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Data sheet 6ES7138-7FD00-0AB0



SIMATIC DP, fail-safe electronics module for ET200iSP, 4F-DO 17.4V/40mA 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 type designation	4F-DQ Ex(i) 17.4 V DC/40 mA
Input current	
Current consumption, typ.	340 mA
from load voltage L+ (without load), max.	510 mA; int. Powerbus
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	
● for signal "1", 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
Interrupts/diagnostics/status information	
Substitute values connectable	Yes
Alarms	
● Diagnostic alarm	Yes; Parameterizable
Diagnoses	
● Diagnostic information readable	Yes
● Wire-break	Yes
● Short-circuit	Yes

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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
Standards, approvals, certificates	
CE mark	Yes
Highest safety class achievable in safety mode	
● Performance level according to ISO 13849-1	PLe
● SIL acc. to IEC 61508	SIL 3
Dimensions	
Width	30 mm
Height	129 mm
Depth	136.5 mm
Weights	
Weight, approx.	285 g

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