## SIEMENS

## Data sheet

## 6ES7417-4XL04-0AB0



\*\*\*\*\*\*\*\*\* Replacement part \*\*\*\*\*\*\*\* SIMATIC S7-400, CPU 417-4 Central processing unit with: work memory 20 MB (10 MB code; 10 MB data) 1st interface MPI 12 Mbit/s; 2nd interface PROFIBUS DP, 3rd/4th interface plug-in IFM module

Figure similar

General information	
Product type designation	CPU 417-4
Firmware version	V4.0
Product function	
Isochronous mode	Yes
Engineering with	
<ul> <li>Programming package</li> </ul>	STEP 7 V5.2 SP1 HF3 or higher with HW update
CiR - Configuration in RUN	
CiR synchronization time, basic load	100 ms
CiR synchronization time, time per I/O byte	40 µs
Supply voltage	
Rated value (DC)	Power supply via system power supply
Input current	
from backplane bus 5 V DC, max.	1.7 A
from backplane bus 24 V DC, max.	Total current consumption of the components connected to the MPI/DP interfaces, but no more than 150 mA per interface
Power loss	
Power loss, typ.	6 W
Memory	
Type of memory	RAM
Work memory	
<ul> <li>integrated (for program)</li> </ul>	10 Mbyte
<ul> <li>integrated (for data)</li> </ul>	10 Mbyte
expandable	No
Load memory	
<ul> <li>expandable FEPROM</li> </ul>	Yes; with Memory Card (FLASH)
<ul> <li>expandable FEPROM, max.</li> </ul>	64 Mbyte
<ul> <li>integrated RAM, max.</li> </ul>	256 kbyte
<ul> <li>expandable RAM</li> </ul>	Yes; with Memory Card (RAM)
<ul> <li>expandable RAM, max.</li> </ul>	16 Mbyte
Backup	
• present	Yes
• with battery	Yes; all data
<ul> <li>without battery</li> </ul>	No
Battery	
Backup battery	
<ul> <li>Backup current, typ.</li> </ul>	600 µA
<ul> <li>Backup current, max.</li> </ul>	1 810 µA
<ul> <li>Feeding of external backup voltage to CPU</li> </ul>	5 V DC to 15 V DC

CPU processing times	
for bit operations, typ.	0.03 µs
for word operations, typ.	0.03 µs
for fixed point arithmetic, typ.	0.03 µs
for floating point arithmetic, typ.	0.05 µs
CPU-blocks	ν.ου μο
DB	
• Number, max.	8 192; DB 0 reserved
• Size, max.	64 kbyte
FB	
Number, max.	6 144
• Size, max.	64 kbyte
FC	
Number, max.	6 144
• Size, max.	64 kbyte
OB	
<ul> <li>Number, max.</li> </ul>	see instruction list
• Size, max.	64 kbyte
<ul> <li>Number of time alarm OBs</li> </ul>	8
<ul> <li>Number of delay alarm OBs</li> </ul>	4
<ul> <li>Number of cyclic interrupt OBs</li> </ul>	9
<ul> <li>Number of process alarm OBs</li> </ul>	8
Number of multicomputing OBs	1
Nesting depth	
per priority class	24
<ul> <li>additional within an error OB</li> </ul>	2
Counters, timers and their retentivity	
S7 counter	
Number	2 048
	2 040
Retentivity	N
— adjustable	Yes
— lower limit	0
— upper limit	2 047
— preset	Z 0 to Z 7
Counting range	
— lower limit	0
— upper limit	999
IEC counter	
• present	Yes
• Туре	SFB
S7 times	
Number	2 048
Retentivity	
— adjustable	Yes
— lower limit	0
— upper limit	2 047
— preset	No times retentive
Time range	
— lower limit	10 ms
— upper limit	9 990 s
IEC timer	
present	Yes
• Туре	SFB
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	Total working and load memory (with backup battery)
	i otal working and load memory (with backup battery)
Flag	16 kbyto
• Size, max.	16 kbyte
Retentivity available	Yes; MB 0 to MB 16383
Retentivity preset	MB 0 to MB 15
Number of clock memories	8; 1 memory byte
Address area	
I/O address area	
Inputs	16 kbyte

Process image         -           • Inputs, dijustable         16 ktyle           • Outputs, diputable         16 ktyle           • Outputs, default         1024 byle           • Caccess to consistent data in process image         Yes           • Stateressen images, max.         15           Digital channess         131 072           • of which central         8 192           • for an output of solds an unitic central         9 192	Outputs	16 kbyte																																																																																																
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Deptate channels         131 072           - of which central         8 192           Hardware configuration         21 of which 6 ER with K-bus           connectable OPs         63 without message processing, 16 with message processing           Walticomputing         Yes; 4 CPUs max. (with UR1 or UR2)           Interface modules         6           • Number of connectable IM460s, max.         6           • Number of connectable IM460s, max.         6           • Number of connectable IM460s, max.         7           • via CP         10, via CP 443.5 Ext.           • via IM467         4           • Number of puggale S5 modules (via adapter capable in central device), max.         6           • via interface module         2         19 64-0P           • Number of puggale S5 modules (via adapter capable in central device), max.         11 funited by number of slots and number of connections <td>· · · ·</td> <td>15</td>	· · · ·	15																																																																																																
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• Outputs     131 072       - of which central     131 072       Analog channets     8 192       • Inputs     8 192       - Of which central     8 192       • Outputs     8 192       - Of which central     8 192       Number of connectable IM \$ (0tal), max.     6       • Number of connectable IM \$403, max.     6       • Number of connectable IM \$403, max.     10; via CP 443-5 Ext.       • Number of connectable IM \$403, max.     10; via CP 443-5 Ext.       • Via CP     10; via CP 443-5 Ext.       • Via CP     10; via CP 443-5 Ext.       • Via CP     10; via CP 443-5 Ext.       • Via M \$67     4       • Via IM \$67     5       • FM     CP																																																																																																		
- of which central 31 072 Analog channels - of which central 8 192 - of which 20P - Number of connectable M460s, max. 6 - Number of connectable M460s, max. 7 - Number of connectable M460s, max. 7 - Number of connectable M460s, max. 8 - Number of connectable M460s, max. 8 - Number of connectable M460s, max. 8 - Number of pluggable S5 modules (via adapter 2 - via CP - via for high and CPs (recommended) - via interface module - cP, LN - Via M467 - M - CP, LN - Via M457 - Number of slots and number of connections - CP, LN - Viande There CPs - Viend CP - Ves - required slots - CP, LN - Viande There CPs - Ves - required slots - CP, LN - Viande There CPs - Ves - required slots - CP, LN - Viande There CPs - Ves - required slots - CP, LN - Viande There CPs - Ves - required slots - CP, LN - Viande There CPs - Ves - Resolution - CP, LN - Viande There CPs - Ves - required slots - CP, LN - Viande There CPs - Ves - required slots - CP, LN - Viande There CPs - Ves - Resolution - CP, LN - Viande - CP - Ves - Ves - Resolution - CP - Ves - Ves - Resolution - CP																																																																																																		
Analog channels       8 192         - of which central       8 192         Hardware configuration       21; of which 6 ER with K-bus         Connectable OPs       69         Number of connectable IMs (fotal), max.       6         • Number of connectable IMs (fotal), max.       7         • via CP       10; via CP 443.5 Ext.         • via CP       10; via CP 443.5 Ext.         • via CP       10; via CP 443.5 Ext.         • via interface module       2; IF 964-DP         • via interface module       2; IF 964-DP         • Via CP       CP 443.1 EX40 in PROFINET IO mode         • via interface module       2; IF 964-DP         • CP, PIP       CP 440.2 inmited by number of slots and number of connections         • CP, IAN       Limited by number of slots and number of connections         • PROFIBUS and Ethernet CPs       14; i																																																																																																		
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Outputs – of which central 8 192 – of which central 8 192      Hardware configuration      Number of expansion units, max. 21; of which 6 ER with K-bus 6 30 without message processing. 16 with message processing 16 with central 9 30 without message processing 16 with message processing 16 with message processing 17 with message processing 16 with message processing 17 with reference to the set of the set																																																																																																		
Hardware configuration       21; of which 6 ER with K-bus         Number of expansion units, max.       21; of which 6 ER with K-bus         connectable OPs       63 without message processing, 16 with message processing         Mutticomputing       Yes; 4 CPUs max. (with UR1 or UR2)         Interface modules       6         • Number of connectable IM 460s, max.       6         • Number of connectable IM 460s, max.       6         • Number of connectable IM 463s, max.       74; IM 463-2         Vummer of DP masters       2         • via RP masters       2         • wind M407       4         • via IM 467       4         • wia M467       4         • via IM 467       4         • via IM 467 cannot be used with CP 443-5 Ext.       10; via CP 443-5 Ext.         • via Interface module       2; IF 964-DP         • Number of puggable S5 modules (via adapter capsule in central device), max.       6         • CP, PtP       CP 440: Limited by number of slots; CP 441: limited by number of connections         • CP, RP       CP 440: Limited by number of slots; CP 441: limited by number of connections         • CP, LAN       Limited by number of slots and number of connections         • PROFIBUS and Ethernet CPs       14; incl. CP 443-5 Ext. and IM 467         Slots	•																																																																																																	
Number of expansion units, max.       21; of which 6 ER with K-bus         connectable OPs       63 without message processing, 16 with message processing         Muticomputing       Yes; 4 CPUs max. (with UR1 or UR2)         Interface modules       6         • Number of connectable IMs (total), max.       6         • Number of connectable IM 460s, max.       6         • Number of DP masters       2         • via CP       10, via CP 443-5 Ext.         • via IM 467       4         • Number of pluggable S5 modules (via adapter capsule in certral device), max.       6         • Via interface module       2; IF 964-DP         • FM       CP 440: Limited by number of slots and number of connections         • CP, LAN       Limited by number of slots and number of connections         • CP, LAN       Limited by number of slots and number of connections         • required slots       2         Time of day       Yes         Clock       Yes         • Paviation per day (buffered), max.       Power off         • Deviation per day (buffered), max.       Power off         • Deviatio																																																																																																		
connectable OPs     63 without message processing, 16 with message processing       Muticomputing     Yes; 4 CPUs max. (with UR1 or UR2)       Interface modules     6       • Number of connectable IM 460s, max.     6       • Number of connectable IM 460s, max.     6       • Number of connectable IM 460s, max.     7       • Number of connectable IM 460s, max.     6       • Number of connectable IM 460s, max.     6       • Number of connectable IM 460s, max.     7       • wind for connectable IM 460s, max.     7       • wind for connectable IM 460s, max.     10, via CP 443-5 Ext.       • via CP     10, via CP 443-5 Ext.       • via IM 467     4       • Mixed mode IM + CP permitted     No; IM 467 cannot be used with CP 443-5 Ext. IM 467 cannot be used with CP 443-5 Ext.       • via interface module     2; IF 964-DP       • via interface module     2; IF 964-DP       • Number of pluggable S5 modules (via adapter capsule in central device), max.     CP 440: Limited by number of slots and number of connections       • CP, PIP     CP 440: Limited by number of slots and number of connections       • CP, LAN     Limited by number of slots and number of connections       • PROFIBUS and Ethernet CPs     14; incl. CP 443-5 Ext. and IM 467       Slots     2       • required slots     2       • required slots     2																																																																																																		
Multicomputing       Yes; 4 CPUs max. (with UR1 or UR2)         Interface modules       •         • Number of connectable IM 460s, max.       6         • Number of DP masters       •         • integrated       2         • via CP       10; via CP 443-5 Ext.         • via IM 467       4         • Mixed mode IM + CP permitted       No; IM 467 cannot be used with CP 443-5 Ext., IM 467 cannot be used with CP 443-5 Ext.         • via interface module       2; IF 964-DP         • via interface module       2; IF 964-DP         • Number of purggable S5 modules (via adapter capsule in central device), max.       6         • CP, P.P       CP 440: Limited by number of slots; CP 441: limi																																																																																																		
Interface modules <ul> <li>Number of connectable IM 4603, max.</li> <li>Number of connectable IM 4603, max.</li> <li>Number of connectable IM 4635, max.</li> <li>Number of DP masters</li> <li>integrated</li> <li>yia CP</li> <li>via CP</li> <li>via IM 467</li> <li>Number of DP matters</li> <li>integrated</li> <li>yia CP 443-5 Ext.</li> <li>via IM 467</li> <li>Mixed mode IM + CP permitted</li> <li>No: IM 467 cannot be used with CP 443-5 Ext., IM 467 cannot be used with CP 443-5 Ext.</li> <li>via interface module</li> <li>via interface module</li> <li>via interface module</li> <li>interface mo</li></ul>																																																																																																		
• Number of connectable IMs (total), max.       6         • Number of connectable IM 460s, max.       6         • Number of DP masters       6         • integrated       2         • ia ic CP       10; via CP 443-5 Ext.         • via IM 467       4         • Number of presence       7         • via IM 467       4         • via IM 467       4         • via Interface module       2; IF 964-DP         • Number of operable FMs and CPs (recommended)       6         • FM       Limited by number of slots and number of connections         • CP, PIP       CP 440: Limited by number of slots; CP 441: Limited by number		Yes; 4 CPUs max. (with UR1 or UR2)																																																																																																
• Number of connectable IM 460s, max.       6         • Number of connectable IM 463s, max.       4; IM 463-2         Number of DP masters       2         • via CP       10; via CP 443-5 Ext.         • via IM 467       4         • Mixed mode IM + CP permitted       No; IM 467 cannot be used with CP 443-5 Ext., IM 467 cannot be used with CP 443-5 Ext.         • via interface module       2; IF 964-DP         • Number of pluggable S5 modules (via adapter capsule in central device), max.       6         Number of operable FMs and CPs (recommended)       1         • FM       CP 440: Limited by number of slots and number of connections         • CP, PtP       CP 440: Limited by number of slots and number of connections         • CP, LAN       Limited by number of slots and number of connections         • PROFIBUS and Ethernet CPs       14; incl. CP 443-5 Ext. and IM 467         Slots       2         • required slots       2         Time of day       Yes         • etentive and synchronizable       Yes         • etentive and synchronizable       Yes         • Deviation per day (buffered), max.       Power off         • Deviation per day (buffered), max.       Power off         • Deviation per day (unbuffered), max.       Power on         • Deviation per day (unbuffer																																																																																																		
• Number of connectable IM 463s, max.       4; IM 463-2         Number of DP masters       2         • via CP       10; via CP 443-5 Ext.         • via M 467       4         • Mixed mode IM + CP permitted       No; IM 467 cannot be used with CP 443-5 Ext., IM 467 cannot be used with CP 443-5 Ext., IM 467 cannot be used with CP 443-1 EX40 in PROFINET IO mode         • via interface module       2; IF 984-DP         • Number of pluggable S5 modules (via adapter capsule in central device), max.       6         Number of pluggable S5 modules (via adapter capsule in central device), max.       Limited by number of slots and number of connections         • CP, AN       Limited by number of slots and number of connections         • CP, LAN       Limited by number of slots and number of connections         • PROFIBUS and Ethernet CPs       14; incl. CP 443-5 Ext. and IM 467         Slots       2         • equired slots       2         • tentive and synchronizable       Yes         • retentive and synchronizable       Yes         • retentive and synchronizable       Yes         • Deviation per day (buffered), max.       Power off																																																																																																		
Number of DP masters         2           • integrated         2           • via CP         10; via CP 443-5 Ext.           • via IM 467         4           • Mixed mode IM + CP permitted         Via IM 467 cannot be used with CP 443-5 Ext., IM 467 cannot be used with CP 443-5 Ext., IM 467 cannot be used with CP 443-1 EX40 in PROFINET IO mode           • via interface module         2; IF 964-DP           • Number of pluggable SS modules (via adapter capsule in central device), max.         6           • CP, PtP         CP 440: Limited by number of slots and number of connections           • CP, LAN         Limited by number of slots and number of connections           • CP, LAN         Limited by number of slots and number of connections           • ROFIBUS and Ethernet CPs         14; incl. CP 443-5 Ext. and IM 467           Slots         2           • required slots         2           Time of day         2           Clock         Yes           • retentive and synchronizable         Yes           • Resolution         1 ms           • Deviation per day (unbuffered), max.         Power off           • Deviation per day (unbuffered), max.         Power on           • Durater         8           Clock         Yes           • Limited by master         Yes																																																																																																		
• integrated       2         • via CP       10; via CP 443-5 Ext.         • via IM 467       4         • Mixed mode IM + CP permitted       No; IM 467 cannot be used with CP 443-5 Ext., IM 467 cannot be used with CP 443-1 EX40 in PROFINET IO mode         • via interface module       2; IF 964-DP         • Number of pluggable S5 modules (via adapter capsule in central device), max.       6         Number of pluggable FMs and CPs (recommended)       1         • FM       Limited by number of slots and number of connections         • CP, PtP       CP 440: Limited by number of slots; CP 441: limited by number of connections         • CP, LAN       Limited by number of slots and number of connections         • PROFIBUS and Ethernet CPs       14; incl. CP 443-5 Ext. and IM 467         Slots       2         • required slots       2         • Time of day       2         Clock       Yes         • Resolution       1 ms         • Deviation per day (buffered), max.       Power off         • Deviation per day (buffered), max.       Power off         • Deviation per day (unbuffered), max.       Power off         • Deviation per day (unbuffered), max.       Power off         • Deviation per day (unbuffered), max.       Power off         • Deviation per day (buffered), max. <td></td> <td>4; IM 463-2</td>		4; IM 463-2																																																																																																
• via CP       10; via CP 443-5 Ext.         • via IM 467       4         • Mixed mode IM + CP permitted       No: IM 467 cannot be used with CP 443-5 Ext., IM 467 cannot be used with CP 443-1 EX40 in PROFINET IO mode         • via interface module       2; IF 964-DP         • Number of pluggble S5 modules (via adapter capsule in central device), max.       6         Number of operable FMs and CPs (recommended)       10: timited by number of slots and number of connections         • CP, PP       CP 440: Limited by number of slots; CP 441: limited by number of connections         • CP, LAN       Limited by number of slots and number of connections         • PROFIBUS and Ethernet CPs       14; incl. CP 443-5 Ext. and IM 467         Slots       2         • Hardware clock (real-time)       Yes         • Resolution       1 ms         • Deviation per day (buffered), max.       Power off         • Deviation per day (buffered), max.       Power on         Operating hours counter       8         • Number       8         Clock synchronizable       Yes         • to MPI, slave       Yes         • to MPI,	Number of DP masters																																																																																																	
• via IM 467       4         • Mixed mode IM + CP permitted       No; IM 467 cannot be used with CP 443-5 Ext., IM 467 cannot be used with CP 443-1 EX40 in PROFINET IO mode         • via interface module       2; IF 964-DP         • Number of pluggable S5 modules (via adapter capsule in central device), max.       6         Number of operable FMs and CPs (recommended)       6         • FM       Limited by number of slots and number of connections         • CP, PtP       CP 440: Limited by number of slots; CP 441: limited by number of connections         • CP, LAN       Limited by number of slots and number of connections         • PROFIBUS and Ethernet CPs       14; incl. CP 443-5 Ext. and IM 467         Slots       2         • required slots       2         Time of day       2         Clock       Yes         • retentive and synchronizable       Yes         • Resolution       1 ms         • Deviation per day (buffered), max.       Power off         • Deviation per day (buffered), max.       Power off         • Deviation per day (buffered), max.       Power off         • Number       8         Clock       *         • Deviation per day (buffered), max.       Power off         • Deviation per day (buffered), max.       Power off	•																																																																																																	
• Mixed mode IM + CP permittedNo: IM 467 cannot be used with CP 443-5 Ext., IM 467 cannot be used with CP 443-1 EX40 in PROFINET IO mode• via interface module2; IF 964-DP• Number of pluggable S5 modules (via adapter capsule in central device), max.6Number of perable FMs and CPs (recommended)• FMLimited by number of slots and number of connections connections• CP, PtPCP 440: Limited by number of slots and number of connections 	• via CP	10; via CP 443-5 Ext.																																																																																																
with CP 443-1 EX40 in PROFINET IO mode• Via interface module2; IF 964-DP• Number of pluggable S5 modules (via adapter capsule in central device), max.6Number of operable FMs and CPs (recommended)• FMLimited by number of slots and number of connections CP, PIP• CP, PIPCP 440: Limited by number of slots and number of connections e CP, LAN• PROFIBUS and Ethernet CPs14; incl. CP 443-5 Ext. and IM 467Slots2Time of dayClock• required slots2Time of dayYes• retentive and synchronizableYes• Deviation per day (unbuffered), max.Power on• Deviation per day (unbuffered), max.Power on• Number8Clock synchronizationYes• Number8• to MPI, slaveYes• to MPI, slaveYes• to DP, slaveYes <tr <="" td=""><td></td><td></td></tr> <tr><td>• via interface module2; IF 964-DP• Number of pluggable SS modules (via adapter capsule in central device), max.6Number of operable FMs and CPs (recommended)1• FMLimited by number of slots and number of connections CP 440: Limited by number of slots; CP 441: limited by number of connections• CP, LANLimited by number of slots and number of connections connections• CP, LANLimited by number of slots and number of connections• CP, LANLimited by number of slots and number of connections• PROFIBUS and Ethernet CPs14; incl. CP 443-5 Ext. and IM 467Slots2Time of dayClock• Hardware clock (real-time)• retentive and synchronizableYes• Peviation per day (buffered), max.Power off• Deviation per day (buffered), max.Power on• Deviation per day (unbuffered), max.Power on• Number8Clock synchronizationYes• supportedYes• to MPI, slaveYes• to MPI, slaveYes• to DP, slaveYes• to DP, slaveYes• to DP, slaveYes• in AS, masterYes• in AS, masterYes</td><td><ul> <li>Mixed mode IM + CP permitted</li> </ul></td><td>No; IM 467 cannot be used with CP 443-5 Ext., IM 467 cannot be used</td></tr> <tr><td>• Number of pluggable S5 modules (via adapter capsule in central device), max.       6         Number of operable FMs and CPs (recommended)       Imited by number of slots and number of connections         • FM       Limited by number of slots and number of connections         • CP, PtP       CP 440: Limited by number of slots; CP 441: limited by number of connections         • CP, LAN       Limited by number of slots and number of connections         • PROFIBUS and Ethernet CPs       14; incl. CP 443-5 Ext. and IM 467         Slots       2         Time of day         Clock         • required slots       2         Time of day         Clock         • Resolution       1 ms         • Deviation per day (buffered), max.       Power off         • Deviation per day (unbuffered), max.       Power on         • Dereating hours counter       8         • Number       8         Clock synchronization       Yes         • to MPI, master       Yes         • to MPI, slave       Yes         • to DP, slave       Yes     &lt;</td><td>· · · · · · · · · · · · · · · · · · ·</td><td></td></tr> <tr><td>capsule in central device), max.         Number of operable FMs and CPs (recommended)         • FM       Limited by number of slots and number of connections         • CP, PtP       CP 440: Limited by number of slots; CP 441: limited by number of connections         • CP, LAN       Limited by number of slots and number of connections         • PROFIBUS and Ethernet CPs       14; incl. 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Number of operable FMs and CPs (recommended)         • FM       Limited by number of slots and number of connections         • CP, PtP       CP 440: Limited by number of slots; CP 441: limited by number of connections         • CP, LAN       Limited by number of slots and number of connections         • PROFIBUS and Ethernet CPs       14; incl. CP 443-5 Ext. and IM 467         Slots       2         • required slots       2         Time of day       2         Clock       Ves         • retentive and synchronizable       Yes         • Resolution       1 ms         • Deviation per day (buffered), max.       Power off         • Deviation per day (buffered), max.       Power off         • Number       8         Clock synchronization       Yes         • to MPI, master       Yes         • to MPI, slave       Yes         • to DP, master       Yes         • to DP, slave       Yes		6																																																																																																
<ul> <li>FM</li> <li>FM</li> <li>CP, PtP</li> <li>CP 440: Limited by number of slots; CP 441: limited by number of connections</li> <li>CP, LAN</li> <li>PROFIBUS and Ethernet CPs</li> <li>14; incl. CP 443-5 Ext. and IM 467</li> </ul> Slots required slots 2 Time of day Clock Ves <ul> <li>retentive and synchronizable</li> <li>Pesolution per day (buffered), max.</li> <li>Deviation per day (buffered), max.</li> <li>Power on</li> <li>Operating hours counter</li> <li>Number</li> <li>Supported</li> <li>supported</li> <li>Yes</li> <li>to MPI, slave</li> <li>to MPI, slave</li> <li>Yes</li> <li>to MPI, slave</li> <li>Yes</li> <li>to DP, slave</li> <li>Yes</li> </ul>																																																																																																		
• CP, PtPCP 440: Limited by number of slots; CP 441: limited by number of connections• CP, LANLimited by number of slots and number of connections• PROFIBUS and Ethernet CPs14; incl. CP 443-5 Ext. and IM 467Slots2Time of dayClock• required slots2Time of dayClock• Hardware clock (real-time)Yes• retentive and synchronizableYes• Resolution1 ms• Deviation per day (buffered), max.Power on• Deviation per day (unbuffered), max.Power on• Number8Clock synchronizationYes• supported • to MPI, slaveYes• to MPI, slaveYes• to DP, slaveYes• to DP, slaveYes• to DP, slaveYes• in AS, masterYes• in AS, masterYes	······································	Limited by number of slots and number of connections																																																																																																
connections• CP, LANLimited by number of slots and number of connections• PROFIBUS and Ethernet CPs14; incl. CP 443-5 Ext. and IM 467SlotsImme of dayClockClockVes• Hardware clock (real-time)Yes• retentive and synchronizableYes• Resolution1 ms• Deviation per day (buffered), max.Power off• Deviation per day (unbuffered), max.Power on• Number8Clock synchronizationYes• Number8• NumberYes• to MPI, masterYes• to MPI, slaveYes• to DP, masterYes• to DP, slaveYes• in AS, masterYes• in AS, masterYes• in AS, masterYes• in AS, masterYes																																																																																																		
• CP, LANLimited by number of slots and number of connections• PROFIBUS and Ethernet CPs14; incl. CP 443-5 Ext. and IM 467Slots2Time of dayClock• Hardware clock (real-time)Yes• Hardware clock (real-time)Yes• Resolution1 ms• Deviation per day (buffered), max.Power off• Deviation per day (unbuffered), max.Power onOperating hours counter8• Number8Clock synchronizationYes• to MPI, masterYes• to MPI, slaveYes• to DP, masterYes• to DP, slaveYes• in AS, masterYes• in AS, masterYes																																																																																																		
• PROFIBUS and Ethernet CPs       14; incl. CP 443-5 Ext. and IM 467         Slots       2         • required slots       2         Time of day         Clock         • Hardware clock (real-time)       Yes         • retentive and synchronizable       Yes         • Resolution       1 ms         • Deviation per day (buffered), max.       Power off         • Deviation per day (unbuffered), max.       Power on         Operating hours counter       Ves         • Number       8         Clock synchronization       Yes         • Supported       Yes         • to MPI, master       Yes         • to DP, master       Yes         • to DP, slave       Yes         • to DP, slave       Yes         • to DP, slave       Yes         • in AS, master       Yes	• CP I AN																																																																																																	
Slots       2         Time of day       Clock         • Hardware clock (real-time)       Yes         • retentive and synchronizable       Yes         • retentive and synchronizable       Yes         • Resolution       1 ms         • Deviation per day (buffered), max.       Power off         • Deviation per day (unbuffered), max.       Power on         Operating hours counter       8         • Number       8         Clock synchronization       Yes         • to MPI, master       Yes         • to DP, master       Yes         • to DP, slave       Yes         • to AS, master       Yes																																																																																																		
• required slots       2         Time of day         Clock         • Hardware clock (real-time)       Yes         • Fetentive and synchronizable       Yes         • Resolution       1 ms         • Deviation per day (buffered), max.       Power off         • Deviation per day (unbuffered), max.       Power on         Operating hours counter       8         • Number       8         Clock synchronization       Yes         • to MPI, master       Yes         • to MPI, slave       Yes         • to DP, master       Yes         • to DP, slave       Yes         • to AS, master       Yes																																																																																																		
Time of day         Clock         Clock       Yes         • Hardware clock (real-time)       Yes         • retentive and synchronizable       Yes         • Resolution       1 ms         • Deviation per day (buffered), max.       Power off         • Deviation per day (unbuffered), max.       Power on         Operating hours counter       8         • Number       8         Clock synchronization       Yes         • to MPI, master       Yes         • to MPI, slave       Yes         • to DP, master       Yes         • to DP, slave       Yes         • to DP, slave       Yes         • to DP, slave       Yes         • to AS, master       Yes		2																																																																																																
Clock• Hardware clock (real-time)Yes• retentive and synchronizableYes• Resolution1 ms• Deviation per day (buffered), max.Power off• Deviation per day (unbuffered), max.Power onOperating hours counter8• Number8Clock synchronizationYes• to MPI, masterYes• to MPI, slaveYes• to DP, masterYes• to DP, slaveYes• to DP, slaveYes• in AS, masterYes																																																																																																		
Hardware clock (real-time)Yes• retentive and synchronizableYes• Resolution1 ms• Deviation per day (buffered), max.Power off• Deviation per day (unbuffered), max.Power onOperating hours counter•• Number8Clock synchronizationYes• to MPI, masterYes• to MPI, slaveYes• to DP, masterYes• to DP, slaveYes• to DP, slaveYes																																																																																																		
• retentive and synchronizableYes• Resolution1 ms• Deviation per day (buffered), max.Power off• Deviation per day (unbuffered), max.Power on• Deviation per day (unbuffered), max.Power on• Operating hours counter8• Number8• Clock synchronizationYes• to MPI, masterYes• to MPI, slaveYes• to DP, masterYes• to DP, slaveYes• to DP, slaveYes		No.																																																																																																
• Resolution1 ms• Deviation per day (buffered), max.Power off• Deviation per day (unbuffered), max.Power on• Deviation per day (unbuffered), max.Power on• Operating hours counter8• Number8• Clock synchronizationYes• to MPI, masterYes• to MPI, slaveYes• to DP, masterYes• to DP, slaveYes• to DP, slaveYes• to DP, slaveYes• in AS, masterYes																																																																																																		
• Deviation per day (buffered), max.Power off• Deviation per day (unbuffered), max.Power onOperating hours counter8• Number8Clock synchronizationYes• to MPI, masterYes• to MPI, slaveYes• to DP, masterYes• to DP, slaveYes• in AS, masterYes	•																																																																																																	
<ul> <li>Deviation per day (unbuffered), max.</li> <li>Power on</li> <li>Operating hours counter         <ul> <li>Number</li> <li>Number</li> <li>Supported</li> <li>to MPI, master</li> <li>to MPI, slave</li> <li>to DP, master</li> <li>Yes</li> <li>to DP, slave</li> <li>Yes</li> <li>Yes<td></td><td></td></li></ul></li></ul>																																																																																																		
Operating hours counter• Number8Clock synchronizationYes• supportedYes• to MPI, masterYes• to MPI, slaveYes• to DP, masterYes• to DP, slaveYes• to DP, slaveYes• in AS, masterYes																																																																																																		
• Number8Clock synchronization• supportedYes• to MPI, masterYes• to MPI, slaveYes• to DP, masterYes• to DP, slaveYes• to DP, slaveYes• in AS, masterYes																																																																																																		
Clock synchronization• supportedYes• to MPI, masterYes• to MPI, slaveYes• to DP, masterYes• to DP, slaveYes• to DP, slaveYes• in AS, masterYes		0																																																																																																
• supportedYes• to MPI, masterYes• to MPI, slaveYes• to DP, masterYes• to DP, slaveYes• to AS, masterYes• in AS, masterYes		0																																																																																																
• to MPI, masterYes• to MPI, slaveYes• to DP, masterYes• to DP, slaveYes• to AS, masterYes• in AS, masterYes	-	Vec																																																																																																
• to MPI, slaveYes• to DP, masterYes• to DP, slaveYes• in AS, masterYes																																																																																																		
• to DP, masterYes• to DP, slaveYes• in AS, masterYes																																																																																																		
<ul><li>to DP, slave</li><li>in AS, master</li><li>Yes</li><li>Yes</li></ul>	•																																																																																																	
• in AS, master Yes																																																																																																		
• ID A5, SIAVE																																																																																																		
	• in AS, slave																																																																																																	
to IF 964 DP Yes; as Master or Slave		res; as master or slave																																																																																																
1. Interface	1. Interface																																																																																																	

Interface type	MPI/PROFIBUS DP
Isolated	Yes
Interface types	
• RS 485	Yes
Protocols	
• MPI	Yes
<ul> <li>PROFIBUS DP master</li> </ul>	Yes
<ul> <li>PROFIBUS DP slave</li> </ul>	Yes
MPI	
<ul> <li>Number of connections</li> </ul>	44
<ul> <li>Transmission rate, max.</li> </ul>	12 Mbit/s
Services	
— PG/OP communication	Yes
— Routing	Yes
— Global data communication	Yes
— S7 basic communication	Yes
— S7 communication	Yes
PROFIBUS DP master	165
	20. If a diagnostice repeater is used on the line, the number of
<ul> <li>Number of connections, max.</li> </ul>	32; If a diagnostics repeater is used on the line, the number of connection resources on the line is reduced by 1
Transmission rate, may	12 Mbit/s
Transmission rate, max.	
Number of DP slaves, max.	32
Services	
— PG/OP communication	Yes
— Routing	Yes
<ul> <li>Global data communication</li> </ul>	Yes
<ul> <li>— S7 basic communication</li> </ul>	Yes
— S7 communication	Yes
— Equidistance	Yes
— SYNC/FREEZE	Yes
<ul> <li>Activation/deactivation of DP slaves</li> </ul>	Yes
— Direct data exchange (slave-to-slave	Yes
communication)	
Address area	
— Inputs, max.	2 kbyte
— Outputs, max.	2 kbyte
User data per DP slave	2 10 910
-	244 byte
— Inputs, max.	
— Outputs, max.	244 byte
— Slots, max.	244
— per slot, max.	128 byte
PROFIBUS DP slave	
<ul> <li>Transmission rate, max.</li> </ul>	12 Mbit/s
<ul> <li>Address area, max.</li> </ul>	32
<ul> <li>User data per address area, max.</li> </ul>	32 byte
- of which consistent, max.	32 byte
Services	
— PG/OP communication	Yes
- Routing	Yes
Transfer memory	
— Inputs	244 byte
— Outputs	244 byte
2. Interface	
Interface type	PROFIBUS DP
Isolated	Yes
Number of connection resources	32
Interface types	
• RS 485	Yes
Protocols	
PROFIBUS DP master	Yes
PROFIBUS DP slave	Yes
PROFIBUS DP slave	
	22: If a diagnostice repeater is used on the line, the number of
<ul> <li>Number of connections, max.</li> </ul>	32; If a diagnostics repeater is used on the line, the number of connection resources on the line is reduced by 1
	connection resources on the nine is reduced by r

• Number of DP shares     125       Services     -       - PGOP Communication     Yes       - Outing     Yes       - Outing     Yes       - Outing     Yes       - Structure     Yes       - Structure     Yes       - Outing     Yes       - Structure     Yes       - Structure     Yes       - Structure     Yes       - Outing     Yes	<ul> <li>Transmission rate, max.</li> </ul>	12 Mbit/s
Barwices		
PGOP communication     Yes     PGoP communication     Yes     PGoP communication     Yes     Yes     General data communication     Yes	· · · · · · · · · · · · · · · · · · ·	120
<ul> <li>Roding Wes</li> <li>Gobal data communication</li> <li>S7 communication</li> <li>S8 kbyte</li> <li>Direct data exchange (slave-to-slave communication)</li> <li>Address area</li> <li>S8 kbyte</li> <li>Outputs, max.</li> <li>S8 kbyte</li> <li>Outputs, max.</li> <li>S8 kbyte</li> <li>S8 kbyte</li></ul>		Yes
<ul> <li>Gran data communication</li> <li>Syste Communication</li> <li>Syste Communication</li> <li>Syste Communication</li> <li>Syste Communication</li> <li>Systematic Communication</li> <li>Sy</li></ul>		
<ul> <li>S7 basic communication</li> <li>Yes</li> <li>S7 communication</li> <li>Yes</li> <li>SynOFREEZE</li> <li>SetVication of DP slaves</li> <li>Skip</li> <li>Activation/deactivation of DP slaves</li> <li>Yes</li> <li>Dring family</li> <li>Activation/deactivation of DP slaves</li> <li>Yes</li> <li>Dring family</li> <li>Activation/deactivation of DP slaves</li> <li>Skip/e</li> <li>Couputs, max.</li> <li>Skip/e</li> <li>Skip/e<td>-</td><td></td></li></ul>	-	
<ul> <li>Services</li> <li>Activation describution of DP slaves</li> <li>Activation describution of DP slaves</li> <li>Activation describution of DP slaves</li> <li>Direct stat exchange (slave-ho-slave</li> <li>Communication</li> <li>Inputs, max.</li> <li>B kbyte</li> <li>Outputs, max.</li> <li>B kbyte</li> <li>Outputs, max.</li> <li>Statistic communication</li> <li>Services</li> <li>Activation of the slave of the</li></ul>		
<ul> <li>Findifiance</li> <li>Findifiance</li> <li>Final State (Second Second Sec</li></ul>		
- SYNCFREEZE Yes - Advantofdaction of DP shave - Direct data exchange (shave-to-shave communication) Address area - Direct data exchange (shave-to-shave yes - Duptis, max. - Outputs, max. - Display, Max, max. - Display, Max, max, max. - Display, Max, max, max, max, max, max, max, max, m		
<ul> <li>Advalon/deadvator of IDP slaves</li> <li>Obsect data exchange (slave-to-slave communication)</li> <li>Address area</li> <li>Inputs, max.</li> <li>8 kbyte</li> <li>Address area</li> <li>Inputs, max.</li> <li>8 kbyte</li> <li>Address area</li> <li>Inputs, max.</li> <li>24 byte</li> <li>Outputs, max.</li> <li>24 byte</li> <li>Outputs, max.</li> <li>24 byte</li> <li>Outputs, max.</li> <li>24 byte</li> <li>Stor, max.</li> <li>24 byte</li> <li>Transmission rate. max.</li> <li>25 byte</li> <li>Transmission rate. max.</li> <li>26 byte</li> <li>Services</li> <li>Interface type</li> <li>Interface type</li> <li>Plug-in interface modules</li> <li>IF 994-DP</li> <li>Interface type</li> <li>Section munication</li> <li>Yes</li> <li>Store of CD packets, transmitter, max.</li> <li>32</li> <li>Size of CD packets, transmitter, max.</li> <li>Size of CD packets, transmitter, max.</li></ul>		
- Direct data exchange (stave-to-slave communication) Address area - Inputs, max. - Uputs, max. - Uputs, max. - Outputs, max. - Nouting, max. - Outputs, max. - Nouting, max. - Outputs, max. - Noutputs, max. - Supported - Noutputs, max. - Stee of CD packets, max. - Stee of CD pac		
communication) Address area - Inputs, max. 8 kbyte User data per DP slave - Outputs, max. 244 byte - Outputs, max. 244 byte - Stots, max. 244 byte - Transmission rate, max. 32 - Transmission rate, max. 32 - Of which consistent, max. 32 - Of which consistent, max. 32 - Of which consistent, max. 32 - Routing -		
Address area <ul> <li>House max.</li> <li>B köyte</li> <li>Couputs, max.</li> <li>B köyte</li> </ul> <ul> <li>Outputs, max.</li> <li>B köyte</li> <li>Couputs, max.</li> <li>Sköyte</li> <li>Stops max.</li> <li>Sköyte</li> <li>Stops max.</li> <li>Sköyte</li> <li>För slot, max.</li> <li>Sköyte</li> <li>Sköyte</li> <li>För slot, max.</li> <li>Sköyte</li> <li>Sköyte</li> <li>Sköyte</li> <li>Sköyte</li></ul>		res
	,	
− Outputs, max.     User data per DP slave     − futputs, max.     − Outputs, max.     − Per slot, max.     − Outputs area, max.     − Outputs     − Outputs area, max.     − Outputs		8 kbyte
User data per DP slave     244 byte       - Inputs, max.     244 byte       - Stots, max.     244 byte       - Stots, max.     244 byte       - Stots, max.     244 byte       - Fransmission rate, max.     12 Mbt/s       • Transmission rate, max.     12 Mbt/s       • Transmission rate, max.     32       • User data per address area, max.     32       - of which consistent, max.     32 byte       - of which consistent, max.     32 byte       - of which consistent, max.     32 byte       - Routing     Yees       Transfer memory     -       - Inputs     244 byte       - Outputs     244 byte       2.Interface     Interface modules       Interface type     pluggable interface module (IF), technical data as for 2nd interface       Plug-in interface modules     IF 964-DP       1     Interface       Interface byte     pluggable interface module (IF), technical data as for 2nd interface       PGC/O communication     Yes       • Supported		
<ul> <li>Inputs, max.</li> <li>Outputs, max.</li> <li>Outputs, max.</li> <li>Stots, max.</li> <li>Per slot, max.</li> <li>Transmission rate, max.</li> <li>128 byte</li> <li>PROFIEUS DP slave</li> <li>Transmission rate, max.</li> <li>12 Mbl/s</li> <li>Address area, max.</li> <li>32 byte</li> <li>- of which consistent, max.</li> <li>32 byte</li> <li>- Poutputs</li> <li>244 byte</li> <li>- Outputs</li> <li>- Outputs</li> <li>- Plug-in interface modules</li> <li>- P964-DP</li> <li>- Interface</li> <li>- Interface</li> <li>- Interface</li> <li>- Interface</li> <li>- Plug-in interface modules</li> <li>- P964-DP</li> <li>- Supported</li> <li>- Vers</li> <li>- Supported</li> <li>- Vers</li> <li>- Supported</li> <li>- Suppo</li></ul>		o koyto
- Outputs, max. 244 byte - Stots, max. 244 - per slot, max. 128 byte PROFIEUS DP slave Transmission rate, max. 12 Mbit/s · Address area, max. 32 · User data per log bytes Routing Yes Transfer memory Inputs 244 byte - Outputs 244 byte <b>S. Interface</b> Plug-in Interface modules IF 964-DP <b>Interface type</b> Plug-in Interface modules IF 964-DP <b>Isochronous mode</b> Equidistance - Equidistance - Supported - Supported Size of GD packets, transmitter, max. 16 · Supported Size of GD packets, transmitter, max. 16 · Supported · Supported · Supported · User data per log Dackets, transmitter, max. 16 · Supported · Sup		211 huto
Slots, max. 244 per slot, max. 128 byte PROFIBUS DP slave • Transmission rate, max. 12 Mbit/s • Address area, max. 32 • User data per address area, max. 32 byte orbuthich consistent, max. 32 byte Services Routing		
PROFIRUS DP slave       12 Mbit/s         • Address area, max.       12 Mbit/s         • Address area, max.       32         • User data per address area, max.       32 byte         — Routing       Yes         Transfer memory       Yes         — Inputs       244 byte         — Outputs       244 byte         3. Interface       plugable interface module (IF), technical data as for 2nd interface         Plug-in interface modules       IF 964-DP         4. Interface       plugable interface module (IF), technical data as for 2nd interface         Plug-in interface modules       IF 964-DP         4. Interface       plugable interface module (IF), technical data as for 2nd interface         Plug-in interface modules       IF 964-DP         5. Contonous mode       If 964-DP         Equidistance       Yes         User data per isochronous slave, max.       244 byte         • Supported       Yes         • Number of GD packets, transmitter, max.       16         • Number of GD packets, receiver, max.       32         • Size of GD packets, rec		
• Transmission rate, max.          12 Mbit/s                 • Address area, max.          32                 • O which consistent, max.          32 byte                • - or which consistent, max.          32 byte                • - Routing          Yes                • - Routing          Yes                • Routing          Yes                • Outputs          244 byte                 • Outputs          244 byte                  • Outputs          244 byte		128 byte
Address area, max.     32     User data per address area, max.     32 byte     Services		
User data per address area, max. 32 byte         — of which consistent, max. 32 byte         Services         — Routing         — Routing         — Routing         — Routing         — Inputs         — Outputs         244 byte         — Outputs         [F 964-DP         [F 964-DP         [Interface modules         [F 964-DP         [F 964-DP         [sochronous mode         [F 964-DP		
Services     Yes       — Routing     Yes       Transfer memory     244 byte       — Inputs     244 byte       — Outputs     244 byte       3. Interface     pluggable interface module (IF), technical data as for 2nd interface IF 964-DP       4. Interface     pluggable interface module (IF), technical data as for 2nd interface IF 964-DP       Interface type     pluggable interface module (IF), technical data as for 2nd interface IF 964-DP       Isochronous mode     Equidistance       Equidistance     Yes       User data per isochronous slave, max.     244 byte       shortest clock pulse     1 ms       Communication functions / heador     Yes       Global data communication     Yes       • Supported     Yes       • Size of GD packets, transmitter, max.     16       • Size of GD packets, max.     24 byte       • Size of GD packets, max.     24 byte       • User data per job, max.     1 variable       S7 basic communication     Yes       • User data per job (of which consistent), max.     1 variable       S7 communication     Yes       • User data per job (of which consistent), max.     1 variable       S7 communication     Yes       • User data per job (of which consistent), max.     1 variable       S7 communication     Yes		
— Routing     Yes       Transfer memory     —       — Inputs     244 byte       — Outputs     244 byte       3. Interface     Pluggable interface module (IF), technical data as for 2nd interface IF 964-DP       4. Interface type     pluggable interface module (IF), technical data as for 2nd interface Plug-in interface modules       Interface type     pluggable interface module (IF), technical data as for 2nd interface Plug-in interface modules       Interface type     pluggable interface module (IF), technical data as for 2nd interface Plug-in interface modules       Interface type     pluggable interface module (IF), technical data as for 2nd interface Plug-in interface modules       Interface type     pluggable interface module (IF), technical data as for 2nd interface Plug-in interface modules       Interface type     pluggable interface module (IF), technical data as for 2nd interface Plug-in interface modules       Isochronous mode     Interface tock plug       Equidistance     Yes       User data per isochronous slave, max.     244 byte       • Supported     Yes       • Size of GD packets, transmitter, max.     16       • Number of GD packets, receiver, max.     32       • Size of GD packets, max.     44 byte       • Supported     Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and 1_PUT       • User data per i	· ·	32 byte
Transfer memory       244 byte         - Inputs       244 byte         - Outputs       244 byte         3. Interface       plugable interface module (IF), technical data as for 2nd interface Plug-in interface modules         Interface type       plugable interface module (IF), technical data as for 2nd interface         Interface type       plugable interface module (IF), technical data as for 2nd interface         Plug-in interface modules       IF 964-DP         Ischaroous mode       Equidistance         Equidistance       Yes         User data per isochronous slave, max.       244 byte         shortest clock pulse       1 ms         communication functions / header       Yes         PG/OP communication       Yes         • supported       Yes         • Size of GD packets, transmitter, max.       16         • Number of GD packets, max.       64 byte         • Size of GD packet, divinch consistent), max.       1 variable         \$7 basic communication       Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT         • User data per job, max.       64 byte         • supported       Yes         • supported       Yes         • supported       Yes </td <td></td> <td></td>		
	— Routing	Yes
Outputs         244 byte           3. Interface         Pluggable interface module (IF), technical data as for 2nd interface Plug-in interface modules           Interface type         Pluggable interface module (IF), technical data as for 2nd interface Plug-in interface modules           Interface type         Pluggable interface module (IF), technical data as for 2nd interface Plug-in interface modules           Interface type         Pluggable interface module (IF), technical data as for 2nd interface Plug-in interface modules           Interface type         Pluggable interface module (IF), technical data as for 2nd interface Plug-in interface modules           Interface type         Pluggable interface module (IF), technical data as for 2nd interface Plug-in interface modules           Equidistance         Yes           Communication functions / header         Yes           PG/OP communication         Yes           ommunication functions / header         Yes           PG/OP coll packets, transmitter, max.         16           • Number of GD packets, transmitter, max.         16           • Number of GD packets, receiver, max.         32           • Size of GD packets, max.         64 byte           • Size of GD packets, max.         14 variable           S7 basic communication         Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT           • Use	Transfer memory	
3. Interface       pluggable interface module (IF), technical data as for 2nd interface         Plug-in interface modules       IF 964-DP         4. Interface       pluggable interface module (IF), technical data as for 2nd interface         Plug-in interface modules       IF 964-DP         Interface type       pluggable interface module (IF), technical data as for 2nd interface         Plug-in interface modules       IF 964-DP         Isochronous mode       Yes         User data per isochronous slave, max.       244 byte         shortest clock pulse       1 ms         communication functions / header       Yes         PG/OP communication       Yes         Global data communication       supported         • supported       Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT         • User data per job, max.       1 variable         S7 communication       Yes         • supported       Yes         • Stace of GD packets, receiver, max.       1 variable         S7 basic communication          • supported       Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes      <	— Inputs	244 byte
Interface type         pluggable interface module (IF), technical data as for 2nd interface           Plug-in interface modules         IF 964-DP           4. Interface         pluggable interface module (IF), technical data as for 2nd interface           Interface type         pluggable interface module (IF), technical data as for 2nd interface           Plug-in interface modules         IF 964-DP           Interface type         pluggable interface module (IF), technical data as for 2nd interface           Plug-in interface modules         IF 964-DP           Isochronous mode         Equidistance           Equidistance         Yes           User data per isochronous slave, max.         244 byte           shortest clock pulse         1 ms           communication         Yes           Global data communication         Yes           • Number of GD packets, transmitter, max.         16           • Number of GD packets, receiver, max.         32           • Size of GD packet (of which consistent), max.         1 variable           S7 basic communication         Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT           • User data per job, max.         1 variable           S7 communication         Yes           • supported         Yes           • as serv	— Outputs	244 byte
Plug-in interface modules       IF 964-DP         4. Interface type       pluggable interface module (IF), technical data as for 2nd interface Plug-in interface modules         Isochronous mode       IF 964-DP         Equidistance       Yes         User data per isochronous slave, max.       244 byte         shortest clock pulse       1 ms         communication functions / header       PG/OP communication         PG/OP communication       Yes         Global data communication       Yes         • supported       Yes         • Size of GD packets, transmitter, max.       16         • Number of GD packets, receiver, max.       32         • Size of GD packets, receiver, max.       64 byte         • Size of GD packet (of which consistent), max.       1 variable         S7 basic communication       Yes         • User data per job, max.       1 variable         S7 communication       Yes         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • supported       Yes         • sa server       Yes         • as server       Yes <td>3. Interface</td> <td></td>	3. Interface	
Plug-in interface modules       IF 964-DP         4. Interface type       pluggable interface module (IF), technical data as for 2nd interface Plug-in interface modules         Isochronous mode       IF 964-DP         Equidistance       Yes         User data per isochronous slave, max.       244 byte         shortest clock pulse       1 ms         communication functions / header       PG/OP communication         PG/OP communication       Yes         Global data communication       Yes         • supported       Yes         • Size of GD packets, transmitter, max.       16         • Number of GD packets, receiver, max.       32         • Size of GD packets, receiver, max.       64 byte         • Size of GD packet (of which consistent), max.       1 variable         S7 basic communication       Yes         • User data per job, max.       1 variable         S7 communication       Yes         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • supported       Yes         • sa server       Yes         • as server       Yes <td></td> <td></td>		
4. Interface         Interface type       pluggable interface module (IF), technical data as for 2nd interface         Plug-in interface modules       IF 964-DP         Isochronous mode       Equidistance         Equidistance       Yes         User data per isochronous slave, max.       244 byte         shortest clock pulse       1 ms         communication functions / header       Yes         Global data communication       Yes         Slobar of GD packets, transmitter, max.       16         Number of GD packets, receiver, max.       32         • Size of GD packets, receiver, max.       64 byte         • Stasic ofD packet (of which consistent), max.       1 variable         S7 basic communication       Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT         • User data per job, max.       1 variable         S7 communication       Yes         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • User data per job (max.       1 variable         S7 communication       Yes         • user data per job, max.       64 k		pluggable interface module (IF), technical data as for 2nd interface
Interface type         pluggable interface module (IF), technical data as for 2nd interface           Plug-in interface modules         IF 964-DP           Isochronous mode         Equidistance           Equidistance         Yes           User data per isochronous slave, max.         244 byte           shortest clock pulse         1 ms           communication functions / header         PG/OP communication           PG/OP communication         Yes           Global data communication         Yes           supported         Yes           Size of GD packets, transmitter, max.         16           Number of GD packets, receiver, max.         32           Size of GD packets, max.         64 byte           Size of GD packet, (of which consistent), max.         1 variable           S7 basic communication         Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT           • User data per job, max.         1 variable           S7 communication         Yes           • supported         Yes           • as server         Yes           • as client         Yes           • user data per job, max.         64 kbyte           • User data per job, max.         64 kbyte           • user data per job, max	Interface type	
Plug-in interface modules       IF 964-DP         Isochronous mode       Equidistance       Yes         User data per isochronous slave, max.       244 byte         shortest clock pulse       1 ms         communication functions / header       PG/OP communication         PG/OP communication       Yes         Global data communication       Yes         Global data communication       Yes         • supported       Yes         • Number of GD packets, transmitter, max.       16         • Number of GD packets, receiver, max.       32         • Size of GD packets, max.       64 byte         • Size of GD packet (of which consistent), max.       1 variable         S7 basic communication       Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT         • User data per job, max.       76 byte         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • supported       Yes         • supported       Yes         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • user otata per job, max.       64 kbyte         • user data per job, max.       64 kbyte	Interface type Plug-in interface modules	
Isochronous mode           Equidistance         Yes           User data per isochronous slave, max.         244 byte           shortest clock pulse         1 ms           communication functions / header         Yes           PG/OP communication         Yes           Global data communication         Yes           • supported         Yes           • Number of GD packets, transmitter, max.         16           • Number of GD packets, receiver, max.         32           • Size of GD packets, max.         64 byte           • Size of GD packet (of which consistent), max.         1 variable           S7 basic communication         Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT           • User data per job, max.         1 variable           S7 communication         Yes           • supported         Yes; no MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT           • User data per job (of which consistent), max.         1 variable           S7 communication         Yes           • supported         Yes           • as server         Yes           • as server         Yes           • user data per job, max.         64 kbyte           · User data per job,	Interface type Plug-in interface modules 4. Interface	IF 964-DP
Equidistance       Yes         User data per isochronous slave, max.       244 byte         shortest clock pulse       1 ms         communication functions / header       1         PG/OP communication       Yes         Global data communication       Yes         • supported       Yes         • Number of GD packets, transmitter, max.       16         • Number of GD packets, receiver, max.       32         • Size of GD packets, max.       64 byte         • Size of GD packet (of which consistent), max.       1 variable         S7 basic communication       Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT         • User data per job, max.       76 byte         • Supported       Yes         • User data per job (of which consistent), max.       1 variable         S7 communication       1 variable         S7 communication       1 variable         S7 communication       1 variable         S7 communication       Yes         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • user data per job, max.       64 kbyte         • User data per job, max.       64 kbyte         • User data per job (of	Interface type Plug-in interface modules 4. Interface Interface type	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface
User data per isochronous slave, max.     244 byte       shortest clock pulse     1 ms       communication functions / header     PG/OP communication       PG/OP communication     Yes       Global data communication     Yes       • supported     Yes       • Number of GD packets, transmitter, max.     16       • Number of GD packets, receiver, max.     32       • Size of GD packets, max.     64 byte       • Size of GD packet (of which consistent), max.     1 variable       S7 basic communication     Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT       • User data per job, max.     76 byte       • User data per job (of which consistent), max.     1 variable       S7 communication     Yes       • supported     Yes       • User data per job (of which consistent), max.     1 variable       S7 communication     Yes       • supported     Yes       • supported     Yes       • supported     Yes       • supported     Yes       • Size of data per job, max.     64 kbyte       • User data per job, max.     1 variable       S5 compatible communication     Yes       • User data per job, max.     1 variable       S5 compatible communication     1 variable       S5 co	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface
shortest clock pulse         1 ms           communication functions / header           PG/OP communication         Yes           Global data communication         Yes           Global data communication         Yes           • supported         Yes           • Number of GD packets, transmitter, max.         16           • Number of GD packets, receiver, max.         32           • Size of GD packets, max.         64 byte           • Size of GD packet (of which consistent), max.         1 variable           S7 basic communication         Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT           • User data per job, max.         1 variable           S7 communication         Yes           • User data per job (of which consistent), max.         1 variable           S7 communication         Yes           • supported         Yes           • supported         Yes           • supported         Yes           • as client         Yes           • User data per job, max.         64 kbyte           • User data per job, max.         64 kbyte           • User data per job, max.         1 variable           S5 compatible communication         S6 compatible communication	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface
communication functions / header         PG/OP communication       Yes         Global data communication       *         • supported       Yes         • Number of GD packets, transmitter, max.       16         • Number of GD packets, receiver, max.       32         • Size of GD packets, max.       64 byte         • Size of GD packet (of which consistent), max.       1 variable         S7 basic communication       *         • supported       Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT         • User data per job, max.       76 byte         • User data per job (of which consistent), max.       1 variable         S7 communication       *         • supported       Yes         • as server       Yes         • as server       Yes         • as client       Yes         • User data per job (of which consistent), max.       1 variable         S7 communication       *         • supported       Yes         • as server       Yes         • as client       Yes         • User data per job (of which consistent), max.       1 variable         S5 compatible communication       S5 compatible communication         • sup	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface IF 964-DP
PG/OP communication       Yes         Global data communication       •         • supported       Yes         • Number of GD packets, transmitter, max.       16         • Number of GD packets, receiver, max.       32         • Size of GD packets, max.       64 byte         • Size of GD packet (of which consistent), max.       1 variable         S7 basic communication       Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT         • User data per job, max.       76 byte         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • supported       Yes         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • supported       Yes         • supported       Yes         • supported       Yes         • user data per job, max.       64 kbyte         • User data per job, max.       64 kbyte         • User data per job (of which consistent), max.       1 variable         S5 compatible communication       Yes; Via FC AG_SEND and AG_RECV, max. via 10 CP 443-1 or 443-5	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface IF 964-DP Yes
Global data communication       Yes         • Number of GD packets, transmitter, max.       16         • Number of GD packets, receiver, max.       32         • Size of GD packets, max.       64 byte         • Size of GD packet (of which consistent), max.       1 variable         S7 basic communication       Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT         • User data per job, max.       76 byte         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes; or maxer mode via: SFC I_GET and I_PUT         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • supported       Yes         • supported       Yes         • supported       Yes         • supported       Yes         • User data per job, max.       64 kbyte         • User data per job (of which consistent), max.       1 variable         S5 compatible communication       S5 compatible communication         • supported       Yes; Via FC AG_SEND and AG_RECV, max. via 10 CP 443-1 or 443-5	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max.	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface IF 964-DP Yes 244 byte
Global data communication       Yes         • Number of GD packets, transmitter, max.       16         • Number of GD packets, receiver, max.       32         • Size of GD packets, max.       64 byte         • Size of GD packet (of which consistent), max.       1 variable         S7 basic communication       Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT         • User data per job, max.       76 byte         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes; or maxer mode via: SFC I_GET and I_PUT         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • supported       Yes         • supported       Yes         • supported       Yes         • supported       Yes         • User data per job, max.       64 kbyte         • User data per job (of which consistent), max.       1 variable         S5 compatible communication       S5 compatible communication         • supported       Yes; Via FC AG_SEND and AG_RECV, max. via 10 CP 443-1 or 443-5	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface IF 964-DP Yes 244 byte
• supported       Yes         • Number of GD packets, transmitter, max.       16         • Number of GD packets, receiver, max.       32         • Size of GD packets, max.       64 byte         • Size of GD packet (of which consistent), max.       1 variable         S7 basic communication       1 variable         S7 basic communication       Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT         • User data per job, max.       76 byte         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • User data per job, max.       1 variable         S7 communication       Yes         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • supported       Yes         • as server       Yes         • as client       Yes         • User data per job (of which consistent), max.       1 variable         S5 compatible communication       Yes; Via FC AG_SEND and AG_RECV, max. via 10 CP 443-1 or 443-5	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface IF 964-DP Yes 244 byte 1 ms
<ul> <li>Number of GD packets, transmitter, max.</li> <li>Number of GD packets, receiver, max.</li> <li>Size of GD packets, max.</li> <li>Size of GD packet (of which consistent), max.</li> <li>Variable</li> <li>S7 basic communication</li> <li>supported</li> <li>Ves; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT</li> <li>User data per job, max.</li> <li>Ves data per job (of which consistent), max.</li> <li>Variable</li> <li>S7 communication</li> <li>supported</li> <li>Yes</li> <li>as server</li> <li>As server</li> <li>Ves</li> <li>User data per job, max.</li> <li>Yes</li> <li>As server</li> <li>Yes</li> <li>As server</li> <li>Yes</li> <li>User data per job (of which consistent), max.</li> <li>Yes</li> <li>As server</li> <li>Yes</li> <li>As a server</li> <li>Yes</li> <li>As a per job (of which consistent), max.</li> <li>Yes</li> <li>As server</li> <li>Yes</li> <li>As a per job (of which consistent), max.</li> <li>Yes</li> <li>As server</li> <li>Yes</li> <li>As a per job (of which consistent), max.</li> <li>Yes</li> <li>As a per job (of which consistent), max.</li> <li>Yes</li> <li>As a per job (of which consistent), max.</li> <li>Yes (Via FC AG_SEND and AG_RECV, max. via 10 CP 443-1 or 443-5</li> </ul>	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface IF 964-DP Yes 244 byte 1 ms
<ul> <li>Number of GD packets, receiver, max.</li> <li>Size of GD packets, max.</li> <li>Size of GD packet (of which consistent), max.</li> <li>1 variable</li> <li>S7 basic communication</li> <li>supported</li> <li>Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT</li> <li>User data per job, max.</li> <li>To byte</li> <li>User data per job (of which consistent), max.</li> <li>1 variable</li> <li>S7 communication</li> <li>supported</li> <li>Yes</li> <li>as server</li> <li>as client</li> <li>User data per job, max.</li> <li>Yes</li> <li>User data per job, max.</li> <li>Yes</li> <li>user data per job, max.</li> <li>Yes</li> <li>S7 communication</li> <li>S8 compatible communication, max.</li> <li>S5 compatible communication</li> <li>S9 compatible communication</li> <li>S9 compatible communication</li> <li>S9 compatible communication</li> <li>S9 compatible communication</li> </ul>	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication Global data communication	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface IF 964-DP Yes 244 byte 1 ms Yes
• Size of GD packets, max.64 byte• Size of GD packet (of which consistent), max.1 variableS7 basic communicationYes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT• User data per job, max.76 byte• User data per job (of which consistent), max.1 variableS7 communicationYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes• byte data per job, max.64 kbyte• User data per job, max.64 kbyte• User data per job (of which consistent), max.1 variableS5 compatible communication1 variableS5 compatible communicationYes; Via FC AG_SEND and AG_RECV, max. via 10 CP 443-1 or 443-5	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication Global data communication • supported	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface IF 964-DP Yes 244 byte 1 ms Yes Yes
• Size of GD packet (of which consistent), max.1 variableS7 basic communicationYes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT• User data per job, max.76 byte• User data per job (of which consistent), max.1 variableS7 communicationYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes• user data per job, max.64 kbyte• User data per job (of which consistent), max.1 variableS7 communicationYes• supportedYes• supportedYes• User data per job, max.64 kbyte• User data per job (of which consistent), max.1 variableS5 compatible communicationYes; Via FC AG_SEND and AG_RECV, max. via 10 CP 443-1 or 443-5	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication Global data communication • supported • Number of GD packets, transmitter, max.	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface IF 964-DP Yes 244 byte 1 ms Yes Yes 16
S7 basic communication       Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT         • User data per job, max.       76 byte         • User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • supported       Yes         • supported       Yes         • as server       Yes         • User data per job, max.       64 kbyte         • User data per job (of which consistent), max.       1 variable	Interface type Plug-in interface modules 4. Interface Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication Global data communication • supported • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max.	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface IF 964-DP Yes 244 byte 1 ms Yes Yes 16 32
• supportedYes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT• User data per job, max.76 byte• User data per job (of which consistent), max.1 variableS7 communicationYes• supportedYes• as serverYes• as clientYes• User data per job, max.64 kbyte• User data per job (of which consistent), max.1 variable	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication Global data communication • supported • Number of GD packets, transmitter, max. • Number of GD packets, max.	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface IF 964-DP Yes 244 byte 1 ms Yes Yes 16 32 64 byte
DP master mode via: SFC I_GET and I_PUT• User data per job, max.76 byte• User data per job (of which consistent), max.1 variableS7 communicationYes• supportedYes• as serverYes• as clientYes• User data per job, max.64 kbyte• User data per job (of which consistent), max.1 variableS5 compatible communicationYes; Via FC AG_SEND and AG_RECV, max. via 10 CP 443-1 or 443-5	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication Global data communication • supported • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packets, max. • Size of GD packet (of which consistent), max.	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface IF 964-DP Yes 244 byte 1 ms Yes Yes 16 32 64 byte
• User data per job, max.76 byte• User data per job (of which consistent), max.1 variableS7 communicationYes• supportedYes• as serverYes• as clientYes• User data per job, max.64 kbyte• User data per job (of which consistent), max.1 variableS5 compatible communicationYes; Via FC AG_SEND and AG_RECV, max. via 10 CP 443-1 or 443-5	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication Global data communication • supported • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packets, max. • Size of GD packet (of which consistent), max. S7 basic communication	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface IF 964-DP Yes 244 byte 1 ms Yes Yes 16 32 64 byte 1 variable
• User data per job (of which consistent), max.       1 variable         S7 communication       Yes         • supported       Yes         • as server       Yes         • as client       Yes         • User data per job, max.       64 kbyte         • User data per job (of which consistent), max.       1 variable         S5 compatible communication       Yes; Via FC AG_SEND and AG_RECV, max. via 10 CP 443-1 or 443-5	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication Global data communication • supported • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packets, max. • Size of GD packet (of which consistent), max. S7 basic communication	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface IF 964-DP Yes 244 byte 1 ms Yes Yes 16 32 64 byte 1 variable Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in
S7 communication       Yes         • supported       Yes         • as server       Yes         • as client       Yes         • User data per job, max.       64 kbyte         • User data per job (of which consistent), max.       1 variable         S5 compatible communication       Yes; Via FC AG_SEND and AG_RECV, max. via 10 CP 443-1 or 443-5	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication Global data communication • supported • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packet (of which consistent), max. S7 basic communication • supported	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface IF 964-DP Yes 244 byte 1 ms Yes Yes 16 32 64 byte 1 variable Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT
• supportedYes• as serverYes• as clientYes• User data per job, max.64 kbyte• User data per job (of which consistent), max.1 variableS5 compatible communication55 compatible communication• supportedYes; Via FC AG_SEND and AG_RECV, max. via 10 CP 443-1 or 443-5	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication Global data communication • supported • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packet (of which consistent), max. S7 basic communication • supported • User data per job, max.	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface IF 964-DP Yes 244 byte 1 ms Yes Yes 16 32 64 byte 1 variable Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT 76 byte
• as server     Yes       • as client     Yes       • User data per job, max.     64 kbyte       • User data per job (of which consistent), max.     1 variable       S5 compatible communication     55 compatible communication       • supported     Yes; Via FC AG_SEND and AG_RECV, max. via 10 CP 443-1 or 443-5	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication Global data communication • supported • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packet (of which consistent), max. S7 basic communication • supported • User data per job, max. • User data per job (of which consistent), max.	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface IF 964-DP Yes 244 byte 1 ms Yes Yes 16 32 64 byte 1 variable Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT 76 byte
<ul> <li>as client</li> <li>Yes</li> <li>User data per job, max.</li> <li>64 kbyte</li> <li>User data per job (of which consistent), max.</li> <li>1 variable</li> <li>S5 compatible communication</li> <li>supported</li> <li>Yes; Via FC AG_SEND and AG_RECV, max. via 10 CP 443-1 or 443-5</li> </ul>	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication Global data communication • supported • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packet (of which consistent), max. S7 basic communication • supported • User data per job, max. • User data per job (of which consistent), max. S7 communication	IF 964-DP pluggable interface module (IF), technical data as for 2nd interface IF 964-DP Yes 244 byte 1 ms Yes Yes Yes 16 32 64 byte 1 variable Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT 76 byte 1 variable
• User data per job, max.       64 kbyte         • User data per job (of which consistent), max.       1 variable         S5 compatible communication       1         • supported       Yes; Via FC AG_SEND and AG_RECV, max. via 10 CP 443-1 or 443-5	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication Global data communication • supported • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packet (of which consistent), max. S7 basic communication • supported • User data per job, max. • User data per job (of which consistent), max. S7 communication • supported	IF 964-DP  pluggable interface module (IF), technical data as for 2nd interface IF 964-DP  Yes 244 byte 1 ms  Yes Yes 16 32 64 byte 1 variable  Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT 76 byte 1 variable  Yes
• User data per job (of which consistent), max.       1 variable         S5 compatible communication       -         • supported       Yes; Via FC AG_SEND and AG_RECV, max. via 10 CP 443-1 or 443-5	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication Global data communication • supported • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packet (of which consistent), max. S7 basic communication • supported • User data per job, max. • User data per job (of which consistent), max. S7 communication • supported • as server	IF 964-DP  pluggable interface module (IF), technical data as for 2nd interface IF 964-DP  Yes 244 byte 1 ms  Yes Yes 16 32 64 byte 1 variable  Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT 76 byte 1 variable  Yes Yes Yes
S5 compatible communication         • supported         Yes; Via FC AG_SEND and AG_RECV, max. via 10 CP 443-1 or 443-5	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication Global data communication • supported • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packet (of which consistent), max. S7 basic communication • supported • User data per job, max. • User data per job, max. • State of a per job, max. • State of a per job, max. • State of a per job, max. • Supported • as server • as client	IF 964-DP  pluggable interface module (IF), technical data as for 2nd interface IF 964-DP  Yes 244 byte 1 ms  Yes Yes Yes Yes Yes Yes Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT 76 byte 1 variable  Yes Yes Yes Yes
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	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication Global data communication • supported • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packet (of which consistent), max. S7 basic communication • supported • User data per job, max. • User data per job (of which consistent), max. S7 communication • supported • as server • as client • User data per job, max. • User data per job, max.	IF 964-DP  pluggable interface module (IF), technical data as for 2nd interface IF 964-DP  Yes 244 byte 1 ms  Yes Yes Yes Yes Yes Yes Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT 76 byte 1 variable  Yes Yes Yes Yes Yes Yes Yes Yes Yes Y
User data per job, max.     8 kbyte	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication Global data communication • supported • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packet (of which consistent), max. S7 basic communication • supported • User data per job, max. • User data per job (of which consistent), max. S7 communication • supported • as server • as client • User data per job, max. • User data per job (of which consistent), max. S5 compatible communication	IF 964-DP  pluggable interface module (IF), technical data as for 2nd interface IF 964-DP  Yes 244 byte 1 ms  Yes Yes Yes 16 32 64 byte 1 variable  Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT 76 byte 1 variable  Yes Yes 64 kbyte 1 variable
	Interface type Plug-in interface modules 4. Interface Interface type Plug-in interface modules Isochronous mode Equidistance User data per isochronous slave, max. shortest clock pulse communication functions / header PG/OP communication Global data communication • supported • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packet (of which consistent), max. S7 basic communication • supported • User data per job, max. • User data per job (of which consistent), max. S7 communication • supported • as server • as client • User data per job, max. • User data per job, max. • User data per job, max. • Size of data per job, max. • Size of data per job, max. • Size of data per job, max. • Supported • as server • as client • User data per job (of which consistent), max. S5 compatible communication • supported	IF 964-DP  pluggable interface module (IF), technical data as for 2nd interface IF 964-DP  Yes 244 byte 1 ms  Yes Yes Yes Yes Yes Yes; in MPI mode via: SFC X_SEND, X_RCV, X_GET and X_PUT; in DP master mode via: SFC I_GET and I_PUT 76 byte 1 variable  Yes Yes Yes Yes Yes Yes Yes Yes Yes Y

Standard communication (FMS)	
supported	Yes; Via CP and loadable FB
Number of connections	
• overall	64
usable for PG communication	
— reserved for PG communication	1
usable for OP communication	
- reserved for OP communication	1
S7 message functions	
Number of login stations for message functions, max.	16
Symbol-related messages	Yes
Program alarms	Yes
simultaneously active Alarm-S blocks, max.	
Alarm 8-blocks	ALARM_S/SQ blocks or ALARM_D/DQ blocks Yes
Number of instances for alarm 8 and S7	
communication blocks, max.	Number of communication jobs for Alarm_8 blocks and for blocks for S7 Communication
Process control messages	Yes
Number of messages	
overall, max.	1 024
•	128
<ul> <li>in 100 ms grid, max.</li> <li>in 500 ms grid, max</li> </ul>	512
• in 500 ms grid, max.	
• in 1000 ms grid, max.	1 024
Number of additional values	
• with 100 ms grid, max.	1
• with 500, 1000 ms grid, max.	10
Test commissioning functions	
Status block	Yes
Single step	Yes
Number of breakpoints	4
Status/control	
<ul> <li>Status/control variable</li> </ul>	Yes
Forcing	
• Forcing	Yes
Diagnostic buffer	
• present	Yes
Number of entries, max.	3 200
— adjustable	Yes
— preset	120
configuration / header	
Configuration software	
• STEP 7	Yes
configuration / programming / header	
Nesting levels	8
Programming language	
— LAD	Yes
— FBD	Yes
— STL	Yes
— SCL	Yes
— CFC	Yes
— GRAPH	Yes
— HiGraph®	Yes
configuration / programming / number of simultaneously	active SFC / header
- RDSYSST	1 to 8
Know-how protection	
<ul> <li>User program protection/password protection</li> </ul>	Yes
Dimensions	
Width	50 mm
	290 mm
Height	
Depth	219 mm
Weights	
Weight, approx.	1 070 g
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last modified:	4/1/2022 🖸