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

Canada minorination Value With Uncloined status Firmware version V5.1 x With Uncloined status Verder identification (VerdorD) Device ib according to ODVA (VendorD) Product function * IAM data * Isochronous mode • No StEP 7 TA Portal configurable/integrated from version StEP 7 V17 or higher with HSP 0378 Counter • DI • Counter • DQ No No MSI • Counter • No • MSO • DQ • No Load volage 1L*	Concerl information				
Firmware version V5.1 x • FV update possible Yes Vendro identification (vendrit) 002AH Device identifier (DeviceID) 0306H Manufacturer ID according to ODVA (vendorID) 04E3H Device identifier (DeviceID) 04E3H Product function Yes • IAM data Yes; IAM0 to IAM3, IAM5 • Isochronous mode No • Prioritized startup Yes • STEP 7 TA Portal configurable/integrated from version STEP 7 V17 or higher with HSP 0378 • PROFINET from GSD version/GSD revision GSDML V2.3.x • Mult Fieldbus Configurable/integrated from version GSDML V2.3.x • DI Yes • DQ No • DI Yes • DQ No • DQ No • MSI Yes • DQ No • MSI Yes • DQ No • DQ No • DQ No • DQ No • MSI Yes • Rota value (DC) 24 V • permissible range, upper limit (DC) 20.4 V • permissible range, upper limit (DC) 20.4 V • permissible range, upper limit (DC) 20.4 V • perm	General information	5004			
• FW update possibleYesVendor identification (VendorID)022AIDevice identifier (DeviceID)04E3HDevice identifier (DeviceI to DDVA (VendorID)04E3HDevice identifier (DDVA (Product code)04E3HProduct functionYes: (8M0 to 18M3, 18M5Product functionNoProduct functionYes: (8M0 to 18M3, 18M5• Isload dataYes: (8M0 to 18M3, 18M5• Isload ronous modeNo• Isload ronous modeStEP 7 V17 or higher with HSP 0378• ProFINET from GSD version(SD revisionGSDML V2.3.x• Mult Fieldbus Configuration Tool (MFCT)for V1.3 SP1• DIfor V1.3 SP1• CounterNo• DQNo• NSOYes• Mult Fieldbus Configuration Tool (MFCT)No• NSOYes• NSOYes• NSOYes• NSOYes• NSOYes• permissible range, lower limit (DC)24 V• permissible range, upper limit (DC)24 V• permissible range, upper limit (DC)24 V• Rated value (DC)Yes, Against destruction; encoder power supply outputs applied with reverse polarity• Load voltage 21+?ex against destruction; encoder power supply outputs applied with reverse polarity• Rated value (DC)24 V• permissible range, upper limit (DC)24 V• per					
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Manufacturer ID according to ODVA (VendorID) 04E3H Device ID according to ODVA (Product code) 0FA0H Product function 0FA0H Product function 0FA0H Product function Ves: I&MO to I&M3, I&M5 • I&M data Yes: I&MO to I&M3, I&M5 • Isochronous mode No • Profitized startup Yes Engineering with STEP 7 TIA Portal configurable/integrated from version • PROFINET from GSD version/GSD revision GSDML V2.3.x • Multi Fieldbus Configuration Tool (MFCT) from V1.3 SP1 Operating mode - • DI Yes • Counter No • DQ No • DQ Ves • MSO Yes Supply voltage - power supply according to NEC Class 2 required No Load voltage 1L+ - • Rated value (DC) 24 V • permissible range, lower limit (DC) 28.8 V • permissible range, lower limit (DC) 28.8 V • permissible range, upper limit (DC) 28.8 V					
Device ID according to ODVA (Product code) 0FA9H Product function File • I&M data Yes; I&M0 to I&M3, I&M5 • Isochronous mode No • Prioritized startup Yes • Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 TIA Portal configurable/integrated from version • PROFINET from GSD version/GSD revision GSDML V2.3.x GSDML V2.3.x • Multi Fieldbus Configuration Tool (MFCT) Yes Version • DI Yes Version STEP 7 TIA Portal configuration Tool (MFCT) • Data Yes Version Version • Operating mode Version No Version • Data Yes No Version • Data Yes No Version • MSI Yes Version Version • MSI Yes Version Version • Particitage 11+ Frated value (DC) 24 V Version Version • Particitage 11+ Version Yes, Against destruction; encoder power supply outputs applied with reversed polarity protect	Device identifier (DeviceID)	0306H			
Product function I&M data Isochronous mode No Prioritized startup STEP 7 TIA Portal configurable/integrated from version GSDML V2.3.x Multi V2.3.x Multi V2.3.x No Step 7 U2.3.x No Step 7 U2.3.x Yes No Step 0.0	Manufacturer ID according to ODVA (VendorID)	04E3H			
• I&M dataYes; I&M0 to I&M3, I&M5• Isochronous modeNo• Prioritized startupYesEngineering withSTEP 7 TIA Portal configurable/integrated from versionSTEP 7 V17 or higher with HSP 0378• STEP 7 TIA Portal configurable/integrated from versionGSDML V2.3.x• MURI Fieldbus Configuration Tool (MFCT)Form V1.3 SP1Operating modeTom V1.3 SP1• DIYes• CounterNo• DQNo• MSOYes• MSOYes• Step y voltageYes• Pated value (DC)24 V• permissible range, lower limit (DC)24.V• permissible range, lower limit (DC)28.8 V• Reverse polarity protection24.V• Reted value (DC)24.V• permissible range, lower limit (DC)28.8 V• Reverse polarity protection24.V• permissible range, lower limit (DC)24.V• permissible range, lower limit (DC) <td>Device ID according to ODVA (Product code)</td> <td>0FA9H</td>	Device ID according to ODVA (Product code)	0FA9H			
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• Reverse polarity protectionYes; Against destruction; encoder power supply outputs applied with reversed polarityLoad voltage 2L+• Rated value (DC)24 V• permissible range, lower limit (DC)20.4 V• permissible range, upper limit (DC)28.8 V• Reverse polarity protectionYes; against destructionInput currentCurrent consumption (rated value)70 mA; without loadfrom load voltage 1L+ (unswitched voltage)12 A; Maximum valuefrom load voltage 2L+, max.12 A; Maximum value	 permissible range, lower limit (DC) 	20.4 V			
Load voltage 2L+ • Rated value (DC) 24 V • permissible range, lower limit (DC) 20.4 V • permissible range, upper limit (DC) 28.8 V • Reverse polarity protection 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	 permissible range, upper limit (DC) 	28.8 V			
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	Rated value (DC)	24 V			
• Reverse polarity protection Yes; against destruction Input current 70 mA; without load 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	 permissible range, lower limit (DC) 	20.4 V			
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from load voltage 1L+ (unswitched voltage) 12 A; Maximum value from load voltage 2L+, max. 12 A; Maximum value	Input current				
from load voltage 2L+, max. 12 A; Maximum value	Current consumption (rated value)	70 mA; without load			
	from load voltage 1L+ (unswitched voltage)	12 A; Maximum value			
Encoder supply	from load voltage 2L+, max.	12 A; Maximum value			
	Encoder supply				

Number of outputs	8			
24 V encoder supply	0			
Short-circuit protection	Ves: per channel, electronic			
Output current, max.	Yes; per channel, electronic 0.5 A; Per channel			
Power loss				
	5.5 W			
Power loss, typ.	5.5 W			
Address area				
Address space per module				
Inputs	264 byte; + 8 bytes for QI information			
Outputs	256 byte			
Hardware configuration				
Submodules				
 Number of configurable submodules, max. 	9			
Digital inputs				
Number of digital inputs	4			
Source/sink input	P-reading			
Input characteristic curve in accordance with IEC 61131, type 3	Yes			
Number of simultaneously controllable inputs				
all mounting positions				
— up to 60 °C, max.	4			
Input voltage				
Rated value (DC)	24 V			
• for signal "0"	-3 to +5V			
• for signal "1"	+11 to +30V			
Input current				
• for signal "1", typ.	2.5 mA			
Input delay (for rated value of input voltage)	2.5 IIIA			
for standard inputs	huminally 0 ma			
— at "0" to "1", max.	typically 3 ms			
— at "1" to "0", max.	typically 3 ms			
Cable length	20 m			
• unshielded, max.	30 m			
• unshielded, max. IO-Link				
unshielded, max. IO-Link Number of ports	8			
unshielded, max. IO-Link Number of ports of which simultaneously controllable	8 8			
unshielded, max. IO-Link Number of ports of which simultaneously controllable IO-Link protocol 1.0	8 8 Yes			
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			
unshielded, max. IO-Link Number of ports of which simultaneously controllable IO-Link protocol 1.0	8 8 Yes Yes 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3)			
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 4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3) 2 ms			
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)			
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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			
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			
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	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			
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 2 kbyte; for each port			
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			
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			
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			
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			
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 olo-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 Yes Yes			
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 oll DL DQ	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			
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 IO-Link DI DQ Connection of IO-Link devices	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			
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 DI DQ Connection of IO-Link devices Port type A	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			
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 DI DQ Connection of IO-Link devices Port type A Port type B	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; additional device supply: max. 2 A per port, max. 6 A per module			
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. Operating modes IO-Link DI DQ Connection of IO-Link devices Port type A Port type B via three-wire connection	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			
• 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 • DI • DQ Connection of IO-Link devices • Port type A • Via three-wire connection Interfaces	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 Yes; via 3-core cable Yes; additional device supply: max. 2 A per port, max. 6 A per module Yes			
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 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			
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 IO-Link DI DQ Connection of IO-Link devices Port type A Port type B via three-wire connection Interfaces Number of PROFINET interfaces 1. Interface	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 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 Yes			
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 Yes Yes Yes; max. 100 mA Yes; via 3-core cable Yes; via 3-core cable Yes; additional device supply: max. 2 A per port, max. 6 A per module Yes			

M12 port	Yes; 2x M12, 4-pin, D-coded		
Number of ports	2		
integrated switch	Z Yes		
Protocols			
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		
 PROFINET system redundancy (R1) 	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		
 Number of scanners with shared device, max. 	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		
	2 110		
Connections — Number of connections per slave	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				
Diagnostic information readable	Yes			
Monitoring the supply voltage	Yes			
— parameterizable	Yes			
• Wire-break	Yes			
Short-circuit encoder supply	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	Yes; green/red LED			
• MS 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			
between Ethernet and electronics Potential separation channels	Yes			
	Yes No			
Potential separation channels				
Potential separation channels between the channels 				
Potential separation channels between the channels Isolation				
Potential separation channels between the channels Isolation tested with 	No			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms]	No 707 V DC (type test)			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection	No 707 V DC (type test) 1 500 V; According to IEEE 802.3			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection	No 707 V DC (type test)			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Standards, approvals, certificates	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard. • Performance level according to ISO 13849-1	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules PL d			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard • Performance level according to ISO 13849-1 • Category according to ISO 13849-1	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules PL d Cat. 3			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules PL d Cat. 3 SIL 2			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard • Performance level according to ISO 13849-1 • SIL acc. to IEC 62061 • remark on safety-oriented shutdown	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules PL d Cat. 3			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules PL d Cat. 3 SIL 2			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061 • remark on safety-oriented shutdown	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules PL d Cat. 3 SIL 2			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061 • remark on safety-oriented shutdown Ambient conditions	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules PL d Cat. 3 SIL 2			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061 • remark on safety-oriented shutdown Ambient conditions Ambient temperature during operation	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules PL d Cat. 3 SIL 2 https://support.industry.siemens.com/cs/de/de/view/39198632			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061 • remark on safety-oriented shutdown Ambient conditions Ambient temperature during operation • min.	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules PL d Cat. 3 SIL 2 https://support.industry.siemens.com/cs/de/de/view/39198632 -40 °C			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061 • remark on safety-oriented shutdown Ambient conditions Ambient temperature during operation • min. • max.	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules PL d Cat. 3 SIL 2 https://support.industry.siemens.com/cs/de/de/view/39198632 -40 °C			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061 • remark on safety-oriented shutdown Ambient conditions Ambient temperature during operation • min. • max. Altitude during operation relating to sea level	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules PL d Cat. 3 SIL 2 https://support.industry.siemens.com/cs/de/de/view/39198632 -40 °C 60 °C Up to max. 5 000 m, at installation height > 2 000 m additional restrictions, see			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061 • remark on safety-oriented shutdown Ambient conditions Ambient temperature during operation • min. • max. Altitude during operation relating to sea level • Ambient air temperature-barometric pressure-altitude	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules PL d Cat. 3 SIL 2 https://support.industry.siemens.com/cs/de/de/view/39198632 -40 °C 60 °C Up to max. 5 000 m, at installation height > 2 000 m additional restrictions, see manual for details			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061 • remark on safety-oriented shutdown Ambient conditions Ambient temperature during operation • min. • max. Altitude during operation relating to sea level • Ambient air temperature-barometric pressure-altitude connection method Design of electrical connection	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules PL d Cat. 3 SIL 2 https://support.industry.siemens.com/cs/de/de/view/39198632 -40 °C 60 °C Up to max. 5 000 m, at installation height > 2 000 m additional restrictions, see manual for details 4/5-pin M12 circular connectors			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061 • remark on safety-oriented shutdown Ambient conditions Ambient temperature during operation • min. • max. Altitude during operation relating to sea level • Ambient air temperature-barometric pressure-altitude connection method Design of electrical connection Design of electrical connection for the inputs and outputs	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules PL d Cat. 3 SIL 2 https://support.industry.siemens.com/cs/de/de/view/39198632 -40 °C 60 °C Up to max. 5 000 m, at installation height > 2 000 m additional restrictions, see manual for details 4/5-pin M12 circular connectors M12, 5-pin, A-coded			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061 • remark on safety-oriented shutdown Ambient conditions Ambient temperature during operation • min. • max. Altitude during operation relating to sea level • Ambient air temperature-barometric pressure-altitude connection method Design of electrical connection Design of electrical connection for the inputs and outputs Design of electrical connection for supply voltage	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules PL d Cat. 3 SIL 2 https://support.industry.siemens.com/cs/de/de/view/39198632 -40 °C 60 °C Up to max. 5 000 m, at installation height > 2 000 m additional restrictions, see manual for details 4/5-pin M12 circular connectors			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061 • remark on safety-oriented shutdown Ambient conditions Ambient temperature during operation • min. • max. Altitude during operation relating to sea level • Ambient air temperature-barometric pressure-altitude connection method Design of electrical connection for the inputs and outputs Design of electrical connection for supply voltage Dimensions	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules PL d Cat. 3 SIL 2 https://support.industry.siemens.com/cs/de/de/view/39198632 -40 °C 60 °C Up to max. 5 000 m, at installation height > 2 000 m additional restrictions, see manual for details 4/5-pin M12 circular connectors M12, 5-pin, A-coded M12, 4-pin, L-coded			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061 • remark on safety-oriented shutdown Ambient conditions Ambient temperature during operation • min. • max. Altitude during operation relating to sea level • Ambient air temperature-barometric pressure-altitude connection method Design of electrical connection for the inputs and outputs Design of electrical connection for supply voltage Dimensions Width	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules PL d Cat. 3 SIL 2 https://support.industry.siemens.com/cs/de/de/view/39198632 -40 °C 60 °C Up to max. 5 000 m, at installation height > 2 000 m additional restrictions, see manual for details 4/5-pin M12 circular connectors M12, 5-pin, A-coded M12, 4-pin, L-coded 45 mm			
Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061 • remark on safety-oriented shutdown Ambient conditions Ambient temperature during operation • min. • max. Altitude during operation relating to sea level • Ambient air temperature-barometric pressure-altitude connection method Design of electrical connection Design of electrical connection for the inputs and outputs Design of electrical connection for supply voltage Dimensions	No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67/69K Yes; From FS01 ard modules PL d Cat. 3 SIL 2 https://support.industry.siemens.com/cs/de/de/view/39198632 -40 °C 60 °C Up to max. 5 000 m, at installation height > 2 000 m additional restrictions, see manual for details 4/5-pin M12 circular connectors M12, 5-pin, A-coded M12, 4-pin, L-coded			

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Weight, approx.

last modified:

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