



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
Limitation of inductive shutdown voltage to	Typ. (L1+, L2+) -47 V
Controlling a digital input	Yes
Switching capacity of the outputs	
• on lamp load, max.	5 W
Load resistance range	
• lower limit	48 $\Omega$
• upper limit	4 k $\Omega$
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
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
• Diagnostic alarm	Yes
Diagnoses	
• Diagnostic information readable	Yes
• Short-circuit	Yes; Short-circuit of outputs to ground; module by module
Diagnostics indication LED	
• Group error SF (red)	Yes
• Status indicator digital input (green)	Yes
• Status indicator digital output (green)	Yes
Potential separation	
between backplane bus and all other circuit components	Yes
Potential separation digital inputs	
• between the channels	No
• between the channels and backplane bus	Yes
Potential separation digital outputs	
• between the channels and backplane bus	Yes
Isolation	
Isolation tested with	707 V DC (type test)
Standards, approvals, certificates	
Suitable for safety-related tripping of standard modules	Yes
Highest safety class achievable for safety-related tripping of standard modules	
• Performance level according to ISO 13849-1	PL d
• Category according to ISO 13849-1	Cat. 3
• SIL acc. to IEC 62061	SIL 2
Dimensions	
Width	45 mm
Height	130 mm

Depth	35 mm
Weights	
Weight, approx.	140 g
last modified:	3/7/2022 