

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

S7-300

6ES7133-0BH10-0XB0

DIGITAL INPUT AND OUTPUT MODULE

Used with the applicable SIMATIC ET 200B distributed I/O configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens official product documentation

*** 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 ·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	

• Rated value (DC) • for signal "0", max. • for signal "1", min.	24 V 2 V; idling UE -3 V
Output current	
• for signal "1" permissible range, max. • for signal "0" residual current, max.	0.5 A; in one group 1 mA
Output delay with resistive load	
• "0" to "1", max. • "1" to "0", max.	50 µs; Typical 100 µs; Typical
Switching frequency	
• with resistive load, max. • with inductive load, max. • on lamp load, max.	100 Hz 0.5 Hz 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 — permissible quiescent current (2-wire sensor), max.	Yes 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 • Bus fault BF (red) • Status indicator digital input (green) • Status indicator digital output (green)	Yes Yes Yes Yes
Potential separation	
between electronic block and PROFIBUS DP	Yes