MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6ES7138-4FA05-0AB0

FOUR OR EIGHT-CHANNEL 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: Official manufacturer documentation applicable to 6ES7138-4FA05-0AB0

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Data sheet 6ES7138-4FA05-0AB0

SIMATIC DP, Electronics module f. ET200S, 4/8 F-DI PROFIsafe, 24 V DC, 30 mm overall width, up to PL E (ISO 13849), Up to SIL3 (IEC 61508), can also be used in PROFINET configuration with IM 151-3 HF

Supply voltage	
Rated value (DC)	24 V
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, lower limit	0 mA
● permissible range, upper limit	300 mA
Power loss	
Power loss, typ.	4 W
Address area	
Address space per module	
● Inputs	6 byte
● Outputs	4 byte
Digital inputs	
Number of digital inputs	8; 8 (one-channel); 4 (two-channel)
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Input voltage	
● Type of input voltage	DC
● Rated value (DC)	24 V
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.	500 m
● unshielded, max.	500 m
Encoder	
Connectable encoders	

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● 2-wire sensor	No
— permissible quiescent current (2-wire sensor), max.	0.6 mA; max.
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
● Diagnostic alarm	Yes
Diagnoses	
● 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	
● between the channels	No
● between the channels and backplane bus	Yes
● Between the channels and load voltage L+	No
Standards, approvals, certificates	
Highest safety class achievable in safety mode	
● Performance level according to ISO 13849-1	PLe
● 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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