6ES7314-6CH04-0AB0

Data sheet



SIMATIC S7-300, CPU 314C-2 DP Compact CPU with MPI, 24 DI/16 DO, 4 AI, 2 AO, 1 Pt100, 4 high-speed counters (60 kHz), integrated DP interface, Integr. power supply 24 V DC, work memory 192 KB, Front connector (2x 40-pole) and Micro Memory Card required

01
V3.3
STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203
24 V
19.2 V
28.8 V
Miniature circuit breaker, type C; min. 2 A; miniature circuit breaker type B, min. 4 A
5 ms
1 s
24 V
Yes
24 V
No
880 mA
150 mA
5 A
0.7 A²·s
80 mA
50 mA
13 W
192 kbyte
No
Yes
8 Mbyte
10 a

Backup	
• present	Yes; Guaranteed by MMC (maintenance-free)
without battery	Yes; Program and data
CPU processing times	
for bit operations, typ.	0.06 µs
for word operations, typ.	0.12 µs
for fixed point arithmetic, typ.	0.16 µs
for floating point arithmetic, typ.	0.59 µs
CPU-blocks	
Number of blocks (total)	1 024; (DBs, FCs, FBs); the maximum number of loadable blocks can be
DD.	reduced by the MMC used.
DB	4.004 Number repros 4 to 40000
Number, max. Size may.	1 024; Number range: 1 to 16000
• Size, max.	64 kbyte
FB	4.004 November 2000
Number, max. Size may.	1 024; Number range: 0 to 7999
• Size, max.	64 kbyte
FC ◆ Number, max.	1 024; Number range: 0 to 7999
• Size, max.	64 kbyte
OB	OT NOYIO
Number, max.	see instruction list
• Size, max.	64 kbyte
Number of free cycle OBs	1; OB 1
Number of fine alarm OBs	1; OB 10
Number of delay alarm OBs	2; OB 20, 21
Number of delay damin OBs Number of cyclic interrupt OBs	4; OB 32, 33, 34, 35
Number of cyclic interrupt OBs Number of process alarm OBs	1; OB 40
Number of process araim OBs Number of DPV1 alarm OBs	3; OB 55, 56, 57
Number of startup OBs	1; OB 100
Number of startup OBs Number of asynchronous error OBs	5; OB 80, 82, 85, 86, 87
Number of asynchronous error OBs	2; OB 121, 122
Nesting depth	2,00 121, 122
per priority class	16
additional within an error OB	4
Counters, timers and their retentivity	
S7 counter	
Number	256
Retentivity	230
— adjustable	Yes
— adjustable — preset	Z 0 to Z 7
Counting range	201021
— lower limit	0
— upper limit	999
— upper liffiit	
• present	Yes
• Type	SFB
Number	Unlimited (limited only by RAM capacity)
S7 times	Stimmica (minica orny by tv-twi capacity)
• Number	256
Retentivity	
— adjustable	Yes
•	
— preser	No retentivity
— preset Time range	No retentivity
Time range	
Time range — lower limit	10 ms
Time range — lower limit — upper limit	
Time range — lower limit — upper limit IEC timer	10 ms 9 990 s
Time range — lower limit — upper limit IEC timer • present	10 ms 9 990 s Yes
Time range — lower limit — upper limit IEC timer	10 ms 9 990 s

Retentive data area (incl. timers, counters, flags), max.	64 kbyte
Flag	o-r ruyto
• Size, max.	256 byte
Retentivity available	Yes: MB 0 to MB 255
Retentivity preset	MB 0 to MB 15
Number of clock memories	8; 1 memory byte
Data blocks	o, i memory byte
Retentivity adjustable	Yes; via non-retain property on DB
Retentivity adjustable Retentivity preset	Yes
Local data	103
per priority class, max.	32 kbyte; Max. 2048 bytes per block
Address area	02 hayto, man 20 to 2/too per 2/took
I/O address area	
• Inputs	2 048 byte
Outputs	2 048 byte
of which distributed	
— Inputs	2 003 byte
— Outputs	2 010 byte
Process image	
• Inputs	2 048 byte
Outputs	2 048 byte
Inputs, adjustable	2 048 byte
Outputs, adjustable	2 048 byte
Inputs, default	128 byte
Outputs, default	128 byte
Default addresses of the integrated channels	,
— Digital inputs	124.0 to 126.7
— Digital outputs	124.0 to 125.7
— Analog inputs	752 to 761
Analog outputs	752 to 755
Digital channels	
Inputs	16 048
— of which central	1 016
Outputs	16 096
— of which central	1 008
Analog channels	
Inputs	1 006
— of which central	253
Outputs	1 007
— of which central	250
Hardware configuration	
Number of expansion units, max.	3
Number of DP masters	
• integrated	1
• via CP	4
Number of operable FMs and CPs (recommended)	
• FM	8
• CP, PtP	8
• CP, LAN	10
Rack	
• Racks, max.	4
 Modules per rack, max. 	8; In rack 3 max. 7
Time of day	
Clock	
	Yes
 Hardware clock (real-time) 	165
Hardware clock (real-time)retentive and synchronizable	Yes
 retentive and synchronizable 	Yes 6 wk; At 40 °C ambient temperature
retentive and synchronizableBackup time	Yes

Operating house country	
Operating hours counter	1
Number/Number range	1
Number/Number range	0
Range of values	0 to 2^31 hours (when using SFC 101)
Granularity	1 h
• retentive	Yes; Must be restarted at each restart
Clock synchronization	W
• supported	Yes
• to MPI, master	Yes
• on MPI, device	Yes
• to DP, master	Yes; With DP slave only slave clock
• on DP, device	Yes
• in AS, master	Yes
• in AS, device	No
Digital inputs	
Number of digital inputs	24
of which inputs usable for technological functions	16
integrated channels (DI)	24
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Number of simultaneously controllable inputs	
horizontal installation	
— up to 40 °C, max.	24
— up to 60 °C, max.	12
vertical installation	
— up to 40 °C, max.	12
Input voltage	
Rated value (DC)	24 V
• for signal "0"	-3 to +5V
• for signal "1"	+15 to +30 V
Input current	
for signal "1", typ.	8 mA
Input delay (for rated value of input voltage)	8 mA
Input delay (for rated value of input voltage) for standard inputs	
Input delay (for rated value of input voltage)	Yes; 0.1 / 0.3 / 3 / 15 ms (You can reconfigure the input delay of the standard inputs during program runtime. Please note that under certain circumstances your newly set filter time may not be effective until the next filter cycle.)
Input delay (for rated value of input voltage) for standard inputs	Yes; 0.1 / 0.3 / 3 / 15 ms (You can reconfigure the input delay of the standard inputs during program runtime. Please note that under certain circumstances
Input delay (for rated value of input voltage) for standard inputs — parameterizable	Yes; 0.1 / 0.3 / 3 / 15 ms (You can reconfigure the input delay of the standard inputs during program runtime. Please note that under certain circumstances your newly set filter time may not be effective until the next filter cycle.)
Input delay (for rated value of input voltage) for standard inputs — parameterizable — Rated value for technological functions — at "0" to "1", max.	Yes; 0.1 / 0.3 / 3 / 15 ms (You can reconfigure the input delay of the standard inputs during program runtime. Please note that under certain circumstances your newly set filter time may not be effective until the next filter cycle.)
Input delay (for rated value of input voltage) for standard inputs — parameterizable — Rated value for technological functions — at "0" to "1", max. Cable length	Yes; 0.1 / 0.3 / 3 / 15 ms (You can reconfigure the input delay of the standard inputs during program runtime. Please note that under certain circumstances your newly set filter time may not be effective until the next filter cycle.) 3 ms 8 µs; Minimum pulse width/minimum pause between pulses at maximum counting frequency
Input delay (for rated value of input voltage) for standard inputs — parameterizable — Rated value for technological functions — at "0" to "1", max. Cable length • shielded, max.	Yes; 0.1 / 0.3 / 3 / 15 ms (You can reconfigure the input delay of the standard inputs during program runtime. Please note that under certain circumstances your newly set filter time may not be effective until the next filter cycle.) 3 ms 8 µs; Minimum pulse width/minimum pause between pulses at maximum counting frequency
Input delay (for rated value of input voltage) for standard inputs — parameterizable — Rated value for technological functions — at "0" to "1", max. Cable length • shielded, max. • unshielded, max.	Yes; 0.1 / 0.3 / 3 / 15 ms (You can reconfigure the input delay of the standard inputs during program runtime. Please note that under certain circumstances your newly set filter time may not be effective until the next filter cycle.) 3 ms 8 µs; Minimum pulse width/minimum pause between pulses at maximum counting frequency
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Input delay (for rated value of input voltage) for standard inputs — parameterizable — Rated value for technological functions — at "0" to "1", max. Cable length • shielded, max. • unshielded, max. for technological functions — shielded, max.	Yes; 0.1 / 0.3 / 3 / 15 ms (You can reconfigure the input delay of the standard inputs during program runtime. Please note that under certain circumstances your newly set filter time may not be effective until the next filter cycle.) 3 ms 8 µs; Minimum pulse width/minimum pause between pulses at maximum counting frequency 1 000 m; 50 m for technological functions 600 m; for technological functions: No
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Input delay (for rated value of input voltage) for standard inputs — parameterizable — Rated value for technological functions — at "0" to "1", max. Cable length • shielded, max. • unshielded, max. for technological functions — shielded, max. — unshielded, max. — unshielded, max. Digital outputs Number of digital outputs	Yes; 0.1 / 0.3 / 3 / 15 ms (You can reconfigure the input delay of the standard inputs during program runtime. Please note that under certain circumstances your newly set filter time may not be effective until the next filter cycle.) 3 ms 8 µs; Minimum pulse width/minimum pause between pulses at maximum counting frequency 1 000 m; 50 m for technological functions 600 m; for technological functions: No 50 m; at maximum count frequency not allowed
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Input delay (for rated value of input voltage) for standard inputs — parameterizable — Rated value for technological functions — at "0" to "1", max. Cable length • shielded, max. • unshielded, max. for technological functions — shielded, max. — unshielded, max. — unshielded, max. Digital outputs Number of digital outputs • of which high-speed outputs	Yes; 0.1 / 0.3 / 3 / 15 ms (You can reconfigure the input delay of the standard inputs during program runtime. Please note that under certain circumstances your newly set filter time may not be effective until the next filter cycle.) 3 ms 8 µs; Minimum pulse width/minimum pause between pulses at maximum counting frequency 1 000 m; 50 m for technological functions 600 m; for technological functions: No 50 m; at maximum count frequency not allowed 16 4; Notice: You cannot connect the fast outputs of your CPU in parallel 16 Yes; Clocked electronically
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Input delay (for rated value of input voltage) for standard inputs — parameterizable — Rated value for technological functions — at "0" to "1", max. Cable length • shielded, max. • unshielded, max. for technological functions — shielded, max. — unshielded, max. Digital outputs Number of digital outputs • of which high-speed outputs integrated channels (DO) Short-circuit protection • Response threshold, typ. Limitation of inductive shutdown voltage to	Yes; 0.1 / 0.3 / 3 / 15 ms (You can reconfigure the input delay of the standard inputs during program runtime. Please note that under certain circumstances your newly set filter time may not be effective until the next filter cycle.) 3 ms 8 µs; Minimum pulse width/minimum pause between pulses at maximum counting frequency 1 000 m; 50 m for technological functions 600 m; for technological functions: No 50 m; at maximum count frequency not allowed 16 4; Notice: You cannot connect the fast outputs of your CPU in parallel 16 Yes; Clocked electronically 1 A L+ (-48 V)
Input delay (for rated value of input voltage) for standard inputs — parameterizable — Rated value for technological functions — at "0" to "1", max. Cable length • shielded, max. • unshielded, max. for technological functions — shielded, max. — unshielded, max. Digital outputs Number of digital outputs • of which high-speed outputs integrated channels (DO) Short-circuit protection • Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input	Yes; 0.1 / 0.3 / 3 / 15 ms (You can reconfigure the input delay of the standard inputs during program runtime. Please note that under certain circumstances your newly set filter time may not be effective until the next filter cycle.) 3 ms 8 µs; Minimum pulse width/minimum pause between pulses at maximum counting frequency 1 000 m; 50 m for technological functions 600 m; for technological functions: No 50 m; at maximum count frequency not allowed 16 4; Notice: You cannot connect the fast outputs of your CPU in parallel 16 Yes; Clocked electronically 1 A
Input delay (for rated value of input voltage) for standard inputs — parameterizable — Rated value for technological functions — at "0" to "1", max. Cable length • shielded, max. • unshielded, max. for technological functions — shielded, max. — unshielded, max. Digital outputs Number of digital outputs • of which high-speed outputs integrated channels (DO) Short-circuit protection • Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Switching capacity of the outputs	Yes; 0.1 / 0.3 / 3 / 15 ms (You can reconfigure the input delay of the standard inputs during program runtime. Please note that under certain circumstances your newly set filter time may not be effective until the next filter cycle.) 3 ms 8 µs; Minimum pulse width/minimum pause between pulses at maximum counting frequency 1 000 m; 50 m for technological functions 600 m; for technological functions: No 50 m; at maximum count frequency not allowed 16 4; Notice: You cannot connect the fast outputs of your CPU in parallel 16 Yes; Clocked electronically 1 A L+ (-48 V)
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Input delay (for rated value of input voltage) for standard inputs — parameterizable — Rated value for technological functions — at "0" to "1", max. Cable length • shielded, max. • unshielded, max. for technological functions — shielded, max. — unshielded, max. Digital outputs Number of digital outputs • of which high-speed outputs integrated channels (DO) Short-circuit protection • Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Switching capacity of the outputs	Yes; 0.1 / 0.3 / 3 / 15 ms (You can reconfigure the input delay of the standard inputs during program runtime. Please note that under certain circumstances your newly set filter time may not be effective until the next filter cycle.) 3 ms 8 µs; Minimum pulse width/minimum pause between pulses at maximum counting frequency 1 000 m; 50 m for technological functions 600 m; for technological functions: No 50 m; at maximum count frequency not allowed 16 4; Notice: You cannot connect the fast outputs of your CPU in parallel 16 Yes; Clocked electronically 1 A L+ (-48 V) Yes
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Input delay (for rated value of input voltage) for standard inputs — parameterizable — Rated value for technological functions — at "0" to "1", max. Cable length • shielded, max. • unshielded, max. for technological functions — shielded, max. — unshielded, max. Digital outputs Number of digital outputs • of which high-speed outputs integrated channels (DO) Short-circuit protection • Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Switching capacity of the outputs • on lamp load, max. Load resistance range	Yes; 0.1 / 0.3 / 3 / 15 ms (You can reconfigure the input delay of the standard inputs during program runtime. Please note that under certain circumstances your newly set filter time may not be effective until the next filter cycle.) 3 ms 8 µs; Minimum pulse width/minimum pause between pulses at maximum counting frequency 1 000 m; 50 m for technological functions 600 m; for technological functions: No 50 m; at maximum count frequency not allowed 16 4; Notice: You cannot connect the fast outputs of your CPU in parallel 16 Yes; Clocked electronically 1 A L+ (-48 V) Yes 5 W
Input delay (for rated value of input voltage) for standard inputs — parameterizable — Rated value for technological functions — at "0" to "1", max. Cable length • shielded, max. • unshielded, max. for technological functions — shielded, max. — unshielded, max. Digital outputs Number of digital outputs • of which high-speed outputs integrated channels (DO) Short-circuit protection • Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Switching capacity of the outputs • on lamp load, max. Load resistance range • lower limit	Yes; 0.1 / 0.3 / 3 / 15 ms (You can reconfigure the input delay of the standard inputs during program runtime. Please note that under certain circumstances your newly set filter time may not be effective until the next filter cycle.) 3 ms 8 μs; Minimum pulse width/minimum pause between pulses at maximum counting frequency 1 000 m; 50 m for technological functions 600 m; for technological functions: No 50 m; at maximum count frequency not allowed 16 4; Notice: You cannot connect the fast outputs of your CPU in parallel 16 Yes; Clocked electronically 1 A L+ (-48 V) Yes 5 W
Input delay (for rated value of input voltage) for standard inputs — parameterizable — Rated value for technological functions — at "0" to "1", max. Cable length • shielded, max. • unshielded, max. for technological functions — shielded, max. — unshielded, max. Digital outputs Number of digital outputs • of which high-speed outputs integrated channels (DO) Short-circuit protection • Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Switching capacity of the outputs • on lamp load, max. Load resistance range • lower limit • upper limit	Yes; 0.1 / 0.3 / 3 / 15 ms (You can reconfigure the input delay of the standard inputs during program runtime. Please note that under certain circumstances your newly set filter time may not be effective until the next filter cycle.) 3 ms 8 μs; Minimum pulse width/minimum pause between pulses at maximum counting frequency 1 000 m; 50 m for technological functions 600 m; for technological functions: No 50 m; at maximum count frequency not allowed 16 4; Notice: You cannot connect the fast outputs of your CPU in parallel 16 Yes; Clocked electronically 1 A L+ (-48 V) Yes 5 W

Output current	
for signal "1" rated value	500 mA
-	5 mA
for signal "1" permissible range, min.for signal "1" permissible range, max.	0.6 A
for signal "1" minimum load current	
· ·	5 mA
• for signal "0" residual current, max.	0.5 mA
Parallel switching of two outputs	No
for uprating for redundant central of a lead	No Yea
for redundant control of a load Cuitching for guarage	Yes
Switching frequency	400 Hz
with resistive load, max. with industries load, may.	100 Hz 0.5 Hz
with inductive load, max. an long load, max.	100 Hz
on lamp load, max. of the pulse outputs with resistive lead, may.	
of the pulse outputs, with resistive load, max. Total current of the outputs (not group)	2.5 kHz
Total current of the outputs (per group)	
horizontal installation	2.4
— up to 40 °C, max.	3 A
— up to 60 °C, max.	2 A
vertical installation	2.4
— up to 40 °C, max.	2 A
Cable length	1,000 m
• shielded, max.	1 000 m
• unshielded, max.	600 m
Analog inputs	
Number of analog inputs	5
For voltage/current measurement	4
For resistance/resistance thermometer measurement	1
integrated channels (AI)	5; 4x current/voltage, 1x resistance
permissible input voltage for current input (destruction limit), max.	5 V; Permanent
permissible input voltage for voltage input (destruction limit), max.	30 V; Permanent
permissible input current for voltage input (destruction limit), max.	0.5 mA; Permanent
permissible input current for current input (destruction limit), max.	50 mA; Permanent
Electrical input frequency, max.	400 Hz
No-load voltage for resistance-type transmitter, typ.	3.3 V
Constant measurement current for resistance-type transmitter, typ.	1.25 mA
Technical unit for temperature measurement adjustable	Yes; Degrees Celsius / degrees Fahrenheit / Kelvin
Input ranges	
• Voltage	Yes; ±10 V / 100 kΩ; 0 V to 10 V / 100 kΩ
• Current	Yes; ± 20 mA / 100 Ω ; 0 mA to 20 mA / 100 Ω ; 4 mA to 20 mA / 100 Ω
Resistance thermometer	Yes; Pt 100 / 10 MΩ
Resistance	Yes; 0 Ω to 600 Ω / 10 M Ω
Input ranges (rated values), voltages	
• 0 to +10 V	Yes
— Input resistance (0 to 10 V)	100 kΩ
Input ranges (rated values), currents	
• 0 to 20 mA	Yes
— Input resistance (0 to 20 mA)	100 Ω
• -20 mA to +20 mA	Yes
— Input resistance (-20 mA to +20 mA)	100 Ω
• 4 mA to 20 mA	Yes
— Input resistance (4 mA to 20 mA)	100 Ω
Input ranges (rated values), resistance thermometer	
• Pt 100	Yes
— Input resistance (Pt 100)	10 ΜΩ
Input ranges (rated values), resistors	
• 0 to 600 ohms	Yes
— Input resistance (0 to 600 ohms)	10 ΜΩ

Temperature compensation — parameterizable No No Characteristic information and the compensation of the co	Thermocouple (TC)	
- parameterizable		
Parameterizable Parameteri		No
Price parametrizable Price presistance themmoneter Price Price parametrizable Pri		110
for resistance thermometer		Vec. by software
Sample S	•	•
• Neinded, max, 100 m 1		11100
Analog catroits Number of analog outputs Integrated channels (AO) 2 Votage output, short-circuit protection Votage output votage, current Ves Vas Vas Van Analog 20 mA Analog 20 mA Connection of a circuitstrs For votage output two-wire connection Ver Ves Visit votage output, short-circuit protection Ver Ves Visit votage output, short-circuit Votages and currents Votages and currents Votages and currents Votages and the output, short-circuit Votages and the output, short-circuit Votages and the output, short-circuit Ves Votages and the output, short-circuit Votages and currents Votages and currents Votages and currents Votages and the output short-circuit Votages and currents Votages and the output, short-circuit Votages and currents Votages and the output short-circuit Ves Votages and the output short-circuit Ves Votages and currents Votages and currents		100 m
Number of analog outputs integrated channels (AC) 2 integrated channels (AC) Yes Voltage output, short-circuit protection Yes Voltage output, short-circuit protection Yes Current output, no load voltage, max		100 111
Integrated channels (AO) Voltage output, short-circuit current, max. So mA Current curput, no-load voltage, max. Output ranges, voltage • 10 to 10 V Ves Voltage output, sky voltage • 10 to 10 V - 10 V to +10 V Output ranges, current • 0 to 20 mA • 4 m to +20 mA • 6 m to voltage output, brow-wire connection • for voltage output four-wire connection • for voltage output, sky voltage • in the voltage output, sky voltage • in the voltage output, sky voltage • in the voltage output, sky voltage • with voltage output, specified bank in the voltage output, sky voltage and currents • voltage and the outputs, inductive load, max. • with current outputs, max. • with current outputs, inductive load, max. • voltage and the outputs towards MANA • Current, max. Solve length • chiefolded, max. Measurement principle • Resolution with overrange (bit including sign), max. • integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • integration and conversion time/resolution per channel • Crowreston time (er channel) • Crowreston time described on the outputs of th		
Votage output, short-circuit protection Votage output, short-circuit current, max. 5 smA Courrent duutput, nn-clear votage, max. 14 V - 10 V to +10 V - 20 mA to +20 mA - 20 mA to +20 mA - 20 mA to +20 mA - 4 m to 20 mA - 5 or votage output two-wire connection - 6 for votage output two-wire connection - 6 for current output vo-wire connection - 7 ves - 8 vitti votage output, smi. - 1 kW votages output, smi. - 1 kW votages output, smi. - 1 kW votages output, smi. - 2 vitti current output vo-wire connection - 8 vitti current output, smi. - 9 vitti current output, smi. - 1 kW course output output special votages and currents - 1 votages at the outputs towards MANA - 2 Current, max. - 2 current, max. - 2 current, max. - 2 current, max. - 3 current output sowards MANA - 3 current outputs for the inputs - 4 current, max. - 4 current, max. - 5 om A; Permanent - 8 current or votages output singulation per channel - Resolution with overrange (bit including sign), max. - 1 lhederference votages outpressolution per channel - Resolution with overrange (bit including sign), max. - 1 lhedergrands or votages output singulation per channel - Resolution with overrange (bit including sign), max. - 1 lime conversion time/resolution per channel - Resolution with overrange (bit including sign), max. - 1 lime conversion time (see channel) - Resolution with overrange (bit including sign), max. - 1 lime conversion time (see channel) - Resolution with overrange (bit including sign), max. - 1 lime conversion time for the module (all channels releases) - 1 ms - 2 current measurement as 2 wire transducer - 1 or rorent measurement as 2 wire transducer - 2 or rent measurement as 2 wire transducer - 3 or repassible load - 4 or repassible load - 5 or repassible load - 6 or repassible load - 6 or repassible load - 7 or resistance measurement with two-wire connection - 7 ves, without compensation of the line resista		
Votage output, short-direuit current, max. 95 mA Current output, no-load violage, max. 14 V Output ranges, votage • 10 to 10 V • 10 to 10 V • 10 to 20 mA • 20 mA • 4 mA to 20 mA • for votage output two-wire connection • with votage outputs, max. • with current outputs, max. • vivin current outputs towards MANA • with current outputs towards MANA • Current, max. • Cable length • Selection imits against externally applied votages and currents • So mA; Permanent Cable length • Selection imits against externally applied votages and currents • Votages at the outputs towards MANA • So mA; Permanent Cable length • Selection imits against externally applied votages and currents • So mA; Permanent Cable length • Selection imits against externally applied votages and currents • So mA; Permanent Cable length • Selection imits against externally applied votages and currents • So on M; Permanent Cable length • Selection imits against externally applied votages and currents • So on M; Permanent Cable length • Selection imits against externally applied votages and currents • So on M; Permanent Cable length • Selection imits against externally applied votages and currents • So on M; Permanent 1 by V; Selection imits against externally applied votages and currents • So on M; Selection imits against externally applied votages and currents • So on M; Selection imits against externally	. ,	
Current output, n-choad voltage, max. • 0 to 10 V • 10 V 0 • 10 V • 10 V 0 • 10 V • 10 V 0 • 10 V 0 • 10 20 mA • 20 mA • 20 mA 0 20 mA • 20 mA 0 20 mA • 20 mA to 20 mA • 6 or voltage output two-wire connection • 6 for voltage output, min. • 1 kΩ • with voltage outputs, min. • with voltage outputs, min. • with current outputs, max. • with current outputs, max. • with current outputs, max. • with current outputs two-wire connection • With current outputs, max. • with current outputs, max. • with current outputs two-wire connection • With current outputs, max. • with current outputs two-wire connection • With current outputs, max. • with current outputs, max. • with current outputs, max. • with current outputs inductive load, max. • with current outputs inductive load, max. • With current outputs inductive load, max. • Voltages at the outputs towards MANA • Current, max. Cable length • shaleded, max. Analog visible open-ration for the inputs Measurement principle • Resolution with overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency ff in RE • Time constant of the input filter • Time conversion time frecebution per channel • Resolution with overrange (bit including sign), max. • To resistive load • Or or resistive load • Or or creative load • Or or or with the maximum of the madule cell channels • Or or or with the maximum of the madule cell connection • Or or or with the connection • Or or or with the connection • Or or or with the connection • Or or or or the measurement as 2-wire transducer • Or or	·	
Output ranges, voltage • 10 to 10 V • 10 to 20 mA • 20 mA to +20 mA • 20 mA • 4 mA to 20 mA • 6 mA to 20 mA • 6 ro voltage output frout-wire connection • 6 ro voltage output frout-wire connection • 6 ro voltage output four-wire connection • 6 ro voltage output four-wire connection • 6 ro voltage output four-wire connection • 7 ves. Without compensation of the line resistances • 10 ro voltage output four-wire connection • 10 ro voltage output, min. • with voltage outputs, min. • with current outputs, max. • 10 rule control outputs, max. • 10		
Olto 10 V Yes Olto 10 V Yes Olto 10 V Yes Olto 20 mA Yes	The state of the s	14 V
10 V to +10 V Output ranges, current - 0 to 20 mA - 20 mA to +20 mA - 20 mA to +20 mA - 4 mA to 20 mA Connection of actuators - 6 or voltage output two-wire connection - 6 or current output two-wire connection - 7 or current output two-wire connection - 8 or current output swo-wire connection - 9 or current output swo-wire connection - 1 kD - 4 mit voltage outputs, capacitive load, max 9 with voltage outputs, capacitive load, max 9 with outrent outputs, max 9 with current outputs flowards MANA - 0 current, max 200 m -	·	· ·
Output ranges, current • 0 to 20 mA • 20 mA to +20 mA • 4 mA to 20 mA • 4 mA to 20 mA • for voltage output four-wire connection • for voltage output, capacitive load, max • vith voltage outputs, sm. • with voltage outputs, capacitive load, max • with current outputs, inductive load, max • with current outputs, inductive load, max • with current outputs, inductive load, max • with current outputs, max • with current outputs, max • with current outputs, max • with current outputs wards MANA • Courrent, max Cable length • Shelded, max • 200 m Analog value generation for the inputs Measurement principle Actual value encryption (successive approximation) integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution with overrange (bit including		
• 0 to 20 mA • 20 mA to 20 mA • 20 mA to 20 mA • 20 mA to 20 mA • 20 mA to 20 mA • 20 mA to 20 mA • 20 mA to 20 mA • 20 mA to 20 mA • 20 mA to 20 mA • 20 mA to 20 mA • 20 mA to 20 mA • 20 mA to 20 mA • 20 mA to 20 mA • 20 mA to 20 mA • 20 mA to 20 mA • 20 mA to voltage output four-wire connection • 20 main for current output four-wire connection • 20 main for current output four-wire connection • 20 main for current output, series output) • with voltage outputs, capacitive load, max. • with voltage outputs, capacitive load, max. • with current outputs, inductive load, max. • voltage so the outputs towards MANA • 20 mA		Yes
• 20 mA to +20 mA • 4 mA to 20 mA • 4 mA to 20 mA • 4 mA to 20 mA • 7 ves Connection of actuators • for voltage output two-wire connection • for voltage output four-wire connection • for voltage output two-wire connection • for voltage output two-wire connection • with voltage output smin. • with voltage outputs, min. • with voltage outputs, min. • with voltage outputs, max. • with current outputs, inductive load, max. • with current outputs, inductive load, max. • with current outputs, inductive load, max. • vith current outputs, inductive load, inductive load	· · ·	V
• 4 mA to 20 mA		
Or voltage output two-wire connection of ro voltage output two-wire connection of ro voltage output two-wire connection of vortage output two-wire connection vessel and a second of the line resistances of roverant output two-wire connection Vess Load impedance (in rated range of output) with voltage outputs, rinn, with voltage outputs, rank, with current outputs, max. 0.1 μF with current outputs, max. 0.1 μF with current outputs, max. 0.1 mH Destruction limits against externally applied voltages and currents Voltages at the outputs towards MANA ocurrent, max. Soo mA; Permanent Cable length oshielded, max. Analog value generation for the inputs Measurement principle Resolution with overrange (bit including sign), max. Integration and conversion timeresolution per channel Resolution with overrange (bit including sign), max. Interference voltage suppression for interference frequency fil in Hz Time constant of the input filter Basic execution time of the module (all channels released) Analog value generation for the outputs For resistive load For capacitive load For capacitive load For capacitive load For creative load For or capacitive load For courrent measurement For current measurement as 4-wire transducer For for resistance measurement with two-wire connection For for resistance measurement with two-wire connection For for resistance measurement with the wire connection For the formation of the filter for the formation of the line resistances For the vestigation of the filter for the formatio		
• for voltage output two-wire connection • for voltage output four-wire connection • for current output two-wire connection • for current output two-wire connection • for current output two-wire connection • with voltage outputs, min. • with voltage outputs, capacitive load, max. • with ourrent outputs, inductive load, max. • with current outputs, inductive load, max. • with current outputs, inductive load, max. • voltages at the outputs towards MANA • Current, max. Cable length • shelded, max. • cable length • shelded, max. • Resolution with overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration and conversion time for the inputs • Integration on the input filter • Basic execution time of the module (all channels released) • Resolution with overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution time in the module (all channels released) • Conversion time (per channel) • Resolution mith overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution time (per channel) • Resolution with overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Conversion time (per channel) • Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Conversion time (per channel) • To resistave load • for capacitive load • for or capacitive load • for or capacitive load • for for current measurement • for current measurement as 4-wire transducer • for current measurement with two-wire connection		Yes
• for voltage output four-wire connection • for current output two-wire connection • with voltage outputs, min. • with voltage outputs, min. • with voltage outputs, capacitive load, max. • with current outputs, apacitive load, max. • with current outputs, inductive load, max. • with current outputs, inductive load, max. • with current outputs, inductive load, max. • voltages at the outputs lowards MANA • Current, max. • Voltages at the outputs towards MANA • Current, max. Cable length • shelded, max. Analog value generation for the inputs Messurement principle • Resolution with overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency of in the parameterizable • Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • I a basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Conversion time (per channel) • for resistive load • for or capacitive load • for or current measurement as 4-wire transducer • for current measurement as 4-wire transducer • for current measurement as 4-wire transducer • for current measurement with two-wire connection • for or cresistance measurement with two-wire connection • for or cresistance measurement with two-wire connection • for or resistance measurement with		
• for current output two-wire connection Load impedance (in rated range of output) • with voltage outputs, min. • with voltage outputs, capacitive load, max. • with current outputs, max. • with current outputs, inductive load, max. • with current outputs, inductive load, max. • vith current outputs, inductive load, max. • vith current outputs, inductive load, max. • Voltages at the outputs towards MANA • Current, max. • Voltages at the outputs towards MANA • Current, max. • So max. Permanent Cable length • shielded, max. Analog value generation for the inputs • Actual value encryption (successive approximation) Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency 11 in Hz • Integration time, parameterizable • Basic execution time of the module (all channels released) • Time constant of the input filler • Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • 12 bit • Conversion time (per channel) • Resolution with overrange (bit including sign), max. • 12 bit • Conversion time (per channel) • Time constant of the input filler • Conversion time (per channel) • Time constant of the outputs Integration and conversion time/resolution per channel • (all channels) • (b) (c) (ms) • (c) (ms) • (c) (ms) • (· · · · · · · · · · · · · · · · · · ·
Load impedance (in rated range of output) • with voltage outputs, min. • with voltage outputs, apacitive load, max. • with current outputs, inductive load, max. • with current outputs, inductive load, max. • with current outputs, inductive load, max. • voltages at the outputs lowards MANA • Current, max. • Voltages at the outputs lowards MANA • Current, max. Cable length • shelded, max. Analog value generation for the Inputs Measurement principle • Resolution with overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration and conversion time for interference frequency 11 in Hz • Time constant of the input filter • Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • I be the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • 20 in the frence voltage suppression for interference frequency 11 in Hz • Time constant of the input filter • Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • 2 bit to the conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • 2 bit to the conversion time for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • 2 bit to the conversion time for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • 2 bit to the conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • 2 bit to the conversion time/resolution per channe		
 with voltage outputs, min. with current outputs, capacitive load, max. with current outputs, inductive load, max. with current outputs, inductive load, max. vith current outputs, inductive load, max. 0.1 mH Destruction limits against externally applied voltages and currents Voltages at the outputs towards MANA 16 V; Permanent Cable length Current, max. 50 mA; Permanent Cable length 200 m Measurement principle Actual value encryption (successive approximation) Measurement principle Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration time, parameterizable Yes; 16.6 / 20 ms Integration time, parameterizable Yes; 16.6 / 20 ms Integration time, parameterizable Basic execution time of the module (all channels released) Time constant of the input filter Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. I ms Setting time For resistive load for or capacitive load for or capacitive load for or capacitive load for or voltage measurement for voltage measurement as 4-wire transducer for current measurement as 4-wire transducer for current measurement as 4-wire transducer for current measurement with three-wire connection for resistance measurement with three-wire connection for resistance measurement with three-wire connection for resistance measurement with three-wire connec	· · · · · · · · · · · · · · · · · · ·	Yes
• with voltage outputs, capacitive load, max. • with current outputs, inductive load, max. • with current outputs, inductive load, max. • Voltages at the outputs towards MANA • Current, max. • Voltages at the outputs towards MANA • Current, max. • So mA; Permanent • So mA; Permanent • So mA; Permanent • Shielded, max. • 200 m **Analog value generation for the inputs **Measurement principle • Resolution with overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency ft in Hz • Time constant of the input filter • Basic execution time of the module (all channels released) **Analog value generation for the outputs **Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • I nas • Conversion time (per channel) • Resolution with overrange (bit including sign), max. • Conversion time (per channel) • Resolution of signal encoders • for resistive load • for capacitive load • for capacitive load • for or current measurement as 4-wire transducer • for or current measurement as 4-wire transducer • for or current measurement as 4-wire transducer • for current measurement with three-wire connection • for resistance measurement with three-wire connection • for or current with three-wire connection • for resistance measurement with three-wire connection • for resistance measurement with three-wire connection • for resistance measurement with three-wire connection	Load impedance (in rated range of output)	
with current outputs, max. with current outputs, inductive load, max. 0.1 mH Destruction limits against externally applied voltages and currents Voltages at the outputs towards MANA Current, max. 6 current, max. Cable length shielded, max. 200 m Analog value generation for the inputs Reasolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration time, parameterizable Integration time, parameterizable Integration time of the module (all channels released) Time constant of the input filter Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Conversion time (per channel) Resolution with overrange (bit including sign), max. Conversion time (per channel) Resolution with overrange (bit including sign), max. Conversion time (per channel) For resistive load For capacitive load For resistive load For or capacitive load For or dage measurement For current measurement as 4-wire transducer For current measurement as 4-wire transducer For current measurement as 4-wire transducer For current measurement with two-wire connection For resistance measurement with three-wire connection For current measurement with three-wire connection For	- · · · · · · · · · · · · · · · · · · ·	
e with current outputs, inductive load, max. Destruction limits against externally applied voltages and currents • Voltages at the outputs towards MANA • Current, max. Cable length • shielded, max. Analog value generation for the inputs Measurement principle • Resolution with overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Time constant of the input filter • Basic execution time of the module (all channels released) • Resolution with overrange (bit including sign), max. • Conversion time (per channel) * Resolution with overrange (bit including sign), max. • Conversion time (per channel) * Resolution with overrange (bit including sign), max. • for resistive load • for capacitive load • for capacitive load • for or current measurement as 4-wire transducer • for current measurement as 4-wire transducer • for cresistance measurement with two-wire connection • for resistance measurement with three-wire connection	 with voltage outputs, capacitive load, max. 	0.1 μF
Voltages at the outputs towards MANA	with current outputs, max.	300 Ω
Voltages at the outputs towards MANA Ourrent, max. Cable length shielded, max. 200 m Analog value generation for the inputs Measurement principle Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Integration time, parameterizable Integration time, parameterizable Interference voltage suppression for interference frequency f1 in Hz Time constant of the input filter Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time (per channel) Integration and conversion time (per channel) Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Inte		0.1 mH
Cable length * shielded, max. Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel * Resolution with overrange (bit including sign), max. * Integration time, parameterizable * Integration time of the input filter * Time constant of the input filter * Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel * Resolution with overrange (bit including sign), max. * Conversion time (per channel) * On the sistive load * For capacitive load * For capacitive load * For inductive load * For ourrent measurement as 2-wire transducer * For ourrent measurement as 4-wire transducer * For cerisitance measurement with two-wire connection * For resistance measurement with three-wire connection * For current measurement with three-wire connection * For resistance measurement with three-wire connection * For resistance measurement with three-wire connection * For current measurement with three-wire connection * For current measurement with three-wire connection * For existance measuremen	,	
Cable length • shielded, max. Analog value generation for the inputs Measurement principle • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Integration time, parameterizable • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Time constant of the input filter • Basic execution time of the module (all channels released) Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Conversion time (per channel) • Resolution with overrange (bit including sign), max. • Conversion time (per channel) • For resistive load • for capacitive load • for resistive load • for or capacitive load • for or capacitive load • for or days and encoders Find of the conversion of signal encoders • for current measurement as 4-wire transducer • for current measurement as 4-wire transducer • for current measurement as 4-wire transducer • for resistance measurement with three-wire connection	 Voltages at the outputs towards MANA 	16 V; Permanent
Shielded, max. 200 m Analog value generation for the inputs Measurement principle Actual value encryption (successive approximation) Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. 12 bit Yes; 16.6 / 20 ms Integration time, parameterizable Yes; 16.6 / 20 ms Integration time of the input filter 0.38 ms Basic execution time of the module (all channels released) 1 ms Resolution with overrange (bit including sign), max. 12 bit Basic execution time of the module (all channels released) 1 ms Resolution and conversion time/resolution per channel Resolution with overrange (bit including sign), max. 12 bit Conversion time (per channel) 1 ms Restluting time For resistive load 0.6 ms For capacitive load 0.5 ms Conversion of signal encoders For ourrent measurement as 2-wire transducer Yes For current measurement as 2-wire transducer Yes; with external supply For current measurement as 4-wire transducer Yes; Without compensation of the line resistances For or current measurement as 4-wire transducer Yes; Without compensation of the line resistances For resistance measurement with two-wire connection Yes; Without compensation of the line resistances For current measurement with three-wire connection Yes; Without compensation of the line resistances For resistance measurement with three-wire connection Yes; Without compensation of the line resistances For exercise approximation For exercise approxima	Current, max.	50 mA; Permanent
Analog value generation for the inputs Measurement principle Resolution with overrange (bit including sign), max. Integration time, parameterizable Interference voltage suppression for interference frequency f1 in Hz Time constant of the input filter Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Conversion time (per channel) for resistive load for capacitive load for inductive load for inductive load for or or signal encoders For outrent measurement as 2-wire transducer for current measurement as 4-wire transducer for corresistance measurement with three-wire connection for resistance measurement with three-wire connection for current signal encodes For current measurement with three-wire connection for resistance measurement with three-wire connection No	Cable length	
Measurement principle Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration time, parameterizable Integration time, parameterizable Interference voltage suppression for interference frequency f1 in Hz Time constant of the input filter Time constant of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Conversion time (per channel) Time For resistive load For capacitive load For capacitive load For inductive load For inductive load For or with overrange (bit including sign) to some time for inductive load For or with overrange (bit including sign) to some time for inductive load For or with overrange (bit including sign) to some time for inductive load For capacitive load For capacitive load For capacitive load For or with overrange (bit including sign) to some time for inductive load For or with overrange (bit including sign) to some time for inductive load For or with overrange (bit including sign) to some time for signal encoders For or with general sequence of the sequence of		200 m
Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration time, parameterizable Integration time, parameterizable Interference voltage suppression for interference frequency f1 in Hz Time constant of the input filter Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Conversion time (per channel) Settling time for resistive load for capacitive load for capacitive load for capacitive load for rourrent measurement as 2-wire transducer for current measurement as 4-wire transducer for resistance measurement with three-wire connection for resistance measurement with three-wire co	Analog value generation for the inputs	
Resolution with overrange (bit including sign), max. Integration time, parameterizable Integration time, parameterizable Interference voltage suppression for interference frequency f1 in Hz Time constant of the input filter Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Conversion time (per channel) Settling time for resistive load for capacitive load for orapacitive load for orapacitive load for order inductive load for output load for	Measurement principle	Actual value encryption (successive approximation)
Integration time, parameterizable Interference voltage suppression for interference frequency f1 in Hz Time constant of the input filter Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Conversion time (per channel) Settling time for resistive load for capacitive load for inductive load for inductive load For oltage measurement for voltage measurement as 2-wire transducer for current measurement as 4-wire transducer frequency f1 in Hz for inductive measurement with two-wire connection for resistance measurement with three-wire connection For resistance measurement with three-wir	Integration and conversion time/resolution per channel	
Interference voltage suppression for interference frequency f1 in Hz Time constant of the input filter Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Conversion time (per channel) Settling time for resistive load for capacitive load for capacitive load for inductive load for inductive load For ovoltage measurement for ourrent measurement as 2-wire transducer for current measurement as 4-wire transducer for resistance measurement with two-wire connection for resistance measurement with three-wire connection for resistance me	 Resolution with overrange (bit including sign), max. 	12 bit
frequency f1 in Hz Time constant of the input filter Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Conversion time (per channel) Settling time for resistive load for capacitive load for capacitive load for capacitive load for inductive load for inductive load for or inductive load for in	 Integration time, parameterizable 	Yes; 16.6 / 20 ms
Time constant of the input filter Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Conversion time (per channel) 1 ms Settling time for resistive load for capacitive load for capacitive load for inductive load for inductive load for routing measurement for ourrent measurement as 2-wire transducer for current measurement as 4-wire transducer for resistance measurement with two-wire connection for resistance measurement with three-wire connection for resistance measurement with three-wire connection No	•	50 / 60 Hz
Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Conversion time (per channel) 1 ms Settling time of resistive load of rapacitive load of rapacitive load of routcive load of routciv		
released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Conversion time (per channel) • for resistive load • for resistive load • for capacitive load • for inductive load • for inductive load • for voltage measurement • for current measurement as 2-wire transducer • for current measurement as 4-wire transducer • for resistance measurement with two-wire connection • for resistance measurement with three-wire connection	·	
Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Conversion time (per channel) 1 ms Settling time for resistive load for capacitive load for capacitive load for routive load Settling time Yes Find the settling time 1 ms 1	· · · · · · · · · · · · · · · · · · ·	1 ms
Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Conversion time (per channel) 1 ms Settling time for resistive load for capacitive load for inductive load for inductive load 5 ms Encoder Connection of signal encoders for current measurement as 2-wire transducer for current measurement as 4-wire transducer for resistance measurement with two-wire connection for resistance measurement with three-wire connection for the line resistance measurement with three-wire c	,	
Resolution with overrange (bit including sign), max. Conversion time (per channel) 1 ms Settling time for resistive load for capacitive load for inductive load for inductive load 5 ms Encoder Connection of signal encoders for current measurement as 2-wire transducer for current measurement as 4-wire transducer for resistance measurement with two-wire connection for or resistance measurement with three-wire connection No		
Conversion time (per channel) I ms Settling time for resistive load for capacitive load for inductive load for inductive load for voltage measurement for current measurement as 2-wire transducer for current measurement as 4-wire transducer for resistance measurement with two-wire connection for resistance measurement with three-wire connection No	·	40 14
Settling time • for resistive load • for capacitive load • for inductive load • for inductive load • for inductive load • for voltage measurement • for current measurement as 2-wire transducer • for current measurement as 4-wire transducer • for resistance measurement with two-wire connection • for resistance measurement with three-wire connection • for resistance measurement with three-wire connection • for resistance measurement with three-wire connection • No		
for resistive load for capacitive load for inductive load for inductive load for ourcetion of signal encoders for voltage measurement for current measurement as 2-wire transducer for current measurement as 4-wire transducer for resistance measurement with two-wire connection for resistance measurement with three-wire connection No		1 ms
for capacitive load for inductive load 0.5 ms Encoder Connection of signal encoders for voltage measurement for current measurement as 2-wire transducer for current measurement as 4-wire transducer for resistance measurement with two-wire connection for resistance measurement with three-wire connection No	-	
for inductive load 0.5 ms Encoder Connection of signal encoders		
Encoder Connection of signal encoders • for voltage measurement • for current measurement as 2-wire transducer • for current measurement as 4-wire transducer • for resistance measurement with two-wire connection • for resistance measurement with three-wire connection No		
Connection of signal encoders • for voltage measurement • for current measurement as 2-wire transducer • for current measurement as 4-wire transducer • for resistance measurement with two-wire connection • for resistance measurement with three-wire connection No		0.5 ms
 for voltage measurement for current measurement as 2-wire transducer for current measurement as 4-wire transducer for resistance measurement with two-wire connection for resistance measurement with three-wire connection No 		
 for current measurement as 2-wire transducer for current measurement as 4-wire transducer for resistance measurement with two-wire connection for resistance measurement with three-wire connection No 	Connection of signal encoders	
 for current measurement as 4-wire transducer for resistance measurement with two-wire connection for resistance measurement with three-wire connection No 	for voltage measurement	Yes
 for resistance measurement with two-wire connection for resistance measurement with three-wire connection No 	 for current measurement as 2-wire transducer 	Yes; with external supply
• for resistance measurement with three-wire connection No	 for current measurement as 4-wire transducer 	Yes
	• for resistance measurement with two-wire connection	Yes; Without compensation of the line resistances
• for resistance measurement with four-wire connection No	• for resistance measurement with three-wire connection	No
	• for resistance measurement with four-wire connection	No

Connectable encoders	
2-wire sensor	Yes
	res 1.5 mA
— permissible quiescent current (2-wire sensor), max.	1.3 IIIA
Errors/accuracies	0.000 % ///
Temperature error (relative to input range), (+/-)	0.006 %/K
Crosstalk between the inputs, min.	60 dB
Repeat accuracy in steady state at 25 °C (relative to input range), (+/-)	0.06 %
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-)	0.1 %
Linearity error (relative to output range), (+/-)	0.15 %
Temperature error (relative to output range), (+/-)	0.01 %/K
Crosstalk between the outputs, min.	60 dB
Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)	0.06 %
Operational error limit in overall temperature range	
 Voltage, relative to input range, (+/-) 	1 %
 Current, relative to input range, (+/-) 	1 %
 Resistance, relative to input range, (+/-) 	1 %
 Voltage, relative to output range, (+/-) 	1 %
• Current, relative to output range, (+/-)	1 %
Basic error limit (operational limit at 25 °C)	
 Voltage, relative to input range, (+/-) 	0.8 %; Linearity error ±0.06 %
 Current, relative to input range, (+/-) 	0.8 %; Linearity error ±0.06 %
 Resistance, relative to input range, (+/-) 	0.8 %; Linearity error ±0.2 %
 Resistance thermometer, relative to input range, (+/-) 	0.8 %
 Voltage, relative to output range, (+/-) 	0.8 %
 Current, relative to output range, (+/-) 	0.8 %
Interference voltage suppression for f = n x (f1 +/- 1 %), f1 = interference	erence frequency
• Series mode interference (peak value of interference <	30 dB
rated value of input range), min.	
Common mode interference, min.	40 dB
Interfaces	
Number of industrial Ethernet interfaces	0
Number of PROFINET interfaces	0
Number of RS 485 interfaces	2; MPI and PROFIBUS DP
Number of RS 422 interfaces	0
1. Interface	
Interface type	Integrated RS 485 interface
	Integrated RS 485 interface No
Interface type	
Interface type Isolated	
Interface type Isolated Interface types	No
Interface type Isolated Interface types • RS 485	No Yes
Interface type Isolated Interface types RS 485 Output current of the interface, max.	No Yes
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols	No Yes 200 mA
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI	Yes 200 mA
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master	Yes 200 mA Yes No
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP device	No Yes 200 mA Yes No No
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP device Point-to-point connection	No Yes 200 mA Yes No No
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP device Point-to-point connection MPI	Yes 200 mA Yes No No No No
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP device Point-to-point connection MPI Transmission rate, max.	Yes 200 mA Yes No No No No
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP device Point-to-point connection MPI Transmission rate, max. Services	No Yes 200 mA Yes No No No No No
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP device Point-to-point connection MPI Transmission rate, max. Services — PG/OP communication	Yes 200 mA Yes No No No No No Yes
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP device Point-to-point connection MPI Transmission rate, max. Services — PG/OP communication — Routing	Yes 200 mA Yes No No No No Yes Yes Yes
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP device Point-to-point connection MPI Transmission rate, max. Services PG/OP communication Routing Global data communication S7 basic communication	No Yes 200 mA Yes No No No No Yes Yes Yes Yes Yes Yes
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP device Point-to-point connection MPI Transmission rate, max. Services PG/OP communication Routing Global data communication S7 basic communication S7 communication	Yes 200 mA Yes No No No No 187.5 kbit/s Yes Yes Yes Yes Yes Yes Yes Yes Yes Y
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP device Point-to-point connection MPI Transmission rate, max. Services PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication S7 communication, as client	Yes 200 mA Yes No No No No 187.5 kbit/s Yes Yes Yes Yes Yes Yes Yes Yes Yes Y
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP device Point-to-point connection MPI Transmission rate, max. Services PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication S7 communication, as client S7 communication, as server	Yes 200 mA Yes No No No No 187.5 kbit/s Yes Yes Yes Yes Yes Yes Yes Yes Yes Y
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP device Point-to-point connection MPI Transmission rate, max. Services PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication S7 communication, as client S7 communication, as server	Yes 200 mA Yes No No No No No 187.5 kbit/s Yes Yes Yes Yes Yes Yes Yes Yes Yes Y
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP device Point-to-point connection MPI Transmission rate, max. Services PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication S7 communication, as client S7 communication, as server Interface Interface type	Yes 200 mA Yes No No No No 187.5 kbit/s Yes Yes Yes Yes Yes Yes Yes Yes; Only server, configured on one side No; but via CP and loadable FB Yes Integrated RS 485 interface
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP device Point-to-point connection MPI Transmission rate, max. Services PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication S7 communication, as client S7 communication, as server	Yes 200 mA Yes No No No No No 187.5 kbit/s Yes Yes Yes Yes Yes Yes Yes Yes Yes Y

• RS 485	Yes
Output current of the interface, max.	200 mA
Protocols	200 1111 (
• MPI	No
PROFINET IO Controller	No
PROFINET IO Device	No
PROFINET CBA	No
PROFIBUS DP master	Yes
PROFIBUS DP device	Yes
	No
Point-to-point connection PROFIBUS DP master	NO .
Transmission rate, max.	12 Mbit/s
max. number of DP devices	124
Services	124
— PG/OP communication	Yes
— Routing	Yes
Global data communication	No
— S7 basic communication	Yes; I blocks only
— S7 communication	Yes; Only server, configured on one side
— S7 communication, as client	No V
— S7 communication, as server	Yes
— Equidistance	Yes
— Isochronous mode	No
— SYNC/FREEZE	Yes
 activation/deactivation of DP devices 	Yes
 max. number of DP devices that can be activated/deactivated at the same time 	8
Direct data exchange (slave-to-slave communication)	Yes; as subscriber
communication)	Voc
— DPV1	Yes
Address area	Oliberto
— Inputs, max.	2 kbyte
— Outputs, max.	2 kbyte
User data per DP slave	044 h. t.
— Inputs, max.	244 byte
— Outputs, max.	244 byte
PROFIBUS DP slave	
	TI 14 100D 51 1 2 11 1 1 1 1 1
• GSD file	The latest GSD file is available on the Internet (http://www.siemens.com/profibus-gsd)
GSD fileTransmission rate, max.	(http://www.siemens.com/profibus-gsd) 12 Mbit/s
GSD fileTransmission rate, max.automatic baud rate search	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface
 GSD file Transmission rate, max. automatic baud rate search Address area, max. 	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32
 GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. 	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface
 GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Services 	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte
 GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Services — PG/OP communication 	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes
 GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Services — PG/OP communication — Routing 	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface
 GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Services — PG/OP communication — Routing — Global data communication 	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface No
 GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Services — PG/OP communication — Routing 	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface
GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface No
GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication — S7 communication, as client	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface No No
Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface No No Yes; Only server, configured on one side
 GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — Direct data exchange (slave-to-slave) 	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface No No Yes; Only server, configured on one side No
GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — Direct data exchange (slave-to-slave communication)	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface No No Yes; Only server, configured on one side No Yes Yes Yes
GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication S7 communication S7 communication, as client S7 communication, as server Direct data exchange (slave-to-slave communication) DPV1	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface No No Yes; Only server, configured on one side No Yes
GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — Direct data exchange (slave-to-slave communication) — DPV1 Transfer memory	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface No No Yes; Only server, configured on one side No Yes Yes Yes No
GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — Direct data exchange (slave-to-slave communication) — DPV1 Transfer memory — Inputs	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface No No Yes; Only server, configured on one side No Yes Yes Yes Yes
GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — Direct data exchange (slave-to-slave communication) — DPV1 Transfer memory — Inputs — Outputs	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface No No Yes; Only server, configured on one side No Yes Yes Yes No
GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Fervices PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication S7 communication S7 communication, as client S7 communication, as server Direct data exchange (slave-to-slave communication) DPV1 Transfer memory Inputs Outputs	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface No No Yes; Only server, configured on one side No Yes Yes Yes Yes
GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication S7 communication, as client S7 communication, as server Direct data exchange (slave-to-slave communication) DPV1 Transfer memory Inputs Outputs Protocols PROFIsafe	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface No No Yes; Only server, configured on one side No Yes Yes Yes Yes
GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Fervices PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication S7 communication, as client S7 communication, as server Direct data exchange (slave-to-slave communication) DPV1 Transfer memory Inputs Outputs	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface No No Yes; Only server, configured on one side No Yes Yes Yes Yes Yes No
GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication S7 communication S7 communication, as client S7 communication, as server Direct data exchange (slave-to-slave communication) DPV1 Transfer memory Inputs Outputs Protocols PROFIsafe	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface No No Yes; Only server, configured on one side No Yes Yes Yes Yes Yes No

Clohal data communication	
Global data communication	Voc
• supported	Yes
Number of GD loops, max.	8
Number of GD packets, max.	8
Number of GD packets, transmitter, max.	8
 Number of GD packets, receiver, max. 	8
 Size of GD packets, max. 	22 byte
Size of GD packet (of which consistent), max.	22 byte
S7 basic communication	
• supported	Yes
 User data per job, max. 	76 byte
 User data per job (of which consistent), max. 	76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT or X_GET as server)
S7 communication	as servery
• supported	Yes
as server	Yes
• as client	Yes; Via CP and loadable FB
User data per job, max.	180 kbyte; With PUT/GET
User data per job (of which consistent), max.	240 byte; as server
S5 compatible communication	210 0710, 40 001101
supported	Yes; via CP and loadable FC
Supported Number of connections	1 CO, VIA OF AND TOAUADIC FO
overall	12
overall usable for PG communication	11
usable for PG communication reserved for PG communication	1
— adjustable for PG communication, min.	1
— adjustable for PG communication, max.	11
usable for OP communication	11
— reserved for OP communication	1
— adjustable for OP communication, min.	1
 adjustable for OP communication, max. 	11
 usable for S7 basic communication 	8
 reserved for S7 basic communication 	0
 adjustable for S7 basic communication, min. 	0
 adjustable for S7 basic communication, max. 	8
usable for routing	4; max.
S7 message functions	
Number of login stations for message functions, max.	12; Depending on the configured connections for PG/OP and S7 basic communication
Process diagnostic messages	Yes
simultaneously active Alarm-S blocks, max.	300
Test commissioning functions	
Status block	Yes; Up to 2 simultaneously
Single step	Yes
Number of breakpoints	4
Status/control	
Status/control variable	Yes
 Variables 	Inputs, outputs, memory bits, DB, times, counters
Number of variables, max.	30
— of which status variables, max.	30
— of which control variables, max.	14
Forcing	
• Forcing	Yes
Forcing, variables	Inputs, outputs
Number of variables, max.	10
Diagnostic buffer	10
-	Vac
present Number of ontries, max	Yes
Number of entries, max.	500
— adjustable	No
— of which powerfail-proof	100; Only the last 100 entries are retained
 Number of entries readable in RUN, max. 	499

— adjustable	Yes; From 10 to 499
— preset	10
Service data	10
• can be read out	Yes
Interrupts/diagnostics/status information	163
Diagnostics indication LED	
Status indicator digital input (green)	Yes
Status indicator digital imput (green) Status indicator digital output (green)	Yes
Integrated Functions	165
	Yes
Frequency measurement • Number of frequency meters	
	4; up to 60 kHz (see "Technological Functions" manual) Yes
controlled positioning	
integrated function blocks (closed-loop control)	Yes; PID controller (see "Technological Functions" manual)
PID controller	Yes
Number of pulse outputs	4; Pulse width modulation up to 2.5 kHz (see "Technological Functions" Manual)
Limit frequency (pulse)	2.5 kHz
Potential separation	
Potential separation digital inputs	
Potential separation digital inputs	Yes
between the channels	No
between the channels and backplane bus	Yes
Potential separation digital outputs	
Potential separation digital outputs	Yes
between the channels	Yes
between the channels, in groups of	8
between the channels and backplane bus	Yes
Potential separation analog inputs	100
Potential separation analog inputs	Yes; common for analog I/O
between the channels	No
between the channels and backplane bus	Yes
Potential separation analog outputs	
Potential separation analog outputs	Yes; common for analog I/O
between the channels	No
between the channels and backplane bus	Yes
Isolation	
Isolation tested with	600 V DC
Ambient conditions	000 V 20
Ambient temperature during operation	
• min.	0 °C
• max.	60 °C
configuration / header	
Configuration / Header Configuration software	
STEP 7	Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP
♥ JILI I	203
STEP 7 Lite	No
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

 Block encryption 	Yes; With S7 block Privacy
Dimensions	
Width	120 mm
Height	125 mm
Depth	130 mm
Weights	
Weight, approx.	680 g

last modified: