SIEMENS

Data sheet

6AG1677-2DB42-2GB0



SIPLUS ET 200SP CPU 1515SP PC2 based on 6ES7677-2DB42-0GB0 with conformal coating, -40...+60 °C, 8 GB RAM, 128 GB CFast with Windows 10 IoT Enterprise 64-bit and S7-1500 Software Controller CPU 1505SP preinstalled, interfaces: 1x slot CFast, 1x slot SD/MMC, 1x connection for ET 200SP BusAdapter PROFINET, 1x 10/100/1000 Mbps Ethernet 2x USB 3.0; 2x USB 2.0, 1x DisplayPort, documentation on USB flash drive, restore USB flash drive

Fi	gu	re	si	mi	lar

General information	
Product type designation	CPU 1515SP PC2
based on	6ES7677-2DB42-0GB0
Engineering with	
 STEP 7 TIA Portal configurable/integrated from version 	see entry ID: 109746275
Installed software	
Visualization	No
Control	S7-1500 Software Controller CPU 1505SP
Configuration control	
via dataset	Yes
Control elements	
Mode selector switch	1
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Mains buffering	
 Mains/voltage failure stored energy time 	5 ms
Input current	
Current consumption (rated value)	1.8 A; Full processor load, incl. ET 200SP modules and using USB
Current consumption (in no-load operation), typ.	0.5 A
Current consumption, max.	2.9 A
l²t	0.426 A ² ·s; with starting current inrush
Power	
Active power input, max.	43 W; incl. ET 200SP modules and using USB
Infeed power to the backplane bus	8.75 W
Power loss	
Power loss, typ.	16 W
Processor	
Processor type	Intel Atom E3940, 1.6 GHz, 4 cores
Memory	
Type of memory	DDR3L
Main memory	8 GB RAM
CFast memory card	Yes; 30 GB flash memory
SIMATIC memory card required	No
Work memory	
 integrated (for program) 	1 Mbyte
 integrated (for data) 	5 Mbyte

 integrated (for CPU function library of CPU Runtime) 	20 Mbyte
Load memory	20 Mbyte
integrated (on PC mass storage)	320 Mbyte
Backup	020 mbyte
• with UPS	Yes; all memory areas declared retentive
with non-volatile memory	Yes
CPU processing times	100
for bit operations, typ.	10 ns
for word operations, typ.	12 ns
for fixed point arithmetic, typ.	16 ns
for floating point arithmetic, typ.	64 ns
CPU-blocks	113
Number of elements (total)	6 000; In addition to blocks such as DBs, FBs and FCs, UDTs, global
Number of elements (total)	constants, etc. are also regarded as elements
DB	
• Number, max.	5 999; Number range: 1 to 65535
• Size, max.	5 Mbyte
FB	
Number, max.	5 998; Number range: 1 to 65535
• Size, max.	1 024 kbyte
FC	
Number, max.	5 999; Number range: 1 to 65535
• Size, max.	1 024 kbyte
OB	
• Size, max.	1 024 kbyte
 Number of free cycle OBs 	100
 Number of time alarm OBs 	20
 Number of delay alarm OBs 	20
 Number of cyclic interrupt OBs 	20
 Number of process alarm OBs 	50
 Number of DPV1 alarm OBs 	3
 Number of isochronous mode OBs 	1
 Number of technology synchronous alarm OBs 	2
 Number of startup OBs 	100
 Number of asynchronous error OBs 	4
 Number of synchronous error OBs 	2
 Number of diagnostic alarm OBs 	1
Nesting depth	
• per priority class	24
Counters, timers and their retentivity	
S7 counter	
• Number	2 048
Retentivity	
— adjustable	Yes
IEC counter	
• Number	Any (only limited by the main memory)
Retentivity	
— adjustable	Yes
S7 times	
Number	2 048
Retentivity	
— adjustable	Yes
IEC timer	
Number	Any (only limited by the main memory)
Retentivity	
— adjustable	Yes
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	410 kbyte; For storage in NVRAM; for storage in mass storage 5 242 020 bytes
Flag	
• Size, max.	16 kbyte
Number of clock memories	8; 8 clock memory bit, grouped into one clock memory byte

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Data blocks	
Retentivity adjustable	Yes
Retentivity preset	No
Local data	
per priority class, max.	64 kbyte; max. 16 KB per block
Address area	
Number of IO modules	8 192
I/O address area	
Inputs	32 kbyte; All inputs are in the process image
Outputs	32 kbyte; All outputs are in the process image
Subprocess images	
Number of subprocess images, max.	32
Hardware configuration	
Integrated power supply	Yes
Number of distributed IO systems	20
Number of DP masters	
• Via CM	1
Number of IO Controllers	
via PC interfaces	1
Rack	
 Modules per rack, max. 	64; CPU 1515SP PC + 64 modules + server module
Number of lines, max.	1
PtP CM	
 Number of PtP CMs 	the number of connectable PtP CMs is only limited by the number of available
Time of day	slots
Time of day	
Clock	Underson de de
• Type	Hardware clock
Hardware clock (real-time)	Yes; Resolution: 1 s
Backup time	6 wk; At 40 °C ambient temperature, typically
• Deviation per day, max.	10 s; Typ.: 2 s
Clock synchronization	
• supported	Yes
• to DP, master	Yes
• on Ethernet via NTP	Yes
on Windows clock, device	Yes
Interfaces	
Number of industrial Ethernet interfaces	2
Number of PROFINET interfaces	1
Number of PROFIBUS interfaces	1; Via CM DP module
Number of RS 485 interfaces	1; Via CM DP module
Number of USB interfaces	4; 2x USB 2.0, 2x USB 3.0 on front side
Number of SD card slots	1
Video interfaces	
Graphics interface	1x DisplayPort
1. Interface	
Interface type	PROFINET
automatic detection of transmission rate	Yes
Autonegotiation	Yes
Autocrossing	Yes
Number of connections	88
Interface types	
• RJ 45 (Ethernet)	Yes; Via BusAdapter BA 2x RJ45
— Transmission rate, max.	100 Mbit/s
 Industrial Ethernet status LED 	Yes
Number of ports	2
 integrated switch 	Yes
BusAdapter (PROFINET)	Yes; Compatible BusAdapter: BA 2x RJ45, BA 2x FC, BA 2x SCRJ (from FS03, V2.2), BA SCRJ / RJ45 (from FS03, V3.1), BA SCRJ / FC (from FS03, V3.1), BA 2x LC (from FS03, V3.3), BA LC / RJ45 (from FS03, V3.3), BA LC / FC (from FS03, V3.3)

Protocols

•••BORTINE IO DeviceVis•• Open IE communicationVis•• Open IE communicationVis•• Open IE communicationVis•• Solutions modeVis•• Solutions attribute of labelingVis•• Anniber of connectable IO Devices, max.PROFINET For the PROFINET fueldes, if you want to use the "Prototoced staturup" Imactionality in STEP 7 for the PROFINET fueldes, if you want to use the "Prototoced staturup" Imactionality in STEP 7 for the PROFINET fueldes, if you want to use the "Prototoced staturup" Imactionality in STEP 7 for the PROFINET fueldes, if you want to use the "Prototoced staturup" Imactionality in STEP 7 for the PROFINET fueldes, if you want to use the "Prototoced staturup" Imactionality in STEP 7 for the PROFINET fueldes, if you want to use the "Prototoced staturup" Imactionality in STEP 7 for the PROFINET fueldes, if you want to use the "Prototoced staturup" Imactionality in STEP 7 for the PROFINET fueldes, if you want to use the "Prototoced staturup" Imactionality in STEP 7 for the PROFINET fueldes, if you want to use the "Prototoced staturup" Imactionality in STEP 7 for the PROFINET fueldes, if you want to use the "Prototoced staturup" Imactionality in STEP 7 for the PROFINET fueldes, if you want to use the "Prototoced staturup" Imactionality in STEP 7 for the PROFINET fueldes, if you want to use the "Prototoced staturup" Imactionality in STEP 7 for the PROFINET fueldes, if you want to use the "Prototoced staturup" Imactionality in STEP 7 for the PROFINET fueldes, if yo	PROFINET IO Controller	Yes
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• Vis PROFINE TIO Control Service - indicit cock pulse 600 µs - indicit cock pulse 600 µs - indicit cock pulse 600 µs - PROFILEE restry Yes - PROFILEE restry Yes - PROFILEE restry Yes - Number of connectable IO Devices, max. 128 - O which IO devices with RT, max. 64 - of which Inso, max. 128 - of which Inso, Inso. The minimum value of the update time also depends on communication share update PROFINETTICO which Inso. - of which Opel of 500 µs 500 µs to 250 ms - of which Opel of 500 µs 27ms to 12 ms <t< td=""><td></td><td></td></t<>		
Update fine for IRT Yes - Isochronous mode - shortest dook puble - shortest dook puble - shortest dook puble - PROFilewarg - PROFilewarg - PROFilewarg - PROFilewarg - PROFilewarg - Provinized startup - Provinized startup - Number of connectable IO Devices, max. 2 PROFINET devices: if you want to use the "Provinized startup" / functionality in STEP 7 to the PROFINET devices: if you want to use the "Provinized startup" / functionality in STEP 7 to the PROFINET interface of the CPU and the device runs be separated by means of a switch (e.g. SCALANCE.X208) - Of which in line, max. - for send cycle of an		
Service - shothest lock pulse - shothest lock pulse 560 µs - shothest lock pulse 560 µs - PROFILE Yes - Prioritized startup Yes - Prioritized startup Yes - Prioritized startup Yes - Number of connectable I/D Devices, max. 128 - of which in line, max. 64 - of which in line, max. 64 - of which in line, max. 128 - of which in line, max. 128 - Number of IO Devices that pain be simultaneously activated decativated, max. 128 - Number of IO Devices perion (max). 8 - Updating times 500 µs to 8 ms - IO Devices for IT max. 128 - Updating times 500 µs to 8 ms - for send cycle of 100 µs 1ms to 16 ms - for send cycle of 100 µs 500 µs to 8 ms - for send cycle of 100 µs 2ms to 137 ms - for send cycle of 100 µs 1ms to 16 ms - for send cycle of 20 µs 500 µs to 28 ms - for send cycle of 20 µs 500 µs to 28 ms -		Tes
- Isochronous mode Yes - ahortset clock pulse Solo jus - PROFInency Yes - PROFInency Yes - Profitzed startup Transmission must be separated by means of a switch (e.g. SCALANCE X200) - Or which IO devices with IRT, max. 64 - Or which IO devices that IRT, max. 64 - Or which IO devices that an be simultaneously 8 - Or which IN devices that an be simultaneously 8 - Or which IN IRE, max. 64 - Number of connectable IO Devices for RT, max. 128 - Number of Connectable IO Devices for RT, max. 128 - Number of IO Devices that an be simultaneously 8 - Number of IO Devices that an be simultaneously 8 - Number of IO Devices peritoli, (nance 6 - Number of IO Devices peritoli, (nance 500 jus ID 8m - for send cycle of 500 jus 500 jus ID 8m - for send cycle of 200 jus 27m for 32 ms - for send cycle of 200 jus 27m for 32 ms - for send cycle of 200 jus 27m for 32 ms - for send cycle of 10m 10m for 10m - for send cycl		
- shortset clock pulse500 µs- IRTYes- PROFInergryYes- Profitized startupYes, max. 32 PROFINET devices; if you want to use the "Prioritzed startup"- Number of connectable IO Devices, max.128- Of which IO devices with IRT, max.64- Of which In Ine, max.128- Of which Ine max.128- of which Optoce Iter128- of which Optoce Iter128- of which Optoce Iter200 µsto 8 max of which Optoce Iter500 µsto 26 max of which Optoce Iter500 µsto 26 max of which Optoce Iter500 µsto 26 max.		Yes
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- Prioritzed starup Yes, max. 32 PROFINET devices, fivou want to see prioritzed starup the device must be separated by means of a switch (e.g. SCALANCE X205) the device must be separated by means of a switch (e.g. SCALANCE X205) - Of which 10 devices with IRT, max. 64 - of which in line, max. 78 - Wonder of OD Devices hang during operation (partner ports), supported 8 - Wonder of OD Devices per tool, max. 8 - Wonder of OD Devices per tool, max. 8 - For send cycle of 100 µs 500 µs to 8 m - for send cycle of 100 µs 500 µs to 8 m - for send cycle of 100 µs 2 ms to 32 ms - for send cycle of 100 µs 500 µs to 25 ms - for send cycle of 100 µs 500 µs to 25 ms - for send cycle of 100 µs 2 ms to 32 ms - for send cycle of 100 µs 2 ms to 32 ms - for send cycle of 100 µs 2 ms to 512 ms - for send cycle of 100 µs 2 ms to 512 ms <		
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- of which in line, max.128- Number of IO Devices that can be simultaneously activated/decktivade, max.8- IO Devices changing during operation (partner ports), supportedYes- IO Devices changing during operation (partner ports), supported8- Number of IO Devices per tool, max.8- Updating times500 µs to 8 ms- Updating times500 µs to 8 ms- for send cycle of 500 µs500 µs to 8 ms- for send cycle of 1 ms1 ms to 16 ms- for send cycle of 1 ms2 ms to 32 ms- for send cycle of 4 ms4 ms to 24 ms- for send cycle of 100 devices, and on the quantity of 	— of which in line, max.	64
Number of IO Devices that can be simultaneously activited/deactivated, max. 8	- Number of connectable IO Devices for RT, max.	128
activated deactivated, max.	— of which in line, max.	128
- Number of IO Devices per tool, max. 8 - Updating times 8 - Update time for IRT - Configured user data - for send cycle of 500 µs 500 µs to 8 ms - for send cycle of 500 µs 2 ms to 32 ms - for send cycle of 1 ms 1 ms to 16 ms - for send cycle of 4 ms 4 ms to 84 ms - for send cycle of 4 ms 4 ms to 84 ms - for send cycle of 500 µs 500 µs to 256 ms - for send cycle of 4 ms 4 ms to 84 ms - for send cycle of 500 µs 500 µs to 256 ms - for send cycle of 500 µs 500 µs to 256 ms - for send cycle of 2 ms 2 ms to 512 ms - for send cycle of 4 ms 4 ms to 54 ms - for send cycle of 4 ms 8 ktyle - for send cycle of 4 ms 8 ktyle - for send cycle of 4 ms 500 µs - for send cycle of 4 ms 8 ktyle - for send cycle of 4 ms 9 ktyle - for send cycle of 4 ms 9 ktyle - for send cycle of 4 ms 9 ktyle - For send cycle of 4 ms 9 ktyle - For send cycle of 4 ms <t< td=""><td></td><td>8</td></t<>		8
		Yes
Bestfor PROFINET IO, on the number of IO devices, and on the quantity of configured user data Update time for IRT - for send cycle of 1 ms 1 ms to 16 ms - for send cycle of 1 ms 1 ms to 16 ms - for send cycle of 4 ms 4 ms to 64 ms - for send cycle of 500 µs 500 µs to 256 ms - With IRT and parameterization of 'odd' send cycle Update time for and cycle of 500 µs - for send cycle of 500 µs 500 µs to 256 ms - for send cycle of 500 µs 500 µs to 256 ms - for send cycle of 500 µs 500 µs to 256 ms - for send cycle of 500 µs 500 µs to 256 ms - for send cycle of 500 µs 500 µs to 256 ms - for send cycle of 500 µs 500 µs to 256 ms - for send cycle of 500 µs 500 µs to 256 ms - for send cycle of 500 µs 500 µs - for send cycle of 4 ms 4 ms to 512 ms - for send cycle of 4 ms 4 ms to 512 ms - for send cycle of 4 ms 4 ms to 512 ms - for send cycle of 4 ms 500 µs - For Send cycle of 4 ms 4 ms to 512 ms - For Send cycle of 4 ms 500 µs - Isochronous m	- Number of IO Devices per tool, max.	8
- for send cycle of 500 μs 500 μs to 8 ms - for send cycle of 1 ms 1 ms to 16 ms - for send cycle of 4 ms 4 ms to 64 ms - with IRT and parameterization of "odd" send cycles Update time = set "odd" send cicks (any multiple of 125 μs: 375 μs, 625 μs3 Update time for RT - - for send cycle of 2 ms 500 μs to 256 ms - for send cycle of 1 ms 1 ms to 512 ms - for send cycle of 2 ms 2 ms to 512 ms - for send cycle of 2 ms 4 ms to 512 ms - for send cycle of 2 ms 4 ms to 512 ms - for send cycle of 2 ms 4 ms to 512 ms - for send cycle of 2 ms 8 kbyte - longuts, max. 8 kbyte - Outputs, max. 8 kbyte - Inputs, max. 8 kbyte - shortest clock pulse 500 μs - Number of IO Controtell	— Updating times	set for PROFINET IO, on the number of IO devices, and on the quantity of
- for send cycle of 1 ms1 ms to 16 ms- for send cycle of 2 ms2 ms to 32 ms- for send cycle of 4 ms4 ms to 64 ms- Wth IRT and parameterization of "odd" send cyclesUgdate time = set "odd" send clock (any multiple of 125 µs: 375 µs, 625 µs3VUpdate time for RT500 µs to 256 ms- for send cycle of 500 µs500 µs to 256 ms- for send cycle of 4 ms4 ms to 512 ms- for send cycle of 4 ms4 ms to 512 ms- for send cycle of 4 ms4 ms to 512 ms- for send cycle of 4 ms4 kbyte- outputs, max.8 kbyte- outputs, max.8 kbyte- Services Inputs.8 kbyte- Inputs.9 kbyte- Services Insochronous modeNo- Shortes clock pulse500 µs- Shortes clock pulse9 ks- PROFINET to DeviceYes- Shared deviceYes- Namber of IO Controllers with shared device, max.4- Asset management recordYes- Number of IO Controllers with shared device, max.4- AutorosingYes- AutorosingYes- AutorosingYes- AutorosingYes- RIA 45 (Ethernet)Yes integrated- RIA 45 (Ethernet)Yes integrated- RIA 45 (Ethernet)Yes integrated- AutorosingYes integrated- AutorosingYes integrated- AutorosingYes integrated- Fuld 45 (Ethernet)Yes integrated- Autoro	Update time for IRT	
	— for send cycle of 500 μs	500 µs to 8 ms
	— for send cycle of 1 ms	1 ms to 16 ms
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Update time for RT- for send cycle of 500 µs500 µs to 256 ms- for send cycle of 20 ms1 ms to 512 ms- for send cycle of 2 ms2 ms to 512 ms- for send cycle of 4 ms4 ms to 512 ms- for send cycle of 4 ms4 ms to 512 ms- for send cycle of 4 ms8 kbyte- Inputs, max.8 kbyte- Outputs, max.8 kbytePROFINET IO DeviceServices Isochronous modeNo- shortest clock pulse500 µs- PROFINET IO DeviceServices IRTYes- PROFIenergyYes- Shared deviceYes- Shared deviceYes- Number of 10 Controllers with shared device, max.4- Asset management recordYes2 InterfaceIntegrated Ethernet interfaceautomatic detection of transmission rateYesAutorcospingYes- RJ 45 (Ethernet)Yes; Integrated- Transmission rate, max.1000 Mbit/s- Nurber of ports1	— for send cycle of 4 ms	4 ms to 64 ms
- for send cycle of 500 μs500 μs to 256 ms- for send cycle of 1 ms1 ms to 512 ms- for send cycle of 2 ms2 ms to 512 ms- for send cycle of 4 ms4 ms to 512 ms- for send cycle of 4 ms4 ms to 512 ms- datterss area Inputs, max.8 kbyte- Outputs, max.8 kbyte- PROFINET IO Device-Services Inschronous modeNo- shortest clock pulse500 μs- IRTYes- PROFIenergyYes- PROFIenergyYes- Shard deviceYes- Asset management recordYes2. Interface typeIntegrated Etternet interface- AutocrossingYes- AutocrossingYes- AutocrossingYes- RJ 45 (Ethernet)Yes; Integrated- RJ 45 (Ethernet)Yes; Integrated- Fransmission rateYes; Integrated- RJ 45 (Ethernet)Yes; Integrated- Industrial Ethernet status LEDNo- Number of ports1	 — With IRT and parameterization of "odd" send cycles 	
- for send cycle of 1 ms1 ms to 512 ms- for send cycle of 2 ms2 ms to 512 ms- for send cycle of 4 ms4 ms to 512 msAddress area5 ms to 512 ms- Inputs, max.8 kbyte- Outputs, max.8 kbytePROFINET IO Device5Services Isochronous modeNo- shortest clock pulse500 µs- IRTYes- PROFInergyYes- Shared deviceYes- Shared deviceYes- Number of IO Controllers with shared device, max.4- Asset management recordYesAutoreoglationYesAutoreosingYesAutoreosingYesAutoreosingYesAutoreosingYesAutoreosingYesAutoreosingYes- RJ 45 (Ethernet)Yes- RJ 45 (Ethernet)Yes integrated- Transmission rate, max.1000 Mbit/s- Industrial Ethernet status LEDNo- Number of ports1	Update time for RT	
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- for send cycle of 4 ms 4 ms to 512 ms Address area 4 ms to 512 ms - Inputs, max. 8 kbyte - Outputs, max. 8 kbyte PROFINET IO Device 500 µs - Isochronous mode No - shortest clock pulse 500 µs - IRT Yes - PROFInergy Yes - PROFInergy Yes - Shared device Yes - Number of IO Controllers with shared device, max. 4 Autoregotiation Yes Autoregotiation Yes Autoregotiation Yes Autoregotiation Yes FIRFAce type Integrated Ethernet interface Autoregotiation Yes Autoregotiation Yes - FIRJ 45 (Ethernet) Yes; Integrated - Transmission rate, max. 1000 Mbit/s - Transmission rate, max. 1000 Mbit/s - Transmission rate, max. No - Transmission rate, max. 1000 Mbit/s - Transmission rate, max. 1000 Mbit/s	— for send cycle of 1 ms	1 ms to 512 ms
Address area 8 kbyte - Inputs, max. 8 kbyte PROFINET IO Device 8 kbyte FROFINET IO Device 9 Services 500 µs - Isochronous mode No - shortest clock pulse 500 µs - IRT Yes - PROFIenergy Yes - Prioritized startup Yes - Shared device Yes - Number of IO Controllers with shared device, max. 4 - Asset management record Yes Interface type Integrated Ethernet Interface automatic detection of transmission rate Yes Autorosping Yes Interface types Yes - RJ 45 (Ethernet) Yes integrated - Transmission rate, max. 1000 Mbit/s - Transmission rate, max. 1000 Mbit/s - Transmission rate, max. 1000 Mbit/s - Industrial Ethernet status LED No	— for send cycle of 2 ms	2 ms to 512 ms
Inputs, max. 8 kbyte PROFINET IO Device 8 kbyte PROFINET IO Device 9 Services 9 Isochronous mode No Services 9 Isochronous mode 90 µs Services 9 IRT Yes PROFIenergy Yes PROFienergy Yes Shared device Yes Number of IO Controllers with shared device, max. 4 Asset management record Yes Interface type Integrated Ethernet interface Autonegotiation Yes Autocrossing Yes Interface types Yes Interface type Integrated Ethernet interface Autocrossing Yes Interface types Yes </td <td>— for send cycle of 4 ms</td> <td>4 ms to 512 ms</td>	— for send cycle of 4 ms	4 ms to 512 ms
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Services - Isochronous mode No - shortest clock pulse 500 µs - IRT Yes - PROFlenergy Yes - Prioritized startup Yes - Shared device Yes - Number of IO Controllers with shared device, max. 4 - Asset management record Yes Interface type Integrated Ethernet interface automatic detection of transmission rate Yes Autocrossing Yes Interface types Yes • RJ 45 (Ethernet) Yes integrated • RJ 45 (Ethernet) Yes; Integrated • Industrial Ethernet status LED No • Number of ports 1	— Outputs, max.	8 kbyte
— Isochronous modeNo— Isochronous mode500 µs— IRTYes— PROFIenergyYes— Prioritized startupYes— Shared deviceYes— Number of IO Controllers with shared device, max.4— Asset management recordYesInterface typeIntegrated Ethernet interfaceautomatic detection of transmission rateYesAutorogotiationYesInterface typesYesInterface typesYesIndustrial Ethernet status LEDNoNoNumber of portsIndustrial Ethernet status LEDNoInterface types1	PROFINET IO Device	
 shortest clock pulse - IRT Yes - PROFlenergy Yes - Prioritized startup Shared device Shared device Number of IO Controllers with shared device, max. - Asset management record Yes 2. Interface Interface type Integrated Ethernet interface Autonegotiation Yes Autorossing Ves • RJ 45 (Ethernet) Yes integrated Ves • RJ 45 (Ethernet) Yes integrated - Transmission rate, max. - Industrial Ethernet status LED No • Number of ports 1 	Services	
- IRTYes- PROFlenergyYes- Prioritized startupYes- Shared deviceYes- Number of IO Controllers with shared device, max.4- Asset management recordYes- Asset management recordYesInterface typeIntegrated Ethernet interfaceautomatic detection of transmission rateYesAutonegotiationYesAutorossingYes• RJ 45 (Ethernet)Yes; Integrated• RJ 45 (Ethernet)Yes; Integrated- Transmission rate, max.1 000 Mbit/s- Industrial Ethernet status LEDNo• Number of ports1	— Isochronous mode	
PROF lenergyYes Prioritized startupYes Shared deviceYes Number of IO Controllers with shared device, max.4 Asset management recordYes2. InterfaceIntegrated Ethernet interfaceautomatic detection of transmission rateYesAutonegotiationYesAutocrossingYesInterface typesIntegrated Ethernet interface• RJ 45 (Ethernet)Yes; Integrated• RJ 45 (Ethernet)Yes; Integrated• RJ 45 (Ethernet)Yes; Integrated• Interface types1	- shortest clock pulse	500 µs
OrYes- Prioritized startupYes- Shared deviceYes- Number of IO Controllers with shared device, max.4- Asset management recordYes2. InterfaceInterface typeIntegrated Ethernet interfaceautomatic detection of transmission rateYesAutonegotiationYesAutocrossingYesInterface typesYes- RJ 45 (Ethernet)Yes; Integrated- Transmission rate, max.1 000 Mbit/s- Industrial Ethernet status LEDNo- Number of ports1	— IRT	Yes
Shared deviceYes Number of IO Controllers with shared device, max.4 Asset management recordYes2. InterfaceIntegrated Ethernet interfaceautomatic detection of transmission rateYesAutonegotiationYesAutocrossingYesInterface typesYes Transmission rate, max.1 000 Mbit/s Transmission rate, max.1 000 Mbit/s Industrial Ethernet status LEDNo• Number of ports1	- PROFlenergy	Yes
- Number of IO Controllers with shared device, max.4- Asset management recordYes2. InterfaceIntegrated Ethernet interfaceInterface typeIntegrated Ethernet interfaceautomatic detection of transmission rateYesAutonegotiationYesAutocrossingYesInterface typesIntegrated Ethernet• RJ 45 (Ethernet)Yes; Integrated- Transmission rate, max.1 000 Mbit/s- Industrial Ethernet status LEDNo• Number of ports1	— Prioritized startup	Yes
— Asset management record Yes 2. Interface Integrated Ethernet interface Interface type Integrated Ethernet interface automatic detection of transmission rate Yes Autonegotiation Yes Autocrossing Yes Interface types Yes • RJ 45 (Ethernet) Yes; Integrated - Transmission rate, max. 1 000 Mbit/s - Industrial Ethernet status LED No • Number of ports 1	— Shared device	Yes
2. Interface Interface type Integrated Ethernet interface automatic detection of transmission rate Yes Autonegotiation Yes Autocrossing Yes Interface types Yes • RJ 45 (Ethernet) Yes; Integrated - Transmission rate, max. 1 000 Mbit/s - Industrial Ethernet status LED No • Number of ports 1	 Number of IO Controllers with shared device, max. 	4
Interface type Integrated Ethernet interface automatic detection of transmission rate Yes Autonegotiation Yes Autocrossing Yes Interface types Yes; Integrated • RJ 45 (Ethernet) Yes; Integrated — Transmission rate, max. 1 000 Mbit/s — Industrial Ethernet status LED No • Number of ports 1	- Asset management record	Yes
automatic detection of transmission rate Yes Autonegotiation Yes Autocrossing Yes Interface types Yes; Integrated - Transmission rate, max. 1 000 Mbit/s - Industrial Ethernet status LED No • Number of ports 1	2. Interface	
Autonegotiation Yes Autocrossing Yes Interface types Yes; Integrated • RJ 45 (Ethernet) Yes; Integrated - Transmission rate, max. 1 000 Mbit/s - Industrial Ethernet status LED No • Number of ports 1	Interface type	Integrated Ethernet interface
Autocrossing Yes Interface types • RJ 45 (Ethernet) Yes; Integrated - Transmission rate, max. 1 000 Mbit/s - Industrial Ethernet status LED No • Number of ports 1	automatic detection of transmission rate	Yes
Interface types Yes; Integrated • RJ 45 (Ethernet) Yes; Integrated — Transmission rate, max. 1 000 Mbit/s — Industrial Ethernet status LED No • Number of ports 1	Autonegotiation	Yes
RJ 45 (Ethernet) Yes; Integrated - Transmission rate, max. 1 000 Mbit/s - Industrial Ethernet status LED No Number of ports 1	Autocrossing	Yes
— Transmission rate, max. 1 000 Mbit/s — Industrial Ethernet status LED No • Number of ports 1	Interface types	
Industrial Ethernet status LED No Number of ports 1	• RJ 45 (Ethernet)	Yes; Integrated
Number of ports	— Transmission rate, max.	1 000 Mbit/s
Number of ports	— Industrial Ethernet status LED	No
		1
	3. Interface	

Interface type	PROFIBUS with CM DP
Number of connections	44
Interface types	
• RS 485	Yes
Protocols	
PROFIBUS DP master	Yes
PROFIBUS DP device	Yes
SIMATIC communication	Yes
PROFIBUS DP master	
max. number of DP devices	125
Services	120
— Equidistance	No
— Isochronous mode	No
Address area	
— Inputs, max.	8 kbyte
— Outputs, max.	8 kbyte
Interface types	
RS 485	
Transmission rate, max.	12 Mbit/s
Protocols	
PROFIsafe	No
Number of connections	110
Number of connections, max.	88
Number of connections, max. Number of connections reserved for ES/HMI/web	oo 10
	16
Number of S7 routing paths	10
Redundancy mode	
Media redundancy — MRP	Yes
— MRP — MRPD	Yes
	200 ms
— Switchover time on line break, typ.	50
— Number of stations in the ring, max. SIMATIC communication	50
PG/OP communication	Yes
• S7 routing	Yes
 S7 communication, as server 	Yes
S7 communication, as server S7 communication, as client	Yes
User data per job, max.	64 kbyte; BSEND/BRCV: 64 KB; PUT/GET: 960 bytes
Open IE communication	04 KDyle, BSEND/BROV. 04 KB, FOT/GET. 300 Dyles
TCP/IP	Yes
— Data length, max.	64 kbyte
 Data length, max. ISO-on-TCP (RFC1006) 	Yes
	64 kbyte
Data length, max.UDP	Yes
DDP Data length, max.	1 472 kbyte
SNMP	Yes
• SNMP • DCP	Yes
• DCP • LLDP	Yes
• LLDP Web server	
HTTP	Yes; Via Windows and PROFINET interface
• HTTPS	Yes; Via Windows and PROFINET interface
OPC UA	
	Yes; "Small" license required
Runtime license required OPC UA Client	Yes; From SW CPU 1505SP V2.6
OPC UA Client OPC UA Server	Yes; Data access (read, write, subscribe), runtime license required
Application authentication	Yes; Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256
— Security policies	Yes; Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256
— User authentication	Yes; "anonymous" or by user name & password
Further protocols	
MODBUS	Yes; MODBUS TCP

S7 message functions	
Number of login stations for message functions, max.	32
Program alarms	Yes
Number of configurable program messages, max.	10 000
Number of simultaneously active program alarms	1 000
Number of program alarms	1 000
Number of alarms for system diagnostics	200
Number of alarms for motion technology objects	160
Test commissioning functions	100
Joint commission (Team Engineering)	Yes; Parallel online access possible for up to 8 engineering systems
Status block	Yes; up to 8 simultaneously
Single step	No
Number of breakpoints	8
Status/control	Ver
Status/control variable	Yes
Variables	Inputs, outputs, memory bits, DB, times, counters
Number of variables, max.	
— of which status variables, max.	200
— of which control variables, max.	200
Forcing	
• Forcing	Yes
 Forcing, variables 	Inputs, outputs
 Number of variables, max. 	200
Diagnostic buffer	
• present	Yes
 Number of entries, max. 	1 000
— of which powerfail-proof	300
Traces	
 Number of configurable Traces 	4
 Memory size per trace, max. 	512 kbyte
Interrupts/diagnostics/status information	
Interrupts/diagnostics/status information Diagnostics indication LED	
	Yes
Diagnostics indication LED	Yes Yes
Diagnostics indication LED • RUN/STOP LED	
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED	Yes
Diagnostics indication LED • RUN/STOP LED • ERROR LED	Yes
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects	Yes Yes
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control	Yes Yes Yes
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for	Yes Yes Yes
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects	Yes Yes Yes
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources	Yes Yes 2 400
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources — per speed-controlled axis	Yes Yes 2 400 40; per axis
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources — per speed-controlled axis — per positioning axis	Yes Yes 2 400 40; per axis 80; per axis
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources — per speed-controlled axis — per positioning axis — per synchronous axis	Yes Yes 2 400 40; per axis 80; per axis 160; per axis
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources — per speed-controlled axis — per positioning axis — per synchronous axis — per external encoder	Yes Yes 2 400 40; per axis 80; per axis 160; per axis 80; per external encoder
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources — per speed-controlled axis — per positioning axis — per synchronous axis — per external encoder — per output cam	Yes Yes 2 400 40; per axis 80; per axis 160; per axis 80; per external encoder 20; per cam
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources — per speed-controlled axis — per positioning axis — per positioning axis — per external encoder — per cam track — per probe	Yes Yes Yes 2 400 40; per axis 80; per axis 160; per axis 80; per external encoder 20; per cam 160; per cam track
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources — per speed-controlled axis — per positioning axis — per synchronous axis — per external encoder — per output cam — per cam track	Yes Yes Yes 2 400 40; per axis 80; per axis 160; per axis 80; per external encoder 20; per cam 160; per cam track
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources — per speed-controlled axis — per positioning axis — per external encoder — per output cam — per cam track — per probe • Positioning axis — Number of positioning axes at motion control cycle	Yes Yes Yes 2 400 40; per axis 80; per axis 160; per axis 80; per external encoder 20; per cam 160; per cam track 40; per probe
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources — per speed-controlled axis — per positioning axis — per external encoder — per output cam — per cam track — per probe • Positioning axis — Number of positioning axes at motion control cycle of 4 ms (typical value) — Number of positioning axes at motion control cycle	Yes Yes 2 400 40; per axis 80; per axis 160; per axis 80; per external encoder 20; per cam 160; per cam track 40; per probe 15
Diagnostics indication LED	Yes Yes 2 400 40; per axis 80; per axis 160; per axis 80; per external encoder 20; per cam 160; per cam track 40; per probe
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources — per speed-controlled axis — per positioning axis — per synchronous axis — per synchronous axis — per external encoder — per output cam — per cam track — per probe • Positioning axis — Number of positioning axes at motion control cycle of 4 ms (typical value) — Number of positioning axes at motion control cycle of 8 ms (typical value)	Yes Yes Yes 2 400 40; per axis 80; per axis 160; per axis 80; per external encoder 20; per cam 160; per cam track 40; per probe 15 30
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources — per speed-controlled axis — per synchronous axis — per synchronous axis — per external encoder — per output cam — per cam track — per probe • Positioning axis — Number of positioning axes at motion control cycle of 4 ms (typical value) — Number of positioning axes at motion control cycle of 8 ms (typical value) Controller • PID_Compact	Yes Yes Yes 2 400 40; per axis 80; per axis 160; per axis 80; per external encoder 20; per cam 160; per cam track 40; per probe 15 30 Yes; Universal PID controller with integrated optimization Yes; PID controller with integrated optimization Yes; PID controller with integrated optimization for valves
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources — per speed-controlled axis — per synchronous axis — per synchronous axis — per external encoder — per output cam — per cam track — per probe • Positioning axis — Number of positioning axes at motion control cycle of 4 ms (typical value) — Number of positioning axes at motion control cycle of 8 ms (typical value) Controller • PID_Compact • PID_Temp	Yes Yes Yes 2 400 40; per axis 80; per axis 160; per axis 80; per external encoder 20; per cam 160; per cam track 40; per probe 15 30 Yes; Universal PID controller with integrated optimization
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources — per speed-controlled axis — per positioning axis — per synchronous axis — per synchronous axis — per external encoder — per output cam — per cam track — per probe • Positioning axis — Number of positioning axes at motion control cycle of 4 ms (typical value) — Number of positioning axes at motion control cycle of 8 ms (typical value) Controller • PID_Compact • PID_Temp Counting and measuring	Yes Yes Yes 2 400 40; per axis 80; per axis 160; per axis 80; per external encoder 20; per cam 160; per cam track 40; per probe 15 30 Yes; Universal PID controller with integrated optimization Yes; PID controller with integrated optimization for valves Yes; PID controller with integrated optimization for valves Yes; PID controller with integrated optimization for temperature
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources — per speed-controlled axis — per positioning axis — per synchronous axis — per synchronous axis — per external encoder — per output cam — per cam track — per probe • Positioning axis — Number of positioning axes at motion control cycle of 4 ms (typical value) — Number of positioning axes at motion control cycle of 8 ms (typical value) Controller • PID_Compact • PID_Temp Counting and measuring • High-speed counter	Yes Yes Yes 2 400 40; per axis 80; per axis 160; per axis 80; per external encoder 20; per cam 160; per cam track 40; per probe 15 30 Yes; Universal PID controller with integrated optimization Yes; PID controller with integrated optimization Yes; PID controller with integrated optimization
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources — per speed-controlled axis — per speed-controlled axis — per synchronous axis — per external encoder — per output cam — per cam track — per probe • Positioning axis — Number of positioning axes at motion control cycle of 4 ms (typical value) — Number of positioning axes at motion control cycle of 8 ms (typical value) Controller • PID_Compact • PID_Temp Counting and measuring • High-speed counter Ambient conditions	Yes Yes Yes 2 400 40; per axis 80; per axis 160; per axis 80; per axis 160; per axis 80; per external encoder 20; per cam 160; per cam track 40; per probe 15 30 Yes; Universal PID controller with integrated optimization Yes; PID controller with integrated optimization for valves Yes; PID controller with integrated optimization for valves Yes; PID controller with integrated optimization for temperature
Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources — per speed-controlled axis — per synchronous axis — per synchronous axis — per external encoder — per output cam — per cam track — per probe • Positioning axis — Number of positioning axes at motion control cycle of 4 ms (typical value) — Number of positioning axes at motion control cycle of 8 ms (typical value) Controller • PID_Compact • PID_Temp Counting and measuring • High-speed counter	Yes Yes Yes 2 400 40; per axis 80; per axis 160; per axis 80; per axis 160; per axis 80; per external encoder 20; per cam 160; per cam track 40; per probe 15 30 Yes; Universal PID controller with integrated optimization Yes; PID controller with integrated optimization for valves Yes; PID controller with integrated optimization for valves Yes; PID controller with integrated optimization for temperature

● max.	up to 55 °C with max. 64 ET 200SP modules, max. 2x 900 mA USB load and max. 2x 500 mA USB load; up to 60 °C with max. 32 ET 200SP modules and 4x 500 mA USB load; FS06 or higher: up to 70 °C with max. 16 ET 200SP modules 4x 100 mA USB load and na visualization.
	modules, 4x 100 mA USB load and no visualization
• horizontal installation, min.	-40 °C; = Tmin (incl. condensation/frost)
horizontal installation, max.	70 °C; = Tmax
• vertical installation, min.	-40 °C; = Tmin
• vertical installation, max.	50 °C; = Tmax; with max. 32 ET 200SP modules and max. 4x 500 mA USB load
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Altitude during operation relating to sea level	
 Installation altitude above sea level, max. 	2 000 m
 Ambient air temperature-barometric pressure-altitude 	Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m)
Relative humidity	
With condensation, tested in accordance with IEC 60068- 2-38, max.	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation
Vibrations	
 Operation, tested according to IEC 60068-2-6 	Yes
 Transport, tested acc. to IEC 60068-2-6 	Yes
Shock testing	
 tested according to IEC 60068-2-6 	Yes
 tested according to IEC 60068-2-27 	Yes
• tested according to IEC 60068-2-29	Yes
 Storage/transport, tested acc. to IEC 60068-2-27 	Yes
Resistance	
Coolants and lubricants	
 Resistant to commercially available coolants and lubricants 	Yes; Incl. diesel and oil droplets in the air
Use in stationary industrial systems	
 — to biologically active substances according to EN 60721-3-3 	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
 — to chemically active substances according to EN 60721-3-3 	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
 — to mechanically active substances according to EN 60721-3-3 	Yes; Class 3S4 incl. sand, dust, *
 Against mechanical environmental conditions acc. to EN 60721-3-3 	Yes; Class 3M8 using the SIPLUS Mounting Kit ET 200SP (6AG1193-6AA00- 0AA0)
Use on ships/at sea	
 — to biologically active substances according to EN 60721-3-6 	Yes; Class 6B2 mold, fungal and dry rot spores (excluding fauna)
— to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
 — to mechanically active substances according to EN 60721-3-6 	Yes; Class 6S3 incl. sand, dust; *
 Against mechanical environmental conditions acc. to EN 60721-3-6 	Yes; Class 6M4 using the SIPLUS Mounting Kit ET 200SP (6AG1193-6AA00- 0AA0)
Usage in industrial process technology	Voc Class 2 (avaluding triple-rethilers)
— Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)
 Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)
Remark	
 Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 	* The supplied plug covers must remain in place over the unused interfaces during operation!
Conformal coating	
Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high reliability
 Protection against fouling acc. to EN 60664-3 	Yes; Type 1 protection
Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life
Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC- CC-830A	Yes; Conformal coating, Class A
Operating systems	

nfiguration / header configuration / programming / header Programming language	
Programming language - LAD Yes - FBD Yes - STL Yes - SCL Yes - CFC No - GRAPH Yes Copy protection Yes Block protection Yes Protection level: Write protection Yes Protection level: Write protection Yes Protection level: Read/write protection Yes Protection level: Complete protection Yes Protection level: Complete protection Yes Protection level: Complete protection Yes Protection level: Read/write protection Yes Protection level: Complete protection Yes Protection level: Read/write protection Yes Protection level: Complete protection Yes Protection level: Read/write protection Yes Protection level: So file, max. 5.8 Mbyte Size of ODK SO file, max. 5.8 Mbyte ripherals/Options SD card Optionally for addition Midth 160 mm 160 mm	
LADYes FBDYes STLYes SCLYes CFCNo GRAPHYes* User program protection/password protectionYes* Copy protectionYes* Block protectionYes* Protection level: Write protectionYes* Protection level: Read/write protectionYes* Protection level: Complete protectionYes* Protection level: Complete protectionYes* Protection level: Complete protectionYes* Orgramming / cycle time monitoring / headeradjustable minimum adjustable maximum• pen Development interfaces • Size of ODK SO file, max.5.8 Mbyte* ripherals/OptionsOptionally for additionWidth160 mm	
STLYes SCLYes CFCNo GRAPHYes• User program protection/password protectionYes• User program protection/password protectionYes• Copy protectionYes• Block protectionYes• Protection level: Write protectionYes• Protection level: Read/write protectionYes• Protection level: Complete protectionYes• Protection level: Complete protectionYes• Dower limitadjustable minimum• upper limitadjustable minimum• Size of ODK SO file, max.5.8 Mbyteripherals/OptionsSD cardOptionally for additionWidth160 mm	
- SCL Yes - CFC No - GRAPH Yes • User program protection/password protection Yes • Copy protection Yes • Block protection Yes • Protection level: Write protection Yes • Protection level: Write protection Yes • Protection level: Complete protection Yes • Protection level: Complete protection Yes • Protection level: Complete protection Yes • Orgramming / cycle time monitoring / header adjustable minimum • lower limit adjustable maximum • upper limit adjustable maximum Open Development interfaces 5.8 Mbyte • Size of ODK SO file, max. 5.8 Mbyte writherals/Options SD card Optionally for addition Midth 160 mm 160 mm	
CFC No GRAPH Yes Know-how protection Yes • User program protection/password protection Yes • Copy protection Yes • Block protection Yes • Block protection Yes • Protection level: Write protection Yes • Protection level: Read/write protection Yes • Protection level: Complete protection Yes • Protection level: Complete protection Yes • Orgramming / cycle time monitoring / header adjustable minimum • lower limit adjustable maximum • upper limit adjustable maximum Open Development interfaces 5.8 Mbyte • Size of ODK SO file, max. 5.8 Mbyte withh 160 mm	
— GRAPH Yes Know-how protection Yes • User program protection/password protection Yes • Copy protection Yes • Block protection Yes • Block protection Yes • Protection level: Write protection Yes • Protection level: Read/write protection Yes • Protection level: Complete protection Yes • Protection level: Complete protection Yes • Protection level: Complete protection Yes • orgaramming / cycle time monitoring / header adjustable minimum • lower limit adjustable maximum • upper limit adjustable maximum Open Development interfaces 5.8 Mbyte • Size of ODK SO file, max. 5.8 Mbyte ripherals/Options Optionally for addition SD card Optionally for addition mensions 160 mm	
Know-how protection Yes • User program protection/password protection Yes • Copy protection Yes • Block protection Yes • Block protection Yes • Protection level: Write protection Yes • Protection level: Read/write protection Yes • Protection level: Complete protection Yes • Protection level: Complete protection Yes • Drogramming / cycle time monitoring / header adjustable minimum • lower limit adjustable maximum • upper limit adjustable maximum Open Development interfaces 5.8 Mbyte * Size of ODK SO file, max. 5.8 Mbyte ripherals/Options Optionally for addition SD card Optionally for addition Midth 160 mm	
• User program protection/password protection Yes • Copy protection Yes • Block protection Yes • Block protection Yes • Protection level: Write protection Yes • Protection level: Read/write protection Yes • Protection level: Complete protection Yes • Protection level: Complete protection Yes • Orogramming / cycle time monitoring / header adjustable minimum • lower limit adjustable minimum • upper limit adjustable maximum Open Development interfaces 5.8 Mbyte • Size of ODK SO file, max. 5.8 Mbyte ripherals/Options Optionally for addition SD card Optionally for addition Midth 160 mm	
• Copy protection Yes • Block protection Yes • Access protection Yes • Protection level: Write protection Yes • Protection level: Read/write protection Yes • Protection level: Complete protection Yes • Protection level: Complete protection Yes • orggramming / cycle time monitoring / header adjustable minimum • lower limit adjustable maximum • upper limit adjustable maximum Open Development interfaces 5.8 Mbyte • Size of ODK SO file, max. 5.8 Mbyte ripherals/Options Optionally for addition Width 160 mm	
• Block protection Yes • Block protection Yes • Protection level: Write protection Yes • Protection level: Read/write protection Yes • Protection level: Complete protection Yes • Protection level: Complete protection Yes • Orogramming / cycle time monitoring / header • adjustable minimum • lower limit adjustable maximum • upper limit adjustable maximum Open Development interfaces 5.8 Mbyte • Size of ODK SO file, max. 5.8 Mbyte ripherals/Options Optionally for addition Width 160 mm	
Access protection Yes Protection level: Write protection Protection level: Read/write protection Yes Protection level: Complete protection Yes programming / cycle time monitoring / header lower limit upper limit adjustable minimum adjustable maximum Development interfaces Size of ODK SO file, max. 5.8 Mbyte ripherals/Options SD card Optionally for addition Midth 160 mm Access protection Yes Access protection Yes <	
• Protection level: Write protection Yes • Protection level: Read/write protection Yes • Protection level: Complete protection Yes • lower limit adjustable minimum • upper limit adjustable maximum Open Development interfaces 5.8 Mbyte • Size of ODK SO file, max. 5.8 Mbyte ripherals/Options Optionally for addition SD card Optionally for addition Midth 160 mm	
Protection level: Read/write protection Yes Protection level: Complete protection Yes Protection	
Protection level: Complete protection Yes orogramming / cycle time monitoring / header lower limit adjustable minimum adjustable maximum Open Development interfaces Size of ODK SO file, max. SD card Optionally for addition mensions Width 160 mm	
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• lower limit adjustable minimum • upper limit adjustable maximum Open Development interfaces adjustable maximum • Size of ODK SO file, max. 5.8 Mbyte ripherals/Options 5.8 Data SD card Optionally for addition mensions 160 mm	
upper limit adjustable maximum Deen Development interfaces Size of ODK SO file, max. ripherals/Options SD card Optionally for addition mensions Width 160 mm	
Open Development interfaces 5.8 Mbyte • Size of ODK SO file, max. 5.8 Mbyte ripherals/Options 5.8 Mbyte SD card Optionally for additionally for additional to the second se	cycle time
	cycle time
ripherals/Options SD card Optionally for addition mensions Width 160 mm	
SD card Optionally for addition mensions Vidth 160 mm	
Mensions Vidth 160 mm	
Vidth 160 mm	nal mass storage
leight 117 mm	
Depth 75 mm	
eights	
Veight, approx. 0.83 kg	

last modified:

7/13/2024 🖸