SIEMENS

Data sheet

6ES7147-6BG00-0AB0



SIMATIC DP, ET 200ECO PN, 8 DIO 24 V DC/1.3 A; 8xM12, 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.	100 mA
from supply voltage 1L+, max.	4 A
from load voltage 1L+ (unswitched voltage)	4 A
from load voltage 2L+, max.	4 A
Encoder supply	
24 V encoder supply	
Short-circuit protection	Yes; Electronic
Output current, max.	100 mA; per output
Power loss	
Power loss, typ.	6.5 W
Digital inputs	
Number of digital inputs	8
in groups of	4
Input characteristic curve in accordance with IEC 61131,	Yes
type 3 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 "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	8
in groups of	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	F.W.
on lamp load, max. Output current	5 W
for signal "1" rated value	1.3 A; Maximum
• for signal "1" permissible range, max.	1.3 A
• for signal "0" residual current, max.	1.5 mA
Parallel switching of two outputs	1.0 11/1
• 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
Encoder	
Connectable encoders	
• 2-wire sensor	Yes
permissible quiescent current (2-wire sensor),	1.5 mA
max.	
Interfaces	400DAGE TV
Transmission procedure	100BASE-TX
Number of PROFINET interfaces	1
1. Interface	
Interface types	
• M12 port	Yes
• integrated switch	Yes
Interface types	
M12 port	v
Autonegotiation	Yes
Autocrossing	Yes
Transmission rate, max.	100 Mbit/s
Protocols	
Supports protocol for PROFINET IO	Yes
PROFINET CBA	No
PROFINET IO Pavisa	No
PROFINET IO Device	
Services	Yes
— IRT with the option "high flexibility"— Prioritized startup	Yes
Redundancy mode	100
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
	117
Isolation	
Isolation tested with • 24 V DC circuits	707 V DC (type test)
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tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms]	707 V DC (type test)
Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection	707 V DC (type test) 1 500 V; According to IEEE 802.3
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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	707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67
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	707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67
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 connection method / header	707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67 No
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 connection method / header Design of electrical connection	707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67 No 4/5-pin M12 circular connectors 60 mm
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 connection method / header Design of electrical connection Dimensions	707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67 No 4/5-pin M12 circular connectors
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 connection method / header Design of electrical connection Dimensions Width	707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67 No 4/5-pin M12 circular connectors 60 mm
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