

SIEMENS

Product 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-ASSIGNMENT,
DEGREE OF PROTECTION IP67

General information

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

Supply voltage

24 V DC	Yes
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

from load voltage 1L+ (unswitched voltage)	4 A
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from load voltage 2L+, max.	4 A
Encoder supply	
Number of outputs	6
Output current, rated value	200 mA ; 100 mA per output to X5-X6
24 V encoder supply	
Short-circuit protection	Yes
Power losses	
Power loss, typ.	8 W
Digital inputs	
Number/binary inputs	8
Input characteristic curve acc. to 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 +5 V
for signal "1"	11 to 30 V
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	
Cable length unshielded, max.	30 m
Digital outputs	
Number/binary outputs	4
Functionality/short-circuit strength	Yes ; Electronic
Response threshold, typ.	1.8 A
Limitation of inductive shutdown voltage to	Typ. (L1+, L2+) -47 V
Switching capacity of the outputs	

on lamp load, max.	5 W
Controlling a digital input	Yes
Output current	
for signal "1" rated value	1.3 A ; Maximum
for signal "0" residual current, max.	1.5 mA
Parallel switching of 2 outputs	
for increased power	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
Aggregate current of outputs (per group)	
all mounting positions	
up to 60 °C, max.	3.9 A
Cable length	
Cable length unshielded, max.	30 m
IO-Link	
Number of ports	4
of which simultaneously controllable	4
Operating modes	
IO-Link	Yes
DI	Yes
DO	Yes
Connection of IO-Link devices	
via 3-wire connection	Yes
Transmission rate	4.8 kBd (COM1); 38.4 kBd (COM2)
Cable length unshielded, max.	20 m
Interfaces	
Transmission procedure	100BASE-TX
Transmission rate, max.	100 Mbit/s
Supports protocol for PROFINET IO	
Number of PROFINET interfaces	2

Autocrossing	Yes
Automatic detection of transmission speed	Yes
Integrated switch	Yes
PROFINET IO Device	
IRT with the option "high flexibility" supported	Yes
Protocols	
Supports protocol for PROFINET IO	Yes
Protocols (Ethernet)	
SNMP	Yes
DCP	Yes
LLDP	Yes
ping	Yes
arp	Yes
Interrupts/diagnostics/status information	
Status indicator	Yes ; Green LED
Alarms	
Diagnostic alarm	Yes
Diagnostic messages	
Diagnostic functions	Yes
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
Galvanic isolation	
between the load voltages	Yes
between load voltage and all other switching components	No
between Ethernet and electronics	Yes
Galvanic isolation digital inputs	
between the channels	No
Galvanic isolation digital outputs	

between the channels	No
Permissible potential difference	
between different circuits	75 VDC / 60 VAC
Isolation	
tested with	
24 V DC circuits	500 V
Interface	1500 V ; According to IEEE 802.3
Degree and class of protection	
IP65	Yes
IP66	Yes
IP67	Yes
Connection method	
M12	Yes
Dimensions	
Width	60 mm
Height	175 mm
Depth	49 mm
Weight	
Weight	910 g
Status	Jul 17, 2012