

OFFICIAL MANUFACTURER DOCUMENT PACKAGE

# Manufacturer's Manual

## 6ES7131-1BH12-0XB0

Siemens official documentation for the exact article number.

Source: 6ES7131-1BH12-0XB0.pdf

Selected official Siemens pages follow this cover.

\*\*\* SPARE PART\*\*\* SIMATIC DP, ELECTRONIC BLOCK FOR ET 200L, DIGITAL, 16 DI, 24V DC, EXPANDABLE WITH MAX. 16 CHANNELS WITH TERM. BLOCK TB 16SC OF SMART CONNECT

| General information                            |                                                   |
|------------------------------------------------|---------------------------------------------------|
| Usable terminal block                          | TB 16L                                            |
| Supply voltage                                 |                                                   |
| Rated value (DC)                               | 24 V                                              |
| Reverse polarity protection                    | Yes                                               |
| Mains buffering                                |                                                   |
| • Mains/voltage failure stored energy time     | 20 ms                                             |
| Load voltage L+                                |                                                   |
| • Rated value (DC)                             | 24 V                                              |
| Input current                                  |                                                   |
| from supply voltage L+, max.                   | 180 mA                                            |
| from load voltage L+ (without load), max.      | 50 mA; Per load group (L1+ or L2+ / L3+)          |
| Power loss                                     |                                                   |
| Power loss, typ.                               | 4 W                                               |
| Digital inputs                                 |                                                   |
| Number of digital inputs                       | 16; Expansion: digital and analog with SIMATIC SC |
| 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.                         | 5 mA                                              |
| Input delay (for rated value of input voltage) |                                                   |
| for standard inputs                            |                                                   |
| — at "0" to "1", min.                          | 2 ms                                              |
| — at "0" to "1", max.                          | 4.5 ms                                            |
| 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.

1.5 mA

## Interfaces

### PROFIBUS DP

- |                           |            |
|---------------------------|------------|
| • Transmission rate, max. | 1.5 Mbit/s |
| • SYNC capability         | Yes        |
| • FREEZE capability       | Yes        |

## Interrupts/diagnostics/status information

|        |    |
|--------|----|
| Alarms | No |
|--------|----|

|                      |     |
|----------------------|-----|
| Diagnostics function | Yes |
|----------------------|-----|

### Diagnostics indication LED

- |                                             |     |
|---------------------------------------------|-----|
| • Bus fault BF (red)                        | Yes |
| • Status indicator digital input (green)    | Yes |
| • Monitoring 24 V voltage supply ON (green) | Yes |

## Potential separation

### Potential separation digital inputs

- |                                        |     |
|----------------------------------------|-----|
| • between the channels                 | No  |
| • between the channels and PROFIBUS DP | Yes |

## Isolation

|                       |          |
|-----------------------|----------|
| Isolation tested with | 500 V DC |
|-----------------------|----------|

**last modified:** 08/12/2019 