



\*\*\*Spare part\*\*\* SIMATIC S7-300, CPU 317T-2 DP, Central processing unit for PLC and Technology tasks, 1024 KB work memory, 1st interface MPI/DP 12 Mbit/s, 2nd interface DP (drive), Integr. I/O for technology Front connector (1x 40-pole) and Micro Memory Card min. 8 MB required

| General information                                         |                                                                        |
|-------------------------------------------------------------|------------------------------------------------------------------------|
| Product type designation                                    | CPU 317T-2 DP                                                          |
| HW functional status                                        | 01                                                                     |
| Firmware version                                            | CPU: V2.7, integrated technology: V4.1.5                               |
| Engineering with                                            |                                                                        |
| • Programming package                                       | STEP 7 V5.4 + SP5 (and higher) and Optional package S7-Technology V4.2 |
| Supply voltage                                              |                                                                        |
| Rated value (DC)                                            | 24 V                                                                   |
| permissible range, lower limit (DC)                         | 20.4 V                                                                 |
| permissible range, upper limit (DC)                         | 28.8 V                                                                 |
| external protection for power supply lines (recommendation) | 2 A min.                                                               |
| Load voltage L+                                             |                                                                        |
| • Rated value (DC)                                          | 24 V                                                                   |
| • Reverse polarity protection                               | Yes                                                                    |
| Digital outputs                                             |                                                                        |
| — Rated value (DC)                                          | 24 V; (2L+)                                                            |
| — Reverse polarity protection                               | No; (2L+)                                                              |
| Input current                                               |                                                                        |
| Current consumption (in no-load operation), typ.            | 200 mA                                                                 |
| Inrush current, typ.                                        | 2.5 A                                                                  |
| I <sup>2</sup> t                                            | 1 A <sup>2</sup> s                                                     |
| Power loss                                                  |                                                                        |
| Power loss, typ.                                            | 6 W                                                                    |
| Memory                                                      |                                                                        |
| Work memory                                                 |                                                                        |
| • integrated                                                | 1 024 kbyte                                                            |
| • expandable                                                | No                                                                     |
| Load memory                                                 |                                                                        |
| • Plug-in (MMC)                                             | Yes                                                                    |
| • Plug-in (MMC), max.                                       | 8 Mbyte                                                                |
| • Data management on MMC (after last programming), min.     | 10 a                                                                   |
| Backup                                                      |                                                                        |
| • present                                                   | Yes; Guaranteed by MMC (maintenance-free)                              |
| • without battery                                           | Yes; Program and data                                                  |
| CPU processing times                                        |                                                                        |
| for bit operations, typ.                                    | 0.05 µs                                                                |
| for bit operations, max.                                    | 0.05 µs                                                                |
| for word operations, typ.                                   | 0.2 µs                                                                 |
| for fixed point arithmetic, typ.                            | 0.2 µs                                                                 |

|                                                           |                                                                                               |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| for floating point arithmetic, typ.                       | 1 µs                                                                                          |
| <b>CPU-blocks</b>                                         |                                                                                               |
| Number of blocks (total)                                  | 2 048; (DBs, FCs, FBs); the maximum number of loadable blocks can be reduced by the MMC used. |
| <b>DB</b>                                                 |                                                                                               |
| • Number, max.                                            | 2 047; Number band: 1 to 2047                                                                 |
| • Size, max.                                              | 64 kbyte                                                                                      |
| <b>FB</b>                                                 |                                                                                               |
| • Number, max.                                            | 2 048; Number range: 0 to 2047                                                                |
| • Size, max.                                              | 64 kbyte                                                                                      |
| <b>FC</b>                                                 |                                                                                               |
| • Number, max.                                            | 2 048; Number range: 0 to 2047                                                                |
| • Size, max.                                              | 64 kbyte                                                                                      |
| <b>OB</b>                                                 |                                                                                               |
| • Number, max.                                            | see instruction list                                                                          |
| • Size, max.                                              | 64 kbyte                                                                                      |
| • Number of free cycle OBs                                | 1; OB 1                                                                                       |
| • Number of time alarm OBs                                | 1; OB 10                                                                                      |
| • Number of delay alarm OBs                               | 2; OB 20, 21                                                                                  |
| • Number of cyclic interrupt OBs                          | 4; OB 32, 33, 34, 35                                                                          |
| • Number of process alarm OBs                             | 1; OB 40                                                                                      |
| • Number of DPV1 alarm OBs                                | 3; OB 55, 56, 57                                                                              |
| • Number of isochronous mode OBs                          | 1; OB 61                                                                                      |
| • Number of technology synchronous alarm OBs              | 1; OB 65                                                                                      |
| • Number of startup OBs                                   | 1; OB 100                                                                                     |
| • Number of asynchronous error OBs                        | 5; OB 80, 82, 85, 86, 87                                                                      |
| • Number of synchronous error OBs                         | 2; OB 121, 122                                                                                |
| <b>Nesting depth</b>                                      |                                                                                               |
| • per priority class                                      | 16                                                                                            |
| • additional within an error OB                           | 4                                                                                             |
| <b>Counters, timers and their retentivity</b>             |                                                                                               |
| <b>S7 counter</b>                                         |                                                                                               |
| • Number                                                  | 512; Number range: 0 to 511                                                                   |
| <b>Retentivity</b>                                        |                                                                                               |
| — adjustable                                              | Yes                                                                                           |
| — preset                                                  | 8                                                                                             |
| <b>Counting range</b>                                     |                                                                                               |
| — adjustable                                              | Yes                                                                                           |
| — lower limit                                             | 0                                                                                             |
| — upper limit                                             | 999                                                                                           |
| <b>IEC counter</b>                                        |                                                                                               |
| • present                                                 | Yes                                                                                           |
| • Type                                                    | SFB                                                                                           |
| • Number                                                  | Unlimited (limited only by RAM capacity)                                                      |
| <b>S7 times</b>                                           |                                                                                               |
| • Number                                                  | 512; Number range: 0 to 511                                                                   |
| <b>Retentivity</b>                                        |                                                                                               |
| — adjustable                                              | Yes                                                                                           |
| — preset                                                  | No retentivity                                                                                |
| <b>Time range</b>                                         |                                                                                               |
| — lower limit                                             | 10 ms                                                                                         |
| — upper limit                                             | 9 990 s                                                                                       |
| <b>IEC timer</b>                                          |                                                                                               |
| • present                                                 | Yes                                                                                           |
| • Type                                                    | SFB                                                                                           |
| • Number                                                  | Unlimited (limited only by RAM capacity)                                                      |
| <b>Data areas and their retentivity</b>                   |                                                                                               |
| Retentive data area (incl. timers, counters, flags), max. | 256 kbyte                                                                                     |
| <b>Flag</b>                                               |                                                                                               |
| • Size, max.                                              | 4 096 byte                                                                                    |
| • Retentivity available                                   | Yes; From MB 0 to MB 4 095                                                                    |

|                                                     |                                                 |
|-----------------------------------------------------|-------------------------------------------------|
| • Retentivity preset                                | MB 0 to MB 15                                   |
| • Number of clock memories                          | 8; 1 memory byte                                |
| <b>Data blocks</b>                                  |                                                 |
| • Retentivity adjustable                            | Yes; via non-retain property on DB              |
| • Retentivity preset                                | Yes                                             |
| <b>Local data</b>                                   |                                                 |
| • per priority class, max.                          | 1 024 byte                                      |
| <b>Address area</b>                                 |                                                 |
| <b>I/O address area</b>                             |                                                 |
| • Inputs                                            | 8 192 byte                                      |
| • Outputs                                           | 8 192 byte                                      |
| of which distributed                                |                                                 |
| — Inputs                                            | 8 192 byte                                      |
| — Outputs                                           | 8 192 byte                                      |
| <b>Process image</b>                                |                                                 |
| • Inputs, adjustable                                | 2 048 byte                                      |
| • Outputs, adjustable                               | 2 048 byte                                      |
| • Inputs, default                                   | 256 byte                                        |
| • Outputs, default                                  | 256 byte                                        |
| <b>Default addresses of the integrated channels</b> |                                                 |
| — Digital inputs                                    | 66                                              |
| — Digital outputs                                   | 66                                              |
| <b>Subprocess images</b>                            |                                                 |
| • Number of subprocess images, max.                 | 1                                               |
| <b>Digital channels</b>                             |                                                 |
| • Inputs                                            | 65 536                                          |
| — of which central                                  | 512                                             |
| • Outputs                                           | 65 536                                          |
| — of which central                                  | 512                                             |
| <b>Analog channels</b>                              |                                                 |
| • Inputs                                            | 4 096                                           |
| — of which central                                  | 64                                              |
| • Outputs                                           | 4 096                                           |
| — of which central                                  | 64                                              |
| <b>Hardware configuration</b>                       |                                                 |
| Number of expansion units, max.                     | 0                                               |
| <b>Number of DP masters</b>                         |                                                 |
| • integrated                                        | 2; 1 DP and 1 DP (drive)                        |
| • via CP                                            | 2; for DP                                       |
| <b>Number of operable FMs and CPs (recommended)</b> |                                                 |
| • FM                                                | 8                                               |
| • CP, PtP                                           | 8                                               |
| • CP, LAN                                           | 10                                              |
| <b>Rack</b>                                         |                                                 |
| • Racks, max.                                       | 1                                               |
| • Modules per rack, max.                            | 8                                               |
| <b>Time of day</b>                                  |                                                 |
| <b>Clock</b>                                        |                                                 |
| • Hardware clock (real-time)                        | Yes                                             |
| • retentive and synchronizable                      | Yes                                             |
| • Backup time                                       | 6 wk; At 40 °C ambient temperature              |
| • Deviation per day, max.                           | 10 s                                            |
| <b>Operating hours counter</b>                      |                                                 |
| • Number                                            | 4                                               |
| • Number/Number range                               | 0 to 3                                          |
| • Range of values                                   | 0 to 2 <sup>31</sup> hours (when using SFC 101) |
| • Granularity                                       | 1 h                                             |
| • retentive                                         | Yes; Must be restarted at each restart          |
| <b>Clock synchronization</b>                        |                                                 |
| • supported                                         | Yes                                             |

|                                                                 |                                                              |
|-----------------------------------------------------------------|--------------------------------------------------------------|
| • to MPI, master                                                | Yes                                                          |
| • on MPI, device                                                | Yes                                                          |
| • to DP, master                                                 | Yes                                                          |
| • on DP, device                                                 | Yes                                                          |
| • in AS, master                                                 | Yes                                                          |
| • in AS, device                                                 | Yes                                                          |
| <b>Digital inputs</b>                                           |                                                              |
| Number of digital inputs                                        | 4                                                            |
| • of which inputs usable for technological functions            | 4                                                            |
| Input characteristic curve in accordance with IEC 61131, type 1 | Yes                                                          |
| <b>Number of simultaneously controllable inputs</b>             |                                                              |
| <b>horizontal installation</b>                                  |                                                              |
| — up to 40 °C, max.                                             | 4                                                            |
| — up to 60 °C, max.                                             | 4                                                            |
| <b>vertical installation</b>                                    |                                                              |
| — up to 40 °C, max.                                             | 4                                                            |
| <b>Input voltage</b>                                            |                                                              |
| • Rated value (DC)                                              | 24 V                                                         |
| • for signal "0"                                                | -3 to +5V                                                    |
| • for signal "1"                                                | +15 to +30 V                                                 |
| <b>Input current</b>                                            |                                                              |
| • for signal "1", typ.                                          | 7 mA                                                         |
| <b>Input delay (for rated value of input voltage)</b>           |                                                              |
| <b>for technological functions</b>                              |                                                              |
| — at "0" to "1", max.                                           | 10 µs; Typical                                               |
| — at "1" to "0", max.                                           | 10 µs; Typical                                               |
| <b>Cable length</b>                                             |                                                              |
| • shielded, max.                                                | 1 000 m                                                      |
| <b>Digital outputs</b>                                          |                                                              |
| Number of digital outputs                                       | 8                                                            |
| • of which high-speed outputs                                   | 8                                                            |
| Functions                                                       | for technology functions, e.g. high-speed cam switch signals |
| Short-circuit protection                                        | Yes                                                          |
| • Response threshold, typ.                                      | 1 A                                                          |
| Limitation of inductive shutdown voltage to                     | 48 V                                                         |
| Controlling a digital input                                     | No                                                           |
| <b>Switching capacity of the outputs</b>                        |                                                              |
| • on lamp load, max.                                            | 5 W                                                          |
| <b>Load resistance range</b>                                    |                                                              |
| • lower limit                                                   | 48 Ω                                                         |
| • upper limit                                                   | 4 kΩ                                                         |
| <b>Output voltage</b>                                           |                                                              |
| • for signal "0", max.                                          | 3 V; (2L+)                                                   |
| • for signal "1", min.                                          | Rated voltage -2.5 V                                         |
| <b>Output current</b>                                           |                                                              |
| • for signal "1" rated value                                    | 0.5 A                                                        |
| • for signal "1" permissible range for 0 to 60 °C, min.         | 5 mA                                                         |
| • for signal "1" permissible range for 0 to 60 °C, max.         | 0.6 A                                                        |
| • for signal "0" residual current, max.                         | 0.3 mA                                                       |
| <b>Parallel switching of two outputs</b>                        |                                                              |
| • for uprating                                                  | No                                                           |
| • for redundant control of a load                               | No                                                           |
| <b>Switching frequency</b>                                      |                                                              |
| • with resistive load, max.                                     | 100 Hz                                                       |
| • with inductive load, max.                                     | 0.2 Hz; According to IEC 60947-5-1, DC-13                    |
| • on lamp load, max.                                            | 100 Hz                                                       |
| <b>Total current of the outputs (per group)</b>                 |                                                              |
| <b>horizontal installation</b>                                  |                                                              |
| — up to 40 °C, max.                                             | 4 A                                                          |
| — up to 60 °C, max.                                             | 3 A                                                          |
| <b>all other mounting positions</b>                             |                                                              |

|                                                    |                                             |
|----------------------------------------------------|---------------------------------------------|
| — up to 40 °C, max.                                | 3 A                                         |
| <b>Cable length</b>                                |                                             |
| • shielded, max.                                   | 1 000 m                                     |
| <b>Analog inputs</b>                               |                                             |
| Number of analog inputs                            | 0                                           |
| <b>Encoder</b>                                     |                                             |
| <b>Connectable encoders</b>                        |                                             |
| • 2-wire sensor                                    | No                                          |
| <b>Interfaces</b>                                  |                                             |
| Number of PROFINET interfaces                      | 0                                           |
| Number of RS 485 interfaces                        | 2                                           |
| Number of RS 422 interfaces                        | 0                                           |
| <b>1. Interface</b>                                |                                             |
| Interface type                                     | Integrated RS 485 interface                 |
| Isolated                                           | Yes                                         |
| <b>Interface types</b>                             |                                             |
| • RS 485                                           | Yes                                         |
| • Output current of the interface, max.            | 200 mA                                      |
| <b>Protocols</b>                                   |                                             |
| • MPI                                              | Yes                                         |
| • PROFIBUS DP master                               | Yes                                         |
| • PROFIBUS DP device                               | Yes                                         |
| • Point-to-point connection                        | No                                          |
| <b>MPI</b>                                         |                                             |
| • Number of connections                            | 32                                          |
| • Transmission rate, max.                          | 12 Mbit/s                                   |
| <b>Services</b>                                    |                                             |
| — PG/OP communication                              | Yes                                         |
| — Routing                                          | Yes                                         |
| — Global data communication                        | Yes                                         |
| — S7 basic communication                           | Yes                                         |
| — S7 communication                                 | Yes                                         |
| — S7 communication, as client                      | No; but via CP and loadable FB              |
| — S7 communication, as server                      | Yes; Connection configured on one side only |
| <b>PROFIBUS DP master</b>                          |                                             |
| • Transmission rate, max.                          | 12 Mbit/s                                   |
| • max. number of DP devices                        | 124                                         |
| <b>Services</b>                                    |                                             |
| — PG/OP communication                              | Yes                                         |
| — Routing                                          | Yes                                         |
| — Global data communication                        | No                                          |
| — S7 basic communication                           | Yes; I blocks only                          |
| — S7 communication                                 | Yes                                         |
| — S7 communication, as client                      | No; but via CP and loadable FB              |
| — S7 communication, as server                      | Yes; Connection configured on one side only |
| — Equidistance                                     | Yes                                         |
| — Isochronous mode                                 | Yes; OB 61                                  |
| — SYNC/FREEZE                                      | Yes                                         |
| — activation/deactivation of DP devices            | Yes                                         |
| — DPV1                                             | Yes                                         |
| <b>Address area</b>                                |                                             |
| — Inputs, max.                                     | 8 192 byte                                  |
| — Outputs, max.                                    | 8 192 byte                                  |
| <b>User data per DP device</b>                     |                                             |
| — Inputs, max.                                     | 244 byte                                    |
| — Outputs, max.                                    | 244 byte                                    |
| <b>1st interface / PROFIBUS DP device / header</b> |                                             |
| • Transmission rate, max.                          | 12 Mbit/s                                   |
| • automatic baud rate search                       | No                                          |
| • Address area, max.                               | 32                                          |

|                                                       |                                                                                                                   |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| • User data per address area, max.                    | 32 byte                                                                                                           |
| <b>Services</b>                                       |                                                                                                                   |
| — 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; but via CP and loadable FB                                                                                    |
| — S7 communication, as server                         | Yes; Connection configured on one side only                                                                       |
| — Direct data exchange (slave-to-slave communication) | Yes                                                                                                               |
| — DPV1                                                | No                                                                                                                |
| <b>Transfer memory</b>                                |                                                                                                                   |
| — Inputs                                              | 244 byte                                                                                                          |
| — Outputs                                             | 244 byte                                                                                                          |
| <b>2. Interface</b>                                   |                                                                                                                   |
| Interface type                                        | Integrated RS 485 interface                                                                                       |
| Isolated                                              | Yes                                                                                                               |
| <b>Interface types</b>                                |                                                                                                                   |
| • RS 485                                              | Yes                                                                                                               |
| • Output current of the interface, max.               | 200 mA                                                                                                            |
| <b>Protocols</b>                                      |                                                                                                                   |
| • MPI                                                 | No                                                                                                                |
| • PROFIBUS DP master                                  | Yes; DP(DRIVE)-Master                                                                                             |
| • PROFIBUS DP device                                  | No                                                                                                                |
| • Point-to-point connection                           | No                                                                                                                |
| <b>PROFIBUS DP master</b>                             |                                                                                                                   |
| • Transmission rate, max.                             | 12 Mbit/s                                                                                                         |
| • max. number of DP devices                           | 64                                                                                                                |
| <b>Services</b>                                       |                                                                                                                   |
| — PG/OP communication                                 | No                                                                                                                |
| — Routing                                             | No                                                                                                                |
| — Global data communication                           | No                                                                                                                |
| — S7 basic communication                              | No                                                                                                                |
| — S7 communication                                    | No                                                                                                                |
| — Equidistance                                        | Yes                                                                                                               |
| — Isochronous mode                                    | Yes                                                                                                               |
| — SYNC/FREEZE                                         | No                                                                                                                |
| — activation/deactivation of DP devices               | Yes                                                                                                               |
| — DPV1                                                | No                                                                                                                |
| <b>Address area</b>                                   |                                                                                                                   |
| — Inputs, max.                                        | 1 024 byte                                                                                                        |
| — Outputs, max.                                       | 1 024 byte                                                                                                        |
| <b>User data per DP device</b>                        |                                                                                                                   |
| — Inputs, max.                                        | 244 byte                                                                                                          |
| — Outputs, max.                                       | 244 byte                                                                                                          |
| <b>2nd interface / PROFIBUS DP device / header</b>    |                                                                                                                   |
| • GSD file                                            | <a href="http://support.automation.siemens.com">http://support.automation.siemens.com</a> in Product Support area |
| • Transmission rate, max.                             | 12 Mbit/s                                                                                                         |
| <b>Protocols</b>                                      |                                                                                                                   |
| PROFIsafe                                             | No                                                                                                                |
| <b>communication functions / header</b>               |                                                                                                                   |
| PG/OP communication                                   | Yes                                                                                                               |
| <b>Global data communication</b>                      |                                                                                                                   |
| • supported                                           | Yes                                                                                                               |
| • Number of GD loops, max.                            | 8                                                                                                                 |
| • Number of GD packets, max.                          | 8                                                                                                                 |
| • Number of GD packets, transmitter, max.             | 8                                                                                                                 |
| • Number of GD packets, receiver, max.                | 8                                                                                                                 |
| • Size of GD packets, max.                            | 22 byte                                                                                                           |
| • Size of GD packet (of which consistent), max.       | 22 byte                                                                                                           |

|                                                      |                                                                                                       |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>S7 basic communication</b>                        |                                                                                                       |
| • supported                                          | Yes                                                                                                   |
| • User data per job, max.                            | 76 byte                                                                                               |
| • User data per job (of which consistent), max.      | 76 byte; 76 bytes (with X_SEND or X_RCV), 76 bytes (with X_PUT or X_GET as server)                    |
| <b>S7 communication</b>                              |                                                                                                       |
| • supported                                          | Yes                                                                                                   |
| • as server                                          | Yes                                                                                                   |
| • as client                                          | Yes; Via CP and loadable FB                                                                           |
| • User data per job, max.                            | See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication) |
| <b>S5 compatible communication</b>                   |                                                                                                       |
| • supported                                          | Yes; via CP and loadable FC                                                                           |
| <b>Number of connections</b>                         |                                                                                                       |
| • overall                                            | 32                                                                                                    |
| • usable for PG communication                        | 31                                                                                                    |
| — reserved for PG communication                      | 1                                                                                                     |
| — adjustable for PG communication, min.              | 1                                                                                                     |
| — adjustable for PG communication, max.              | 31                                                                                                    |
| • usable for OP communication                        | 31                                                                                                    |
| — reserved for OP communication                      | 1                                                                                                     |
| — adjustable for OP communication, min.              | 1                                                                                                     |
| — adjustable for OP communication, max.              | 31                                                                                                    |
| • usable for S7 basic communication                  | 30                                                                                                    |
| — reserved for S7 basic communication                | 0                                                                                                     |
| — adjustable for S7 basic communication, min.        | 0                                                                                                     |
| — adjustable for S7 basic communication, max.        | 30                                                                                                    |
| • usable for routing                                 | 8; additional                                                                                         |
| <b>S7 message functions</b>                          |                                                                                                       |
| Number of login stations for message functions, max. | 32; Depending on the configured connections for PG/OP and S7 basic communication                      |
| Process diagnostic messages                          | Yes                                                                                                   |
| simultaneously active Alarm-S blocks, max.           | 60                                                                                                    |
| <b>Test commissioning functions</b>                  |                                                                                                       |
| Status block                                         | Yes                                                                                                   |
| Single step                                          | Yes                                                                                                   |
| Number of breakpoints                                | 2                                                                                                     |
| <b>Status/control</b>                                |                                                                                                       |
| • Status/control variable                            | Yes                                                                                                   |
| • Variables                                          | Inputs, outputs, memory bits, DB, times, counters                                                     |
| • Number of variables, max.                          | 30                                                                                                    |
| — of which status variables, max.                    | 30                                                                                                    |
| — of which control variables, max.                   | 14                                                                                                    |
| <b>Forcing</b>                                       |                                                                                                       |
| • Forcing                                            | Yes                                                                                                   |
| • Forcing, variables                                 | Inputs, outputs                                                                                       |
| • Number of variables, max.                          | 10                                                                                                    |
| <b>Diagnostic buffer</b>                             |                                                                                                       |
| • present                                            | Yes                                                                                                   |
| • Number of entries, max.                            | 100                                                                                                   |
| — adjustable                                         | No                                                                                                    |
| <b>Interrupts/diagnostics/status information</b>     |                                                                                                       |
| Alarms                                               | No                                                                                                    |
| Diagnostics function                                 | No                                                                                                    |
| <b>Diagnostics indication LED</b>                    |                                                                                                       |
| • Status indicator digital input (green)             | Yes                                                                                                   |
| • Status indicator digital output (green)            | Yes                                                                                                   |
| <b>Potential separation</b>                          |                                                                                                       |
| <b>Potential separation digital inputs</b>           |                                                                                                       |
| • between the channels and backplane bus             | Yes                                                                                                   |
| <b>Potential separation digital outputs</b>          |                                                                                                       |

|                                               |                      |
|-----------------------------------------------|----------------------|
| • between the channels and backplane bus      | Yes                  |
| <b>Isolation</b>                              |                      |
| Isolation tested with                         | 500 V DC             |
| <b>Ambient conditions</b>                     |                      |
| Ambient temperature during operation          |                      |
| • min.                                        | 0 °C                 |
| • max.                                        | 60 °C                |
| <b>configuration / header</b>                 |                      |
| Configuration software                        |                      |
| • STEP 7                                      | Yes                  |
| configuration / programming / header          |                      |
| • Command set                                 | see instruction list |
| • Nesting levels                              | 8                    |
| • System functions (SFC)                      | see instruction list |
| • System function blocks (SFB)                | see instruction list |
| Programming language                          |                      |
| — LAD                                         | Yes                  |
| — FBD                                         | Yes                  |
| — STL                                         | Yes                  |
| — SCL                                         | Yes                  |
| — CFC                                         | Yes                  |
| — GRAPH                                       | Yes                  |
| — HiGraph®                                    | Yes                  |
| Know-how protection                           |                      |
| • User program protection/password protection | Yes                  |
| programming / cycle time monitoring / header  |                      |
| • lower limit                                 | 1 ms                 |
| • upper limit                                 | 6 000 ms             |
| • adjustable                                  | Yes                  |
| • preset                                      | 150 ms               |
| <b>Dimensions</b>                             |                      |
| Width                                         | 160 mm               |
| Height                                        | 125 mm               |
| Depth                                         | 130 mm               |
| <b>Weights</b>                                |                      |
| Weight, approx.                               | 750 g                |

last modified:

5/22/2024 