SIEMENS

Data sheet

6ES7141-6BF00-0AB0



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
 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
Interface types	100
M12 port	
Autonegotiation	Yes
Autoregoliation Autoregoliation	Yes
Transmission rate, max.	100 Mbit/s
Protocols	
	Vec
Supports protocol for PROFINET IO PROFINET CBA	Yes
PROFIsafe PROFINET IO Device	No
Services	
	Yes
 IRT with the option "high flexibility" Prioritized startup 	
- Prioritized startup	Yes
Redundancy mode	
Media redundancy	Vee
- MRP	Yes
Open IE communication	No
	No
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
• ping	Yes
• ARP	Yes
Intervente/diagnostics/status information	
Interrupts/diagnostics/status information	Ver
Diagnostics function	Yes
Diagnostics function Alarms	
Diagnostics function Alarms • Diagnostic alarm	Yes
Diagnostics function Alarms • Diagnostic alarm Diagnoses	Yes
Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable	Yes
Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage	Yes Yes; green "ON" LED
Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in signal transmitter cable	Yes Yes Yes; green "ON" LED Yes
Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in signal transmitter cable • Short-circuit encoder supply	Yes Yes Yes; green "ON" LED Yes Yes; Per channel group
Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in signal transmitter cable • Short-circuit encoder supply • Group error	Yes Yes Yes; green "ON" LED Yes
Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in signal transmitter cable • Short-circuit encoder supply • Group error Potential separation	Yes Yes; green "ON" LED Yes Yes; Per channel group Yes; Red/yellow "SF/MT" LED
Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in signal transmitter cable • Short-circuit encoder supply • Group error Potential separation between the load voltages	Yes Yes Yes; green "ON" LED Yes Yes; Per channel group Yes; Red/yellow "SF/MT" LED
Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in signal transmitter cable • Short-circuit encoder supply • Group error Potential separation between the load voltages between load voltage and all other switching components	Yes Yes; green "ON" LED Yes; Per channel group Yes; Red/yellow "SF/MT" LED Yes No
Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in signal transmitter cable • Short-circuit encoder supply • Group error Potential separation between the load voltages between Ethernet and electronics	Yes Yes Yes; green "ON" LED Yes Yes; Per channel group Yes; Red/yellow "SF/MT" LED
Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in signal transmitter cable • Short-circuit encoder supply • Group error Potential separation between the load voltages between Ethernet and electronics Potential separation channels	Yes Yes; green "ON" LED Yes; Per channel group Yes; Red/yellow "SF/MT" LED Yes No Yes
Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in signal transmitter cable • Short-circuit encoder supply • Group error Potential separation between the load voltages between Ethernet and electronics Potential separation channels • between the channels	Yes Yes; green "ON" LED Yes; Per channel group Yes; Red/yellow "SF/MT" LED Yes No
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Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in signal transmitter cable • Short-circuit encoder supply • Group error Potential separation between the load voltages between Ethernet and electronics Potential separation channels • between the channels Isolation tested with • 24 V DC circuits	Yes Yes; green "ON" LED Yes; Per channel group Yes; Red/yellow "SF/MT" LED Yes Yes No Yes No Yes 707 V DC (type test)
Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in signal transmitter cable • Short-circuit encoder supply • Group error Potential separation between the load voltages between tethernet and electronics Potential separation channels • between the channels • between the channels • between the channels • between the channels	Yes Yes; green "ON" LED Yes; Per channel group Yes; Red/yellow "SF/MT" LED Yes No Yes No Yes
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Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in signal transmitter cable • Short-circuit encoder supply • Group error Potential separation between the load voltages between the load voltage and all other switching components between Ethernet and electronics Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection	Yes Yes; green "ON" LED Yes; Per channel group Yes; Red/yellow "SF/MT" LED Yes Yes No Yes No Yes 707 V DC (type test)
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Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in signal transmitter cable • Short-circuit encoder supply • Group error Potential separation between the load voltages between load voltage and all other switching components between Ethernet and electronics Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Design of electrical connection Dimensions Width	Yes Yes; green "ON" LED Yes; Per channel group Yes; Red/yellow "SF/MT" LED Yes No Yes No Yes No 707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67 JP65/67 J07 mm
Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in signal transmitter cable • Short-circuit encoder supply • Group error Potential separation between the load voltages between load voltage and all other switching components between Ethernet and electronics Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Design of electrical connection Dimensions Width Height	Yes Yes; green "ON" LED Yes; Per channel group Yes; Red/yellow "SF/MT" LED Yes No Yes No Yes No Yes 4/5-pin M12 circular connectors 30 mm 200 mm
Diagnostics function Alarms Diagnostic alarm Diagnoses Diagnostic information readable Monitoring the supply voltage Wire-break in signal transmitter cable Short-circuit encoder supply Group error Potential separation between the load voltages between the load voltages between load voltage and all other switching components between Ethernet and electronics Potential separation channels • between the channels Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms] Degree and class of protection IP degree of protection Design of electrical connection Dimensions Width Height Depth	Yes Yes; green "ON" LED Yes; Per channel group Yes; Red/yellow "SF/MT" LED Yes No Yes No Yes No Yes IP65/67 IP65/67 IP65/67 J 30 mm 200 mm

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