

SIPLUS CMS1200 SM1281 CONDITION MONITORING FOR
SIMATIC S7-1200 4 IEPE VIBRATION ACCELERATION
CHANNELS; 1 DIGITAL INPUT FOR ROTATION SPEED
MEASUREMENT



General information	
Product brand name	SIPLUS
Product category	Condition Monitoring IEPE
Product designation	CMS1200 SM 1281 Condition Monitoring
Product description	S7-1200 module for the monitoring of vibrations on mechanical components based on parameters and frequency-selective analysis functions
Physical measuring principle	Vibration acceleration
Measurement range vibration frequency, min.	0.05 Hz
Measurement range vibration frequency, max.	10 000 Hz
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	

Rated value (DC)	24 V
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
Memory	
Total memory capacity	1 Gbyte
Hardware configuration	
Design of hardware configuration	Modular, up to 7 modules per CPU
Speed input	
Number of speed inputs	1
Protocols	
• 24 V DC digital	Yes
Sensor input	
Number of IEPE sensor inputs	4
Sampling frequency, max.	46 875 Hz
Interfaces	
Type of data transmission	Exporting of raw data as WAV file for further analyses (e.g. using CMS X-Tools) can be downloaded via browser
Ethernet interface	Yes
Protocols	
Bus communication	Yes
Web server	
• HTTP	Yes
Interrupts/diagnostics/status information	
Alarms	
• Diagnostic alarm	Yes
Diagnostics indication LED	
• Status indicator digital input (green)	No
• for status of the inputs	Yes
• for maintenance	Yes
Integrated Functions	
Monitoring functions	
• Monitoring of the sensor inputs	Yes; Cable break and short-circuit
• Vibration characteristic monitoring via RMS value of the vibration speed	Yes

- Vibration characteristic monitoring via RMS value of the vibration acceleration
- Frequency-selective monitoring via vibration speed spectrum
- Frequency-selective monitoring via vibration acceleration spectrum
- Frequency-selective monitoring via envelope curve analysis

Yes

Yes

Yes

Yes

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

Device tag according to DIN EN 81346-2

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Ambient conditions

Free fall

- Fall height, max.

0.3 m; five times, in product package

Ambient temperature during operation

- horizontal installation, min.
- horizontal installation, max.
- vertical installation, min.
- vertical installation, max.

-20 °C

60 °C

-20 °C

45 °C

Ambient temperature during storage/transportation

- min.
- max.

-40 °C

70 °C

Air pressure acc. to IEC 60068-2-13

- Operation, min.
- Operation, max.
- Storage/transport, min.
- Storage/transport, max.

795 hPa

1 080 hPa

660 hPa

1 080 hPa

Relative humidity

- Operation without condensation, min.
- Operation without condensation, max.

5 %

95 %

Software

Browser software required

Web browser Mozilla Firefox (ESR31) or Microsoft Internet Explorer (10/11)

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) <ul style="list-style-type: none">• Plastic	Yes
Dimensions	
Width	70 mm
Height	112 mm
Depth	75 mm
Weights	
Weight	260 g
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