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Data sheet 6ES7138-4DB03-0AB0



*** Spare part *** SIMATIC DP, Electronics module for ET 200S, 1 SSI 25 bit/1 MHz 15 mm width, Module for connection of absolute value encoders with SSI Synchronous Serial Interface with DI and comparison value with clock synchronization

Supply voltage	
Load voltage L+	
● 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
Input current	
from load voltage L+ (without load), max.	40 mA
from backplane bus 3.3 V DC, max.	10 mA
Encoder supply	
24 V encoder supply	
● 24 V	Yes
● Short-circuit protection	Yes
● Output current, max.	500 mA
Absolute encoder (SSI) encoder supply	
● Absolute encoder (SSI)	Yes
● Type of output voltage	L+ (-0.8 V)
● Short-circuit protection	Yes
● Output current, max.	500 mA
Power loss	
Power loss, typ.	1 W
Hardware configuration	
Module exchange	
● Module exchange during operation of the IM-DP	Yes
● Module exchange under process voltage	Yes
Digital inputs	
Number of digital inputs	1
Input voltage	
● for signal "0"	-30 to +5 V
● for signal "1"	+11 to +30V
Input current	
● for signal "0", max. (permissible quiescent current)	2 mA
● for signal "1", typ.	9 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— at "0" to "1", max.	300 µs
— at "1" to "0", max.	300 µs
Cable length	
● shielded, max.	50 m

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Encoder	
Number of connectable encoders, max.	1
Connectable encoders	
● Absolute encoder (SSI)	Yes
● 2-wire sensor	Yes; Type 2
Encoder signals, absolute encoder (SSI)	
● Input signal	to RS-422
● Telegram length, parameterizable	13, 14, 16, 21, 24 & 25 bit
● Binary code	Yes
● Gray code	Yes
● Cable length, shielded, max.	320 m; At 125 kHz
● Monoflop time	16/32/48/64 µs
Interrupts/diagnostics/status information	
Diagnostics indication LED	
● Group error SF (red)	Yes
● Status indicator digital input (green)	Yes
● Status indicator forward counting (green)	Yes
● Status indicator backward counting (green)	Yes
Potential separation	
Potential separation digital inputs	
● Potential separation digital inputs	No; same potential with L+ and SSI
Potential separation counter	
● between the channels and backplane bus	Yes
● Between the channels and load voltage L+	No
Dimensions	
Width	15 mm
Height	81 mm
Depth	52 mm
Weights	
Weight, approx.	40 g

Classifications

	Version	Classification
eClass	16	27-24-26-05
eClass	14	27-24-26-05
eClass	12	27-24-26-05
eClass	9.1	27-24-26-05
eClass	9	27-24-26-05
eClass	8	27-24-26-05
eClass	7.1	27-24-26-05
eClass	6	27-24-26-05
ETIM	10	EC001601
ETIM	9	EC001601
ETIM	8	EC001601
ETIM	7	EC001601
IDEA	4	3567
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval

Miscellaneous | Manufacturer Declaration

General Product Approval	EMV	For use in hazardous locations

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China RoHS

For use in hazardous locations					
FM	ATEX	UL	IECEx	Miscellaneous	ATEX

For use in hazardous locations	Maritime application				
CCC-Ex	ABS	BUREAU VERITAS	DNV	LRS	NK / Nippon Kaiji Kyokai

Maritime application			
PRS	RINA	CCS (China Classification Society)	KR (Korean Register of Shipping)

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