 pre-selected | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| — PROFInergy Ves — Shared device, 2 — Number of IO Controllers with shared device, 2 Protocols Supports protocol for PROFINET IO Yes PROFIBUS OPC UN Server Server Ves: CM 1243-2 (naster) or CM 1242-5 (slave) required OPC UA Yes: CM 1243-2 required Protocols (Ethemel) TCP/IP Yes CMC Q SNMP Yes DCP Yes DCP Yes No SNMP Yes DCP Yes Redundancy mode Media redundancy — NRP No — NRP No — NRP No — NRP No — SNMPI Yes Copel (Sommunication ST routing Yes Open (E communication ST routing Yes Open (E communication Strong (Sommunication) TCP/IP Yes Dola length, max. B ktyle ISO-OP CIP (RFC1006) Yes — Oata length, max. B ktyle UDP Yes — Data length, max. Yes Oper (Lic communication Station (Sommunication) Yes — Oata length, max. B ktyle UDP Yes — Data length, max. Yes — Oata length, max. Yes — Oata length, max. Yes OPC UA Web server Yes data access (read, write, subscribe), method call, runtime license required Poplication authentication — Application authentication — Application authentication — Application authentication — Nomber of server interfaces, max. | — Isochronous mode | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shared device Yes Number of IO Controllers with shared device. Protocols Supports protocol for PROFINET IO Yes: CM 1243-5 (master) or CM 1242-5 (slave) required OPC UA Yes: CM 1243-2 (required Protocols (Ethernet) TCP/P Yes OPC IA Yes: CM 1243-2 required Protocols (Ethernet) TCP/P Yes ODCP Yes SOMATIC communication STrothing Yes ODCH Nax. Sklyte SIGO-n-TOP (RFC1006) Yes ODat length, max. Sklyte UDP Yes ODat length, max. Sklyte UDP Yes ODat length, max. Sklyte VEP Obat length, max. Sklyte VEP Obat length, max. Sklyte VEP ODat length, max. Sklyte VEP ODATIONE (SKR) Yes OPC UA Yes Second (SKR) OPC UA Yes Second (SKR) OPC UA Server Application authentication Available security policies. None, Basic128Rsa15, Basic256Rsa15, Basic256 | — IRT | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shared device Yes Number of IO Controllers with shared device. Protocols Supports protocol for PROFINET IO Yes: CM 1243-5 (master) or CM 1242-5 (slave) required OPC UA Yes: CM 1243-2 (required Protocols (Ethernet) TCP/P Yes OPC IA Yes: CM 1243-2 required Protocols (Ethernet) TCP/P Yes ODCP Yes SOMATIC communication STrothing Yes ODCH Nax. Sklyte SIGO-n-TOP (RFC1006) Yes ODat length, max. Sklyte UDP Yes ODat length, max. Sklyte UDP Yes ODat length, max. Sklyte VEP Obat length, max. Sklyte VEP Obat length, max. Sklyte VEP ODat length, max. Sklyte VEP ODATIONE (SKR) Yes OPC UA Yes Second (SKR) OPC UA Yes Second (SKR) OPC UA Server Application authentication Available security policies. None, Basic128Rsa15, Basic256Rsa15, Basic256 | — PROFleneray | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of IO Controllers with shared device. 2 Protocola Supports protocol for PROFINET IO Yes Supports protocol for PROFINET IO Yes CM 1243-5 (master) or CM 1242-5 (slave) required OPC UA Yes: OPC UA Server Yes: CM 1243-2 required OPC UA Yes: CM 1243-2 required Protocois (Ethernet) - • TCP/IP Yes • DPC OP No • SNMP Yes • DCP Yes • DCP Yes • LLDP Yes Redundancy mode - Media redundancy - - MRP No - MRPD No - MRPD No - ST routing Yes Opene Lic communication - - TCP/IP Yes - Data length, max. 8 kbyte - ISO-on-TCP (RFC1006) Yes - Data length, max. 1472 byte Web server - Data length, max. 1472 byte Web server - Data length, max. 1472 byte | | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| max. Protocols Supports protocol for PROFINET IO PROFIBUS OPC UA Yes: CM 1243-5 (master) or CM 1242-5 (slave) required OPC UA Yes: OPC UA Server A5-Interface Yes: OPC UA Server No SNMP Yes DPCP Yes LLDP Yes Redundancy mode Redundancy - MRPD No SIMMTIC communication STOP (PC 1006) Yes Open IE communication SIMATIC communication S15-on-TCP (RFC1006) Dec 1472 Server Supported UPP Yes - Data length, max. B kbyte SiSo-on-TCP (RFC1006) Yes - Data length, max. B kbyte Server Supported UPP Yes OPC UA Yes: Table (Server) POC UA No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Supports protocol for PROFINET IO Yes PROFIBUS Yes; CM 1243-5 (master) or CM 1242-5 (slave) required OPC UA Yes; OPC UA Server AS-Interface Yes; CM 1243-2 required Protocols (Ethernet) Yes • TCP/IP Yes • DCP No • SNMP Yes • DCP Yes • Edundancy Yes Redundancy mode Yes Media redundancy Yes - MRP No - MRPD No - Strouting Yes Open IE communication Yes • ST routing Yes Open IE communication Yes • Solon-TCP (RFC1006) Yes · Data length, max. 8 kbyte • UDP Yes - Data length, max. 8 kbyte • UDP Yes - Data length, max. 1472 byte Web server Yes • User-defined websites Yes • User defined websites Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PROFIBUS Yes: CM 1243-5 (master) or CM 1242-5 (slave) required OPC UA Yes: OPC UA Server AS-Interface Yes: CM 1243-2 required Protocols (Ethernet) Yes: CM 1243-2 required • TCP/IP Yes • DHCP No • SIMNP Yes • DCP Yes • ULDP Yes • MRP Yes • MRP Yes - MRP No - MRPD No SToruing Yes Open IE communication * • TCP/IP Yes - Data length, max. 8 kbyte • ISO-On-TCP (RFC1006) Yes - Data length, max. 8 kbyte • UDP Yes - Data length, max. 1472 byte Web server Yes • Supported Yes • OPC UA Yes • CPC UA Server Yes • CPC UA Server Yes • OPC UA Server Yes • CPC UA Server Yes <td>Protocols</td> <td></td> | Protocols | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OPC UA Yes; OPC UA Server AS-Interface Yes; CM 1243-2 required Protocols (Elhernet) Yes • TCP/IP No • SIMAP Yes • DCP Yes • DLDP Yes • DLDP Yes • DLDP Yes • DLDP Yes • Baddracy mode Yes Media redundancy - - MRPD No SIMATIC communication Yes • ST routing Yes Open IE communication Yes • TCP/IP Yes - Data length, max. 8 kbyte • ISO-on-TCP (RFC1006) Yes - Data length, max. 1472 byte Web server - - Data length, max. 1472 byte Web server Yes, 'Basic' license required • UDP Yes • Runtime license required Yes, 'Basic' license required • OPC UA Yes, 'data access (read, write, subscribe), method call, runtime license required • OPC UA Yes, 'data access (read, write, subscribe), method call, runtime license required </td <td>Supports protocol for PROFINET IO</td> <td>Yes</td> | Supports protocol for PROFINET IO | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OPC UA Yes; OPC UA Server AS-Interface Yes; OPC UA Server AS-Interface Yes; OPC UA Server TCP/IP Yes • DHCP No • SIMNP Yes • DLDP Yes • DLDP Yes • DLDP Yes • DLDP Yes • Edundancy mode Hedia redundancy Media redundancy No - MRPD No SIMMTIC communication Yes • ST oroting Yes Open IE communication Yes • TCP/IP Yes - Data length, max. 8 kbyte • ISO-on-TCP (RFC1006) Yes - Data length, max. 1472 byte Web server Yes • UDP Yes • Runtime license required Yes; "Basic" license required • OPC UA Yes; "data access (required yeal, write, subscribe), method call, runtime license required • OPC UA Yes; "data access (required yeal, write, subscribe), method call, runtime license required • OPC UA "anonymous" or by user name & password - Number of secsions, max. 10 - Number of secsions, max. 20 - Number of server methods, max. 20 - Number of serv | PROFIBUS | Yes; CM 1243-5 (master) or CM 1242-5 (slave) required | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AS-Interface Yes; CM 1243-2 required Protocols (Ethemet) TCP/IP • TCP/IP Yes • DHCP No • SIMMP Yes • DCP Yes • LDP Yes Redundancy mode Media redundancy | OPC UA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protocols (Ethemet) Yes • TCP/IP Yes • DHCP No • SNMP Yes • DCP Yes • LLDP Yes Redundancy mode Yes Melia redundancy Yes - MRP No - MRPD No STrouting Yes Open IE communication * • S7 routing Yes Open IE communication * • ISO-on-TCP (RFC1006) Yes · Data length, max. 8 kbyte • UDP Yes · Data length, max. 1472 byte Web server Yes • Supported Yes • UDP Yes • Rumine license required Yes 'Basic' license required • OPC UA Yes (ata access (read, write, subscribe), method call, runtime license required • OPC UA Yes (ata access (read, write, subscribe), method call, runtime license required • OPC UA Yes (ata access (read, write, subscribe), method call, runtime license required • OPC UA Yes (ata access (read, write, subscribe), method call, runtime license required < | AS-Interface | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| • TCP/IPYes• DHCPNo• SINMPYes• DCPYes• DCPYes• LDPYes• Media redundancy | Protocols (Ethernet) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| • DHCPNo• SINIPYes• DCPYes• LLDPYesRedundancy mode/////////////////////////////// | | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DCP Yes ILDP Yes Redundancy mode Media redundancy MRPP No No MRPO No SIMATIC communication S7 routing Yes Open IE communication S7 routing Yes Data length, max. S kbyte S0-on-TCP (RFC1006) Yes Data length, max. S kbyte Data length, max. S kbyte DDP Yes Data length, max. S kbyte UDP Ves Data length, max. S kbyte UDP Ves Otal length, max. S kbyte Otal length, max. S bota length, max. S bota length, max. S bota length, max. S bota length length, max. S continue length, max. S contis length length, length, length, length, | • DHCP | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DCP Yes ILDP Yes Redundancy mode Media redundancy MRPP No No MRPO No SIMATIC communication S7 routing Yes Open IE communication S7 routing Yes Data length, max. S kbyte S0-on-TCP (RFC1006) Yes Data length, max. S kbyte Data length, max. S kbyte DDP Yes Data length, max. S kbyte UDP Ves Data length, max. S kbyte UDP Ves Otal length, max. S kbyte Otal length, max. S bota length, max. S bota length, max. S bota length, max. S bota length length, max. S continue length, max. S contis length length, length, length, length, | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| • LLDP Yes Redundancy mode | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Redundancy mode Media redundancy MRP No MRPD No SIMATIC communication Yes Open IE communication Yes Data length, max. 8 kbyte - Data length, max. 1472 byte Web server Yes - Data length, max. 1472 byte Web server Yes - Supported Yes • Supported Yes • Supported Yes • Runtime license required Yes; "Basic" license required • OPC UA Yes; data access (read, write, subscribe), method call, runtime license required • OPC UA Statischicense required - User authentication "aronymous" or by user name & password - Number of sessions, max. 10 - Number of sessions, max. 100 ms - Sampling interval, min. 200 ms - Number of norbitored items, max. 200 - Number of | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Media redundancy MRP No MRPD No SIMATIC communication Ves Open IE communication Yes Open IE communication Ves Data length, max. 8 kbyte - ISO-on-TCP (RFC1006) Yes Data length, max. 8 kbyte - Data length, max. 8 kbyte - Data length, max. 1472 byte Web server Ves - Data length, max. 1472 byte Web server Ves • Supported Yes • UDP Yes - Data length, max. 1472 byte Web server Ves • Supported Yes • UDP Yes - Data length, max. 1472 byte Web server Ves • Supported Yes • UDP Yes - Data length, max. 1472 byte Web server Ves • Supported Yes • UDP Yes • Runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MRP No SIMATIC communication | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SIMATIC communication Yes Open IE communication Yes Open IE communication Yes • TCP/IP Yes • Data length, max. 8 kbyte • ISO-on-TCP (RFC1006) Yes — Data length, max. 8 kbyte • UDP Yes — Data length, max. 1472 byte Web server Yes • Supported Yes • User-defined websites Yes OPC UA Yes; "Basic" license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required • OPC UA Server Yes; data acces | - | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| • \$7 routing Yes Open IE communication ************************************ | — MRPD | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Open IE communication Yes - Data length, max. 8 kbyte • ISO-on-TCP (RFC1006) Yes - Data length, max. 8 kbyte • UDP Yes - Data length, max. 1472 byte Web server 1472 byte • UDP Yes - Data length, max. 1 472 byte Web server Yes • Susported Yes • User-defined websites Yes OPC UA Yes: "Basic" license required • OPC UA Server Yes: data access (read, write, subscribe), method call, runtime license required - Application authentication Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of sessions, max. 10 - Number of subscriptions per session, max. 50 - Sampling interval, min. 200 - Number of monitored items, max. 1000 - Number of server methods, max. 2 - Number of nodes for user-defined server interfaces, max. 2 - Number of nodes for user-defined server | SIMATIC communication | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| • TCP/IPYes- Data length, max.8 kbyte• ISO-on-TCP (RFC1006)Yes- Data length, max.8 kbyte• UDPYes- Data length, max.1 472 byteWeb server• Data length, max.1 472 byteWeb server• User-defined websitesYes• User-defined websitesYes• OPC UAYes; "Basic" license required• Runtime license requiredYes; "Basic" license required• OPC UAYes; "data access (read, write, subscribe), method call, runtime license required• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required- Application authenticationAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of sessions, max.50- Sampling interval, min.200 ms- Number of monitored items, max.20- Number of nodes for user-defined server interfaces, max.2- Number of nodes for user-defined server interfaces, max.2- Number of nodes for user-defined server interfaces, max.2000- Number of nodes for user-defined server2000- Number of nodes for user-defined server2000 <tr <td="">- MODBUSYes<td>S7 routing</td><td>Yes</td></tr> <tr><td> Data length, max.8 kbyte· ISO-on-TCP (RFC1006)Yes·- Data length, max.8 kbyte· UDPYes Data length, max.1 472 byteWebserver1 472 byte· SupportedYes· User-defined websitesYesOPC UAYes; "Basic" license required· OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required- Application authenticationYes; data access (read, write, subscribe), method call, runtime license required- User authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of subscriptions per session, max.50- Sampling interval, min.100 ms- Number of server methods, max.20- Number of server methods, max.20- Number of server interfaces, max.20- Number of server interfaces, max.2000- Number of server interfaces, max.2000- Number of nodes for user-defined server interfaces, max.2000<td>Open IE communication</td><td></td></td></tr> <tr><td>• ISO-on-TCP (RFC1006)Yes- Data length, max.8 kbyte• UDPYes- Data length, max.1472 byteWeb server*• supportedYes• User-defined websitesYesOPC UA*• Runtime license requiredYes; "Basic" license required• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required• OPC UA ServerYes; 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"Basic" license required • Runtime license required Yes; data access (read, write, subscribe), method call, runtime license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required - Application authentication Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of sessions, max. 10 - Number of subscriptions per session, max. 50 - Sampling interval, min. 200 ms - Number of server methods, max. 1000 - Number of server interfaces, max. 2 - Number of notiored items, max. 2 - Number of notes for user-defined server interfaces, max. 2 - Number of nodes for user-defined server interfaces, max. 2 - Number of nodes for user-defined server 2 - Number of nodes for user-defined server interfaces, max. 2 - MOBBUS Yes</td><td>• UDP</td><td></td></tr> <tr><td>Web server Yes • supported Yes • User-defined websites Yes OPC UA Yes; "Basic" license required • Runtime license required Yes; data access (read, write, subscribe), method call, runtime license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required - Application authentication Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of sessions, max. 10 - Number of subscriptions per session, max. 50 - Sampling interval, min. 200 ms - Number of server methods, max. 1000 - Number of server interfaces, max. 2 - Number of notiored items, max. 2 - Number of notes for user-defined server interfaces, max. 2 - Number of nodes for user-defined server interfaces, max. 2 - Number of nodes for user-defined server 2 - Number of nodes for user-defined server interfaces, max. 2 - MOBBUS Yes</td><td>— Data length, max.</td><td>1 472 byte</td></tr> <tr><td>• User-defined websites Yes OPC UA • Runtime license required • OPC UA Server • Application authentication - Application authentication - User authentication - User authentication - User authentication - Number of sessions, max. - Number of subscriptions per session, max. - Sampling interval, min. - Publishing interval, min. - Number of server methods, max. - Number of nonitored items, max. - Number of server interfaces, max. - Number of nonitored items, max. - Number of nonitored items, max. - Number of notes for user-defined server interfaces, max. - Number of notored items, max. - Number of notored fined server interfaces, max. - Number of notored fined server - NODBUS Yes </td><td></td><td></td></tr> <tr><td>OPC UA Yes; "Basic" license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required - Application authentication Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of sessions, max. 10 - Number of subscriptions per session, max. 50 - Sampling interval, min. 100 ms - Number of server methods, max. 20 - Number of server methods, max. 1 000 - Number of server interfaces, max. 2 - Number of nonitored items, max. 2 000 - Number of nodes for user-defined server interfaces, max. 2 000</td><td>supported</td><td>Yes</td></tr> <tr><td>• Runtime license required Yes; "Basic" license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required - Application authentication Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of sessions, max. 10 - Number of subscriptions per session, max. 50 - Sampling interval, min. 100 ms - Number of server methods, max. 200 ms - Number of server methods, max. 1000 - Number of server interfaces, max. 2 - Number of server interfaces, max. 2 - Number of server interfaces, max. 2 - Number of nondes for user-defined server interfaces, max. 2 - Number of nodes for user-defined server interfaces, max. 2 - Number of nodes for user-defined server interfaces, max. 2 - MODBUS Yes</td><td></td><td>Yes</td></tr> <tr><td>• OPC UA ServerYes; 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"Basic" license required</td></tr> <tr><td>Basic256Sha256 User authentication"anonymous" or by user name & password Number of sessions, max.10 Number of subscriptions per session, max.50 Sampling interval, min.100 ms Publishing interval, min.200 ms Number of server methods, max.20 Number of server methods, max.1000 Number of server methods, max.20 Number of server interfaces, max.200 Number of server interfaces, max.2 Number of nodes for user-defined server interfaces, max.2000 Further protocolsYes</td><td></td><td></td></tr> <tr><td> Number of sessions, max.10 Number of subscriptions per session, max.50 Sampling interval, min.100 ms Publishing interval, min.200 ms Number of server methods, max.20 Number of monitored items, max.1 000 Number of server interfaces, max.2 Number of nodes for user-defined server interfaces, max.2 000Further protocolsYes</td><td>— Application authentication</td><td></td></tr> <tr><td> Number of subscriptions per session, max.50 Sampling interval, min.100 ms Publishing interval, min.200 ms Number of server methods, max.20 Number of monitored items, max.1 000 Number of server interfaces, max.2 Number of nodes for user-defined server interfaces, max.2 000Further protocols•- MODBUSYes</td><td>— User authentication</td><td>"anonymous" or by user name & password</td></tr> <tr><td>— Sampling interval, min. 100 ms — Publishing interval, min. 200 ms — Number of server methods, max. 20 — Number of monitored items, max. 1 000 — Number of server interfaces, max. 2 — Number of nodes for user-defined server interfaces, max. 2 000 — Number of nodes for user-defined server interfaces, max. 2 000 — Number of nodes for user-defined server interfaces, max. 2 000 — Further protocols Yes</td><td> — Number of sessions, max. </td><td>10</td></tr> <tr><td></td><td> — Number of subscriptions per session, max. </td><td>50</td></tr> <tr><td> Number of server methods, max. 20 Number of monitored items, max. 1 000 Number of server interfaces, max. 2 Number of nodes for user-defined server interfaces, max. 2 000 Further protocols Yes</td><td>— Sampling interval, min.</td><td>100 ms</td></tr> <tr><td> Number of monitored items, max. 1 000 Number of server interfaces, max. 2 Number of nodes for user-defined server interfaces, max. 2 000 Further protocols Yes</td><td>— Publishing interval, min.</td><td>200 ms</td></tr> <tr><td>- Number of server interfaces, max. 2 - Number of nodes for user-defined server interfaces, max. 2 000 Further protocols 2 000 • MODBUS Yes</td><td>- Number of server methods, max.</td><td>20</td></tr> <tr><td> Number of nodes for user-defined server interfaces, max. 2 000 Further protocols Yes</td><td>- Number of monitored items, max.</td><td>1 000</td></tr> <tr><td>interfaces, max. Further protocols MODBUS Yes</td><td>- Number of server interfaces, max.</td><td>2</td></tr> <tr><td>Further protocols • MODBUS Yes</td><td> — Number of nodes for user-defined server </td><td>2 000</td></tr> <tr><td>MODBUS Yes</td><td>-</td><td></td></tr> <tr><td></td><td></td><td>Yes</td></tr> <tr><td></td><td>Communication functions</td><td></td></tr> | S7 routing | Yes | Data length, max.8 kbyte· ISO-on-TCP (RFC1006)Yes·- Data length, max.8 kbyte· UDPYes Data length, max.1 472 byteWebserver1 472 byte· SupportedYes· User-defined websitesYesOPC UAYes; "Basic" license required· OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required- Application authenticationYes; data access (read, write, subscribe), method call, runtime license required- User authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of subscriptions per session, max.50- Sampling interval, min.100 ms- Number of server methods, max.20- Number of server methods, max.20- Number of server interfaces, max.20- Number of server interfaces, max.2000- Number of server interfaces, max.2000- Number of nodes for user-defined server interfaces, max.2000 <td>Open IE communication</td> <td></td> | Open IE communication | | • ISO-on-TCP (RFC1006)Yes- Data length, max.8 kbyte• UDPYes- Data length, max.1472 byteWeb server*• supportedYes• User-defined websitesYesOPC UA*• Runtime license requiredYes; "Basic" license required• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required• Application authenticationAvailabe security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password- Number of sessions, max.10- Sampling interval, min.200 ms- Number of server methods, max.20- Number of server interfaces, max.2- Number of nonitored items, max.1000- Number of server interfaces, max.2- Number of nonitored items, max.200- Number of nodes for user-defined server interfaces, max.2- Number of nodes for user-defined server interfaces, max.2- Number of server interfaces, max.2- Number of nodes for user-defined server interfaces, max.2 | • TCP/IP | Yes | Data length, max.8 kbyte• UDPYes Data length, max.1 472 byteWeb server | — Data length, max. | 8 kbyte | • UDPYes Data length, max.1 472 byteWeb server | ISO-on-TCP (RFC1006) | Yes | • UDPYes Data length, max.1 472 byteWeb server | — Data length, max. | 8 kbyte | Web server Yes • supported Yes • User-defined websites Yes OPC UA Yes; "Basic" license required • Runtime license required Yes; data access (read, write, subscribe), method call, runtime license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required - Application authentication Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of sessions, max. 10 - Number of subscriptions per session, max. 50 - Sampling interval, min. 200 ms - Number of server methods, max. 1000 - Number of server interfaces, max. 2 - Number of notiored items, max. 2 - Number of notes for user-defined server interfaces, max. 2 - Number of nodes for user-defined server interfaces, max. 2 - Number of nodes for user-defined server 2 - Number of nodes for user-defined server interfaces, max. 2 - MOBBUS Yes | • UDP | | Web server Yes • supported Yes • User-defined websites Yes OPC UA Yes; "Basic" license required • Runtime license required Yes; 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"Basic" license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required - Application authentication Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of sessions, max. 10 - Number of subscriptions per session, max. 50 - Sampling interval, min. 100 ms - Number of server methods, max. 20 - Number of server methods, max. 1 000 - Number of server interfaces, max. 2 - Number of nonitored items, max. 2 000 - Number of nodes for user-defined server interfaces, max. 2 000 | supported | Yes | • Runtime license required Yes; "Basic" license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required - Application authentication Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of sessions, max. 10 - Number of subscriptions per session, max. 50 - Sampling interval, min. 100 ms - Number of server methods, max. 200 ms - Number of server methods, max. 1000 - Number of server interfaces, max. 2 - Number of server interfaces, max. 2 - Number of server interfaces, max. 2 - Number of nondes for user-defined server interfaces, max. 2 - Number of nodes for user-defined server interfaces, max. 2 - Number of nodes for user-defined server interfaces, max. 2 - MODBUS Yes | | Yes | • OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required- Application authenticationAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of subscriptions per session, max.50- Sampling interval, min.100 ms- Publishing interval, min.200 ms- Number of server methods, max.1- Number of server methods, max.20- Number of server methods, max.200- Number of server interfaces, max.2- Number of nonitored items, max.2- Number of nonitored items, max.2- Number of nodes for user-defined server interfaces, max.2- Number of nodes for user-defined server interfaces, max.2- MODBUSYes | OPC UA | | • OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required- Application authenticationAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of subscriptions per session, max.50- Sampling interval, min.100 ms- Publishing interval, min.200 ms- Number of server methods, max.1- Number of server methods, max.20- Number of server methods, max.200- Number of server interfaces, max.2- Number of nonitored items, max.2- Number of nonitored items, max.2- Number of nodes for user-defined server interfaces, max.2- Number of nodes for user-defined server interfaces, max.2- MODBUSYes | Runtime license required | Yes; "Basic" license required | Basic256Sha256 User authentication"anonymous" or by user name & password Number of sessions, max.10 Number of subscriptions per session, max.50 Sampling interval, min.100 ms Publishing interval, min.200 ms Number of server methods, max.20 Number of server methods, max.1000 Number of server methods, max.20 Number of server interfaces, max.200 Number of server interfaces, max.2 Number of nodes for user-defined server interfaces, max.2000 Further protocolsYes | | | Number of sessions, max.10 Number of subscriptions per session, max.50 Sampling interval, min.100 ms Publishing interval, min.200 ms Number of server methods, max.20 Number of monitored items, max.1 000 Number of server interfaces, max.2 Number of nodes for user-defined server interfaces, max.2 000Further protocolsYes | — Application authentication | | Number of subscriptions per session, max.50 Sampling interval, min.100 ms Publishing interval, min.200 ms Number of server methods, max.20 Number of monitored items, max.1 000 Number of server interfaces, max.2 Number of nodes for user-defined server interfaces, max.2 000Further protocols•- MODBUSYes | — User authentication | "anonymous" or by user name & password | — Sampling interval, min. 100 ms — Publishing interval, min. 200 ms — Number of server methods, max. 20 — Number of monitored items, max. 1 000 — Number of server interfaces, max. 2 — Number of nodes for user-defined server interfaces, max. 2 000 — Number of nodes for user-defined server interfaces, max. 2 000 — Number of nodes for user-defined server interfaces, max. 2 000 — Further protocols Yes | — Number of sessions, max. | 10 | | — Number of subscriptions per session, max. | 50 | Number of server methods, max. 20 Number of monitored items, max. 1 000 Number of server interfaces, max. 2 Number of nodes for user-defined server interfaces, max. 2 000 Further protocols Yes | — Sampling interval, min. | 100 ms | Number of monitored items, max. 1 000 Number of server interfaces, max. 2 Number of nodes for user-defined server interfaces, max. 2 000 Further protocols Yes | — Publishing interval, min. | 200 ms | - Number of server interfaces, max. 2 - Number of nodes for user-defined server interfaces, max. 2 000 Further protocols 2 000 • MODBUS Yes | - Number of server methods, max. | 20 | Number of nodes for user-defined server interfaces, max. 2 000 Further protocols Yes | - Number of monitored items, max. | 1 000 | interfaces, max. Further protocols MODBUS Yes | - Number of server interfaces, max. | 2 | Further protocols • MODBUS Yes | — Number of nodes for user-defined server | 2 000 | MODBUS Yes | - | | | | Yes | | Communication functions | |
| S7 routing | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Data length, max.8 kbyte· ISO-on-TCP (RFC1006)Yes·- Data length, max.8 kbyte· UDPYes Data length, max.1 472 byteWebserver1 472 byte· SupportedYes· User-defined websitesYesOPC UAYes; "Basic" license required· OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required- Application authenticationYes; data access (read, write, subscribe), method call, runtime license required- User authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of subscriptions per session, max.50- Sampling interval, min.100 ms- Number of server methods, max.20- Number of server methods, max.20- Number of server interfaces, max.20- Number of server interfaces, max.2000- Number of server interfaces, max.2000- Number of nodes for user-defined server interfaces, max.2000 <td>Open IE communication</td> <td></td> | Open IE communication | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| • ISO-on-TCP (RFC1006)Yes- Data length, max.8 kbyte• UDPYes- Data length, max.1472 byteWeb server*• supportedYes• User-defined websitesYesOPC UA*• Runtime license requiredYes; "Basic" license required• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required• Application authenticationAvailabe security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password- Number of sessions, max.10- Sampling interval, min.200 ms- Number of server methods, max.20- Number of server interfaces, max.2- Number of nonitored items, max.1000- Number of server interfaces, max.2- Number of nonitored items, max.200- Number of nodes for user-defined server interfaces, max.2- Number of nodes for user-defined server interfaces, max.2- Number of server interfaces, max.2- Number of nodes for user-defined server interfaces, max.2 | • TCP/IP | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Data length, max.8 kbyte• UDPYes Data length, max.1 472 byteWeb server | — Data length, max. | 8 kbyte | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| • UDPYes Data length, max.1 472 byteWeb server | ISO-on-TCP (RFC1006) | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| • UDPYes Data length, max.1 472 byteWeb server | — Data length, max. | 8 kbyte | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Web server Yes • supported Yes • User-defined websites Yes OPC UA Yes; "Basic" license required • Runtime license required Yes; data access (read, write, subscribe), method call, runtime license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required - Application authentication Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of sessions, max. 10 - Number of subscriptions per session, max. 50 - Sampling interval, min. 200 ms - Number of server methods, max. 1000 - Number of server interfaces, max. 2 - Number of notiored items, max. 2 - Number of notes for user-defined server interfaces, max. 2 - Number of nodes for user-defined server interfaces, max. 2 - Number of nodes for user-defined server 2 - Number of nodes for user-defined server interfaces, max. 2 - MOBBUS Yes | • UDP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Web server Yes • supported Yes • User-defined websites Yes OPC UA Yes; "Basic" license required • Runtime license required Yes; data access (read, write, subscribe), method call, runtime license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required - Application authentication Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of sessions, max. 10 - Number of subscriptions per session, max. 50 - Sampling interval, min. 200 ms - Number of server methods, max. 1000 - Number of server interfaces, max. 2 - Number of notiored items, max. 2 - Number of notes for user-defined server interfaces, max. 2 - Number of nodes for user-defined server interfaces, max. 2 - Number of nodes for user-defined server 2 - Number of nodes for user-defined server interfaces, max. 2 - MOBBUS Yes | — Data length, max. | 1 472 byte | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| • User-defined websites Yes OPC UA • Runtime license required • OPC UA Server • Application authentication - Application authentication - User authentication - User authentication - User authentication - Number of sessions, max. - Number of subscriptions per session, max. - Sampling interval, min. - Publishing interval, min. - Number of server methods, max. - Number of nonitored items, max. - Number of server interfaces, max. - Number of nonitored items, max. - Number of nonitored items, max. - Number of notes for user-defined server interfaces, max. - Number of notored items, max. - Number of notored fined server interfaces, max. - Number of notored fined server - NODBUS Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OPC UA Yes; "Basic" license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required - Application authentication Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of sessions, max. 10 - Number of subscriptions per session, max. 50 - Sampling interval, min. 100 ms - Number of server methods, max. 20 - Number of server methods, max. 1 000 - Number of server interfaces, max. 2 - Number of nonitored items, max. 2 000 - Number of nodes for user-defined server interfaces, max. 2 000 | supported | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| • Runtime license required Yes; "Basic" license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required - Application authentication Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of sessions, max. 10 - Number of subscriptions per session, max. 50 - Sampling interval, min. 100 ms - Number of server methods, max. 200 ms - Number of server methods, max. 1000 - Number of server interfaces, max. 2 - Number of server interfaces, max. 2 - Number of server interfaces, max. 2 - Number of nondes for user-defined server interfaces, max. 2 - Number of nodes for user-defined server interfaces, max. 2 - Number of nodes for user-defined server interfaces, max. 2 - MODBUS Yes | | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| • OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required- Application authenticationAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of subscriptions per session, max.50- Sampling interval, min.100 ms- Publishing interval, min.200 ms- Number of server methods, max.1- Number of server methods, max.20- Number of server methods, max.200- Number of server interfaces, max.2- Number of nonitored items, max.2- Number of nonitored items, max.2- Number of nodes for user-defined server interfaces, max.2- Number of nodes for user-defined server interfaces, max.2- MODBUSYes | OPC UA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| • OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required- Application authenticationAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of subscriptions per session, max.50- Sampling interval, min.100 ms- Publishing interval, min.200 ms- Number of server methods, max.1- Number of server methods, max.20- Number of server methods, max.200- Number of server interfaces, max.2- Number of nonitored items, max.2- Number of nonitored items, max.2- Number of nodes for user-defined server interfaces, max.2- Number of nodes for user-defined server interfaces, max.2- MODBUSYes | Runtime license required | Yes; "Basic" license required | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basic256Sha256 User authentication"anonymous" or by user name & password Number of sessions, max.10 Number of subscriptions per session, max.50 Sampling interval, min.100 ms Publishing interval, min.200 ms Number of server methods, max.20 Number of server methods, max.1000 Number of server methods, max.20 Number of server interfaces, max.200 Number of server interfaces, max.2 Number of nodes for user-defined server interfaces, max.2000 Further protocolsYes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of sessions, max.10 Number of subscriptions per session, max.50 Sampling interval, min.100 ms Publishing interval, min.200 ms Number of server methods, max.20 Number of monitored items, max.1 000 Number of server interfaces, max.2 Number of nodes for user-defined server interfaces, max.2 000Further protocolsYes | — Application authentication | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of subscriptions per session, max.50 Sampling interval, min.100 ms Publishing interval, min.200 ms Number of server methods, max.20 Number of monitored items, max.1 000 Number of server interfaces, max.2 Number of nodes for user-defined server interfaces, max.2 000Further protocols•- MODBUSYes | — User authentication | "anonymous" or by user name & password | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| — Sampling interval, min. 100 ms — Publishing interval, min. 200 ms — Number of server methods, max. 20 — Number of monitored items, max. 1 000 — Number of server interfaces, max. 2 — Number of nodes for user-defined server interfaces, max. 2 000 — Number of nodes for user-defined server interfaces, max. 2 000 — Number of nodes for user-defined server interfaces, max. 2 000 — Further protocols Yes | — Number of sessions, max. | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | — Number of subscriptions per session, max. | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of server methods, max. 20 Number of monitored items, max. 1 000 Number of server interfaces, max. 2 Number of nodes for user-defined server interfaces, max. 2 000 Further protocols Yes | — Sampling interval, min. | 100 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of monitored items, max. 1 000 Number of server interfaces, max. 2 Number of nodes for user-defined server interfaces, max. 2 000 Further protocols Yes | — Publishing interval, min. | 200 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| - Number of server interfaces, max. 2 - Number of nodes for user-defined server interfaces, max. 2 000 Further protocols 2 000 • MODBUS Yes | - Number of server methods, max. | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of nodes for user-defined server interfaces, max. 2 000 Further protocols Yes | - Number of monitored items, max. | 1 000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| interfaces, max. Further protocols MODBUS Yes | - Number of server interfaces, max. | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Further protocols • MODBUS Yes | — Number of nodes for user-defined server | 2 000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MODBUS Yes | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Communication functions | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| S7 communication | N. |
|---|--|
| supported | Yes |
| • as server | Yes |
| • as client | Yes |
| User data per job, max. | See online help (S7 communication, user data size) |
| Number of connections | |
| • overall | PG Connections: 4 reserved / 4 max; HMI Connections: 12 reserved / 18 max; S7 Connections: 8 reserved / 14 max; Open User Connections: 8 reserved / 14 max; Web Connections: 2 reserved / 30 max; OPC UA Connections: 0 reserved / 10 max; Total Connections: 34 reserved / 64 max |
| Test commissioning functions | |
| Status/control | |
| Status/control variable | Yes |
| Variables | Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters |
| Forcing | |
| • Forcing | Yes |
| Diagnostic buffer | |
| • present | Yes |
| Traces | |
| Number of configurable Traces | 2 |
| Memory size per trace, max. | 512 kbyte |
| Interrupts/diagnostics/status information | |
| Diagnostics indication LED | |
| RUN/STOP LED | Yes |
| ERROR LED | Yes |
| MAINT LED | Yes |
| Integrated Functions | |
| Frequency measurement | Yes |
| controlled positioning | Yes |
| Number of position-controlled positioning axes, max. | 8 |
| Number of positioning axes via pulse-direction interface | Up to 4 with SB 1222 |
| PID controller | Yes |
| Number of alarm inputs | 4 |
| Potential separation | |
| Potential separation digital inputs | |
| | 500V/AC for 1 minute |
| Potential separation digital inputs between the channels, in groups of | 500V AC for 1 minute |
| Potential separation digital outputs | 1 |
| Potential separation digital outputs | Palava |
| between the channels | Relays |
| between the channels, in groups of | No 2 |
| | 2 |
| EMC | |
| Interference immunity against discharge of static electricity | Vee |
| Interference immunity against discharge of static electricity acc. to IEC 61000-4-2 | Yes |
| — Test voltage at air discharge | 8 kV |
| — Test voltage at contact discharge | 6 kV |
| Interference immunity to cable-borne interference | |
| Interference immunity on supply lines acc. to IEC 61000-4-4 | Yes |
| Interference immunity on signal cables acc. to IEC 61000-4-4 | Yes |
| Interference immunity against voltage surge | |
| Interference immunity on supply lines acc. to IEC 61000-4-5 | Yes |
| Interference immunity against conducted variable disturbance | e induced by high-frequency fields |
| Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 | Yes |
| Emission of radio interference acc. to EN 55 011 | |
| | |

• Limit class A, for use in industrial areas

• Limit class B, for use in residential areas

Yes; Group 1

Yes; When appropriate measures are used to ensure compliance with the limits for Class B according to EN 55011

| | the limits for Class B according to EN 55011 |
|--|--|
| Standards, approvals, certificates | |
| CE mark | Yes |
| UL approval | Yes |
| cULus | Yes |
| FM approval | Yes |
| RCM (formerly C-TICK) | Yes |
| | Yes |
| KC approval | |
| Marine approval | Yes |
| Ambient conditions | |
| Free fall | |
| Fall height, max. | 0.3 m; five times, in product package |
| Ambient temperature during operation | |
| • min. | -20 °C |
| • max. | 60 °C; Number of simultaneously activated inputs or outputs 7 or 5 (no adjacent points) at 60 °C horizontal or 50 °C vertical, 14 or 10 at 55 °C horizontal or 45 °C vertical |
| horizontal installation, min. | -20 °C |
| horizontal installation, max. | 60 °C |
| vertical installation, min. | -20 °C |
| vertical installation, max. | 50 °C |
| Ambient temperature during storage/transportation | |
| • min. | -40 °C |
| • max. | 70 °C |
| Air pressure acc. to IEC 60068-2-13 | |
| • Operation, min. | 795 hPa |
| Operation, max. | 1 080 hPa |
| • | 660 hPa |
| Storage/transport, min. | |
| Storage/transport, max. | 1 080 hPa |
| Altitude during operation relating to sea level | 4 000 |
| Installation altitude, min. | -1 000 m |
| Installation altitude, max. | 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual |
| | |
| Relative humidity | |
| | 95 %; no condensation |
| Relative humidity | |
| Relative humidity Operation, max. | |
| Relative humidity Operation, max. Vibrations Vibration resistance during operation acc. to IEC | 95 %; no condensation |
| Relative humidity • Operation, max. Vibrations • Vibration resistance during operation acc. to IEC 60068-2-6 | 95 %; no condensation 2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail |
| Relative humidity • Operation, max. Vibrations • Vibration resistance during operation acc. to IEC 60068-2-6 • Operation, tested according to IEC 60068-2-6 Shock testing • tested according to IEC 60068-2-27 | 95 %; no condensation 2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail |
| Relative humidity • Operation, max. Vibrations • Vibration resistance during operation acc. to IEC 60068-2-6 • Operation, tested according to IEC 60068-2-6 Shock testing • tested according to IEC 60068-2-7 Pollutant concentrations | 95 %; no condensation 2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail Yes Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms |
| Relative humidity • Operation, max. Vibrations • Vibration resistance during operation acc. to IEC 60068-2-6 • Operation, tested according to IEC 60068-2-6 Shock testing • tested according to IEC 60068-2-7 Pollutant concentrations • SO2 at RH < 60% without condensation | 95 %; no condensation 2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail Yes Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak |
| Relative humidity • Operation, max. Vibrations • Vibration resistance during operation acc. to IEC 60068-2-6 • Operation, tested according to IEC 60068-2-6 Shock testing • tested according to IEC 60068-2-7 Pollutant concentrations | 95 %; no condensation 2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail Yes Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms |
| Relative humidity • Operation, max. Vibrations • Vibration resistance during operation acc. to IEC 60068-2-6 • Operation, tested according to IEC 60068-2-6 Shock testing • tested according to IEC 60068-2-27 Pollutant concentrations • SO2 at RH < 60% without condensation | 95 %; no condensation 2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail Yes Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms |
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| Protection level: Complete protection | Yes |
|---|--------|
| Cycle time monitoring | |
| adjustable | Yes |
| Dimensions | |
| Width | 110 mm |
| Height | 100 mm |
| Depth | 75 mm |
| Weights | |
| Weight, approx. | 455 g |
| | |

last modified:

4/12/2021 🖸