SIEMENS

Data sheet

6ES7142-4BD00-0AB0

SIMATIC DP, Electronic modules for ET 200 PRO 4 DO 24 V DC, 2.0A High Feature, Channel diagnostics; short-circuit and wire break; incl. bus module, Connection module IO 6ES7194-4..00-0AA0 order separately

Supply voltage	
Load voltage 2L+	
 Rated value (DC) 	24 V
 Short-circuit protection 	Yes; per channel, electronic
 Reverse polarity protection 	Yes; against destruction; load increasing
Input current	
from load voltage 2L+ (without load), max.	40 mA
from backplane bus 3.3 V DC, max.	30 mA
Power loss	
Power loss, typ.	2.5 W
Address area	
Address space per module	
 Address space per module, max. 	1 byte
Digital outputs	
Number of digital outputs	4
Short-circuit protection	Yes
 Response threshold, typ. 	2.8 A

Limitation of inductive shutdown voltage to	2L+ (-47 V)
Controlling a digital input	Yes
Switching capacity of the outputs	
• on lamp load, max.	10 W
Load resistance range	
lower limit	12 Ω
• upper limit	4 kΩ
Output voltage	
• for signal "1", min.	2L+ (-0,8 V)
Output current	22. (0,0 V)
for signal "1" rated value	2 A
-	0.5 mA
• for signal "0" residual current, max.	0.5 111A
Parallel switching of two outputs	Na
• for uprating	No
• for redundant control of a load	Yes
Switching frequency	400.11
• 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.	4 A
Cable length	
 shielded, max. 	30 m
• unshielded, max.	30 m
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Substitute values connectable	Yes
Alarms	
 Diagnostic alarm 	Yes
Diagnostic messages	
 Diagnostic information readable 	Yes
• Wire-break	Yes; channel by channel
Short-circuit	Yes; channel by channel
Diagnostics indication LED	
Group error SF (red)	Yes
 Status indicator digital output (green) 	Yes
Channel fault indicator F (red)	Yes
Potential separation	
between backplane bus and all other circuit	Yes
components	

Potential separation digital outputs		
 between the channels 	No	
 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	
 SILCL according to IEC 62061 	SILCL 2	
Dimensions		
Width	45 mm	
Height	130 mm	
Depth	35 mm; without terminal module	
Weights		
Weight, approx.	140 g	
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