SIEMENS

Data sheet

6AG1138-4DF11-7AB0



SIPLUS ET 200S EM 1SI RS-232/ 422 based on 6ES7138-4DF11-0AB0 with conformal coating, -25...+70 $^{\circ}$ C, serial interface 1-channel, 15 mm width, RS-232/422, 485 MODBUS/USS

Figure similar

Rated value (DC)	E SANTETA DE	
Reverse polarity protection	Supply voltage	
Input current	Rated value (DC)	24 V
from supply voltage L+, max. from backplane bus 3.3 ∨ DC, max. Power loss Power loss, typ. 1.2 W Memory Standard blocks 11 100 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 Number of interfaces Point-to-point connection ■ Transmission rate, max. 115.2 kbit/s: half duplex: 110, 300, 600, 1 200, 2 400, 4 800, 9 600, 19 200, 38 400, 57 600, 76 800, 76 800, 115 200 bps Integrated protocol driver — Modbus — Wes — USS — Signals — RS 232C — RS 422 — RS 422 — RS 422 — RS 425 — RS 425 — RS 425 — RS 425 — Number of start/stop bits — Bits per character — Number of start/stop bits — Bits per character — Number of start/stop bits — Parity — Parity — Parity — Parity — Parity — Receive — Send — Send — Seed Signals of 6ES7151-1AA04-0AB0; with IM151-1 High Feature as of 6ES7151-1AA04-OAB0; with IM151-1 High Feature as of 6ES7151-1BA01-0AB0; otherwise 8 bytes RS 232 ■ Cable length, max. 15 m RS 485 ■ Cable length, max. 1 200 m Interrupts/disgnostics/status information	Reverse polarity protection	Yes
from backplane bus 3.3 V DC, max. Power loss Power loss, typ. 1.2 W Memory Standard blocks 11 1100 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 Number of interfaces 1 Point-to-point connection • Transmission rate, max. 115.2 kbits; half duplex: 110, 300, 600, 1 200, 2 400, 4 800, 9 600, 19 200, 38 400, 57 600, 76 800, 115 200 bps Integrated protocol driver — Modbus — USS Yes Signals — RS 232C — RS 422 — RS 485 — RS 485 Character frame (algustable) — Bits per character — Number of start/stop bits — Parity Data quantity per PLC sampling cycle — Send — Receive — Send — Receive — Send — Receive — Send — Receive — Send — RS 232 • Cable length, max. 15 m Interrupts/diagnostics/status information	Input current	
Power loss, typ. Memory	from supply voltage L+, max.	80 mA; Typ. 20 mA
Power loss, typ. 1.2 W	from backplane bus 3.3 V DC, max.	10 mA
Standard blocks	Power loss	
Standard blocks	Power loss, typ.	1.2 W
S_SEND 2700, S_RCV 2400, S_USST 1900, S_USSR 2600, S_USSI 1500	Memory	
Number of interfaces	Standard blocks	
Point-to-point connection ● Transmission rate, max. 115.2 kbit/s; half duplex: 110, 300, 600, 1 200, 2 400, 4 800, 9 600, 19 200, 38 400, 57 600, 76 800, 115 200 bps Integrated protocol driver — Modbus — USS — USS — Ves Signals — RS 232C — RS 422 — RS 455 — RX 455 — RX 455 — Number of start/stop bits — Bits per character — Number of start/stop bits — Bits per character frame — 10 or 11 (USS only 11 bit) — Bits per character frame — 10 or 11 (USS only 11 bit) — Bat quantity per PLC sampling cycle — Send — Send — Receive — Send — Receive — Send — Seceive — Send — Send — Seceive — Send — Set Seceive — Seceive — Set Seceive — Set Seceive — Set Seceive — Set Seceive — Seceive — Set Seceive — S	Interfaces	
● Transmission rate, max. 115.2 kbit/s; half duplex: 110, 300, 600, 1 200, 2 400, 4 800, 9 600, 19 200, 38 400, 57 600, 76 800, 115 200 bps Integrated protocol driver — Modbus Yes — USS Yes Signals — RS 232C RS 232C Signals: 8 (TXD, RXD, RTS, CTS, DTR, DSR, DCD, PE) — RS 422 TXD(A), RXD(A), TXD(B), RXD(B), GND RT(A), RT(B), GND Character frame (adjustable) — 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 bit) — Parity none, odd, even (USI even only) Data quantity per PLC sampling cycle — Send 32 byte; With IM151-1 Standard as of 6ES7151-1AA04-0AB0; with IM151-1 High Feature as of 6ES7151-1BA01-0AB0; otherwise 8 bytes — Receive 32 byte; With IM151-1 Standard as of 6ES7151-1AA04-0AB0; with IM151-1 High Feature as of 6ES7151-1BA01-0AB0; otherwise 8 bytes Interface types RS 232 • Cable length, max. 15 m Interrupts/diagnostics/status information	Number of interfaces	1
Modbus	Point-to-point connection	
— Modbus Yes — USS Yes Signals RS 232C — RS 422 TxD(A), RxD(A), TxD(B), RxD(B), GND — RS 485 R/T(A), R/T(B), GND Character frame (adjustable) 8 — 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 bit) — Parity none, odd, even (USI even only) Data quantity per PLC sampling cycle 32 byte; With IM151-1 Standard as of 6ES7151-1AA04-0AB0; with IM151-1 High Feature as of 6ES7151-1BA01-0AB0; otherwise 8 bytes — Receive 32 byte; With IM151-1 Standard as of 6ES7151-1AA04-0AB0; with IM151-1 High Feature as of 6ES7151-1BA01-0AB0; otherwise 8 bytes Interface types RS 232 • Cable length, max. 15 m RS 485 • Cable length, max. 1 200 m Interrupts/diagnostics/status information	Transmission rate, max.	
— USS Yes Signals — RS 232C — RS 422 TxD(A), RxD(A), TxD(B), RxD(B), GND — RS 485 R/T(A), R/T(B), GND Character frame (adjustable) 8 — Number of start/stop bits 1 or 2 (USS only 1) — Bits per character frame 10 or 11 (USS only 11 bit) — Parity none, odd, even (USI even only) Data quantity per PLC sampling cycle 32 byte; With IM151-1 Standard as of 6ES7151-1AA04-0AB0; with IM151-1 High Feature as of 6ES7151-1BA01-0AB0; otherwise 8 bytes — Receive 32 byte; With IM151-1 Standard as of 6ES7151-1AA04-0AB0; with IM151-1 High Feature as of 6ES7151-1BA01-0AB0; otherwise 8 bytes Interface types RS 232 • Cable length, max. 15 m RS 485 • Cable length, max. 1 200 m Interrupts/diagnostics/status information 1 200 m	Integrated protocol driver	
Signals — RS 232C — RS 422 — RS 485 — RYT(A), RXD(A), TXD(B), RXD(B), GND — Bits per character — Number of start/stop bits — Parity — Parity — Send — Send — Seceive — Receive — Receive — Cable length, max. RS 485 — Cable length, max. Interrupts/diagnostics/status information RS 232C signals: 8 (TXD, RXD, RTS, CTS, DTR, DSR, DCD, PE) — RS 232C signals: 8 (TXD, RXD, RTS, CTS, DTR, DSR, DCD, PE) — TXD(A), RXD(A), RXD(A), TXD(B), RXD(B), GND RYT(A), RYT(B), GND RYT(A), RYT(B), GND RYT(A), RYD(B), RXD(B), GND RYT(A), RXD(A), TXD(B), RXD(B), GND RS 232C (USS only 1) 1 or 2 (USS only 1) 1 or 2 (USS only 1) 1 or 11 (USS only 11 bit) 1 or 2 (USS only 1) 1 or 2 (USS only 1) 1 or 11 (USS only 11 bit) 1 one, odd, even (USI even only) 2 byte; With IM151-1 Standard as of 6ES7151-1AA04-0AB0; with IM151-1 High Feature as of 6ES7151-1BA01-0AB0; otherwise 8 bytes 1 or 2 (USS only 1) 1 or 11 (USS only 1) 1 or 11 (USS only 1) 1 or 2 (USS only 1) 2 or 2 (USS only 1) 3 or 2 (USS only 1) 4 or 2 (USS only 1) 2 or 2 (USS only 1) 2 or 2 (USS only	— Modbus	Yes
RS 232C signals: 8 (TxD, RxD, RTS, CTS, DTR, DSR, DCD, PE) RS 422 TxD(A), RxD(A), TxD(B), RxD(B), GND R/T(A), R/T(B), GND Character frame (adjustable) Bits per character Number of start/stop bits Interface types RS 232C signals: 8 (TxD, RxD, RTS, CTS, DTR, DSR, DCD, PE) TxD(A), RxD(B), RxD(B), GND R/T(A), R/T(B),	— USS	Yes
- RS 422 - RS 485 - RT(A), RXD(A), TXD(B), RXD(B), GND RT(A), R/T(B), GND Character frame (adjustable) - Bits per character - Number of start/stop bits - Number of start/stop bits - Parity - Parity - Parity - Data quantity per PLC sampling cycle - Send - Send - Receive - Send - Receive - Send - Receive - Send - Receive - Send -	Signals	
- RS 485	— RS 232C	RS 232C signals: 8 (TxD, RxD, RTS, CTS, DTR, DSR, DCD, PE)
Character frame (adjustable) — Bits per character — Number of start/stop bits — Bits per character frame — Parity — Parity Data quantity per PLC sampling cycle — Send — Receive — Receive — Send — Receive — Send — Cable length, max. 15 m Interrupts/diagnostics/status information 8 1 or 2 (USS only 1) 1 or 11 (USS only 11 bit) 1 or 11 (USS only 11 bit) 1 or 2 (USI even only) 1 or 11 (USS only 11 bit) 1 or 2 (USI even only) 1 or 11 (USS only 11 bit) 1 or 2 (USI even only) 1 standard as of 6ES7151-1AA04-0AB0; with IM151-1 High Feature as of 6ES7151-1BA01-0AB0; otherwise 8 bytes 1 or 2 (USI even only) 1 or 2 (USI even only) 1 or 11 (USS only 11 bit) 1 or 11 (USS only 12 bit) 1 or 12 (USI even only) 1 or 12 (USI even only) 1 or 14 (USI even only) 1 or 2 (USI even only) 1 or 14 (USI eve	— RS 422	TxD(A), $RxD(A)$, $TxD(B)$, $RxD(B)$, GND
- Bits per character - Number of start/stop bits - Bits per character frame - Derity - Parity - Parity - Send - Send - Receive - Receive - Cable length, max. - Cable length, max Bits per character frame - 10 or 11 (USS only 1) - 10 or 11 (USS only 11 bit) - 10 or 11 (USS only 11 bit) - 10 or 11 (USS only 11 bit) - 10 or 11 (USS only 12 bit) - 10 or 11 (USS only 13 bit) - 10 or 11 (USS only 14 bit) - 10 or 11 (USS only 15 bit) - 10 or 11 (USS only 16 bit) - 10 or 11 (USS only 17 bit) - 10 or 11 (USS only 17 bit) - 10 or 11 (USS only 18 bit) - 10 or 11 (USS only 19 bit) - 10 or 11 (USS only 11 bit) - 10 or 11 (USS only 12 bit) - 10 or 11 (USS only 13 bit) - 10 or 11 (USS only 19 bit) - 10 or 11 (USI o	— RS 485	R/T(A), R/T(B), GND
 Number of start/stop bits Bits per character frame Parity Data quantity per PLC sampling cycle Send Send Bits per character frame Parity Data quantity per PLC sampling cycle Send Bits per character frame Parity Data quantity per PLC sampling cycle Send Bits per character frame Parity Send Bits per character frame 10 or 11 (USS only 1) 10 or 11 (USS only 11 bit) Parity Parit	Character frame (adjustable)	
- Bits per character frame - Parity - Parity - Parity - Data quantity per PLC sampling cycle - Send - Send - Receive - Receive - Research - Cable length, max Cable length, max Cable length, max Parity - Interrupts/diagnostics/status information - O or 11 (USS only 11 bit) - none, odd, even (USI even only) - None, odd, even (USI e	— Bits per character	8
— Parity Data quantity per PLC sampling cycle — Send 32 byte; With IM151-1 Standard as of 6ES7151-1AA04-0AB0; with IM151-1 High Feature as of 6ES7151-1BA01-0AB0; otherwise 8 bytes — Receive 32 byte; With IM151-1 Standard as of 6ES7151-1AA04-0AB0; with IM151-1 High Feature as of 6ES7151-1BA01-0AB0; otherwise 8 bytes Interface types RS 232 • Cable length, max. 15 m RS 485 • Cable length, max. 1 200 m Interrupts/diagnostics/status information	•	
Data quantity per PLC sampling cycle — Send — Send — Receive — Receive — Receive — Send — Receive — Receive — Send —	Bits per character frame	10 or 11 (USS only 11 bit)
— Send —	,	none, odd, even (USI even only)
High Feature as of 6ES7151-1BA01-0AB0; otherwise 8 bytes 32 byte; With IM151-1 Standard as of 6ES7151-1AA04-0AB0; with IM151-1 High Feature as of 6ES7151-1BA01-0AB0; otherwise 8 bytes Interface types RS 232 • Cable length, max. 15 m RS 485 • Cable length, max. 1 200 m Interrupts/diagnostics/status information		
High Feature as of 6ES7151-1BA01-0AB0; otherwise 8 bytes Interface types RS 232 • Cable length, max. RS 485 • Cable length, max. 1 200 m Interrupts/diagnostics/status information	— Send	
RS 232	— Receive	
● Cable length, max. 15 m RS 485 ● Cable length, max. 1 200 m Interrupts/diagnostics/status information	Interface types	
RS 485 • Cable length, max. 1 200 m Interrupts/diagnostics/status information	RS 232	
Cable length, max. Interrupts/diagnostics/status information 1 200 m	Cable length, max.	15 m
Interrupts/diagnostics/status information	RS 485	
	Cable length, max.	1 200 m
Diagnostics indication LED	Interrupts/diagnostics/status information	
	Diagnostics indication LED	

Receive RxD	Voc
Receive RXD Transmit TxD	Yes
	Yes
Group error SF (red) Retential congretion	Yes
Potential separation	
Potential separation interface	Yes
Between RS 422/485 and internal power supply between RS 232 and internal power supply	Yes
 between RS 232 and internal power supply Ambient conditions 	l es
Ambient temperature during operation	
min.	-25 °C; = Tmin
• max.	70 °C; = Tmax
Altitude during operation relating to sea level	70 O, Tillux
Installation altitude above sea level, max.	5 000 m
Ambient air temperature-barometric pressure-altitude	Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m) // Tmin (Tmax - 10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m)
Relative humidity	
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation/frost permitted (no commissioning in bedewed state)
Resistance	
Use in stationary industrial systems	
 to biologically active substances according to EN 60721-3-3 	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
 to chemically active substances according to EN 60721-3-3 	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
 to mechanically active substances according to EN 60721-3-3 	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea	
 to biologically active substances according to EN 60721-3-6 	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
 to chemically active substances according to EN 60721-3-6 	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
 to mechanically active substances according to EN 60721-3-6 	Yes; Class 6S3 incl. sand, dust; *
Usage in industrial process technology	
 Against chemically active substances acc. to EN 60654-4 	Yes; Class 3 (excluding trichlorethylene)
 Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)
Remark	
 Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 	* The supplied plug covers must remain in place over the unused interfaces during operation!
Dimensions	
Width	15 mm
Height	81 mm
Depth	52 mm
Weights	
Weight, approx.	50 g

last modified:

12/8/2024