

# SIEMENS

## Product data sheet

**6ES7138-4DF11-0AB0**


SIMATIC DP,  
ELECTRONIC MODULE FOR ET 200S,  
1 SI SERIAL INTERFACE ONE CHANNEL,  
15MM WIDE RS232/422, 485 MODBUS/USS

|                                   |                                                                                                                                |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Supply voltage                    |                                                                                                                                |
| Load voltage L+                   |                                                                                                                                |
| Rated value (DC)                  | 24 V                                                                                                                           |
| Input current                     |                                                                                                                                |
| from backplane bus 3.3 V DC, max. | 10 mA                                                                                                                          |
| from backplane bus 24 V DC, max.  | 80 mA                                                                                                                          |
| Power losses                      |                                                                                                                                |
| Power loss, typ.                  | 1.2 W                                                                                                                          |
| Memory                            |                                                                                                                                |
| Standard blocks                   | 11100 byte ; Modbus: S_SEND 2700, S_RCV 2400, S_MODB 6000; USI: S_SEND 2700, S_RCV 2400, S_USST 1900, S_USSR 2600, S_USSI 1500 |
| Interfaces                        |                                                                                                                                |
| Number of interfaces              | 1                                                                                                                              |
| RS 422/RS485                      | Yes ; RS-422 signals: 5 (TxD(A), RxD(A), TxD(B), RxD(B), PE); RS-485 signals: 3 (R/T(A), R/T(B), PE)                           |

|                                                    |                                                                                                                                   |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| RS 232, cable length, shielded, max.               | 15 m                                                                                                                              |
| RS 422/485, cable length, shielded, max.           | 1200 m                                                                                                                            |
| <b>Point-to-point</b>                              |                                                                                                                                   |
| RS 232C                                            | Yes ; RS 232C signals: 8 (TxD, RxD, RTS, CTS, DTR, DSR, DCD, PE)                                                                  |
| <b>Integrated protocol driver</b>                  |                                                                                                                                   |
| MODBUS                                             | Yes                                                                                                                               |
| Transmission speed, Modbus protocol, max.          | 115.2 kbit/s ; half duplex: 110, 300, 600, 1200, 2400, 4800, 9600, 19,200, 38,400, 57,600, 76,800, 115,200 bit/s                  |
| USS                                                | Yes                                                                                                                               |
| Transmission speed, USS protocol, max.             | 115.2 kbit/s ; half duplex: 110, 300, 600, 1200, 2400, 4800, 9600, 19,200, 38,400, 57,600, 76,800, 115,200 bit/s                  |
| <b>Character frame (adjustable)</b>                |                                                                                                                                   |
| Bits per character                                 | 8                                                                                                                                 |
| Number of start/stop bits                          | 1 or 2 (USS only 1)                                                                                                               |
| Bits per character frame                           | 10 or 11 (USS only 11 bits)                                                                                                       |
| Parity                                             | none, odd, even (USI even only)                                                                                                   |
| <b>Number of bytes per PLC sampling cycle</b>      |                                                                                                                                   |
| Data quantity per PLC sampling cycle, receiving    | 32 byte ; with IM151-1 Standard as of 6ES7 151-1AA04-0AB0; with IM151-1 High Feature as of 6ES7 151-1BA01-0AB0; otherwise 8 bytes |
| Data quantity per PLC sampling cycle, transmitting | 32 byte ; with IM151-1 Standard as of 6ES7 151-1AA04-0AB0; with IM151-1 High Feature as of 6ES7 151-1BA01-0AB0; otherwise 8 bytes |
| <b>Interrupts/diagnostics/status information</b>   |                                                                                                                                   |
| <b>Diagnostics indication LED</b>                  |                                                                                                                                   |
| Receive RxD (green)                                | Yes                                                                                                                               |
| Transmit TxD (green)                               | Yes                                                                                                                               |
| Group error SF (red)                               | Yes                                                                                                                               |
| <b>Galvanic isolation</b>                          |                                                                                                                                   |
| <b>Electrical isolation interface</b>              |                                                                                                                                   |
| between 422/485 and internal power supply          | Yes                                                                                                                               |
| between RS 232 and internal power supply           | Yes                                                                                                                               |
| <b>Ambient conditions</b>                          |                                                                                                                                   |

|                               |              |
|-------------------------------|--------------|
| Operating temperature         |              |
| Min.                          | 0 °C         |
| max.                          | 60 °C        |
| Storage/transport temperature |              |
| Min.                          | -40 °C       |
| max.                          | 70 °C        |
| Dimensions                    |              |
| Width                         | 15 mm        |
| Height                        | 81 mm        |
| Depth                         | 52 mm        |
| Weight                        |              |
| Weight, approx.               | 50 g         |
| Status                        | Jul 17, 2012 |