SIEMENS

Data sheet

6ES7148-6JA00-0AB0



SIMATIC DP, ET 200ECO PN, IO-Link master, 4IO-L+8DI+4DO 24 V DC/1.3A 8xM12, Duplicate assignment, Degree of protection IP67

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General information	
Vendor identification (VendorID)	002AH
Device identifier (DeviceID)	0306H
Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes
power supply according to NEC Class 2 required	Yes
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
Input current	
Current consumption, typ.	200 mA
from supply voltage 1L+, max.	4 A
from load voltage 2L+, max.	4 A
Encoder supply	
Number of outputs	6
24 V encoder supply	
Short-circuit protection	Yes
Output current, max.	200 mA; 100 mA per output to X5-X6
Power loss	
Power loss, typ.	8 W
Digital inputs	
Number of digital inputs	8
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Number of simultaneously controllable inputs	
all mounting positions	
— up to 60 °C, max.	8
Input voltage	
Rated value (DC)	24 V
• for signal "0"	-3 to +5V
• for signal "1"	+11 to +30V
Input current	
for signal "0", max. (permissible quiescent current)	1.5 mA
• for signal "1", typ.	7 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— at "0" to "1", max.	typically 3 ms

— at "1" to "0", max.	typically 3 ms
Cable length	y,
unshielded, max.	30 m
Digital outputs	
Number of digital outputs	4
Short-circuit protection	Yes; Electronic
Response threshold, typ.	1.8 A
Limitation of inductive shutdown voltage to	Typ. (L1+, L2+) -47 V
Controlling a digital input	Yes
Switching capacity of the outputs	
on lamp load, max.	5 W
Output current	
for signal "1" rated value	1.3 A; Maximum
for signal "0" residual current, max.	1.5 mA
Parallel switching of two outputs	
for uprating	No
for redundant control of a load	Yes
Switching frequency	
with resistive load, max.	100 Hz
with inductive load, max.	0.5 Hz
• on lamp load, max.	1 Hz
Total current of the outputs (per group)	
all mounting positions	0.04
— up to 60 °C, max.	3.9 A
Cable length	20 m
unshielded, max. IO-Link	30 m
	4
Number of ports	4
of which simultaneously controllable O Link protocol 1.0	4 Vec
IO-Link protocol 1.0	Yes No
IO-Link protocol 1.1 Transmission rate	4.8 kBd (COM1); 38.4 kBd (COM2)
Size of process data, input per port	32 byte
Size of process data, input per port Size of process data, input per module	32 byte
Size of process data, input per module Size of process data, output per port	32 byte
Size of process data, output per port	32 byte
Cable length unshielded, max.	20 m
Operating modes	
• IO-Link	Yes
• DI	Yes
• DQ	Yes
Connection of IO-Link devices	
Port type A	Yes
via three-wire connection	Yes
Interfaces	
Transmission procedure	100BASE-TX
Number of PROFINET interfaces	1
1. Interface	
Interface types	
• M12 port	Yes
• integrated switch	Yes
Interface types	
M12 port	
Autonegotiation	Yes
Autocrossing	Yes
Transmission rate, max.	100 Mbit/s
Protocols	
Supports protocol for PROFINET IO	Yes
PROFINET CBA	No
PROFIsafe	No

EtherNet/IP	No
PROFINET IO Device	
Services	
— IRT with the option "high flexibility"	Yes
Redundancy mode	
Media redundancy	
— MRP	Yes
Open IE communication	
• TCP/IP	No
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
• ping	Yes
• ARP	Yes
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
Diagnostic alarm	Yes
Diagnoses	
Diagnostic information readable	Yes
Monitoring the supply voltage	Yes; green "ON" LED
Wire-break in actuator cable	Yes
Wire-break in signal transmitter cable	Yes
Short-circuit	Yes
Short-circuit encoder supply	Yes
Group error	Yes; Red/yellow "SF/MT" LED
Potential separation	
between the load voltages	Yes
between load voltage and all other switching components	No
between Ethernet and electronics	Yes
Potential separation channels	
between the channels	No
Isolation	
tested with	
• 24 V DC circuits	707 V DC (type test)
• Test voltage for interface, rms value [Vrms]	1 500 V; According to IEEE 802.3
Degree and class of protection	
IP degree of protection	IP65/67
Dimensions	
Width	60 mm
Height	175 mm
Depth	49 mm
Weights	
Weight, approx.	910 g
g, approx.	V. V 3

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