SIEMENS

Data sheet

6ES7134-6FF00-0AA1



SIMATIC ET 200SP, Analog input module, AI 8XU Basic, suitable for BU type A0, A1, Color code CC02, Module diagnostics, 16 bit

Product type designation HW functional status Firmware version FW update possible usable BaseUnits Color code for module-specific color identification plate Product function I kM data I sochronous mode No Massuring range scalable Fighteering with STEP 7 TIA Portal configurable/integrated from version FROFINET from GSD version/GSD revision FROFINET from GSD version/GS	General information	
Firmware version • FW update possible usable BaseUnits Color code for module-specific color identification plate Product function • I&M data • Isochronous mode • Measuring range scalable Engineering with • STEP 7 TIA Portal configurable/integrated from version • STEP 7 configurable/integrated from version • PROFIBUS from GSD version/GSD revision • PROFIBUS from GSD version/GSD revision Operating mode • Oversampling • MSI CIR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN No Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) Power loss, typ. Address space per module • Address space per module • Address space per module • Address space per module, max. Hardware configuration Automatic encoding • Mechanical coding element • Yes • Type of mechanical coding element Yes	Product type designation	AI 8xU BA
FW update possible usable BaseUnits	HW functional status	from FS04
usable BaseUnits Color code for module-specific color identification plate Product function I &M data I & Sechronous mode I & Moone	Firmware version	
Color code for module-specific color identification plate Product function • I&M data • Isochronous mode • Measuring range scalable Engineering with • STEP 7 TIA Portal configurable/integrated from version • PROFIBUS from GSD version/GSD revision • PROFIBUS from GSD version/GSD revision • PROFINET from GSD version/GSD revision • Oversampling • Oversampling • MSI CIR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN No Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) permissible range, styp. Address area Address space per module • Address space per module, max. 16 byte Hardware configuration • Type of mechanical coding element	 FW update possible 	Yes
Product function • I&M data • Isochronous mode • Measuring range scalable Engineering with • STEP 7 TIA Portal configurable/integrated from version • PROFIBUS from GSD version/GSD revision • No CIR- Configuration possible in RUN Reparameterization possible in RUN Reparameterization possible in RUN No Supply voltage Rated value (DC) permissible range, lover limit (DC) perm	usable BaseUnits	BU type A0, A1
I like data I sochronous mode Measuring range scalable Engineering with STEP 7 TIA Portal configurable/integrated from version FROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision Profi	Color code for module-specific color identification plate	CC02
● Measuring range scalable Engineering with ● STEP 7 TIA Portal configurable/integrated from version ● STEP 7 Tonfigurable/integrated from version ● STEP 7 Tonfigurable/integrated from version ● PROFIBUS from GSD version/GSD revision ● PROFIBUS from GSD version/GSD revision ● PROFINET from GSD version/GSD revision ● PROFINET from GSD version/GSD revision Operating mode ● Oversampling ● MSI No CIR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN No Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) 28.8 ∨ Reverse polarity protection Yes Input current Current consumption, max. 25 mA Power loss Power loss, typ. Address space per module ● Address space per module ● Address space per module, max. 16 byte Hardware configuration Automatic encoding ● Yes ● Mechanical coding element ● Tyes of mechanical coding element ● Type of mechanical coding element V13 SP1 V13 Sethonacal coding element V13 Sethonacal coding element V10 Sethonacal coding element	Product function	
Measuring range scalable Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 Tonfigurable/integrated from version PROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision PROFINET from GSD version/GSD revision PROFINET from GSD version/GSD revision Operating mode Oversampling MSI No CIR - Configuration in RUN Reparameterization possible in RUN Reparameterization possible in RUN No Supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range value (● I&M data	Yes; I&M0 to I&M3
Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision SEMI V2.3 One GSD file each, Revision 3 and 5 and higher GSDML V2.3 One GSD file each, Revision 3 and 5 and higher SDML V2.3 One GSD file each, Revision 5 and higher SDML V2.3 One GSD file each, Revision 5 and higher SDML V2.3 One GSD file each, Revision 5 and higher SDML V2.3 One GSD file each, Revision 5 and higher SDML V2.3 One GSD file each, Revision 5 and higher SDML V2.3 One GSD file each, Revision 5 and higher SDML V2.3 One GSD file each, Revision 5 and higher SDML V2.3 One GSD file each, Revision 5 and higher SDML V2.3 One GSD file each, Revision 5 and higher SDML V2.3 One GSD file each, Revision 5 a	 Isochronous mode 	No
STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision SEML V2.3 Operating mode Oversampling MSI No SUBJECTION ON Reparameterization in RUN Reparameterization possible in RUN Calibration possible in RUN No Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. Power loss Power loss, typ. Address space per module Address space per module, max. Hardware configuration Automatic encoding Mechanical coding element Yes Type of mechanical coding element V5.5 SP3 /- One GSD file each, Revision 3 and 5 and higher One GSD file each, Revision 3 and 5 and higher One GSD file each, Revision 3 and 5 and higher One GSD file each, Revision 3 and 5 and higher One GSD file each, Revision 3 and 5 and higher One GSD file each, Revision 3 and 5 and higher One GSD file each, Revision 3 and 5 and higher One GSD file each, Revision 3 and 5 and higher One GSD file each, Revision 3 and 5 and higher One GSD file each, Revision 3 and 5 and higher One GSD file each, Revision 3 and 5 and higher One GSD file each, Revision 5 and 5 and higher One GSD file each, Revision 3 and 5 and higher One GSD file each, Revision 5 and 5 and higher One GSD file each, Revision 5 and 5 and higher One GSD file each, Revision 5 and 5 and higher One GSD file each, Revision 5 and 5 and higher One GSD file each, Revision 5 and 5 and higher One GSD file each, Revision 5 and 5 and higher One GSD file each, Revision 5 and 5 and higher One GSD file each, Revision 5 and 5 and higher One GSD file each, Revision 5 and 5 and higher One GSD file each, Revision 5 and 5 and higher One GSD file each, Revision 5 and 5 and higher One GSD file each, Revision 5 and 5 and higher O	 Measuring range scalable 	No
version • STEP 7 configurable/integrated from version • PROFIBUS from GSD version/GSD revision • PROFIBUS from GSD version/GSD revision • PROFINET from GSD version/GSD revision • PROFINET from GSD version/GSD revision • Oversampling • Oversampling • MSI No CIR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) Reverse polarity protection Input current Current consumption, max. Power loss Power loss Power loss, typ. Address space per module • Address space per module, max. Address space per module, max. Hardware configuration Automatic encoding • Yes • Type of mechanical coding element • Type of mechanical coding element • Type of mechanical coding element type B	Engineering with	
PROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision Operating mode Oversampling MSI No CIR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN No Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) Reverse polarity protection Ves Input current Current consumption, max. Power loss Power loss, typ. Address area Address space per module Address space per module, max. Automatic encoding Automatic encoding Mechanical coding element Yes Type of mechanical coding element Value on SSDML V2.3 No One GSD file each, Revision 3 and 5 and higher GSDML V2.3 GSDML V2.3 One GSD file each, Revision 3 and 5 and higher GSDML V2.3 One GSD file each, Revision 3 and 5 and higher GSDML V2.3 GSDML V2.3 One GSD file each, Revision 3 and 5 and higher GSDML V2.3 One GSD file each, Revision 3 and 5 and higher GSDML V2.3 One GSD file each, Revision 3 and 5 and higher GSDML V2.3 One GSD file each, Revision 3 and 5 and higher GSDML V2.3 No Pes Type of mechanical coding element Ves Type of mechanical coding element Value One GSD file each, Revision 3 and 5 and higher Available of SDML V2.3 No Pes Type of mechanical coding element Value Type of mechanical coding element Value Type of mechanical coding element Value Type of mechanical coding element Type of mechanical coding element Type of mechanical coding element		V13 SP1
● PROFINET from GSD version/GSD revision Operating mode ● Oversampling ● MSI No CIR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN No Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC	 STEP 7 configurable/integrated from version 	V5.5 SP3 / -
Operating mode Oversampling No MSI No CiR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN No Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. 25 mA Power loss Power loss, typ. Address area Address space per module Address space per module, max. 16 byte Hardware configuration Automatic encoding Mechanical coding element Yes Type of mechanical coding element Ves Type of mechanical coding element Yes Type of mechanical coding element Type of mechanical coding	 PROFIBUS from GSD version/GSD revision 	One GSD file each, Revision 3 and 5 and higher
Oversampling	 PROFINET from GSD version/GSD revision 	GSDML V2.3
No CiR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN No Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. 25 mA Power loss Power loss Power loss Address space per module • Address space per module, max. Address space per module, max. Automatic encoding Mechanical coding element Yes Type of mechanical coding element Yes Type of mechanical coding element Yes Type of mechanical coding element Yes Type of mechanical coding element Yes Type of mechanical coding element Yes	Operating mode	
CiR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN No Supply voltage Rated value (DC) 24 V permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. 25 mA Power loss Power loss Power loss, typ. 0.7 W Address area Address space per module • Address space per module, max. 16 byte Hardware configuration Automatic encoding Yes • Mechanical coding element Yes • Type of mechanical coding element type B	 Oversampling 	No
Reparameterization possible in RUN Calibration possible in RUN No Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. 25 mA Power loss Power loss, typ. 0.7 W Address area Address space per module • Address space per module, max. Address space per module, max. 16 byte Hardware configuration Automatic encoding • Mechanical coding element • Type of mechanical coding element Yes Type of mechanical coding element Type of mechanical coding element Automatic encoding Automatic encoding type B	• MSI	No
Calibration possible in RUN Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. 25 mA Power loss Power loss, typ. Address area Address space per module • Address space per module, max. 16 byte Hardware configuration Automatic encoding • Mechanical coding element • Type of mechanical coding element • Type of mechanical coding element • Type of mechanical coding element type B	CiR - Configuration in RUN	
Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Input current Current consumption, max. Power loss Power loss, typ. Address area Address space per module Address space per module, max. Address space per module, max. Address space per module, max. Automatic encoding Mechanical coding element Type of mechanical coding element Type of mechanical coding element Yes Type of mechanical coding element Automatic mechanical coding element Automatic mechanical coding element Type of mechanical coding element	Reparameterization possible in RUN	Yes
Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. 25 mA Power loss Power loss, typ. Address area Address space per module Address space per module Address space per module, max. 16 byte Hardware configuration Automatic encoding Mechanical coding element Type of mechanical coding element Typ	Calibration possible in RUN	No
permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. 25 mA Power loss Power loss, typ. 0.7 W Address area Address space per module • Address space per module, max. In byte Automatic encoding Automatic encoding • Mechanical coding element • Type of mechanical coding element • Type of mechanical coding element • Type of mechanical coding element • Type of mechanical coding element • Type of mechanical coding element • Type of mechanical coding element • Type of mechanical coding element • Type of mechanical coding element • Type of mechanical coding element • Type of mechanical coding element • Type of mechanical coding element • Type of mechanical coding element • Type of mechanical coding element • Type of mechanical coding element • Type of mechanical coding element • Type of mechanical coding element	Supply voltage	
permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. Power loss Power loss, typ. Address area Address space per module • Address space per module, max. 16 byte Hardware configuration Automatic encoding • Mechanical coding element • Type of mechanical coding element • Type of mechanical coding element yes type B	Rated value (DC)	24 V
Reverse polarity protection Input current Current consumption, max. Power loss Power loss, typ. Address area Address space per module • Address space per module, max. Hardware configuration Automatic encoding • Mechanical coding element • Type of mechanical coding element type B	permissible range, lower limit (DC)	19.2 V
Input current Current consumption, max. 25 mA Power loss Power loss, typ. 0.7 W Address area Address space per module • Address space per module, max. Hardware configuration Automatic encoding • Mechanical coding element • Type of mechanical coding element type B	permissible range, upper limit (DC)	28.8 V
Current consumption, max. Power loss Power loss, typ. O.7 W Address area Address space per module • Address space per module, max. Hardware configuration Automatic encoding • Mechanical coding element • Type of mechanical coding element type B	Reverse polarity protection	Yes
Power loss, typ. 0.7 W Address area Address space per module • Address space per module, max. 16 byte Hardware configuration Automatic encoding • Mechanical coding element • Type of mechanical coding element type B	Input current	
Power loss, typ. 0.7 W Address area Address space per module • Address space per module, max. 16 byte Hardware configuration Automatic encoding Yes • Mechanical coding element Yes • Type of mechanical coding element type B	Current consumption, max.	25 mA
Address area Address space per module • Address space per module, max. 16 byte Hardware configuration Automatic encoding Yes • Mechanical coding element Yes • Type of mechanical coding element type B	Power loss	
Address space per module • Address space per module, max. Hardware configuration Automatic encoding • Mechanical coding element • Type of mechanical coding element type B	Power loss, typ.	0.7 W
 Address space per module, max. Hardware configuration Automatic encoding Mechanical coding element Type of mechanical coding element type B 	Address area	
Hardware configuration Automatic encoding • Mechanical coding element • Type of mechanical coding element type B	Address space per module	
Automatic encoding • Mechanical coding element • Type of mechanical coding element type B	Address space per module, max.	16 byte
 Mechanical coding element Type of mechanical coding element type B 	Hardware configuration	
Type of mechanical coding element	Automatic encoding	Yes
		Yes
Selection of BaseUnit for connection variants	Type of mechanical coding element	type B
	Selection of BaseUnit for connection variants	

• 1 wire connection	RII type A0 A1
1-wire connection 2-wire connection	BU type A0, A1 BU type A0, A1
	Do type Au, Al
Analog inputs	0. Cingle anded
Number of analog inputs • For voltage measurement	8; Single-ended 8
permissible input voltage for voltage input (destruction	30 V
limit), max.	30 V
Cycle time (all channels), min.	1 ms; per channel
Input ranges (rated values), voltages	
• 0 to +10 V	Yes; 15 bit
— Input resistance (0 to 10 V)	100 kΩ
• -10 V to +10 V	Yes; 16 bit incl. sign
— Input resistance (-10 V to +10 V)	100 kΩ
Cable length	
• shielded, max.	200 m
Analog value generation for the inputs	
Integration and conversion time/resolution per channel	
 Resolution with overrange (bit including sign), max. 	16 bit
 Integration time, parameterizable 	Yes
Interference voltage suppression for interference frequency f1 in Hz	16.67 / 50 / 60 / 4 800 (16.67 / 50 / 60)
frequency f1 in Hz Conversion time (per channel)	180 / 60 / 50 / 0.625 (67.5 / 22.5 / 18.75) ms
Smoothing of measured values	160 / 60 / 50 / 6.025 (67.5 / 22.5 / 16.75) IIIS
Number of smoothing levels	4; None; 4/8/16 times
parameterizable	Yes
Encoder	
Connection of signal encoders	
for voltage measurement	Yes
for current measurement as 4-wire transducer	No
Errors/accuracies	
Linearity error (relative to input range), (+/-)	0.01 %
Temperature error (relative to input range), (+/-)	0.005 %/K
Crosstalk between the inputs, min.	-50 dB
Repeat accuracy in steady state at 25 °C (relative to input	0.05 %
range), (+/-)	
Operational error limit in overall temperature range	
 Voltage, relative to input range, (+/-) 	0.5 %
Basic error limit (operational limit at 25 °C)	
 Voltage, relative to input range, (+/-) 	0.3 %
Interference voltage suppression for f = n x (f1 +/- 1 %), f1 =	
 Series mode interference (peak value of interference < rated value of input range), min. 	70 dB; With conversion time 67.5 / 22.5 / 18.75 ms: 40 dB
1 0 7	
Interrupts/diagnostics/status information	V
Diagnostics function Alarms	Yes
Diagnostic alarm	Yes
Limit value alarm	No
Diagnoses	110
Monitoring the supply voltage	Yes
Wire-break	No
Short-circuit	No
Group error	Yes
Overflow/underflow	Yes
Diagnostics indication LED	
 Monitoring of the supply voltage (PWR-LED) 	Yes; green PWR LED
 Channel status display 	Yes; green LED
 for channel diagnostics 	No
for module diagnostics	Yes; green/red DIAG LED
Potential separation	
Potential separation channels	
between the channels	No
 between the channels and backplane bus 	Yes
 between the channels and the power supply of the 	No

electronics	
Isolation	
Isolation tested with	707 V DC (type test)
Ambient conditions	
Ambient temperature during operation	
 horizontal installation, min. 	-30 °C; < 0 °C as of FS04
 horizontal installation, max. 	60 °C
 vertical installation, min. 	-30 °C; < 0 °C as of FS04
 vertical installation, max. 	50 °C
Altitude during operation relating to sea level	
 Installation altitude above sea level, max. 	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
Dimensions	
Width	15 mm
Height	73 mm
Depth	58 mm
Weights	
Weight, approx.	31 g
last modified:	1/24/2021 🗗