## **SIEMENS**

## **Data sheet**

## 6ES7141-6BG00-0AB0



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	
Short-circuit protection	Yes; Electronic
<ul> <li>Output current, max.</li> </ul>	100 mA; per output
Power loss	
Power loss, typ.	4.5 W
Digital inputs	
Number of digital inputs	8
• 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	
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

<ul> <li>permissible quiescent current (2-wire sensor), max.</li> </ul>	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	
M12 port	
Autonegotiation	Yes
Autoregenation     Autocrossing	Yes
Transmission rate, max.	100 Mbit/s
Protocols	TOO INIDIOS
Supports protocol for PROFINET IO	Yes
PROFINET CBA	No
PROFIsafe	No
PROFINET IO Device	NO
Services	
— IRT with the option "high flexibility"	Yes
Prioritized startup	Yes
Redundancy mode	
Media redundancy	
— MRP	Yes
Open IE communication	103
• TCP/IP	No
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
• ping	Yes
• ARP	Yes
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
	Yes
Diagnostic alarm	Yes
Diagnostic alarm     Diagnoses	
<ul><li>Diagnostic alarm</li><li>Diagnoses</li><li>Diagnostic information readable</li></ul>	Yes
<ul> <li>Diagnostic alarm</li> <li>Diagnoses</li> <li>Diagnostic information readable</li> <li>Monitoring the supply voltage</li> </ul>	Yes Yes; green "ON" LED
<ul> <li>Diagnostic alarm</li> <li>Diagnoses</li> <li>Diagnostic information readable</li> <li>Monitoring the supply voltage</li> <li>Wire-break in signal transmitter cable</li> </ul>	Yes Yes; green "ON" LED Yes
<ul> <li>Diagnostic alarm</li> <li>Diagnoses</li> <li>Diagnostic information readable</li> <li>Monitoring the supply voltage</li> <li>Wire-break in signal transmitter cable</li> <li>Short-circuit encoder supply</li> </ul>	Yes Yes; green "ON" LED Yes Yes; Per channel group
<ul> <li>Diagnostic alarm</li> <li>Diagnoses</li> <li>Diagnostic information readable</li> <li>Monitoring the supply voltage</li> <li>Wire-break in signal transmitter cable</li> <li>Short-circuit encoder supply</li> <li>Group error</li> </ul>	Yes Yes; green "ON" LED Yes
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
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; green "ON" LED Yes Yes; Per channel group Yes; Red/yellow "SF/MT" LED
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 Yes; Per channel group Yes; Red/yellow "SF/MT" LED  Yes
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	Yes Yes; green "ON" LED Yes Yes; Per channel group Yes; Red/yellow "SF/MT" LED
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	Yes Yes; green "ON" LED Yes Yes; Per channel group Yes; Red/yellow "SF/MT" LED  Yes No Yes
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	Yes Yes; green "ON" LED Yes Yes; Per channel group Yes; Red/yellow "SF/MT" LED  Yes
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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  between the channels  between the channels  solution  tested with 24 V DC circuits	Yes Yes; green "ON" LED Yes Yes; Per channel group Yes; Red/yellow "SF/MT" LED  Yes No Yes No Yes
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]	Yes Yes; green "ON" LED Yes Yes; Per channel group Yes; Red/yellow "SF/MT" LED  Yes No Yes No
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	Yes; green "ON" LED Yes Yes; Per channel group Yes; Red/yellow "SF/MT" LED  Yes No Yes No Yes  No Your Control of the period of
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  between the channels  Test voltage for interface, rms value [Vrms]  Degree and class of protection  IP degree of protection	Yes Yes; green "ON" LED Yes Yes; Per channel group Yes; Red/yellow "SF/MT" LED  Yes No Yes No Yes
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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  Standards, approvals, certificates  Use in hazardous areas	Yes Yes; green "ON" LED Yes Yes; Per channel group Yes; Red/yellow "SF/MT" LED  Yes No Yes No Yes  No In the second of the secon
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  Standards, approvals, certificates  Use in hazardous areas  Explosion protection category for gas	Yes; green "ON" LED Yes Yes; Per channel group Yes; Red/yellow "SF/MT" LED  Yes No Yes No Yes  No In the second of
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  Standards, approvals, certificates  Use in hazardous areas  Explosion protection category for gas  Explosion protection category for dust	Yes Yes; green "ON" LED Yes Yes; Per channel group Yes; Red/yellow "SF/MT" LED  Yes No Yes No Yes  No In the second of the secon
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  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  Standards, approvals, certificates  Use in hazardous areas  Explosion protection category for gas  Explosion protection category for dust  connection method	Yes; green "ON" LED Yes Yes; Per channel group Yes; Red/yellow "SF/MT" LED  Yes No Yes No Yes  No To7 V DC (type test) 1 500 V; According to IEEE 802.3  IP65/67  ATEX II 3G Ex nA II T4 ATEX II 3D Ex tc IIIC T90°C Dc
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  Standards, approvals, certificates  Use in hazardous areas  Explosion protection category for gas  Explosion protection category for dust	Yes; green "ON" LED Yes Yes; Per channel group Yes; Red/yellow "SF/MT" LED  Yes No Yes No Yes  No In the second of

Width	60 mm
Height	175 mm
Depth	49 mm
Weights	
Weight, approx.	910 g

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