SIEMENS

Data sheet

6ES7143-4BF00-0AA0



SIMATIC DP, Electronic modules for ET 200 PRO 4 DIO/4 DO 24 V DC, 0.5A Module diagnostics; incl. bus module, Connection module IO 6ES7194-4CB50-0AA0 order separately

Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes; Against destruction; encoder power supply outputs applied with reversed polarity
Load voltage 2L+	
Rated value (DC)	24 V
 Short-circuit protection 	Yes
 Reverse polarity protection 	Yes; against destruction; load increasing
Input current	
from supply voltage 1L+, max.	20 mA
from load voltage 2L+ (without load), max.	20 mA
from backplane bus 3.3 V DC, max.	30 mA
Encoder supply	
Short-circuit protection	Yes; per module, electronic
Output current	
• up to 55 °C, max.	1 A
Power loss	
Power loss, typ.	3 W
Digital inputs	
Number of digital inputs	4; 4 DIOs can be parameterized
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Number of simultaneously controllable inputs	
all mounting positions	
— up to 55 °C, max.	4
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", min.	1.2 ms
— at "0" to "1", max.	4.8 ms
— at "1" to "0", min.	1.2 ms
— at "1" to "0", max.	4.8 ms
Cable length	
• unshielded, max.	30 m
Digital outputs	
Number of digital outputs	8; 4 DO fixed, 4 DIO parameterizable

 in groups of 	4; 2 load groups for 4 outputs each
Short-circuit protection	Yes; per channel, electronic
Response threshold, typ.	0.7 A
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Limitation of inductive shutdown voltage to	Typ. (L1+, L2+) -47 V
Controlling a digital input	Yes
Switching capacity of the outputs	E M
• on lamp load, max.	5 W
Load resistance range	10.0
lower limit	48 Ω
• upper limit	4 kΩ
Output voltage	
• for signal "1", min.	2L+ (-0,8 V)
Output current	
• for signal "1" rated value	0.5 A
 for signal "0" residual current, max. 	0.5 mA
Parallel switching of two outputs	
• 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 55 °C, max.	2 A
Cable length	
• unshielded, max.	30 m
Encoder	
Connectable encoders	
• 2-wire sensor	Yes
 permissible quiescent current (2-wire sensor), max. 	1.5 mA
 permissible quiescent current (2-wire sensor), max. Interrupts/diagnostics/status information 	1.5 mA
	1.5 mA Yes
Interrupts/diagnostics/status information	
Interrupts/diagnostics/status information Diagnostics function	
Interrupts/diagnostics/status information Diagnostics function Alarms	Yes
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm	Yes
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses	Yes
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable	Yes Yes
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Short-circuit	Yes Yes
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Short-circuit Diagnostics indication LED	Yes Yes Yes Yes; Short-circuit of outputs to ground; module by module
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Short-circuit Diagnostics indication LED • Group error SF (red)	Yes Yes Yes; Short-circuit of outputs to ground; module by module Yes
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Short-circuit Diagnostics indication LED • Group error SF (red) • Status indicator digital input (green)	Yes Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Short-circuit Diagnostics indication LED • Group error SF (red) • Status indicator digital input (green) • Status indicator digital output (green)	Yes Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes
Interrupts/diagnostics/status information Diagnostics function Alarms	Yes Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Short-circuit Diagnostics indication LED • Group error SF (red) • Status indicator digital input (green) • Status indicator digital output (green) Potential separation	Yes Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Short-circuit Diagnostics indication LED • Group error SF (red) • Status indicator digital input (green) • Status indicator digital output (green) • Status indicator digital inputs • between backplane bus and all other circuit components Potential separation digital inputs • between the channels	Yes Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes
Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Short-circuit Diagnostics indication LED • Group error SF (red) • Status indicator digital input (green) • Status indicator digital output (green) • Status indicator digital inputs • between the channels • between the channels and backplane bus	Yes Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes Yes Yes
Interrupts/diagnostics/status information Diagnostics function Alarms	Yes Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes Yes
Interrupts/diagnostics/status information Diagnostics function Alarms Diagnostic alarm Diagnoses Diagnostic information readable Short-circuit Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green) Potential separation between backplane bus and all other circuit components Potential separation digital inputs between the channels between the channels and backplane bus Potential separation digital outputs between the channels and backplane bus	Yes Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes Yes Yes
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Interrupts/diagnostics/status information Diagnostics function Alarms	Yes Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes Yes
Interrupts/diagnostics/status information Diagnostics function Alarms Diagnostic alarm Diagnoses Diagnostic information readable Short-circuit Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green) Potential separation between backplane bus and all other circuit components Potential separation digital inputs between the channels between the channels between the channels between the channels and backplane bus Potential separation digital outputs between the channels and backplane bus Isolation Isolation tested with Standards, approvals, certificates	Yes Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes Yes 707 V DC (type test)
Interrupts/diagnostics/status information Diagnostics function Alarms Diagnostic alarm Diagnoses Diagnostic information readable Short-circuit Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green) Potential separation between backplane bus and all other circuit components Potential separation digital inputs between the channels between the channels between the channels and backplane bus Potential separation digital outputs between the channels and backplane bus Isolation Isolation tested with Standards, approvals, certificates Suitable for safety-related tripping of standard modules	Yes Yes Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes Yes 707 V DC (type test)
Interrupts/diagnostics/status information Diagnostics function Alarms Diagnostic alarm Diagnoses Diagnostic information readable Short-circuit Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green) Status indicator digital output (green) Potential separation between backplane bus and all other circuit components Potential separation digital inputs between the channels between the channels between the channels and backplane bus Potential separation digital outputs between the channels and backplane bus Status indicator digital outputs between the channels and backplane bus Status indicator digital outputs between the channels and backplane bus Status indicator digital outputs between the channels and backplane bus Isolation Isolation tested with Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard	Yes Yes Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes Yes Yes 707 V DC (type test) Yes ard modules
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Interrupts/diagnostics/status information Diagnostics function Alarms Diagnostic alarm Diagnoses Diagnostic information readable Short-circuit Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green) Potential separation between backplane bus and all other circuit components Potential separation digital inputs between the channels between the channels between the channels and backplane bus Potential separation digital outputs between the channels and backplane bus Isolation Isolation tested with Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard Performance level according to ISO 13849-1 Category according to ISO 13849-1	Yes Yes Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes No Yes No Yes Yes Yes Yes PL d Cat. 3
Interrupts/diagnostics/status information Diagnostics function Alarms Diagnostic alarm Diagnoses Diagnostic information readable Short-circuit Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green) Status indicator digital output (green) Potential separation between backplane bus and all other circuit components Potential separation digital inputs between the channels between the channels between the channels and backplane bus Potential separation digital outputs between the channels and backplane bus Status indicator digital outputs between the channels and backplane bus Potential separation digital outputs between the channels and backplane bus Potential separation digital outputs between the channels and backplane bus Isolation Isolation Isolation tested with Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard Performance level according to ISO 13849-1 Category according to ISO 13849-1 SIL acc. to IEC 62061	Yes Yes Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes Yes No Yes Yes Yes Yes PL d
Interrupts/diagnostics/status information Diagnostics function Alarms Diagnostic alarm Diagnoses Diagnostic information readable Short-circuit Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green) Potential separation between backplane bus and all other circuit components Potential separation digital inputs between the channels between the channels between the channels and backplane bus Potential separation digital outputs between the channels and backplane bus Isolation Isolation tested with Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard Performance level according to ISO 13849-1 SIL acc. to IEC 62061 Dimensions	Yes
Interrupts/diagnostics/status information Diagnostics function Alarms Diagnostic alarm Diagnoses Diagnostic information readable Short-circuit Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green) Status indicator digital output (green) Potential separation between backplane bus and all other circuit components Potential separation digital inputs between the channels between the channels between the channels and backplane bus Potential separation digital outputs between the channels and backplane bus Status indicator digital outputs between the channels and backplane bus Potential separation digital outputs between the channels and backplane bus Potential separation digital outputs between the channels and backplane bus Isolation Isolation Isolation tested with Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard Performance level according to ISO 13849-1 Category according to ISO 13849-1 SIL acc. to IEC 62061	Yes Yes Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes No Yes No Yes Yes Yes Yes PL d Cat. 3

Depth	35 mm
Weights	
Weight, approx.	140 g
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