## **SIEMENS**

## **Data sheet**

6ES7134-4JB51-0AB0



\*\*\* Spare part \*\*\* SIMATIC DP, Electronics module for ET 200S, 2/4 AI RTD Standard, 15 mm width, 15 bit+sign Pt100 STD; Pt100 KL; NI100 STD; NI100 KL; 150 ohm; 300 ohm; 600 ohm; Cycle time 110 ms/channel with SF LED (group fault)

General information		
Product function		
<ul> <li>Isochronous mode</li> </ul>	No	
Supply voltage		
Load voltage L+		
Rated value (DC)	24 V; From power module	
<ul> <li>Reverse polarity protection</li> </ul>	Yes	
Input current		
from load voltage L+ (without load), max.	30 mA	
from backplane bus 3.3 V DC, max.	10 mA	
output voltage / header		
supply voltage of the transmitters / header		
• present	Yes	
<ul> <li>short-circuit proof</li> </ul>	Yes	
Power loss		
Power loss, typ.	0.6 W	
Address area		
Address space per module		
<ul> <li>Address space per module, max.</li> </ul>	8 byte	
Analog inputs		
Number of analog inputs	4; 2 for 3 or 4-wire connection	
permissible input voltage for voltage input (destruction limit), max.	9 V	
Constant measurement current for resistance-type transmitter, typ.	1.67 mA	
Cycle time (all channels) max.	Number of active channels per module x basic conversion time	
Technical unit for temperature measurement adjustable	No	
Input ranges (rated values), resistance thermometer		
• Ni 100	Yes; Standard/climate	
— Input resistance (Ni 100)	2 000 kΩ	
• Pt 100	Yes; Standard/climate	
— Input resistance (Pt 100)	2 000 kΩ	
Input ranges (rated values), resistors		
• 0 to 150 ohms	Yes	
<ul><li>— Input resistance (0 to 150 ohms)</li></ul>	2 000 kΩ	
• 0 to 300 ohms	Yes	
<ul><li>— Input resistance (0 to 300 ohms)</li></ul>	2 000 kΩ	
• 0 to 600 ohms	Yes	
— Input resistance (0 to 600 ohms)	2 000 kΩ	
Characteristic linearization		

Cable length  - Interestance thermometer  Cable length  - Integration and conversion timeresolution per channel  - Resolution time (per channel)  - Integration time, parameterizable  - Integration of signal encoders  - Integr	parameterizable	Yes; for Pt100, Ni100
cable length	·	
Analog value generation for the inputs  Measurement principle Integration and conversion time/resolution per channel  - Resolution with overrange (his including sign), max Integration time, parameterizable - Integration time, per channel) - Shoothing of measured values - Parameterizable - Singo: None - Singo		(
Measurement principle integration of conversion time/resolution per channel  • Resolution with overrange (oit including sign), max • Integration time, parameterizable • Steps: None • Overflow/underflow • Overflow		200 m
Integration and conversion time/resolution per channel    - Resolution with overrange (pit including sign), max.    - Integration time, parameterizable    - Integration time (ms)		
Integration and conversion turne/resolution per channel  • Resolution with overange (bit including sign), max.  • Integration time, parameterizable  • Integration time (ms)  • Integration time (ms)  • Integration time (ms)  • Interference overage suppression for interference frequency ff in Hz  • Conversion time (per channel)  Smoothing of measured values  • Darameterizable  • Sign : None  • Sign : Wes; In x cycle time  • Yes; Sign : Wes; In x cycle time  • Sign : Wes; In x cycle time  • Yes; Sign : Wes; In x cycle time  • Yes; Sign : Wes; In x cycle time  • Yes; Sign : Wes; In x cycle time  • Yes; Sign : Wes; In x cycle time  • Yes; Sign : Wes; In x cycle time  • Yes; Sign : Wes; In x cycle time  • Yes; Sign : Wes; In x cycle time  • Yes; Sign : Wes; In x cycle time  • Yes; Sign : Wes; In x cycle time  • Yes; Sign : Wes; In x cycle time  • Yes; Sign : Wes; In x cycle time  • Yes; Sign : Wes; In x cycle time  • Yes; Sign : Wes; In x cycle time  • Yes; Sign : Wes; Wes; Wes; Wes; Wes; Wes; Wes; Wes;		integrating
Resolution with overrange (bit including sign), max. Integration time, parameterizable Integration time (ms) Interference voltage suppression for interference frequency if in Hz Conversion time (per channel) Interference voltage suppression for interference frequency if in Hz Conversion time (per channel) Interference voltage suppression for interference frequency if in Hz Conversion time (per channel) Interference voltage suppression for interference frequency if in Hz Conversion time (per channel) Interference voltage suppression for interference frequency if in Hz Conversion time (per channel) Interference voltage suppression for interference frequency if in Hz Conversion time (per channel) Interference voltage suppression for interference frequency if in Hz Conversion time (per channel) Interference voltage suppression for interference frequency in Hz Conversion time (per channel) Interference voltage suppression for interference frequency in Hz Conversion time (per channel) Interference voltage suppression for interference frequency in Hz Conversion time (per channel) Interference voltage suppression for interference frequency in Hz Conversion time (per channel) Interference voltage suppression for interference frequency in Hz Conversion time (per channel) Interference voltage suppression for interference frequency in Hz Conversion time (per channel voltage time voltage time very suppression frequency very suppression frequency very suppression frequency very suppression frequency very suppression very suppression frequency very suppression frequency very suppression very suppression frequency very suppression frequency very suppression v		
Integration time (ms)	-	16 bit; 150 ohms: 14 bit; 300, 600 ohms: 15 bit, Pt100, Ni100: 16 bit
Interference voltage suppression for interference frequency f in ±z	Integration time, parameterizable	
frequency fi in Hz Convertion time (per channel)  Smoothing of measured values  • parameterizable • Step: None • Step: None • Step: None • Step: We Step: Medium • Step: High • Yes; Ax cycle time • Step: High • Yes; 64x cycle time  Connection of signal encoders  • for resistance measurement with two-vire connection • for resistance measurement with twe-wire connection • for resistance measurement with two-vire connection • for resistance measurement with resewire connection • for resistance measurement with resewire connection • for resistance measurement with four-vire connection • Resistance thermometer, relative to input range, (+/-)	Integration time (ms)	16,7 / 20 ms
Smoothing of measured values  • parameterizable • Site; None • Site;: None • Step; Iwa • Step; Iwa • Step; Illy • Step; High • Step; Step; High • Step; Step; High • Step; Step; High • Step;		50 / 60 Hz
parameterizable Step: None Step: Night Step: None Step: Night Step:	Conversion time (per channel)	66 / 80 ms; additional conversion time for diagnostic wire break test
Step: None Step: None Step: Idedium Step: Medium Step: High High Hight Step: High Hight Hight Step: High Hight Hight Hight Step: High Hight	Smoothing of measured values	
Step: low Step: Medium Step: Medium Step: High Yes; 32x cycle time Step: High Faccider  Connection of signal encoders  of or resistance measurement with two-wire connection of or resistance measurement with four-wire connection Operational error limit in overall temperature range  Resistance thermometer, relative to input range, (+/-)  sasic error limit (operational limit at 25 "C) Resistance thermometer, relative to input range, (+/-)  of Resistance thermometer,	<ul> <li>parameterizable</li> </ul>	Yes; In four stages by means of digital filtering
Step: High Yes; 32x cycle time Step: High Yes; 64x cycle time  Connection of signal encoders  • for resistance measurement with two-wire connection • for resistance measurement with tree-wire connection • for resistance measurement with free-wire connection • for resistance measurement with frou-wire connection • for resistance measurement with four-wire connection • Yes  Corrol-accuracies  Operational error limit in overall temperature range • Resistance thermometer, relative to input range, (+/-) • Resistance thermometer, relative to input range, (+/-) • Resistance thermometer, relative to input range, (+/-) • Mire-break • Wire-break • Group error • Overflow/underflow • Overflow/underflow • Overflow/underflow • Overflow/underflow • Overflow/underflow • Disable / enable  Orentoul soparation  Potential separation analog inputs • between the channels and backplane bus • Detween the channels and backplane bus • Detween the channels and backplane bus • Detween the channels and load voltage L+  Yes  Solation  Solation  Solation  Solation  Solation  Formation  Widh • Is mm  Height • Depth • Solation  So	Step: None	Yes; 1x cycle time
Step: High Processor  Connection of signal encoders  • for resistance measurement with two-wire connection • for resistance measurement with three-wire connection • for resistance measurement with four-wire connection • for resistance measurement with four-wire connection • for resistance measurement with four-wire connection  Frors/accuracies  Operational error limit in overall temperature range • Resistance thermometer, relative to input range, (+/-) • Resistance thermometer, relative to input range, (+/-) • Resistance thermometer, relative to input range, (+/-)  Interrupte/diagnostics/status information  Diagnoses • Wire-break • Wire-break • Group error • Overflow/underflow  Diagnostics indication LED • Group error SF (red)  Parameter  Diagnostics wire break  Group diagnostics wire break  Potential separation analog inputs • between the channels wire wire wire wire wire wire wire wire	Step: low	Yes; 4x cycle time
Encoder  Connection of signal encoders  • for resistance measurement with two-wire connection • for resistance measurement with four-wire connection • for resistance measurement with four-wire connection • for resistance measurement with four-wire connection  Errors/accuracies  Operational error limit in overall temperature range • Resistance thermometer, relative to input range, (+/-)  Resistance thermometer, relative to input range, (+/-) • Resistance thermometer, relative to input range, (+/-)  • Resistance thermometer, relative to input range, (+/-)  • Resistance thermometer, relative to input range, (+/-)  • Ves • Resistance thermometer, relative to input range, (+/-)  • Resistance thermometer, rel	Step: Medium	Yes; 32x cycle time
Connection of signal encoders  • for resistance measurement with two-wire connection • for resistance measurement with four-wire connection • for sistance thermometer, relative to input range, (+/-) • Resistance thermometer, relative to input range, (+/-) • for sistance thermometer, relative to input range, (+/-) •	Step: High	Yes; 64x cycle time
• for resistance measurement with two-wire connection • for resistance measurement with three-wire connection • for resistance measurement with four-wire connection • for resistance measurement with four-wire connection  Frors/accuracies  Operational error limit in overall temperature range • Resistance thermometer, relative to input range, (+/-) • Resistance thermometer relative to input rang	Encoder	
for resistance measurement with three-wire connection     for resistance measurement with four-wire connection     for resistance measurement with four-wire connection     Forces/accuracies  Operational error limit in overall temperature range     Resistance thermometer, relative to input range, (+/-)      Resistance thermometer, relative to input range, (+/-)     Resistance thermometer	Connection of signal encoders	
• for resistance measurement with four-wire connection  Frors/Accuracies  Operational error limit in overall temperature range  • Resistance thermometer, relative to input range, (+/-)  Basic error limit (operational limit at 25 °C)  • Resistance thermometer, relative to input range, (+/-)  Interrupts/diagnostics/status information  Diagnoses  • Wire-break Yes  • Group error Yes  • Overflow/underflow  Diagnostics indication LED  • Group error SF (red)  Parameter  Diagnostics wire break  Group diagnostics wire break  Overflow/underflow  Disable / enable  Overflow/underflow  Disable / enable  Potential separation  Potential separation  Potential separation analog inputs  • between the channels No  • between the channels and load voltage L+  Yes  Between the channels and load voltage L+  Yes  Is mm  Height  Bat mm  Depth  S2 mm  Weights	<ul> <li>for resistance measurement with two-wire connection</li> </ul>	Yes
Errors/accuracies  Operational error limit in overall temperature range  Resistance thermometer, relative to input range, (+/-) Resistance thermometer to A. % Resistance thermometer (-/	<ul> <li>for resistance measurement with three-wire connection</li> </ul>	Yes
Operational error limit in overall temperature range  Resistance thermometer, relative to input range, (+/-)  Basic error limit (operational limit at 25 °C)  Resistance thermometer, relative to input range, (+/-)  Resistance thermometer, relative to input range, (+/-)  Nessistance thermometer, vessional particles the season of the seaso	for resistance measurement with four-wire connection	Yes
Resistance thermometer, relative to input range, (+/-)  Basic error limit (operational limit at 25 °C)  Resistance thermometer, relative to input range, (+/-)  Interrupts/diagnostics/status information  Diagnoses  Wire-break  Group error  Overflow/underflow  Parameter  Diagnostics indication LED  Group error SF (red)  Parameter  Diagnostics wire break  Disable / enable  Group diagnostics  Overflow/underflow  Disable / enable  Overflow/underflow  Disable / enable  Potential separation  Potential separation analog inputs  Detween the channels  Detween the channels and backplane bus  Between the channels and load voltage L+  Yes  Isolation  Isolation tested with  Disable / enable  Sou V DC  Dimensions  Width  15 mm  Height  81 mm  Depth  S2 mm  Weights	Errors/accuracies	
Basic error limit (operational limit at 25 °C)  Resistance thermometer, relative to input range, (+/-)  Interrupts/diagnostics/status information  Diagnoses  Wire-break Group error Group error Group error SF (red) Parameter  Diagnostics wire break Group diagnostics  Overflow/underflow Diagnostics wire break Diagnostics Diagnostics Diagnostics wire break Diagnostics Wire break Potential separation  Potential separation  Potential separation  Potential separation  Potential separation analog inputs Detween the channels and backplane bus Detween the channels and load voltage L+ Yes  Isolation  Isolation tested with Sou V DC  Dimensions  Width Height Bi Imm Depth Sumble  Sou M M Sou Hambel Diagnostics Bi Imm Depth Sumble Detween the channels Bi Imm Depth Bi Imm B	Operational error limit in overall temperature range	
Resistance thermometer, relative to input range, (+/-)  Interrupts/diagnostics/status information  Diagnoses  Wire-break Group error Overflow/underflow Yes  Diagnostics indication LED Group error SF (red) Parameter  Diagnostics wire break Disable / enable Group diagnostics Overflow/underflow Disable / enable Overflow/underflow Disable / enable  Potential separation  Potential separation analog inputs Detential separation  No Detential separation  No Detential separation Disable / enable Di	Resistance thermometer, relative to input range, (+/-)	0.6 %
Interrupts/diagnostics/status information  Diagnoses  • Wire-break Yes • Group error Yes • Overflow/underflow Yes  Diagnostics indication LED • Group error SF (red) Yes  Parameter  Diagnostics wire break Disable / enable  Group diagnostics  Overflow/underflow Disable / enable  Overflow/underflow Disable / enable  Potential separation  Potential separation analog inputs • between the channels No • between the channels and backplane bus Yes • Between the channels and load voltage L+  Isolation  Isolation tested with 500 V DC  Dimensions  Width 15 mm  Height 81 mm  Depth 52 mm  Weights	Basic error limit (operational limit at 25 °C)	
Diagnoses		0.4 %
Wire-break Group error Yes Overflow/underflow Yes  Diagnostics indication LED Group error SF (red)  Parameter  Diagnostics wire break Diagnostics wire break Diagnostics Group diagnostics Disable / enable  Overflow/underflow Disable / enable  Potential separation  Potential separation analog inputs  between the channels between the channels and backplane bus Between the channels and load voltage L+ Yes  Isolation  Isolation tested with Dimensions  Width 15 mm Height 81 mm Depth Weights	Interrupts/diagnostics/status information	
Group error Overflow/underflow Yes  Diagnostics indication LED Group error SF (red) Yes  Parameter  Diagnostics wire break Disable / enable Group diagnostics Disable / enable Overflow/underflow Disable / enable  Potential separation  Potential separation analog inputs  between the channels between the channels and backplane bus Between the channels and load voltage L+ Yes  Isolation  Isolation tested with Soo V DC  Dimensions  Width 15 mm Height B1 mm Depth Weights	Diagnoses	
Overflow/underflow Piagnostics indication LED Group error SF (red) Parameter  Diagnostics wire break Disable / enable Group diagnostics Disable / enable Overflow/underflow Disable / enable Potential separation  Potential separation Potential separation analog inputs  • between the channels • between the channels and backplane bus • Between the channels and load voltage L+  Selection  Isolation  Isolation  Width  15 mm  Height  B1 mm  Depth  62 mm  Weights	Wire-break	
Diagnostics indication LED  Group error SF (red)  Parameter  Diagnostics wire break  Group diagnostics  Disable / enable  Overflow/underflow  Disable / enable  Potential separation  Potential separation analog inputs  Between the channels Between the channels and backplane bus Between the channels and load voltage L+  Solation  Isolation tested with  Disable / enable  No  Yes  Yes  Solot V DC  Dimensions  Width  15 mm  Height  81 mm  Depth  Solot mm  Weights	·	
Group error SF (red)  Parameter  Diagnostics wire break Group diagnostics Disable / enable  Overflow/underflow Disable / enable  Potential separation  Potential separation analog inputs      • between the channels and backplane bus     • between the channels and load voltage L+  Between the channels and load voltage L+  Isolation  Isolation  Isolation tested with Dimensions  Width Midth M		Yes
Parameter  Diagnostics wire break  Group diagnostics  Disable / enable  Overflow/underflow  Disable / enable  Potential separation  Potential separation analog inputs  • between the channels of between the channels and backplane bus of between the channels and load voltage L+ of the channels of the ch	•	
Disable / enable Group diagnostics Disable / enable Overflow/underflow Disable / enable  Potential separation  Potential separation analog inputs  • between the channels • between the channels and backplane bus • Between the channels and load voltage L+  Isolation Isolation tested with  500 V DC  Dimensions  Width 15 mm  Height 81 mm  Depth 52 mm  Weights		Yes
Group diagnostics  Overflow/underflow  Disable / enable  Potential separation  Potential separation analog inputs  • between the channels • between the channels and backplane bus • Between the channels and load voltage L+  Isolation  Isolation tested with  500 V DC  Dimensions  Width  15 mm  Height  81 mm  Depth  52 mm  Weights		
Overflow/underflow  Potential separation  Potential separation analog inputs  • between the channels • between the channels and backplane bus • Between the channels and load voltage L+  Isolation  Isolation  Width  15 mm  Height  Depth  52 mm  Weights	·	
Potential separation  Potential separation analog inputs  • between the channels • between the channels and backplane bus • Between the channels and load voltage L+  Yes  Isolation  Isolation tested with  500 V DC  Dimensions  Width 15 mm  Height Bethyder of the channels and load voltage L+  Between the channels and load voltage L+  Yes  Isolation tested with 500 V DC  Dimensions  Width 15 mm  Height Bethyder of the channels and load voltage L+  Between the channels and load voltage L+  Yes  Isolation  Isolation tested with 500 V DC  Dimensions  Width 15 mm  Height Bethyder of the channels and load voltage L+  Between the channels and load voltage L+  Yes  Isolation  Isolation tested with 500 V DC  Dimensions  Width 15 mm  Height Bethyder of the channels and load voltage L+  Between the channels and load voltage L+  Yes  Isolation  Isolation tested with 500 V DC		
Potential separation analog inputs  • between the channels • between the channels and backplane bus • between the channels and load voltage L+  Yes  Isolation  Isolation tested with  500 V DC  Dimensions  Width  15 mm  Height  81 mm  Depth  52 mm  Weights		Disable / enable
between the channels     between the channels and backplane bus     Between the channels and load voltage L+  Isolation  Isolation tested with  500 V DC  Dimensions  Width  15 mm  Height  81 mm  Depth  52 mm  Weights		
between the channels and backplane bus     Between the channels and load voltage L+  Isolation  Isolation tested with  500 V DC  Dimensions  Width  15 mm  Height  81 mm  Depth  52 mm  Weights	·	N-
● Between the channels and load voltage L+  Isolation  Isolation tested with  500 V DC  Dimensions  Width  15 mm  Height  81 mm  Depth  52 mm  Weights		
Isolation           Isolation tested with         500 V DC           Dimensions           Width         15 mm           Height         81 mm           Depth         52 mm           Weights	·	
Isolation tested with         500 V DC           Dimensions         Width           Wight         15 mm           Height         81 mm           Depth         52 mm           Weights         Weights		res
Dimensions           Width         15 mm           Height         81 mm           Depth         52 mm           Weights         The state of t		FOR V DO
Width         15 mm           Height         81 mm           Depth         52 mm           Weights		500 V DC
Height 81 mm  Depth 52 mm  Weights		
Depth 52 mm Weights		
Weights	·	
	·	52 mm
vveignt, approx. 40 g		40
	vveigni, approx.	40 g

last modified:

8/21/2024