SIEMENS

Show actual product details

Data sheet 6ES7148-6JA00-0AB0

SIMATIC DP, ET 200ECO PN, IO-LINK MASTER, 4IO-L + 8DI + 4DO 24V DC/1.3A 8 X M12, DOUBLE-ASSIGNEMENT, DEGREE OF PROTECTION IP67

Figure similar

General information	
Vendor identification (VendorID)	002AH
Device identifier (DeviceID)	0306H

Supply voltage	
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
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
Short-circuit protection	Yes
Output current	
• Rated value	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	
• 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	
— up to 60 °C, max.	3.9 A
Cable length	
• unshielded, max.	30 m

IO-Link	
Number of ports	4
• of which simultaneously controllable	4
IO-Link protocol 1.0	Yes
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 module	32 byte
Size of process data, output per port	32 byte
Size of process data, output per module	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
Transmission rate, max.	100 Mbit/s
PROFINET IO	
• Autocrossing	Yes
• automatic detection of transmission rate	Yes
• integrated switch	Yes
PROFINET IO Device	
— IRT with the option "high flexibility"	Yes

Protocols	
Supports protocol for PROFINET IO	Yes
PROFINET CBA	No

PROFIsafe	No
Protocols (Ethernet)	
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
• ping	Yes
• ARP	Yes
Interrupts/diagnostics/status information	
Status indicator	Yes; Green LED
Diagnostic functions	Yes
Alarms	
• Diagnostic alarm	Yes
Diagnostic messages	
• 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 digital inputs	
• between the channels	No
Potential separation digital outputs	
• between the channels	No
Isolation	
tested with	
• 24 V DC circuits	707 V DC (type test)
• Interface	1 500 V; According to IEEE 802.3
Degree and class of protection	
IP degree of protection	IP65/67
Connection method	
M12	Yes
Dimensions	
Width	60 mm
Height	175 mm

Depth	49 mm

Weights	
Weight (without packaging)	910 g

last modified: 10/28/2016