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Data sheet 6ES7133-0BH10-0XB0

*** SPARE PART*** SIMATIC DP, ELECTRONIC MODULE DIGITAL, FOR ET 200B, W=160MM, 8DE 24V DC; 8DA 24V DC, 0,5A WITH INTEGRATED HW SWITCH-OFF OF THE OUTPUTS

General information	
Usable terminal block	TB1/DC, TB1-4/DC, TB3/DC
Supply voltage	
Rated value (DC)	24 V; L1+, L3+; 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.	70 mA; from L3+; logic
Current consumption, max.	500 mA; from L3+; sensor
I^2t	0.05 $A^2 \cdot s$; with starting current inrush
Power loss	
Power loss, max.	3.8 W
Digital inputs	
Number of digital inputs	8
Input voltage	
• Rated value (DC)	24 V
• for signal "0"	-30 to +5V
• for signal "1"	13 to 30V
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	
• 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	
• on lamp load, max.	5 W
Output voltage	

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• 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, max.	0.5 A; in one group
• for signal "0" residual current, max.	1 mA
Output delay with resistive load	
• "0" to "1", max.	50 µs; Typical
• "1" to "0", max.	100 µs; Typical
Switching frequency	
• with resistive load, max.	100 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	
• 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
Protocols	
Bus protocol/transmission protocol	PROFIBUS DP
PROFIBUS DP	
Services	
— SYNC capability	Yes
— FREEZE capability	Yes
Interrupts/diagnostics/status information	
Diagnostics indication LED	
• RUN LED	Yes
• Bus fault BF (red)	Yes
• Status indicator digital input (green)	Yes
• Status indicator digital output (green)	Yes
Potential separation	
between electronic block and PROFIBUS DP	Yes

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Potential separation digital inputs	
• Potential separation digital inputs	No
Potential separation digital outputs	
• Potential separation digital outputs	No
• between the channels, in groups of	8

Degree and class of protection

Degree of protection acc. to EN 60529	IP20

Ambient conditions

Ambient temperature during operation	
• horizontal installation, min.	0 °C
• horizontal installation, max.	60 °C; 40°C for other mountings
Air pressure acc. to IEC 60068-2-13	
• permissible range, lower limit	795 hPa
• permissible range, upper limit	1 080 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 testing	
• tested according to IEC 60068-2-27	Yes; IEC 68, Part 2-27; half-sine, 15 g, 11 ms

Connection method

Design of electrical connection for the inputs and outputs	Screw-type and spring-loaded terminals, permanent wiring; 3 and 4-wire connection

Dimensions

Width	160 mm; EB and TB
Height	130 mm; EB and TB
Depth	60 mm; EB and TB

Weights

Weight, approx.	650 g; EB and TB

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