

SIMATIC DP, ELECTRONIC MODULE DIGITAL,
FOR ET 200B, W=235MM, 24DI 24V DC,
8DO 24V DC, 0.5A 3 MS INPUT DELAY

Supply voltage	
24 V DC	Yes ; L1+, L5+; value at t < 0.5 s: 35 V
permissible range, lower limit (DC)	18.5 V
permissible range, upper limit (DC)	30.2 V
Input current	
Current consumption, typ.	85 mA ; From L5+; logic
Current consumption, max.	1000 mA ; from L5+; sensor
I ² t	0.05 A ² ·s ; with starting current inrush
Power loss	
Power loss, max.	5.5 W
Hardware configuration	
Rack	
required terminal block	TB2/DC, TB2-4/DC, TB4/DC, TB4-4/DC
Digital inputs	
Number of digital inputs	24
Input voltage	
Rated value, DC	24 V
for signal "0"	-30 to +5 V
for signal "1"	13 to 30 V
Input current	
for signal "1", typ.	4 mA ; At 24 V min. 2 mA
Input delay (for rated value of input voltage)	
for standard inputs	
at "0" to "1", max.	3 ms
Cable length	
Cable length unshielded, max.	100 m
Digital outputs	
Number of digital outputs	8
Short-circuit protection	Yes ; Electronic
Limitation of inductive shutdown voltage to	typically (L1+) -55 V
Controlling a digital input	Yes

Switching capacity of the outputs	
Lamp load, max.	5 W
Output voltage	
Rated value (DC)	24 V
for signal "0", max.	2 V ; idling
for signal "1", min.	UE -3 V
Output current	
for signal "1" permissible range for 0 to 60 °C, min.	0.5 A ; in one group
for signal "0" residual current, max.	1 mA
Output delay with resistive load	
"0" to "1", max.	20 ms
"1" to "0", max.	0.5 ms
Switching frequency	
with resistive load, max.	1000 Hz
with inductive load, max.	0.5 Hz
on lamp load, max.	8 Hz
Total current of the outputs (per group)	
all mounting positions	
up to 60 °C, max.	2 A
Cable length	
Cable length unshielded, max.	100 m
Encoder	
Connectable encoders	
2-wire sensor	Yes
permissible quiescent current (2-wire sensor), max.	1.5 mA
Interfaces	
PROFIBUS DP	
Transmission rate, max.	12 Mbit/s
SYNC capability	Yes
FREEZE capability	Yes
Communication functions	
Bus protocol/transmission protocol	PROFIBUS DP
Interrupts/diagnostics/status information	
Diagnostics indication LED	
Bus fault BF (red)	Yes
Run mode RUN (green)	Yes
Status indicator digital output (green)	Yes
Status indicator digital input (green)	Yes

Galvanic isolation	
between electronic block and PROFIBUS DP	Yes
Galvanic isolation digital inputs	
Galvanic isolation digital inputs	No
Galvanic isolation digital outputs	
Galvanic isolation digital outputs	Yes
between the channels, in groups of	8
Degree and class of protection	
IP20	Yes
Ambient conditions	
Operating temperature	
horizontal installation, min.	0 °C
horizontal installation, max.	60 °C ; 40°C for other mountings
Air pressure	
permissible range, min.	795 hPa
permissible range, max.	1080 hPa
Relative humidity	
Operation, min.	15 %
Operation, max.	95 % ; RH class 2 in accordance with IEC 1131-2
Vibrations	
Operation, tested according to IEC 60068-2-6	Yes ; IEC 68, Part 2-6; 10 to 57 Hz; (constant amplitude 0.075 mm); 57 to 150 Hz; (constant acceleration 1 g)
Shock test	
tested according to IEC 60068-2-27	Yes ; IEC 68, Part 2-27; half-sine, 15 g, 11 ms
Connection method	
Inputs/outputs	Screw-type and spring-loaded terminals, permanent wiring; 3 and 4-wire connection
Dimensions	
Width	235 mm ; EB and TB
Height	130 mm ; EB and TB
Depth	60 mm ; EB and TB
Weights	
Weight, approx.	800 g ; EB and TB
Status	Jul 7, 2014