SIEMENS

Data sheet 6ES7138-7FD00-0AB0



SIMATIC, fail-safe electronic module for ET200iSP, 4 F-DO 17.4 V/40 mA Ex I, up to category 4 (EN954-1)/ SIL3 (IEC61508)/PLE (ISO13849), Ex ib (ia Ga) IIC T4 Gb, Ex ib [ia IIIC Da] IIC T4 Gb, Ex ib [ia] I Mb

General information	
Product brand name	SIMATIC
Product family	ET 200iSP
Product category	Digital module output
Product type designation	4F-DQ Ex(i) 17.4 V DC/40 mA
Installation type/mounting	
Rack mounting	No
Front mounting	Yes
Rail mounting	Yes
Wall mounting/direct mounting	Yes
Supply voltage	
Type of supply voltage	DC
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	30 V
Input current	
Current consumption, typ.	340 mA
from load voltage L+ (without load), max.	510 mA; int. Powerbus
Power loss	
Power loss, max.	5.3 W
Hardware configuration	
Fieldbus connection via separate transceiver	Yes
Digital outputs	
Type of digital output	Transistor
Number of digital outputs	4
Short-circuit protection	Yes
● Response threshold, typ.	Depending on the "short-circuit level" parameter
Controlling a digital input	No
No-load voltage Uao (DC)	17.4 V
Internal resistor Ri	167 Ω
Load resistance range	
● lower limit	270 Ω
● upper limit	18 kΩ
Trend key points E	
● Voltage Ue (DC)	10.7 V
● Current Ie	40 mA
Output voltage	
● Type of output voltage	DC
● for signal "1", max.	17.4 V
● permissible voltage at output, min.	0 V

© Copyright Siemens

● permissible voltage at output, max.	17.4 V
Output current	
● for signal "0" residual current, max.	10 µA
Parallel switching of two outputs	
● for uprating	Yes
● for redundant control of a load	No
Switching frequency	
● with resistive load, max.	30 Hz
● with inductive load, max.	2 Hz
Cable length	
● shielded, max.	500 m
● unshielded, max.	500 m
Interfaces	
Number of PROFINET interfaces	0
Number of RS 485 interfaces	0
Protocols	
Supports protocol for PROFINET IO	No
PROFIsafe	Yes
PROFIBUS	No
Interrupts/diagnostics/status information	
Substitute values connectable	Yes
Alarms	
● Diagnostic alarm	Yes; Parameterizable
Diagnoses	
● Diagnostic information readable	Yes
● Wire-break	Yes
● Short-circuit	Yes
Diagnostics indication LED	
● Group error SF (red)	Yes
● Status indicator digital output (green)	Yes
Potential separation	
Potential separation digital outputs	
● between the channels	No
● between the channels and backplane bus	Yes
● Between the channels and load voltage L+	Yes
Permissible potential difference	
between different circuits	60 V DC/30 V AC
Isolation	
Isolation tested with	370V for 1 min
Degree and class of protection	
IP degree of protection	IP20
Standards, approvals, certificates	
CE mark	Yes
Suitable for safety functions	Yes
reference designation according to IEC 81346-2 (2009)	K
Highest safety class achievable in safety mode	
● acc. to EN 954	Cat. 4
● Performance level according to ISO 13849-1	PLe
● SIL acc. to IEC 61508	SIL 3
Use in hazardous areas	
● Explosion protection category for gas	ATEX gas explosion protection, Zone 1
● associated equipment (Ex ia)	Yes
● associated equipment (Ex ib)	Yes
Connection method	
Design of electrical connection	Screw/spring-type terminal
Dimensions	
Width	30 mm
Height	129 mm

Subject to change without notice
© Copyright Siemens

Depth	136.5 mm

Weights

Weight, approx.	285 g

Classifications

	Version	Classification
eClass	14	27-24-26-04
eClass	12	27-24-26-04
eClass	9.1	27-24-26-04
eClass	9	27-24-26-04
eClass	8	27-24-26-04
eClass	7.1	27-24-26-04
eClass	6	27-24-26-04
ETIM	10	EC001599
ETIM	9	EC001599
ETIM	8	EC001599
ETIM	7	EC001599
IDEA	4	3566
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval

Miscellaneous | China RoHS | Metrological Approval | KC

General Product Approval | **For use in hazardous locations**

FM | Miscellaneous

For use in hazardous locations | **Functional Saftey**

CCC-Ex | Miscellaneous | TUEV

Functional Saftey | **Maritime application** | **Environment**

Type Examination Certificate | TUEV

last modified:	4/29/2025

Subject to change without notice
© Copyright Siemens