

SIPLUS CMS1200 SM1281 Condition monitoring for SIMATIC S7-1200 "4 IEPE vibration channels;" 1 digital input for rotational speed acquisition



General information	
Product brand name	SIPLUS
Product category	Condition Monitoring
Product description	S7-1200 module for the monitoring of vibrations on mechanical components based on parameters and frequency-selective analysis functions
Installation type/mounting	
Mounting type	Rail or wall mounting
Mounting position	Horizontal, vertical
Recommended mounting position	Horizontal
Supply voltage	
Type of supply voltage	DC
Rated value (DC)	Yes
• 24 V DC	Yes
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Input current	
Current consumption, typ.	200 mA

Current consumption, max.	250 mA
from backplane bus 5 V DC, typ.	80 mA
from backplane bus 5 V DC, max.	85 mA

Power loss

Power loss, typ.	4.8 W
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Memory

Total memory capacity	1 Gbyte
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Hardware configuration

Design of hardware configuration	Modular, up to 7 modules per CPU
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Speed input

Number of speed inputs	1
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Input voltage

<ul style="list-style-type: none"> • 24 V DC digital 	Yes
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Sensor input

Number of IEPE sensor inputs	4
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Sampling frequency, max.	46 875 Hz
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Interfaces

Type of data transmission	Export of raw data as WAV file for further analysis (e.g. using CMS X-Tools) can be downloaded via browser/FTP, online data transfer to CMS X-Tools
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Ethernet interface	Yes
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Protocols

Bus communication	Yes
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Web server

<ul style="list-style-type: none"> • HTTP 	Yes
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Interrupts/diagnostics/status information

Alarms

<ul style="list-style-type: none"> • Diagnostic alarm 	Yes
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Diagnostics indication LED

<ul style="list-style-type: none"> • for status of the inputs 	Yes
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<ul style="list-style-type: none"> • for maintenance 	Yes
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<ul style="list-style-type: none"> • Status indicator digital input (green) 	No
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Integrated Functions

Monitoring functions

<ul style="list-style-type: none"> • Monitoring of the sensor inputs 	Yes; Cable break and short-circuit
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<ul style="list-style-type: none"> • Vibration characteristic monitoring via RMS value of the vibration speed 	Yes
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<ul style="list-style-type: none"> • Vibration characteristic monitoring via RMS value of the vibration acceleration 	Yes
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• Vibration characteristic monitoring via diagnostic characteristic value	Yes
• Frequency-selective monitoring via vibration speed spectrum	Yes
• Frequency-selective monitoring via vibration acceleration spectrum	Yes
• Frequency-selective monitoring via envelope curve analysis	Yes
Measuring functions	
• Physical measuring principle	Vibration acceleration
Measuring range	
— Measurement range vibration frequency, min.	0.1 Hz
— Measurement range vibration frequency, max.	10 000 Hz
Degree and class of protection	
Degree of protection acc. to EN 60529	
• IP20	Yes
Standards, approvals, certificates	
Certificate of suitability	CE
CE mark	Yes
UL approval	Yes
EAC (formerly Gost-R)	Yes
China RoHS compliance	Yes
Reference designation according to DIN EN 81346-2	P
Ambient conditions	
Free fall	
• Fall height, max.	0.3 m; five times, in product package
Ambient temperature during operation	
• horizontal installation, min.	-20 °C
• horizontal installation, max.	60 °C
• vertical installation, min.	-20 °C
• vertical installation, max.	45 °C
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Air pressure acc. to IEC 60068-2-13	
• Operation, min.	795 hPa
• Operation, max.	1 080 hPa
• Storage/transport, min.	660 hPa
• Storage/transport, max.	1 080 hPa
Relative humidity	

- Operation without condensation, min. 5 %
- Operation without condensation, max. 95 %

Software

Browser software required	Web browser Mozilla Firefox (ESR31) or Microsoft Internet Explorer (10/11)
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Connection method

required front connector	Yes
Design of electrical connection	Screw connection

Mechanics/material

Material of housing	Plastic: polycarbonate, abbreviation: PC- GF 10 FR
Enclosure material (front)	
• Plastic	Yes

Dimensions

Width	70 mm
Height	112 mm
Depth	75 mm

Weights

Weight, approx.	260 g
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