## SIEMENS

## Data sheet

## 6ES7148-6JG00-0BB0



SIMATIC ET 200eco PN, CM 8x IO-Link + DI 4x 24 V DC, M12-L, 8x M12, 4x port class A + 4x port class B, channel diagnostics, shared device with 2 controllers, prioritized startup, MRP, S2 redundancy, I&M0...3, multi-fieldbus, PN IO, Ethernet IP, Modbus TCP, degree of protection IP67 / IP69K

General information				
HW functional status	FS01			
Firmware version	V5.1.x			
• FW update possible	Yes			
Vendor identification (VendorID)	002AH			
Device identifier (DeviceID)	0306H			
Manufacturer ID according to ODVA (VendorID)	04E3H			
Device ID according to ODVA (Product code)	0FA9H			
Product function				
I&M data	Yes; I&M0 to I&M3, I&M5			
Isochronous mode	No			
Prioritized startup	Yes			
Engineering with				
<ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	STEP 7 V17 or higher with HSP 0378			
<ul> <li>PROFINET from GSD version/GSD revision</li> </ul>	GSDML V2.3.x			
<ul> <li>Multi Fieldbus Configuration Tool (MFCT)</li> </ul>	from V1.3 SP1			
Operating mode				
• DI	Yes			
Counter	No			
• DQ	No			
• MSI	Yes			
• MSO	Yes			
Supply voltage				
power supply according to NEC Class 2 required	No			
Load voltage 1L+				
Rated value (DC)	24 V			
<ul> <li>permissible range, lower limit (DC)</li> </ul>	20.4 V			
<ul> <li>permissible range, upper limit (DC)</li> </ul>	28.8 V			
Reverse polarity protection	Yes; Against destruction; encoder power supply outputs applied with reversed polarity			
Load voltage 2L+				
Rated value (DC)	24 V			
• permissible range, lower limit (DC)	20.4 V			
<ul> <li>permissible range, upper limit (DC)</li> </ul>	28.8 V			
<ul> <li>Reverse polarity protection</li> </ul>	Yes; against destruction			
Input current				
Current consumption (rated value)	70 mA; without load			
from load voltage 1L+ (unswitched voltage)	12 A; Maximum value			
from load voltage 2L+, max.	12 A; Maximum value			
Encoder supply				

Namber of ordigation         S                except of subset/ except of su		0			
• Not-disclar polectionYes, per channel electronic• Output cornt, max.0.5. Per channelPerser loss5.5 WAddress area5.5 WAddress spie.264 byte, + 8 bytes for QL information• inputs264 byte, + 8 bytes for QL information• inputs9Pinter for of parable submodules, max.9Optistat inputsPreceding• Number of configuration submodules, max.9SubmodulesPreceding• information submodules, max.9Optistat inputsPreceding• information submodules, max.9OptistationsPreceding• informationsPreceding• informationsPreceding• informationsPreceding• informations4Input diveling2.5 mA• or signal "0"4.5 mA• or signal "1", bp.2.5 mA• or signal "1", bp.2.5 mA• or signal "1", bp.3.5 mA• or s	Number of outputs	8			
0.5 A. Per drannel           Paner Lass           Preamer Lass           Address sprase per module           Address sprase per module           - Outpuis         264 byte: +8 bytes for QI information           - Outpuis         264 byte: +8 bytes for QI information           - Outpuis         264 byte: +8 bytes for QI information           - Outpuis         264 byte: +8 bytes for QI information           - Outpuis         264 byte: +8 bytes for QI information           - Outpuis         9           Number of configurable submodules, max         9           - Annote of configurable submodules, max         9           - Annote of configurable submodules, max         9           - Preading         Preading           - Outpuis of configurable submodules (max         9           - Annot value (MCC)         24 V           - Or or signal T*1         - Outpuis 00 °C, max.           - Or or signal T*1         - Outpuis 00 °C           - Or or signal T*1         - Outpuis 00 °C           - Or or signal T*1         - Outpuis 00 °C           outpuis 00 °C, max.         - Outpuis 00 °C           outpuis 00 °C, max.         - Outpuis 00 °C           outpuis 00 °C, max.         - Outpuis 00 °C           out		Ver per shannel electronic			
Prover loss         5.W           Address area         2.5K byte           Address area         2.5K byte           Address area         9           Parkar configuration         4           Sourcodules         4           Address area         9           Parkar configuration         4           Sourcodules         4           Inspatchareduratic curve in accounce with IEC 61131, type 3         Number of simulations and positions           — up of Sourcodules         4           Inspatchareduratic curve in accounce with IEC 61131, type 3         Number of simulations and positions           — or signal "1"         +1110 -3100         Yes           Inspatcharea         4 50 -50°         -1110 -50°           Sour spatcharea         110 - 50°					
Protect loss, typ.         5.5 W           Address para         Address para           Address para (Address para)         264 byte; + 8 bytes for Q information           - Outputs         264 byte; + 8 bytes for Q information           - Outputs         264 byte; + 8 bytes for Q information           - Outputs         9           Diptal Inputs         9           Number of configurations         9           Number of configurations submodules, max.         9           Protections input         Preading           Input dranacteristic curve in accordance with IEC 61131, hpp 3         Yes           Number of simultaneously controllable inputs         4           Bourcehains input         Preading           Input dranacteristic curve in accordance with IEC 61131, hpp 3         Yes           Number of simultaneously controllable inputs         4           Input dranacteristic curve in accordance with IEC 61131, hpp 3         Yes           Instandiable         4           Input dranacteristic curve in accordance with IEC 61131, hpp 3         Yes           Number of simultaneously controllable inputs         4           Input dranacteristic curve in accordance with IEC 61131, hpp 3         Yes           Input dranacteristic curve in accordance with IEC 61131, hpp 3         Yes <tr< td=""><td></td><td colspan="4">U.5 A; Per channel</td></tr<>		U.5 A; Per channel			
Address space par module           Address space par module           • Lopuls         264 byte; + 8 bytes for Ol information           • Upplate         264 byte; + 8 bytes for Ol information           • Number of configuration submodules, max.         9           Optical inputs         4           • Sciencodific inputs         4           • Sciencodific inputs         4           • Sciencodific inputs         4           • Concein inputs         Preading           • Input characteristic curve in accordance with IEC 61131, bps 3         Yes           Number of information curve in accordance with IEC 61131, bps 3         Yes           Input characteristic curve in accordance with IEC 61131, bps 3         Yes           Input characteristic curve in accordance with IEC 61131, bps 3         Yes           • For signal 10***         4           Input characteristic curve in accordance with IEC 61131, bps 3         Yes           • For signal 10***         4           Input characteristic curve in accordance with IEC 61131, bps 3         Yes           • For signal 10****         • 110 = -30V           Input charge         • 100***********************************					
Address space par module  Inputs  Outputs  Output  Outputs  Outputs  Outputs  Outputs  Outputs  Output		5.5 W			
ePopuls264 byte; s' 8 bytes for Qi information- Ouppu's266 byteHardwate configuration266 byteHardwate configuration submodules, max.9- Number of configuration submodules, max.9Digital inputs4Surcostink inputPareadingSurcostink inputPareadingSurcostink inputPareadingSurcostink inputPareadingImput characteristic curve in accordance with EC 61131; type 3YesNumber of simulaneously controllable inputs4Imput characteristic curve in accordance with EC 61131; type 3Yes- up to Bo "C, max.4Imput characteristic curve in accordance with EC 61131; type 3Yes- up to Bo "C, max.4Imput characteristic curve in accordance with EC 61131; type 3Yes- up to Bo "C, max.4Imput characteristic curve in accordance with EC 61131; type 3Yes- up to try "T, type.2 for AVImput characteristic curve in accordance with EC 61131; type 3Yes- up to try "T, type.2 for ANImput characteristic curve in accordance with EC 61131; type 3Yes- up to try "T, type.2 for ANImput characteristic curve in accordance with EC 61131; type 3Yes- up to try "T, type.2 for ANImput characteristic curve in accordance with EC 61131; type 3Yes- up to try "T, type.2 for ANImput characteristic curve in accordance with EC 61131; type 3Yes- up to try "T, type.3 to type					
• Colpuls266 byte1 archarate configuration9• Number of configurable submodules, max.9• Number of configurable submodules, max.9• ParadingParadingInput characteristic curve in accordance with IEC 61131. type 3Yes• Number of digital inputsParading• number of digital inputs4• Parading options4• Input characteristic curve in accordance with IEC 61131. type 3Yes• Number of digital inputs4• Number of digital inputs4• Number of digital inputs4• Input characteristic curve in accordance with IEC 61131. type 3Yes• Input characteristic curve in accordance with IEC 61131. type 3Yes• Input characteristic curve in accordance with IEC 61131. type 3Yes• Input characteristic curve in accordance with IEC 61131. type 3Yes• Input characteristic curve in accordance with IEC 61131. type 3Yes• Input characteristic curve in accordance with IEC 61131. type 3Yes• Input characteristic curve in accordance with IEC 61131. type 3Yes• Input characteristic curve in accordance with IEC 61131. type 3Yes• Input characteristic curve in accordance with IEC 61131. type 3Yes• Input characteristic curve in accordance with IEC 61131. type 3Yes• Input characteristic curve in accordance with IEC 61131. type 3Yes• Input characteristic curve in accordance with IEC 61131. type 3Yes• Input characteristic curve in accordance with IEC 61131. type 3Yes• In	Address space per module				
standards         9           Option in prusits         9           Number of configurable submodules, max.         9           Option in prusits         4           Scoreablink hipd         Personaling           Input characheristic curve in accordance with IEC 61131, type 3         Yes           Number of infigurables         4           Scoreablink hipd         Personaling	Inputs	264 byte; + 8 bytes for QI information			
Submedules         9           Number of configurable submodules, max.         9           Number of digital inputs         4           Sourcesink input         Preading           Input obtandeneitistic curve in accordance with IEC 61131, type 3         Yes           Number of simulaneously controllable inputs         4           all mouting positions         4	Outputs	256 byte			
Piptial Inputs         9           Diptial Inputs         4           Sourcestink Input         Preading           Input characteristic curve in accordance with IEC 61131. type 3         Yes           Number of simulaneously controllable inputs         4           Input characteristic curve in accordance with IEC 61131. type 3         Yes           Input characteristic curve in accordance with IEC 61131. type 3         4           Input characteristic curve in accordance with IEC 61131. type 3         4           Input characteristic curve in accordance with IEC 61131. type 3         4           Input characteristic curve in accordance with IEC 61131. type 3         4           Input characteristic curve in accordance with IEC 61131. type 3         4           Input characteristic curve in accordance with IEC 61131. type 3         54 V           Input characteristic curve in accordance with IEC 61131. type 3         54 V           Input characteristic curve in accordance with IEC 61131. type 3         54 V           Input characteristic curve in accordance with IEC 61131. type 3         54 V           Input characteristic curve in accordance with IEC 61131. type 3         55 m A           Input characteristic curve in accordance with IEC 61131. type 3         50 m           Cable length         90 m         90 m           Input characterin forth 1**	Hardware configuration				
Diplical inputs         4           Number of digital inputs         4           Input characteristic curve in accordance with IEC 61131, type 3         Yes           Number of simulaneously controllable inputs         4           Input characteristic curve in accordance with IEC 61131, type 3         Yes           Number of simulaneously controllable inputs         4           Input stage         4           • Relet Value (DC)         24 V           • for signal '1', typ.         2.5 mA           Input stage         • for signal '1', typ.           • for signal '1', typ.         2.5 mA           Input stage         • for signal '1', typ.           • for signal '1', typ.         2.5 mA           Input stage         • for signal '1', typ.           • of or signal '1', typ.         2.5 mA           Input stage         • end '1' max.           • of or tarde value of input voltage)         for stand value of input voltage           • for signal '1', typ.         2.5 mA           Input stage         • end '1' max.           • of or tarde value of input voltage         16           • of vin 'n max.         30 m           • Ol hub simultaneously controllable         8           • Ol hub simultaneously controllable         8	Submodules				
Number of digital inputs         4           SourceStink input         Preading           Input characteristic curve in accordance with IEC 61131, type 3         Yes           Number of simultaneously controllable inputs         4           all mouting positions         4          up to 80 °C, max.         4           • Rated value (DC)         24 V           • for signal °C        at to signal °C           • for signal °C        at row signal °C           • for signal °C        at row signal °C           • for signal °C        at row to input voltage)           for datacted inputs        at row to "input voltage)           for signal °C °C, max.         typically 3 ms	<ul> <li>Number of configurable submodules, max.</li> </ul>	9			
Sourcelsink ipud         P.reading           Input tharacteristic curve in accordance with IEC 61131, type 3         Yes           Number of Simulaneously controllable inputs         4           Input voltage         24 V           • for signal '1", typ.         25 mA           Input delay (for rated value of input voltage)         for signal '1", typ.           for signal '1", typ.         25 mA           Input delay (for rated value of input voltage)         for signal '1", typ.           for signal '1", typ.         25 mA           Input delay (for rated value of input voltage)         for signal '1", typ.           of signal '1", typ.         25 mA           Unable delay (for rated value of input voltage)         for signal '1", typ.           of signal '1", typ.         25 mA           Unable delay (for rated value of input voltage)         for signal '1", typ.           of signal '1", typ.         25 mA           Unable delay (for rated value of input voltage)         for signal '1", typ.           O clark protocol 1.0         Yes           O clark protocol 1.0	Digital inputs				
Input characteristic curve in accordance with IEC 61131, type 3       Yes         Number of simultaneously controllable inputs       Imput characteristic curve in accordance with IEC 61131, type 3         I mouther of simultaneously controllable inputs       Imput characteristic curve in accordance with IEC 61131, type 3         I mouther of simultaneously controllable inputs       Imput characteristic curve in accordance with IEC 61131, type 3         I mouther of simultaneously controllable input characteristic curve in signal '1''       Imput characteristic curve in accordance with IEC 61131, type 3         • Rated value (DC)       24 V         • for signal '1''	Number of digital inputs	4			
Number of simultaneously controllable inputs           all mounting positions          up to 60 °C, max.           4           Input voltage           • Rated value (CC)           • for signal °C*           - for signal °C*           • for fit °C*           • for signal °C*           • for which simultaneously controllable           8           • for borts           8           • f	Source/sink input	P-reading			
all mounting positions     4      up to 60 °C, max.     4       Input Voltage     24 V       • Rated value (DC)     24 V       • for signal °C     -3 to +5V       • for signal °C     -11 to +30V       Input delay (for rated value of input voltage)     -6 to signal °C       • for signal °C     -10 to *1', max.       at *1' to *0', max.     typically 3 ms       Cable length     -30 m       • unshielded, max.     30 m       Columb     8       • of which simulaneously controllable     9       • of which simulaneously controllable     9       • of or process data, input per port     33 byle <td>Input characteristic curve in accordance with IEC 61131, type 3</td> <td>Yes</td>	Input characteristic curve in accordance with IEC 61131, type 3	Yes			
up to 60 °C, max.         4           Input voltage	Number of simultaneously controllable inputs				
Input voltage           • Rated value (DC)         24 V           • for signal "0"         -3 to +5V           • for signal "1"         +11 to +30V           Input deay (for rated value of input voltage)         -           for signal "1", typ.         2.5 mA           Input deay (for rated value of input voltage)         -           for signal "1" to "0", max.         typically 3 ms           - = at "1" to "0", max.         typically 3 ms           - at "1" to "0", max.         30 m           Cable length         -           • unshelded, max.         30 m           for Link         8           Number of ports         8           • of which simultaneously controllable         8           10-Link protocol 1.1         Yes           Size of process data, input per port         33 byte           Size of process data, input per module         26 byte           Size of process data, output per module         256 byte           Memory size for device parameter         2 byte           Size of process data, outpu	all mounting positions				
Rated value (DC)     24 V     if or signal '0"     30 to FV     if or signal '1"     if 10 + 30V     input caurent     if or signal '1", typ.     2.5 mA     input caurent     if or signal '1", typ.     if or signal '1, typ.     if or signal '1, typ.     if or	— up to 60 °C, max.	4			
Rated value (DC)     24 V     if or signal '0"     30 to FV     if or signal '1"     if 10 + 30V     input caurent     if or signal '1", typ.     2.5 mA     input caurent     if or signal '1", typ.     if or signal '1, typ.     if or signal '1, typ.     if or	Input voltage				
for signal "0"         -3 to +5V         -1 to +3ggal '1"         +1 to +3gV         ingut careat         for signal '1"         +1 to +3gV         ingut careat         for signal '1"         to '1"         for signal '1"         for si	· · ·	24 V			
• for signal "1"         +11 to +30V Input deurent          for signal "1", tp,             2.5 mA Input delay (for rated value of input voltage)         for signal "1", tp,             2.5 mA Input delay (for rated value of input voltage)         for standard inputs             - at "1" to "0", max.             typically 3 ms             - at "1" to "0", max.             typically 3 ms             - at "1" to "0", max.             typically 3 ms             - at "1" to "0", max.             typically 3 ms             - at "1" to "0", max.             typically 3 ms             - at "1" to "0", max.             S0 m              Cobie length             - unshielded, max.             30 m              O-Link             Ves             - IO-Link             7ransmission rate             Cycle time, min.             Size of process data, input per port             33 byte             Size of process data, input per port             33 byte             Size of process data, output per port             32 byte             Size of process data, output per port             32 byte             Size of process data, output per port             32 byte             Size of process data, output per port             32 byte             Size of process data, output per port             32 byte             Size of process data, output per port             29 byte             Size of process data, output per port             29 byte             Size of process data, output per port             20 byte             Size of process data, output per port             29 byte             Size of process data, output per port             29 byte             Size of process data, output per port             20 byte             Size of process data, output per port             20 byte             Size of process data, output per port             20 byte             Size of process data, output per port             20 byte             Size of procese parameter             Atytyte; for each port             F		-3 to +5V			
Input current       2.5 mA         Input delay (for rated value of input voltage)       For standard inputs         for standard inputs       ypically 3 ms		+11 to +30V			
Input delay (for rated value of input voltage) for standard inputs for the standard input voltage) for standard inputs for the standard input voltage) for standard input set of voltage for the standard input set of voltage for set of voltage set of volt					
Input delay (for rated value of input voltage) for standard inputs for the standard input voltage) for standard inputs for the standard input voltage) for standard input set of voltage for the standard input set of voltage for set of voltage set of volt	•	2.5 mA			
for standard inputs					
	·	typically 3 ms			
Cable length       30 m         IO-Link       10         Number of ports       8         • of which simultaneously controllable       8         10-Link protocol 1.0       Yes         IO-Link protocol 1.1       Yes         ITransmission rate       4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3)         Cycle time, min.       2 ms         Size of process data, input per port       33 byte         Size of process data, output per module       264 byte         Size of process data, output per module       266 byte         Size of process data, output per module       266 byte         Configuration without S7-PCT       Possible; with function block IO_LINK_MASTER         Configuration without S7-PCT       Possible; witostart/manual function         Cable length unshielded, max.       20 m         Operating modes					
• unshielded, max.       30 m         Io-Link       8         Number of ports       8         • of which simultaneously controllable       8         Io-Link protocol 1.0       Yes         Io-Link protocol 1.1       Yes         Transmission rate       4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3)         Cycle time, min.       2 ms         Size of process data, input per port       33 byte         Size of process data, output per port       32 byte         Size of process data, output per port       32 byte         Size of process data, output per port       32 byte         Size of process data, output per module       266 byte         Memory size for device parameter       2 kbyte; for each port         Master backup       Possible with function block IO_LINK_MASTER         Configuration without S7-PCT       Possible; autostart/manual function         Cable length unshielded, max.       20 m         Operating modes       -         • IO_Link       Yes         • DI       Yes         • DI       Yes         • DQ       Yes; wax. 100 mA         Connection of IO-Link devices       -         • Port type A       Yes; via 3-core cable         • via three-wire					
IO-Link       Number of ports     8       • of which simultaneously controllable     8       IO-Link protocol 1.0     Yes       ID-Link protocol 1.1     Yes       Transmission rate     4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3)       Cycle time, min.     2 ms       Size of process data, input per port     33 byte       Size of process data, output per module     264 byte       Size of process data, output per module     256 byte       Memory size for device parameter     2 kbyte; for each port       Master backup     Possible with function block IO_LINK_MASTER       Configuration without S7-PCT     Possible; autostart/manual function       Cable length unshielded, max.     20 m       Operating modes     Ves       • IO-Link     Yes       • DQ     Yes; max. 100 mA       Connection of IO-Link devices     Ves; via 3-core cable       • Port type A     Yes; via 3-core cable       • Vet type B     Yes; via 3-core cable       • Vet type B     Yes; additional device supply: max. 2 A per port, max. 6 A per module       • Vet type B     Yes       • Interfaces     1       Interface     PROFINET with 100 Mbit/s full duplex (100BASE-TX)					
Number of ports     8       • of which simultaneously controllable     8       IO-Link protocol 1.0     Yes       IO-Link protocol 1.1     Yes       Transmission rate     4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3)       Cycle time, min.     2 ms       Size of process data, input per port     33 byte       Size of process data, output per port     32 byte       Size of process data, output per module     264 byte       Size of process data, output per module     256 byte       Memory size for device parameter     2 kbyte; for each port       Memory size for device parameter     2 kbyte; for each port       Configuration without S7-PCT     Possible; autostart/manual function       Cable length unshielded, max.     20 m       Operating modes     •       • IO-Link     Yes       • DQ     Yes; max. 100 mA       Connection of IO-Link devices     Yes; via 3-core cable       • Port type B     Yes; via 3-core cable       • Vas; via 3-core cable     Yes; via 3-core cable       • Vast three-wire connection     Yes       Interfaces     1       Number of PROFINET interfaces     1       Interface     PROFINET with 100 Mbit/s full duplex (100BASE-TX)		30 m			
• of which simultaneously controllable8IO-Link protocol 1.0YesIO-Link protocol 1.1YesTransmission rate4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3)Cycle time, min.2 msSize of process data, input per port33 byteSize of process data, output per port32 byteSize of process data, output per port32 byteSize of process data, output per module266 byteSize of process data, output per module26 byteConfiguration without S7-PCTPossible; autostart/manual functionConfiguration without S7-PCTPossible; autostart/manual functionCable length unshielded, max.20 mOperating modes-• IO-LinkYes• DIYes• DQYes; max. 100 mAConnection of IO-Link devicesYes; via 3-core cable• Port type AYes; via 3-core cable• Port type BYes; via 3-core cable• Ves; via ditional device supply: max. 2 A per port, max. 6 A per module• via three-wire connectionYesInterfaces11.1.1.InterfaceInterface typePROFINET with 100 Mbit/s full duplex (100BASE-TX)	• unshielded, max.	30 m			
IO-Link protocol 1.0       Yes         IO-Link protocol 1.1       Yes         Transmission rate       4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3)         Cycle time, min.       2 ms         Size of process data, input per port       33 byte         Size of process data, output per port       32 byte         Size of process data, output per module       264 byte         Size of process data, output per module       256 byte         Memory size for device parameter       2 kbyte; for each port         Master backup       Possible with function block IO_LINK_MASTER         Configuration without 57-PCT       Possible; autostart/manual function         Cable length unshielded, max.       20 m         Operating modes       -         • IO-Link       Yes         • DQ       Yes; max. 100 mA         Connection of IO-Link devices       -         • Port type A       Yes; via 3-core cable         • Port type B       Yes; via 3-core cable         • via three-wire connection       Yes         • Number of PROFINET interfaces       1         1. Interface       PROFINET with 100 Mbit/s full duplex (100BASE-TX)	• unshielded, max. IO-Link				
IO-Link protocol 1.1       Yes         Transmission rate       4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3)         Cycle time, min.       2 ms         Size of process data, input per port       33 byte         Size of process data, output per port       32 byte         Size of process data, output per port       32 byte         Size of process data, output per port       32 byte         Size of process data, output per module       266 byte         Memory size for device parameter       2 kbyte; for each port         Master backup       Possible with function block IO_LINK_MASTER         Configuration without S7-PCT       Possible; autostart/manual function         Cable length unshielded, max.       20 m         Operating modes       -         • IO-Link       Yes         • DI       Yes         • DQ       Yes; via 3-core cable         • Port type A       Yes; via 3-core cable         • Port type B       Yes; via 3-core cable         • via three-wire connection       Yes         Interfaces       1         Number of PROFINET interfaces       1         Interface type       PROFINET with 100 Mbit/s full duplex (100BASE-TX)	unshielded, max.  IO-Link  Number of ports	8			
Transmission rate4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3)Cycle time, min.2 msSize of process data, input per port33 byteSize of process data, unput per module264 byteSize of process data, output per module266 byteSize of process data, output per module256 byteSize of process data, output per module256 byteMemory size for device parameter2 kbyte; for each portMaster backupPossible with function block IO_LINK_MASTERConfiguration without S7-PCTPossible; autostart/manual functionCable length unshielded, max.20 mOperating modes10-Link• IO-LinkYes• DQYes; max. 100 mAConnection of IO-Link devicesYes; via 3-core cable• Port type AYes; via 3-core cable• Port type BYes; additional device supply: max. 2 A per port, max. 6 A per module• Via three-wire connectionYesInterfaces1Interface typePROFINET with 100 Mbit/s full duplex (100BASE-TX)	unshielded, max.  IO-Link  Number of ports     of which simultaneously controllable	8 8			
Cycle time, min.       2 ms         Size of process data, input per port       33 byte         Size of process data, output per module       264 byte         Size of process data, output per port       32 byte         Size of process data, output per module       256 byte         Memory size for device parameter       2 kbyte; for each port         Master backup       Possible with function block IO_LINK_MASTER         Configuration without S7-PCT       Possible; autostart/manual function         Cable length unshielded, max.       20 m         Operating modes	unshielded, max.  IO-Link  Number of ports     of which simultaneously controllable  IO-Link protocol 1.0	8 8 Yes			
Size of process data, input per port       33 byte         Size of process data, input per module       264 byte         Size of process data, output per port       32 byte         Size of process data, output per module       256 byte         Memory size for device parameter       2 kbyte; for each port         Master backup       Possible with function block IO_LINK_MASTER         Configuration without S7-PCT       Possible; autostart/manual function         Cable length unshielded, max.       20 m         Operating modes       -         • IO-Link       Yes         • DQ       Yes; max. 100 mA         Connection of IO-Link devices       -         • Port type A       Yes; via 3-core cable         • Ves; type B       Yes; via 3-core cable         • via three-wire connection       Yes         Number of PROFINET interfaces       1         1. Interface       Interface type         PROFINET with 100 Mbit/s full duplex (100BASE-TX)	unshielded, max.  IO-Link  Number of ports     of which simultaneously controllable  IO-Link protocol 1.0  IO-Link protocol 1.1	8 8 Yes Yes			
Size of process data, input per module       264 byte         Size of process data, output per port       32 byte         Size of process data, output per module       256 byte         Memory size for device parameter       2 kbyte; for each port         Master backup       Possible with function block IO_LINK_MASTER         Configuration without S7-PCT       Possible; autostart/manual function         Cable length unshielded, max.       20 m         Operating modes       -         • IO-Link       Yes         • DQ       Yes; max. 100 mA         Connection of IO-Link devices       -         • Port type A       Yes; via 3-core cable         • Port type B       Yes; additional device supply: max. 2 A per port, max. 6 A per module         • via three-wire connection       Yes         Interfaces       1         1. Interface       1         Interface type       PROFINET with 100 Mbit/s full duplex (100BASE-TX)	unshielded, max.  IO-Link  Number of ports     of which simultaneously controllable  IO-Link protocol 1.0  IO-Link protocol 1.1  Transmission rate	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3)			
Size of process data, output per port       32 byte         Size of process data, output per module       256 byte         Memory size for device parameter       2 kbyte; for each port         Master backup       Possible with function block IO_LINK_MASTER         Configuration without S7-PCT       Possible; autostart/manual function         Cable length unshielded, max.       20 m         Operating modes       .         • IO-Link       Yes         • DI       Yes; max. 100 mA         Connection of IO-Link devices       .         • Port type A       Yes; via 3-core cable         • Port type B       Yes; additional device supply: max. 2 A per port, max. 6 A per module         • via three-wire connection       Yes         Interfaces       1         1. Interface       .         Interface type       PROFINET with 100 Mbit/s full duplex (100BASE-TX)	unshielded, max.  IO-Link  Number of ports     of which simultaneously controllable  IO-Link protocol 1.0  IO-Link protocol 1.1  Transmission rate Cycle time, min.	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms			
Size of process data, output per module       256 byte         Memory size for device parameter       2 kbyte; for each port         Master backup       Possible with function block IO_LINK_MASTER         Configuration without S7-PCT       Possible; autostart/manual function         Cable length unshielded, max.       20 m         Operating modes       20 m         • IO-Link       Yes         • DI       Yes         • DQ       Yes; max. 100 mA         Connection of IO-Link devices       Yes; via 3-core cable         • Port type A       Yes; via 3-core cable         • Ves; additional device supply: max. 2 A per port, max. 6 A per module         • via three-wire connection       Yes         Interfaces       1         1. Interface       PROFINET interfaces         Interface type       PROFINET with 100 Mbit/s full duplex (100BASE-TX)	• unshielded, max.  IO-Link  Number of ports     • of which simultaneously controllable  IO-Link protocol 1.0  IO-Link protocol 1.1  Transmission rate  Cycle time, min.  Size of process data, input per port	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte			
Memory size for device parameter       2 kbyte; for each port         Master backup       Possible with function block IO_LINK_MASTER         Configuration without S7-PCT       Possible; autostart/manual function         Cable length unshielded, max.       20 m         Operating modes       20 m         • IO-Link       Yes         • DI       Yes; max. 100 mA         Connection of IO-Link devices       Yes; wax. 100 mA         • Port type A       Yes; via 3-core cable         • Port type B       Yes; additional device supply: max. 2 A per port, max. 6 A per module         • via three-wire connection       Yes         Interfaces       1         Interface type       PROFINET with 100 Mbit/s full duplex (100BASE-TX)	• unshielded, max.  IO-Link  Number of ports     • of which simultaneously controllable  IO-Link protocol 1.0 IO-Link protocol 1.1  Transmission rate Cycle time, min. Size of process data, input per port Size of process data, input per module	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte			
Master backup       Possible with function block IO_LINK_MASTER         Configuration without S7-PCT       Possible; autostart/manual function         Cable length unshielded, max.       20 m         Operating modes       20 m         • IO-Link       Yes         • DI       Yes; max. 100 mA         Connection of IO-Link devices       Yes; wia 3-core cable         • Port type A       Yes; via 3-core cable         • Port type B       Yes; additional device supply: max. 2 A per port, max. 6 A per module         • via three-wire connection       Yes         Interfaces       1         Interface type       PROFINET with 100 Mbit/s full duplex (100BASE-TX)	• unshielded, max.  IO-Link  Number of ports     • of which simultaneously controllable  IO-Link protocol 1.0 IO-Link protocol 1.1 Transmission rate Cycle time, min. Size of process data, input per port Size of process data, output per module Size of process data, output per port	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte 32 byte			
Configuration without S7-PCT       Possible; autostart/manual function         Cable length unshielded, max.       20 m         Operating modes          • IO-Link       Yes         • DI       Yes         • DQ       Yes; max. 100 mA         Connection of IO-Link devices          • Port type A       Yes; via 3-core cable         • Port type B       Yes; additional device supply: max. 2 A per port, max. 6 A per module         • via three-wire connection       Yes         Interfaces       1         Number of PROFINET interfaces       1         Interface       PROFINET with 100 Mbit/s full duplex (100BASE-TX)	• unshielded, max.  IO-Link  Number of ports     • of which simultaneously controllable  IO-Link protocol 1.0  IO-Link protocol 1.1  Transmission rate  Cycle time, min.  Size of process data, input per port Size of process data, output per port Size of process data, output per module Size of process data, output per module	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte 32 byte 256 byte			
Cable length unshielded, max.       20 m         Operating modes          • IO-Link       Yes         • DI       Yes         • DQ       Yes; max. 100 mA         Connection of IO-Link devices          • Port type A       Yes; via 3-core cable         • Port type B       Yes; additional device supply: max. 2 A per port, max. 6 A per module         • via three-wire connection       Yes         Interfaces       1         Number of PROFINET interfaces       1         Interface       PROFINET with 100 Mbit/s full duplex (100BASE-TX)	unshielded, max.      IO-Link      Number of ports         of which simultaneously controllable     IO-Link protocol 1.0     IO-Link protocol 1.1     Transmission rate     Cycle time, min.     Size of process data, input per port     Size of process data, output per module     Size of process data, output per module     Memory size for device parameter	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte 32 byte 256 byte 256 byte 2 kbyte; for each port			
Operating modes         • IO-Link       Yes         • DI       Yes; max. 100 mA         Connection of IO-Link devices       Yes; wax. 100 mA         Connection of IO-Link devices       Yes; via 3-core cable         • Port type A       Yes; via 3-core cable         • Port type B       Yes; additional device supply: max. 2 A per port, max. 6 A per module         • via three-wire connection       Yes         Interfaces       1         Number of PROFINET interfaces       1         Interface       PROFINET with 100 Mbit/s full duplex (100BASE-TX)	unshielded, max.      IO-Link      Number of ports         of which simultaneously controllable     IO-Link protocol 1.0     IO-Link protocol 1.1      Transmission rate     Cycle time, min.     Size of process data, input per port     Size of process data, output per module     Size of process data, output per module     Size of process data, output per module     Memory size for device parameter     Master backup	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte 32 byte 256 byte 2 kbyte; for each port Possible with function block IO_LINK_MASTER			
• IO-LinkYes• DIYes• DQYes; max. 100 mAConnection of IO-Link devicesYes; max. 100 mA• Port type AYes; via 3-core cable• Port type BYes; additional device supply: max. 2 A per port, max. 6 A per module• via three-wire connectionYesInterfacesNumber of PROFINET interfaces1InterfaceInterfaceInterface typePROFINET with 100 Mbit/s full duplex (100BASE-TX)	• unshielded, max.  IO-Link  Number of ports     • of which simultaneously controllable  IO-Link protocol 1.0 IO-Link protocol 1.1 Transmission rate Cycle time, min. Size of process data, input per port Size of process data, output per module Size of process data, output per port Size of process data, output per module Memory size for device parameter Master backup Configuration without S7-PCT	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte 32 byte 256 byte 2 kbyte; for each port Possible with function block IO_LINK_MASTER Possible; autostart/manual function			
• DIYes• DQYes; max. 100 mAConnection of IO-Link devicesYes; max. 100 mA• Port type AYes; via 3-core cable• Port type BYes; additional device supply: max. 2 A per port, max. 6 A per module• via three-wire connectionYesInterfacesNumber of PROFINET interfaces1InterfaceInterfaceInterface typePROFINET with 100 Mbit/s full duplex (100BASE-TX)	• unshielded, max.  IO-Link  Number of ports     • of which simultaneously controllable  IO-Link protocol 1.0 IO-Link protocol 1.1 Transmission rate Cycle time, min. Size of process data, input per port Size of process data, output per module Size of process data, output per port Size of process data, output per module Memory size for device parameter Master backup Configuration without S7-PCT Cable length unshielded, max.	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte 32 byte 256 byte 2 kbyte; for each port Possible with function block IO_LINK_MASTER Possible; autostart/manual function			
• DQ     Yes; max. 100 mA       Connection of IO-Link devices        • Port type A     Yes; via 3-core cable       • Port type B     Yes; additional device supply: max. 2 A per port, max. 6 A per module       • via three-wire connection     Yes       Interfaces     1       Number of PROFINET interfaces     1       Interface type     PROFINET with 100 Mbit/s full duplex (100BASE-TX)	• unshielded, max.      IO-Link      Number of ports     • of which simultaneously controllable      IO-Link protocol 1.0      IO-Link protocol 1.1      Transmission rate      Cycle time, min.      Size of process data, input per port      Size of process data, output per module      Size of process data, output per module      Memory size for device parameter      Master backup      Configuration without S7-PCT      Cable length unshielded, max.      Operating modes	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte 264 byte 32 byte 256 byte 2 kbyte; for each port Possible with function block IO_LINK_MASTER Possible; autostart/manual function 20 m			
Connection of IO-Link devices         • Port type A         • Port type B         • via three-wire connection         Yes; additional device supply: max. 2 A per port, max. 6 A per module         • via three-wire connection         Yes         Interfaces         Number of PROFINET interfaces         1         Interface         Interface type         PROFINET with 100 Mbit/s full duplex (100BASE-TX)	• unshielded, max.      IO-Link      Number of ports     • of which simultaneously controllable      IO-Link protocol 1.0      IO-Link protocol 1.1      Transmission rate      Cycle time, min.      Size of process data, input per port      Size of process data, output per module      Size of process data, output per module      Memory size for device parameter      Master backup      Configuration without S7-PCT      Cable length unshielded, max.      Operating modes      • IO-Link	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte 32 byte 256 byte 2 kbyte; for each port Possible with function block IO_LINK_MASTER Possible; autostart/manual function 20 m			
• Port type A     Yes; via 3-core cable       • Port type B     Yes; additional device supply: max. 2 A per port, max. 6 A per module       • via three-wire connection     Yes       Interfaces     Interface       Number of PROFINET interfaces     1       Interface     Interface       Interface type     PROFINET with 100 Mbit/s full duplex (100BASE-TX)	unshielded, max.      IO-Link      Number of ports         of which simultaneously controllable     IO-Link protocol 1.0     IO-Link protocol 1.1      Transmission rate     Cycle time, min.     Size of process data, input per port     Size of process data, output per module     Size of process data, output per module     Size of process data, output per module     Memory size for device parameter     Master backup     Configuration without S7-PCT     Cable length unshielded, max.      Operating modes	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte 32 byte 256 byte 2 kbyte; for each port Possible with function block IO_LINK_MASTER Possible; autostart/manual function 20 m			
Port type B     Yes; additional device supply: max. 2 A per port, max. 6 A per module     Yes  Interfaces  Interface Interface Interface PROFINET interfaces PROFINET with 100 Mbit/s full duplex (100BASE-TX)	<ul> <li>unshielded, max.</li> <li>IO-Link</li> <li>Number of ports <ul> <li>of which simultaneously controllable</li> </ul> </li> <li>IO-Link protocol 1.0</li> <li>IO-Link protocol 1.1</li> <li>Transmission rate</li> <li>Cycle time, min.</li> <li>Size of process data, input per port</li> <li>Size of process data, output per module</li> <li>Size of process data, output per module</li> <li>Size of process data, output per module</li> <li>Memory size for device parameter</li> <li>Master backup</li> <li>Configuration without S7-PCT</li> <li>Cable length unshielded, max.</li> <li>Operating modes</li> <li>IO-Link</li> <li>DI</li> <li>DQ</li> </ul>	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte 32 byte 256 byte 2 kbyte; for each port Possible with function block IO_LINK_MASTER Possible; autostart/manual function 20 m			
via three-wire connection Yes Interfaces Number of PROFINET interfaces 1 Interface Interface Interface PROFINET with 100 Mbit/s full duplex (100BASE-TX)	unshielded, max.      IO-Link      Number of ports         of which simultaneously controllable      IO-Link protocol 1.0      IO-Link protocol 1.1      Transmission rate      Cycle time, min.      Size of process data, input per port      Size of process data, output per module      Size of process data, output per module      Memory size for device parameter      Master backup      Configuration without S7-PCT      Cable length unshielded, max.      Operating modes	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte 32 byte 256 byte 2 kbyte; for each port Possible with function block IO_LINK_MASTER Possible; autostart/manual function 20 m Yes Yes Yes Yes; max. 100 mA			
Interfaces         1           Number of PROFINET interfaces         1           1. Interface         Interface           Interface type         PROFINET with 100 Mbit/s full duplex (100BASE-TX)	unshielded, max.      IO-Link      Number of ports         of which simultaneously controllable      IO-Link protocol 1.0      IO-Link protocol 1.1      Transmission rate      Cycle time, min.      Size of process data, input per port      Size of process data, output per module      Size of process data, output per module      Memory size for device parameter      Master backup      Configuration without S7-PCT      Cable length unshielded, max.      Operating modes	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte 264 byte 264 byte 256 byte 2 kbyte; for each port Possible with function block IO_LINK_MASTER Possible; autostart/manual function 20 m Yes Yes Yes; max. 100 mA Yes; via 3-core cable			
Number of PROFINET interfaces     1       1. Interface     Interface type       PROFINET with 100 Mbit/s full duplex (100BASE-TX)	unshielded, max.      IO-Link      Number of ports         of which simultaneously controllable      IO-Link protocol 1.0      IO-Link protocol 1.1      Transmission rate      Cycle time, min.      Size of process data, input per port      Size of process data, output per module      Size of process data, output per module      Memory size for device parameter      Master backup      Configuration without S7-PCT      Cable length unshielded, max.      Operating modes	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte 264 byte 264 byte 256 byte 2 kbyte; for each port Possible with function block IO_LINK_MASTER Possible; autostart/manual function 20 m Yes Yes Yes; max. 100 mA Yes; via 3-core cable			
1. Interface       Interface type       PROFINET with 100 Mbit/s full duplex (100BASE-TX)	<ul> <li>unshielded, max.</li> <li>IO-Link</li> <li>Number of ports         <ul> <li>of which simultaneously controllable</li> <li>IO-Link protocol 1.0</li> <li>IO-Link protocol 1.1</li> <li>Transmission rate</li> <li>Cycle time, min.</li> </ul> </li> <li>Size of process data, input per port</li> <li>Size of process data, output per module</li> <li>Size of process data, output per port</li> <li>Size of process data, output per module</li> <li>Memory size for device parameter</li> <li>Master backup</li> <li>Configuration without S7-PCT</li> <li>Cable length unshielded, max.</li> <li>Operating modes         <ul> <li>IO-Link</li> <li>DI</li> <li>DQ</li> </ul> </li> <li>Connection of IO-Link devices</li> <li>Port type A</li> <li>Port type B</li> <li>via three-wire connection</li> </ul>	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte 32 byte 256 byte 2 kbyte; for each port Possible with function block IO_LINK_MASTER Possible; autostart/manual function 20 m Yes Yes Yes; max. 100 mA Yes; via 3-core cable Yes; via 3-core cable			
Interface type PROFINET with 100 Mbit/s full duplex (100BASE-TX)	<ul> <li>unshielded, max.</li> <li>IO-Link</li> <li>Number of ports         <ul> <li>of which simultaneously controllable</li> <li>IO-Link protocol 1.0</li> <li>IO-Link protocol 1.1</li> <li>Transmission rate</li> <li>Cycle time, min.</li> </ul> </li> <li>Size of process data, input per port</li> <li>Size of process data, output per module</li> <li>Size of process data, output per port</li> <li>Size of process data, output per module</li> <li>Memory size for device parameter</li> <li>Master backup</li> <li>Configuration without S7-PCT</li> <li>Cable length unshielded, max.</li> <li>Operating modes         <ul> <li>IO-Link</li> <li>DI</li> <li>DQ</li> </ul> </li> <li>Connection of IO-Link devices</li> <li>Port type A</li> <li>Port type B</li> <li>via three-wire connection</li> </ul>	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte 32 byte 256 byte 2 kbyte; for each port Possible with function block IO_LINK_MASTER Possible; autostart/manual function 20 m Yes Yes Yes; max. 100 mA Yes; via 3-core cable Yes; via 3-core cable			
	<ul> <li>unshielded, max.</li> <li>IO-Link</li> <li>Number of ports <ul> <li>of which simultaneously controllable</li> </ul> </li> <li>IO-Link protocol 1.0</li> <li>IO-Link protocol 1.1</li> <li>Transmission rate</li> <li>Cycle time, min.</li> <li>Size of process data, input per port</li> <li>Size of process data, output per module</li> <li>Size of process data, output per module</li> <li>Size of process data, output per module</li> <li>Memory size for device parameter</li> <li>Master backup</li> <li>Configuration without S7-PCT</li> <li>Cable length unshielded, max.</li> <li>Operating modes</li> <li>IO-Link</li> <li>DI</li> <li>DQ</li> </ul> <li>Connection of IO-Link devices</li> <li>Port type A</li> <li>Port type B</li> <li>via three-wire connection</li>	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte 264 byte 32 byte 256 byte 2 kbyte; for each port Possible with function block IO_LINK_MASTER Possible; autostart/manual function 20 m Yes Yes Yes; max. 100 mA Yes; via 3-core cable Yes; additional device supply: max. 2 A per port, max. 6 A per module Yes			
Interface types	unshielded, max.      IO-Link      Number of ports         of which simultaneously controllable      IO-Link protocol 1.0      IO-Link protocol 1.1      Transmission rate      Cycle time, min.      Size of process data, input per port      Size of process data, output per module      Size of process data, output per module      Memory size for device parameter      Master backup      Configuration without S7-PCT      Cable length unshielded, max.      Operating modes	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte 264 byte 32 byte 256 byte 2 kbyte; for each port Possible with function block IO_LINK_MASTER Possible; autostart/manual function 20 m Yes Yes Yes; max. 100 mA Yes; via 3-core cable Yes; additional device supply: max. 2 A per port, max. 6 A per module Yes			
	<ul> <li>unshielded, max.</li> <li>IO-Link</li> <li>Number of ports         <ul> <li>of which simultaneously controllable</li> <li>IO-Link protocol 1.0</li> <li>IO-Link protocol 1.1</li> <li>Transmission rate</li> <li>Cycle time, min.</li> <li>Size of process data, input per port</li> <li>Size of process data, output per module</li> <li>Size of process data, output per module</li> <li>Size of process data, output per module</li> <li>Memory size for device parameter</li> <li>Master backup</li> <li>Configuration without S7-PCT</li> <li>Cable length unshielded, max.</li> <li>Operating modes</li> <li>IO-Link</li> <li>DI</li> <li>DQ</li> </ul> </li> <li>Connection of IO-Link devices</li> <li>Port type A</li> <li>Port type B</li> <li>via three-wire connection</li> </ul> <li>Interfaces</li> <li>Number of PROFINET interfaces</li> <li>1. Interface</li>	8 8 Yes Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms 33 byte 264 byte 32 byte 256 byte 2 kbyte; for each port Possible with function block IO_LINK_MASTER Possible; autostart/manual function 20 m Yes Yes Yes Yes Yes Yes; max. 100 mA Yes; via 3-core cable Yes; additional device supply: max. 2 A per port, max. 6 A per module Yes 1			

M12 port	Yes; 2x M12, 4-pin, D-coded		
Number of ports	2		
integrated switch	2 Yes		
Protocols	100		
PROFINET IO Device	Yes		
Open IE communication	Yes		
Interface types			
M12 port			
Autonegotiation	Yes		
Autocrossing	Yes		
Transmission rate, max.	100 Mbit/s		
Protocols			
Supports protocol for PROFINET IO	Yes		
PROFIsafe	No		
EtherNet/IP	Yes		
Modbus TCP	Yes		
PROFINET IO Device			
Services			
— IRT	Yes; 250 µs to 4 ms in 125 µs frame		
- Prioritized startup	Yes		
— Shared device	Yes		
— Number of IO Controllers with shared device, max.	2		
Redundancy mode			
PROFINET system redundancy (S2)	Yes		
— on S7-1500R/H	Yes		
— on S7-400H	Yes		
<ul> <li>PROFINET system redundancy (R1)</li> </ul>	No		
• H-Sync forwarding	Yes		
Media redundancy			
— MRP	Yes		
EtherNet/IP			
Services			
- CIP Implicit Messaging	Yes		
— CIP Explicit Messaging	Yes		
— CIP Safety	No		
— Shared device	Yes; 2x EtherNet/IP Scanner		
<ul> <li>Number of scanners with shared device, max.</li> </ul>	2		
Updating times			
— Requested Packet Interval (RPI)	2 ms		
Redundancy mode			
— DLR (Device Level Ring)	No		
Address area			
- Address space per module, max.	300 byte		
— LargeForwardOpen (Class3)	No		
Modbus TCP			
Services			
— read coils (code=1)	Yes		
— read discrete inputs (code=2)	Yes		
— Read Holding Registers (Code=3)	Yes		
— write single coil (code=5)	Yes		
- write multiple coils (code=15)	Yes		
— Write Multiple Registers (Code=16)	Yes		
— Parameter change by master	No		
— Modbus TCP Security Protocol	No		
Address space per station			
— Address space per station, max.	300 byte		
— Access-consistent address space	2 byte		
Updating time			
— I/O request interval	2 ms		
Connections			
<ul> <li>— Number of connections per slave</li> </ul>	12		

Open IE communication				
• TCP/IP	Yes; (only EtherNet/IP or Modbus TCP)			
• SNMP	Yes			
• LLDP	Yes			
• ARP	Yes			
Interrupts/diagnostics/status information				
Alarms				
Diagnostic alarm	Yes; Parameterizable			
Maintenance interrupt	Yes; Parameterizable			
Diagnoses				
<ul> <li>Diagnostic information readable</li> </ul>	Yes			
<ul> <li>Monitoring the supply voltage</li> </ul>	Yes			
— parameterizable	Yes			
• Wire-break	Yes			
<ul> <li>Short-circuit encoder supply</li> </ul>	Yes; Per channel			
Diagnostics indication LED				
• RUN LED	Yes; green LED			
• ERROR LED	Yes; red LED			
MAINT LED	Yes; Yellow LED			
Monitoring of the supply voltage (PWR-LED)	Yes; green LED			
NS LED				
• MS LED	Yes; green/red LED Yes; green/red LED			
IO LED	-			
	Yes; red-green-yellow LED			
Channel status display	Yes; green LED			
for channel diagnostics	Yes; red LED			
For load voltage monitoring	Yes; green LED			
Connection display LINK TX/RX	Yes; green LED, only link			
Potential separation				
between the load voltages	Yes			
between Ethernet and electronics	Yes			
Potential separation channels				
between the channels	No			
Isolation				
tested with				
<ul> <li>24 V DC circuits</li> </ul>	707 V DC (type test)			
<ul> <li>Test voltage for interface, rms value [Vrms]</li> </ul>	1 500 V; According to IEEE 802.3			
Degree and class of protection				
IP degree of protection	IP65/67/69K			
Standards, approvals, certificates				
Suitable for safety-related tripping of standard modules	Yes; From FS01			
Highest safety class achievable for safety-related tripping of stand				
Performance level according to ISO 13849-1	PL d			
Category according to ISO 13849-1	Cat. 3			
SIL acc. to IEC 62061	SIL 2			
remark on safety-oriented shutdown	https://support.industry.siemens.com/cs/de/de/view/39198632			
	nups.r/support.industry.sientens.com/cs/de/de/view/38/198032			
Ambient conditions				
Ambient temperature during operation				
• min.	-40 °C			
• max.	60 °C			
Altitude during operation relating to sea level				
Ambient air temperature-barometric pressure-altitude	Up to max. 5 000 m, at installation height > 2 000 m additional restrictions, see manual for details			
connection method				
Design of electrical connection	4/5-pin M12 circular connectors			
Design of electrical connection for the inputs and outputs	M12, 5-pin, A-coded			
Design of electrical connection for supply voltage	M12, 4-pin, L-coded			
Dimensions				
Width	45 mm			
Height	200 mm			
Depth	48 mm			
· r · · ·				

AA/	<u> - I</u>	~	h	
1.1.1	еı	Ы	ш	5

Weight, approx.

last modified:

780 g

8/16/2023 🖸