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

Figure simila

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	
for standard inputs	huriaalla Oura
— 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
IO-Link protocol 1.1	No
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	
	100BASE-TX
Transmission procedure	
Number of PROFINET interfaces	1
1. Interface	
Interface types	Y.
• 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	1 000 V, 7 1000 dailing to 1222 002.0
IP degree of protection	IP65/67
Dimensions	11 00/01
	00
Width	60 mm
Height	175 mm
Depth	49 mm
Weights	
Weight, approx.	910 g
last modified:	9/27/2021 🗗