SIEMENS

Data sheet 6BK1900-0AA00-0AA0



spare part SIPLUS HCS4000 I/O module temperature for acquisition of temperatures

General information	
Product type designation	PM4000 temperature
Installation type/mounting	
Mounting type	Screw mounting to CIM
Mounting position	vertical
Type of ventilation	Forced ventilation
Supply voltage	
Design of the power supply	Power supply via CIM
Power	
Active power input, max.	1 W
Analog inputs	
Number of analog inputs	4
● for 2-wire system	4
● for 4-wire system	2
Sensor current, typ.	210 µA
Impulse voltage resistance, max.	15 V
Input ranges	
● Thermocouple	Yes
● Resistance thermometer	Yes
Measuring range	
● Temperature for type J thermocouple, min.	0 °C
● Temperature for type J thermocouple, max.	650 °C
● Temperature for type K thermocouple, min.	0 °C
● Temperature for type K thermocouple, max.	440 °C
● Temperature for type L thermocouple, min.	0 °C
● Temperature for type L thermocouple, max.	640 °C
● Temperature for Pt 100 according to IEC 60751, min.	0 °C
● Temperature for Pt 100 according to IEC 60751, max.	410 °C
● Temperature for Pt 1000 according to IEC 60751, min.	0 °C
● Temperature for Pt 1000 according to IEC 60751, max.	850 °C
Connection method	
● Design of electrical connection for temperature sensors	plug, 8-pole with spring-type terminal, push-in
— Connectable conductor cross-sections for AWG cables	1x (24 ... 16)
— Connectable conductor cross-sections, solid	1x (0.2 ... 1.5 mm²)
— Connectable conductor cross-sections with wire end processing	1x (0.25 ... 1.5 mm²)
Analog value generation for the inputs	
Type of A/D conversion	Sigma Delta

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Conversion time	150 ms
Errors/accuracies	
Measuring accuracy	±1 K
Temperature drift per °C, typ.	0.05 %/°C
Temperature offset per K, max.	0.1 K/K
Interfaces	
Interfaces/bus type	system interface
Interrupts/diagnostics/status information	
Number of status displays	2
LED status display	LED green = Ready, LED red = Error display
Integrated Functions	
Measuring functions	
● Current measurement	Yes
Measuring inputs for current	
— Current measurement range, min.	0 mA
— Current measurement range, max.	20 mA
— Design of electrical connection at the measuring inputs for current	plug, 8-pole with spring-type terminal, push-in
— Connectable conductor cross-sections, solid	1x (0.2 ... 1.5 mm²)
— Connectable conductor cross-sections, finely stranded with wire end processing	1x (0.25 ... 1.5 mm²)
— Connectable conductor cross-sections for AWG cables	1x (24 ... 16)
Accuracy	
— Relative measuring accuracy current	0.5 %
Potential separation	
between the channels	No
Isolation	
Overvoltage category	III
Degree of pollution	2
EMC	
EMC interference emission	Limit value in accordance with IEC 61000-6-4:2007 + A1:2011
Electrostatic discharge acc. to IEC 61000-4-2	4 kV contact discharge / 8 kV air discharge
Field-related interference acc. to IEC 61000-4-3	10 V/m (80 ... 1 000 MHz), 3 V/m (1.4 ... 2.0 GHz), 1 V/m (2.0 ... 2.7 GHz)
Conducted interference due to burst acc. to IEC 61000-4-4	2 kV signal lines
Conducted interference due to surge acc. to IEC 61000-4-5	Not applicable
Conducted interference due to high-frequency radiation acc. to IEC 61000-4-6	10 V (0.15 ... 80 MHz)
Degree and class of protection	
IP degree of protection	IP20
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
China RoHS compliance	Yes
reference designation according to IEC 81346-2 (2009)	K
Ambient conditions	
Ambient temperature during operation	
● min.	0 °C
● max.	55 °C
Ambient temperature during storage/transportation	
● Storage, min.	-25 °C
● Storage, max.	70 °C
● Transportation, min.	-25 °C
● Transportation, max.	70 °C
Air pressure acc. to IEC 60068-2-13	
● Operation, min.	860 hPa

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● Operation, max.	1 080 hPa
● Storage, min.	660 hPa
● Storage, max.	1 080 hPa
Altitude during operation relating to sea level	
● Installation altitude above sea level, max.	2 000 m
Relative humidity	
● Operation at 25 °C, max.	95 %
● Operation at 50 °C, max.	50 %; 95 % at 25 °C, decreasing linearly to 50 % at 50 °C
Vibrations	
● Vibration resistance during operation acc. to IEC 60068-2-6	10 ... 58 Hz / 0.075 mm, 58 ... 150 Hz / 1 g
● Vibration resistance during storage acc. to IEC 60068-2-6	5 ... 8.5 Hz / 3.5 mm, 8.5 ... 500 Hz / 1 g
Shock testing	
● Shock resistance during operation acc. to IEC 60068-2-27	15 g / 11 ms / 3 shocks/axis
● Shock resistance during storage acc. to IEC 60068-2-29	25 g / 6 ms / 1 000 shocks/axis
Dimensions	
Width	27 mm
Height	141 m
Depth	110 mm

Classifications

	Version	Classification
eClass	16	27-24-40-02
eClass	14	27-24-40-02
eClass	12	27-24-40-02
eClass	9.1	27-24-40-02
eClass	9	27-24-40-02
eClass	8	27-24-26-01
eClass	7.1	27-24-26-01
eClass	6	27-24-26-01
ETIM	10	EC002985
ETIM	9	EC002985
ETIM	8	EC002985
ETIM	7	EC002985
IDEA	4	3562
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval	EMV

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