## **SIEMENS**

## **Data sheet**

## 6ES7134-4GB52-0AB0



SIMATIC DP, Electronics module ET200S: 2AI High Speed I-2-wire 0-20 mA; 4.. 20mA, 15 bit, 15 mm width, for 2-wire transducer Cycle time of module: 0.1 ms, with SF LED (group fault)

Figure similar

Product function	
● Isochronous mode  Supply voltage  Lad voltage L+  ● Rated value (DC)  ● Short-circuit protection  Frewerse polarity protection  From load voltage L+ (without load), max.  From backplane bus 3.3 V DC, max.  10 mA  output voltage / header  supply voltage of the transmitters / header  ● present  ● present  ● short-circuit proof  Yes  Power loss.  Power loss, typ.  Address space per module  ● Address space per module, max.  Analog inputs  Number of analog inputs  Cycle time (all channels) max.  Input ranges (rated values), currents  ● 0 to 20 mA  — Input resistance (0 to 20 mA)  • 4 mA to 20 mA  Analog value generation for the inputs  Integration and conversion time/resolution per channel  • Resolution with overrange (bit including sign), max.  16 bit	
Supply voltage  Load voltage L+  Rated value (DC) Short-circuit protection Reverse polarity protection Reverse polarity protection Yes  Input current  from load voltage L+ (without load), max. 225 mA  from backplane bus 3.3 V DC, max. 10 mA  output voltage / header  supply voltage of the transmitters / header  present prover loss  Power loss, typ. 2.5 W  Address area  Address space per module Address space per module, max.  Analog inputs  Number of analog inputs  Cycle time (all channels) max.  Input ranges (rated values), currents  10 to 20 mA Pes Pour los Ot 20 mA Pes Cable length shielded, max.  Analog value generation for the inputs  Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max.  Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max.  16 bit	
Load voltage L+  • Rated value (DC) • Short-circuit protection • Reverse polarity protection • Reverse polarity protection  from load voltage L+ (without load), max.  from backplane bus 3.3 V DC, max.  from backplane bus 3.3 V DC, max.  10 mA  output voltage / header  supply voltage of the transmitters / header • present • present • short-circuit proof • Yes  Power loss  Power loss, typ.  Address area  Address space per module • Address space per module, max.  4 byte  Analog inputs  Number of analog inputs  2 Cycle time (all channels) max.  Input ranges (rated values), currents • 0 to 20 mA — Input resistance (0 to 20 mA) • 4 mA to 20 mA  • 4 mA to 20 mA  Analog value generation for the inputs  Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max.  16 bit	
Rated value (DC) Short-circuit protection Reverse polarity protection Reverse polarity protection Yes  Input current  from load voltage L+ (without load), max. 225 mA  from backplane bus 3.3 V DC, max. 10 mA  output voltage / header supply voltage of the transmitters / header present short-circuit proof Yes  Power loss Power loss, typ. Address area  Address space per module Address space per module, max.  Address space per module, max.  Analog inputs  Number of analog inputs  Cycle time (all channels) max.  Input ranges (rated values), currents  0 to 20 mA — Input resistance (0 to 20 mA)  106 Ω  4 mA to 20 mA Yes  Cable length shelded, max.  Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max.  16 bit	
Short-circuit protection Reverse polarity protection Reverse polarity protection Yes  Input current  from load voltage L+ (without load), max. 225 mA  from backplane bus 3.3 V DC, max. 10 mA  output voltage / header  supply voltage of the transmitters / header  • present • present • short-circuit proof Yes  Power loss, typ.  Address space Address space per module • Address space per module, max.  Address space per module, max.  4 byte  Analog inputs  Number of analog inputs  Cycle time (all channels) max.  Input ranges (rated values), currents • 0 to 20 mA — Input resistance (0 to 20 mA) • 4 mA to 20 mA  Pes  Cable length • shielded, max.  Analog value generation for the inputs  Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max.  16 bit	
Reverse polarity protection  Input current  from load voltage L+ (without load), max.  from backplane bus 3.3 V DC, max.  10 mA  output voltage / header  supply voltage of the transmitters / header  • present • short-circuit proof Yes  Power loss  Power loss, typ.  Address area  Address space per module • Address space per module, max.  Analog inputs  Number of analog inputs  Cycle time (all channels) max.  Input ranges (rated values), currents • 0 to 20 mA — Input resistance (0 to 20 mA) • 4 mA to 20 mA  Ves  Cable length • shielded, max.  Analog value generation for the inputs  Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max.  10 mA  225 mA 10 mA 225 mS 4 byte  4 byte  Analog value generation for the inputs  Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max.  16 bit	
Input current from load voltage L+ (without load), max. 225 mA from backplane bus 3.3 V DC, max. 10 mA output voltage / header supply voltage of the transmitters / header • present • present • short-circuit proof Yes  Power loss Power loss, typ. 2.5 W Address area Address space per module • Address space per module, max. 4 byte  Analog inputs  Number of analog inputs 2 Cycle time (all channels) max. 10 0.25 ms Input ranges (rated values), currents • 0 to 20 mA — Input resistance (0 to 20 mA) • 4 mA to 20 mA  • 4 mA to 20 mA  Cable length • shielded, max.  Analog value generation for the inputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. 16 bit	
from load voltage L+ (without load), max.  from backplane bus 3.3 V DC, max.  10 mA  output voltage / header  supply voltage of the transmitters / header  • present • short-circuit proof  Power loss  Power loss, typ.  Address space per module • Address space per module • Address space per module, max.  Analog inputs  Number of analog inputs  Cycle time (all channels) max.  Input ranges (rated values), currents  • 0 to 20 mA — Input resistance (0 to 20 mA) • 4 mA to 20 mA  Cable length • shielded, max.  Analog value generation for the inputs  Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max.  10 mA  10 mA  Yes  2.5 W  Address space per module  Yes  2 Cycle time (all channels) max.  10 0.25 ms  106 Ω  Yes  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	
from backplane bus 3.3 V DC, max.  output voltage / header  supply voltage of the transmitters / header  • present • short-circuit proof Yes  Power loss  Power loss  Power loss, typ.  Address area  Address space per module • Address space per module, max.  4 byte  Analog inputs  Number of analog inputs  Cycle time (all channels) max.  Input ranges (rated values), currents • 0 to 20 mA — Input resistance (0 to 20 mA) • 4 mA to 20 mA  Cable length • shielded, max.  Analog value generation for the inputs  Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max.  10 mA  Yes  10 mA  4 byte  4 byte	
output voltage / header   supply voltage of the transmitters / header   • present Yes   • short-circuit proof Yes   Power loss   Power loss, typ.   2.5 W   Address area   Address space per module   • Address space per module, max. 4 byte   Analog inputs   Number of analog inputs 2   Cycle time (all channels) max. 0.25 ms   Input ranges (rated values), currents • 0 to 20 mA   — Input resistance (0 to 20 mA) Yes   — Input resistance (0 to 20 mA) Yes   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	
supply voltage of the transmitters / header  • present • short-circuit proof  Power loss  Power loss, typ.  Address area  Address space per module • Address space per module, max.  Analog inputs  Number of analog inputs  Cycle time (all channels) max.  Input ranges (rated values), currents  • 0 to 20 mA — Input resistance (0 to 20 mA)  • 4 mA to 20 mA  Cable length • shielded, max.  Analog value generation for the inputs  Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max.  16 bit	
<ul> <li>present</li> <li>short-circuit proof</li> <li>Yes</li> <li>Power loss</li> <li>Power loss, typ.</li> <li>2.5 W</li> <li>Address area</li> <li>Address space per module</li> <li>Address space per module, max.</li> <li>4 byte</li> <li>Analog inputs</li> <li>Number of analog inputs</li> <li>2</li> <li>Cycle time (all channels) max.</li> <li>0.25 ms</li> <li>Input ranges (rated values), currents</li> <li>0 to 20 mA</li> <li>- Input resistance (0 to 20 mA)</li> <li>4 mA to 20 mA</li> <li>Yes</li> <li>Cable length</li> <li>shielded, max.</li> <li>Analog value generation for the inputs</li> <li>Integration and conversion time/resolution per channel</li> <li>Resolution with overrange (bit including sign), max.</li> <li>16 bit</li> </ul>	
Short-circuit proof     Power loss Power loss, typ. 2.5 W  Address area  Address space per module     Address space per module, max. 4 byte  Analog inputs  Number of analog inputs 2  Cycle time (all channels) max. 0.25 ms  Input ranges (rated values), currents     0 to 20 mA Yes     — Input resistance (0 to 20 mA) 106 Ω     4 mA to 20 mA Yes  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	
Power loss, typ.  Address area  Address space per module  • Address space per module, max.  Analog inputs  Number of analog inputs  Cycle time (all channels) max.  Input ranges (rated values), currents  • 0 to 20 mA  — Input resistance (0 to 20 mA)  • 4 mA to 20 mA  Cable length • shielded, max.  Analog value generation for the inputs  Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max.  16 bit	
Power loss, typ.  Address area  Address space per module  • Address space per module, max.  • Address space per module, max.  Analog inputs  Number of analog inputs  Cycle time (all channels) max.  Input ranges (rated values), currents  • 0 to 20 mA  — Input resistance (0 to 20 mA)  • 4 mA to 20 mA  Cable length • shielded, max.  Analog value generation for the inputs  Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max.  16 bit	
Address space per module  • Address space per module, max. 4 byte  Analog inputs  Number of analog inputs 2  Cycle time (all channels) max. 0.25 ms  Input ranges (rated values), currents  • 0 to 20 mA Yes — Input resistance (0 to 20 mA) 106 Ω • 4 mA to 20 mA Yes  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	
Address space per module  • Address space per module, max.  Analog inputs  Number of analog inputs  2  Cycle time (all channels) max.  Input ranges (rated values), currents  • 0 to 20 mA  — Input resistance (0 to 20 mA)  • 4 mA to 20 mA  Yes  Cable length  • shielded, max.  Analog value generation for the inputs  Integration and conversion time/resolution per channel  • Resolution with overrange (bit including sign), max.  4 byte  4 byte  4 byte  4 byte  4 byte  2  2  Cycle time (all channels) max.  10.25 ms  106 Ω  Yes  Cable length  • shielded, max.  Analog value generation for the inputs  Integration and conversion time/resolution per channel  • Resolution with overrange (bit including sign), max.  16 bit	
<ul> <li>Address space per module, max.</li> <li>Analog inputs</li> <li>Number of analog inputs</li> <li>Cycle time (all channels) max.</li> <li>0.25 ms</li> <li>Input ranges (rated values), currents</li> <li>0 to 20 mA</li> <li>— Input resistance (0 to 20 mA)</li> <li>4 mA to 20 mA</li> <li>Yes</li> <li>Cable length</li> <li>shielded, max.</li> <li>Analog value generation for the inputs</li> <li>Integration and conversion time/resolution per channel</li> <li>Resolution with overrange (bit including sign), max.</li> <li>4 byte</li> <li>4 byte</li> <li>200 ms</li> </ul>	
Analog inputs 2   Cycle time (all channels) max. 0.25 ms   Input ranges (rated values), currents • 0 to 20 mA Yes   — Input resistance (0 to 20 mA) 106 Ω   • 4 mA to 20 mA Yes   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	
Number of analog inputs       2         Cycle time (all channels) max.       0.25 ms         Input ranges (rated values), currents       Yes         • 0 to 20 mA       Yes         — Input resistance (0 to 20 mA)       106 Ω         • 4 mA to 20 mA       Yes         Cable length       • shielded, max.         • 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	
Cycle time (all channels) max.  Input ranges (rated values), currents  • 0 to 20 mA  — Input resistance (0 to 20 mA)  • 4 mA to 20 mA  Cable length  • shielded, max.  Analog value generation for the inputs  Integration and conversion time/resolution per channel  • Resolution with overrange (bit including sign), max.  0.25 ms  Ves  Yes  Yes  200 m	
Input ranges (rated values), currents  • 0 to 20 mA  — Input resistance (0 to 20 mA)  • 4 mA to 20 mA  Cable length  • shielded, max.  Analog value generation for the inputs  Integration and conversion time/resolution per channel  • Resolution with overrange (bit including sign), max.  16 bit	
• 0 to 20 mA  — Input resistance (0 to 20 mA)  • 4 mA to 20 mA  Yes  Cable length  • shielded, max.  Analog value generation for the inputs  Integration and conversion time/resolution per channel  • Resolution with overrange (bit including sign), max.  16 bit	
— Input resistance (0 to 20 mA)  • 4 mA to 20 mA  Yes  Cable length  • shielded, max.  Analog value generation for the inputs  Integration and conversion time/resolution per channel  • Resolution with overrange (bit including sign), max.  16 bit	
4 mA to 20 mA     Cable length     shielded, max.  Analog value generation for the inputs  Integration and conversion time/resolution per channel     Resolution with overrange (bit including sign), max.  16 bit	
Cable length  • shielded, max.  Analog value generation for the inputs  Integration and conversion time/resolution per channel  • Resolution with overrange (bit including sign), max.  16 bit	
<ul> <li>shielded, max.</li> <li>Analog value generation for the inputs</li> <li>Integration and conversion time/resolution per channel</li> <li>Resolution with overrange (bit including sign), max.</li> <li>16 bit</li> </ul>	
Analog value generation for the inputs  Integration and conversion time/resolution per channel  Resolution with overrange (bit including sign), max.  16 bit	
Integration and conversion time/resolution per channel  Resolution with overrange (bit including sign), max.  16 bit	
• Resolution with overrange (bit including sign), max. 16 bit	
3.37	
Smoothing of measured values	
• parameterizable Yes	
• Step: None Yes; 1x cycle time	
• Step: low Yes; 4x cycle time	
Step: Medium     Yes; 16x cycle time	
Step: High     Yes; 32x cycle time	
Encoder	

Connection of signal encoders		
for current measurement as 2-wire transducer	Yes	
Errors/accuracies		
Operational error limit in overall temperature range		
• Current, relative to input range, (+/-)	0.3 %	
Basic error limit (operational limit at 25 °C)		
<ul> <li>Current, relative to input range, (+/-)</li> </ul>	0.2 %	
Interrupts/diagnostics/status information		
Alarms		
Hardware interrupt	Yes	
Diagnoses		
Wire-break	Yes; at 4 to 20 mA	
Group error	Yes	
Overflow/underflow	Yes	
Diagnostics indication LED		
Group error SF (red)	Yes	
Parameter		
Diagnostics wire break	at 4 to 20 mA	
Group diagnostics	1	
Overflow/underflow	1	
Potential separation		
Potential separation analog inputs		
<ul> <li>between the channels</li> </ul>	No	
<ul> <li>between the channels and backplane bus</li> </ul>	Yes	
<ul> <li>Between the channels and load voltage L+</li> </ul>	Yes	
Dimensions		
Width	15 mm	
Height	81 mm	
Depth	52 mm	

last modified:

9/11/2023