

Data sheet

6ES7141-6BG00-0AB0



*** spare part *** SIMATIC DP, ET 200eco PN, 8 DI 24 V DC; 8xM12, degree of protection IP67

Figure similar

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
Input current	
Current consumption, typ.	100 mA
from supply voltage 1L+, max.	4 A
Encoder supply	
Number of outputs	8
24 V encoder supply	
<ul style="list-style-type: none"> Short-circuit protection 	Yes; Electronic
<ul style="list-style-type: none"> Output current, max. 	100 mA; per output
Power loss	
Power loss, typ.	4.5 W
Digital inputs	
Number of digital inputs	8
<ul style="list-style-type: none"> in groups of 	1
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	
<ul style="list-style-type: none"> Rated value (DC) 	24 V
<ul style="list-style-type: none"> for signal "0" 	-3 to +5V
<ul style="list-style-type: none"> for signal "1" 	+11 to +30V
Input current	
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> unshielded, max. 	30 m
Encoder	
Connectable encoders	

<ul style="list-style-type: none"> • 2-wire sensor 	Yes
<ul style="list-style-type: none"> — permissible quiescent current (2-wire sensor), max. 	1.5 mA
Interfaces	
Transmission procedure	100BASE-TX
Number of PROFINET interfaces	1
1. Interface	
Interface types	
<ul style="list-style-type: none"> • M12 port 	Yes
<ul style="list-style-type: none"> • integrated switch 	Yes
PROFINET IO Device	
Services	
<ul style="list-style-type: none"> — IRT with the option "high flexibility" 	Yes
<ul style="list-style-type: none"> — Prioritized startup 	Yes
Interface types	
M12 port	
<ul style="list-style-type: none"> • Autonegotiation 	Yes
<ul style="list-style-type: none"> • Autocrossing 	Yes
<ul style="list-style-type: none"> • Transmission rate, max. 	100 Mbit/s
Protocols	
Supports protocol for PROFINET IO	Yes
PROFINET CBA	No
PROFIsafe	No
Redundancy mode	
Media redundancy	
<ul style="list-style-type: none"> — MRP 	Yes
Open IE communication	
<ul style="list-style-type: none"> • TCP/IP 	No
<ul style="list-style-type: none"> • SNMP 	Yes
<ul style="list-style-type: none"> • DCP 	Yes
<ul style="list-style-type: none"> • LLDP 	Yes
<ul style="list-style-type: none"> • ping 	Yes
<ul style="list-style-type: none"> • ARP 	Yes
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
<ul style="list-style-type: none"> • Diagnostic alarm 	Yes
Diagnoses	
<ul style="list-style-type: none"> • Diagnostic information readable 	Yes
<ul style="list-style-type: none"> • Monitoring the supply voltage 	Yes; green "ON" LED
<ul style="list-style-type: none"> • Wire-break in signal transmitter cable 	Yes
<ul style="list-style-type: none"> • Short-circuit encoder supply 	Yes; Per channel group
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • between the channels 	No
Isolation	
tested with	
<ul style="list-style-type: none"> • 24 V DC circuits 	707 V DC (type test)
<ul style="list-style-type: none"> • 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
Standards, approvals, certificates	
Use in hazardous areas	
<ul style="list-style-type: none"> • Explosion protection category for gas 	ATEX II 3G Ex nA II T4
<ul style="list-style-type: none"> • Explosion protection category for dust 	ATEX II 3D Ex tc IIIC T90°C Dc

Connection method	
Design of electrical connection	4/5-pin M12 circular connectors
Dimensions	
Width	60 mm
Height	175 mm
Depth	49 mm
Weights	
Weight, approx.	910 g
Classifications	

	Version	Classification
eClass	14	27-24-26-04
eClass	12	27-24-26-04
eClass	9.1	27-24-26-04
eClass	9	27-24-26-04
eClass	8	27-24-26-04
eClass	7.1	27-24-26-04
eClass	6	27-24-26-04
ETIM	10	EC001599
ETIM	9	EC001599
ETIM	8	EC001599
ETIM	7	EC001599
IDEA	4	3566
UNSPSC	15	32-15-17-05

Approvals / Certificates	
General Product Approval	Environment



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last modified:

10/23/2025

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