SIEMENS

Data sheet 6ES7138-4DD01-0AB0

	*** Spare part *** SIMATIC DP, Electronics module for ET 200S, 2 pulses Pulse generator and timer module, 15 mm wide, 2 channels
Supply voltage	
Load voltage L+	
● Rated value (DC)	24 V; From power module
● 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	
Type of output voltage	L+ (-0.8 V)
Short-circuit protection	Yes
Output current	
● Rated value	500 mA
Power loss	
Power loss, typ.	1.8 W
Digital inputs	
Number of digital inputs	2
Input characteristic curve in accordance with IEC 61131, type 2	Yes
Input voltage	
● Rated value (DC)	24 V
● for signal "0"	-30 to +5 V
● for signal "1"	+11 to +30V
Input current	
● for signal "1", typ.	9 mA
Input delay (for rated value of input voltage)	
● Input frequency (with a time delay of 0.1 ms), max.	20 kHz
● Minimum pulse width for program reactions	100 µs
Cable length	
● shielded, max.	100 m
Digital outputs	
Number of digital outputs	2
Short-circuit protection	Yes
● Response threshold, typ.	10 A
Limitation of inductive shutdown voltage to	L+ (-50 to -65 V)
Controlling a digital input	Yes
Accuracy of pulse duration	±(time period x 100 ppm), ±100 µs with a load ≤ 50 ohms
minimum pulse duration	100 µs
Switching capacity of the outputs	
● on lamp load, max.	10 W
Output voltage	
● for signal "1", min.	L+ (-1 V)
Output current	
● for signal "1" rated value	2 A
● for signal "1" permissible range for 0 to 60 °C, min.	7 mA
● for signal "1" permissible range for 0 to 60 °C, max.	2 A
● for signal "0" residual current, max.	0.5 mA
Output delay with resistive load	
● "0" to "1", max.	100 µs
● "1" to "0", max.	200 µs
Switching frequency	

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● with resistive load, max.	5 kHz
● with inductive load, max.	2 Hz
● on lamp load, max.	10 Hz
Cable length	
● shielded, max.	1 000 m
● unshielded, max.	600 m
Encoder	
Connectable encoders	
● 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	2 mA
Interrupts/diagnostics/status information	
Diagnostics indication LED	
● Group error SF (red)	Yes
● Status indicator digital input (green)	Yes
● Status indicator digital output (green)	Yes
Integrated Functions	
Pulse generator	
● Number of channels	2; 1 digital input and 1 digital output per channel
Potential separation	
Potential separation digital inputs	
● between the channels	No
● between the channels and backplane bus	Yes
Potential separation digital outputs	
● between the channels	No
● between the channels and backplane bus	Yes
Isolation	
Isolation tested with	500 V DC
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

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General Product Approval				EMV	For use in hazardous locations
EAC	China RoHS	CE EG-Konf.	UKCA	RCM	ATEX

For use in hazardous locations					
FM	ATEX	UL	ATEX	IECEx	Miscellaneous

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)

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