MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6ES7138-4FA04-0AB0

ET 200S FAIL-SAFE DIGITAL INPUT MODULE

Used with the applicable SIMATIC ET 200S configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens official technical documentation for 6ES7138-4FA04-0AB0

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Data sheet 6ES7138-4FA04-0AB0

SPARE PART SIMATIC DP, ELECTRON. MODULE F. ET200S, 4/8 F-DI PROFISAFE, 24V DC, 30 MM WIDTH UP TO CATEGORY 4 (EN954-1)/ SIL3 (IEC61508)/PLE (ISO13849), ALSO USEABLE IN PROFINET- NETWORK WITH IM151-3 HF



Figure similar

Supply voltage	
Rated value (DC)	
• 24 V DC	Yes
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	No
Encoder supply	
Number of outputs	2
Type of output voltage	min. L+ (-1.5 V)
Short-circuit protection	Yes; Electronic (response threshold 0.7 A to 1.8 A)
Output current	
• Rated value	300 mA
• permissible range	0 to 300 mA
Power loss	
Power loss, typ.	4 W
Address area	

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Occupied address area	
• Inputs	6 byte
• Outputs	4 byte
Digital inputs	
Number of digital inputs	8; 8 single channel, 4 two-channel
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Number of simultaneously controllable inputs	
• Number of simultaneously controllable inputs	8
Input voltage	
• Type of input voltage	DC
• Rated value (DC)	24 V
• for signal "0"	-30 to +5V
• for signal "1"	+15 to +30V
Input current	
• for signal "1", typ.	3.7 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	Yes
— at "0" to "1", min.	0.3 ms
— at "0" to "1", max.	17 ms
— at "1" to "0", min.	0.3 ms
— at "1" to "0", max.	17 ms
Cable length	
• shielded, max.	200 m
• unshielded, max.	200 m
Encoder	
Connectable encoders	
• 2-wire sensor	No
Interrupts/diagnostics/status information	
Diagnostic functions	Yes
Alarms	
• Diagnostic alarm	Yes
Diagnostic messages	
• Diagnostic information readable	Yes
• Short-circuit	Yes
Diagnostics indication LED	
• Group error SF (red)	Yes
• Status indicator digital input (green)	Yes
Potential separation	
Potential separation digital inputs	

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• between the channels	No
• between the channels and backplane bus	Yes
• Between the channels and load voltage L+	No
Permissible potential difference	
between M internally and the inputs	75 V DC/60 V AC
Isolation	
Isolation tested with	500 V DC
Standards, approvals, certificates	
Highest safety class achievable in safety mode	
• acc. to EN 954	4
• Performance level according to ISO 13849-1	e
• SIL acc. to IEC 61508	SIL 2 (single-channel), SIL 3 (two-channel)
Dimensions	
Width	30 mm
Height	81 mm
Depth	52 mm
Weights	
Weight, approx.	78 g
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