SIEMENS

Data sheet

6ES7136-6BA00-0CA0



SIMATIC DP, Electronics module for ET 200SP, F-DI 8x 24 V DC HF, 15 mm width, up to PL E (ISO 13849-1)/ SIL3 (IEC 61508)

General information	
Product type designation	F-DI 8x24VDC HF
usable BaseUnits	BU type A0
Product function	
● I&M data	Yes; I&M0 to I&M3
Engineering with	
 STEP 7 TIA Portal configurable/integrated from version 	V12
 STEP 7 configurable/integrated from version 	V5.5 SP3 / -
 PROFINET from GSD version/GSD revision 	V2.31
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
power supply according to NEC Class 2 required	No
Input current	
Current consumption (rated value)	75 mA; without load
Current consumption, max.	21 mA; From the backplane bus
Encoder supply	
Number of outputs	8
Short-circuit protection	Yes; Electronic (response threshold 0.7 A to 1.8 A)
Output current	
● up to 60 °C, max.	0.3 A
24 V encoder supply	
• 24 V	Yes; min. L+ (-1.5 V)
Short-circuit protection	Yes
Output current, max.	800 mA; Total current of all encoders
Power	
Power available from the backplane bus	70 mW
Power loss	
Dower loss two	
Power loss, typ.	4 W
Address area	4 W
	4 W
Address area	4 W 6 byte
Address area Address space per module	
Address area Address space per module • Inputs	6 byte
Address area Address space per module Inputs Outputs	6 byte

Digital inputs		
Number of digital inputs	8	
Source/sink input	Yes; P-reading	
Input characteristic curve in accordance with IEC 61131, type 1	Yes	
Input voltage		
Rated value (DC)	24 V	
• for signal "0"	-30 to +5 V	
• for signal "1"	+15 to +30 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.	0.4 ms	
— at "0" to "1", max.	20 ms	
— at "1" to "0", min.	0.4 ms	
— at "1" to "0", max.	20 ms	
for technological functions		
— parameterizable	No	
Cable length		
• shielded, max.	1 000 m	
unshielded, max.	500 m	
Interrupts/diagnostics/status information		
Diagnostics function	Yes	
Alarms		
Diagnostic alarm	Yes	
Hardware interrupt	No	
Diagnostics indication LED		
• RUN LED	Yes; green LED	
• ERROR LED	Yes; red LED	
Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED	
Channel status display	Yes; green LED	
• for channel diagnostics	Yes; red LED	
for module diagnostics	Yes; green/red DIAG LED	
Potential separation		
Potential separation channels		
 between the channels 	No	
between the channels and backplane bus	Yes	
 between the channels and the power supply of the electronics 	No	
Isolation		
	707 V DC (hypo toot)	
Isolation tested with	707 V DC (type test)	
Standards, approvals, certificates	V	
Suitable for safety functions	Yes	
Highest safety class achievable in safety mode	Dia	
Performance level according to ISO 13849-1 SIL case to IEC 61508	PLe	
SIL acc. to IEC 61508 Probability of failure /for sonvice life of 20 years and range	SIL 3	
Probability of failure (for service life of 20 years and repa		
 Low demand mode: PFDavg in accordance with SIL3 	< 2.00E-05	
High demand/continuous mode: PFH in accordance with SIL3	< 1.00E-09 1/h	
Ambient conditions		
Ambient temperature during operation		
 horizontal installation, min. 	0 °C	
horizontal installation, min.horizontal installation, max.	0 °C	
 horizontal installation, max. 	60 °C	

 Installation altitude above sea level, max. 	4 000 m; Restrictions for installation altitudes > 2 000 m, see manual
Dimensions	
Width	15 mm
Height	73 mm
Depth	58 mm
Weights	
Weight, approx.	49 g

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