SIEMENS

Data sheet 6ES7141-6BF00-0AB0



*** spare part *** SIMATIC DP, ET 200eco PN, 8 DI 24 V DC; 4xM12, duplicate assignment, degree of protection IP67

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	4
24 V encoder supply	
● Short-circuit protection	Yes; Electronic
● Output current, max.	100 mA; per output
Power loss	
Power loss, typ.	5.5 W
Digital inputs	
Number of digital inputs	8
● in groups of	2
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 "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
Encoder	
Connectable encoders	
● 2-wire sensor	Yes

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— permissible quiescent current (2-wire sensor), max.	1.5 mA
Interfaces	
Transmission procedure	100BASE-TX
Number of PROFINET interfaces	1
1. Interface	
Interface types	
● M12 port	Yes
● integrated switch	Yes
PROFINET IO Device	
Services	
— IRT with the option "high flexibility"	Yes
— Prioritized startup	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
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 signal transmitter cable	Yes
● Short-circuit encoder supply	Yes; Per channel group
● 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	
IP degree of protection	IP65/67
Standards, approvals, certificates	
Use in hazardous areas	
● Explosion protection category for gas	ATEX II 3G Ex nA II T4
● Explosion protection category for dust	ATEX II 3D Ex tc IIIC T90°C Dc
Connection method	

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Design of electrical connection	4/5-pin M12 circular connectors
Dimensions	
Width	30 mm
Height	200 mm
Depth	49 mm
Weights	
Weight, approx.	550 g

Classifications

	Version	Classification
eClass	16	27-24-26-04
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

Manufacturer Declaration | Miscellaneous

General Product Approval

China RoHS

EMV

For use in hazardous locations

For use in hazardous locations

CCC-Ex | Miscellaneous | CCC-Ex

Maritime application

Maritime application

NK / Nippon Kaiji Kyokai | CCS (China Classification Society) | KR (Korean Register of Shipping)

Industrial Communication

PROFINET

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