

MCS300P HW

Hot/wet extractive analyzer system for process gas measurements

Simultaneous process monitoring of up to 6 measuring components

- Economic, automatic adjustment without expensive test gases
- Easy remote control by integration in existing networks
- Automatic control of the complete measuring system and probe
- Low maintenance and reliable due to hot measurement
- In combination with the SCP3000 gas sampling unit also for measurements at high dust loads and high temperatures
- Short response time due to high sample gas flow



MCS300P HW:

Simultaneous process monitoring of up to 6 measuring components



Product Description

The MCS300P HW is a hot/wet extractive analyzer system for measuring gases. It detects IR- or VIS-active components with variable measuring ranges for monitoring and regulating combustion processes and exhaust gas purification systems. The heated system components prevent the water and acid dew points from being undercut. This results in low maintenance

requirements, high reliability and long-term system stability, even under rough and difficult application conditions. The MCS300P HW can be quickly and easily integrated into the local distributed control system by means of an automatic adjustment device, a sophisticated operating concept and modern communication protocols.

At a glance

- Simultaneous measurement of up to 6 components plus O₂
- Measurement gas flow monitoring and measurement gas pressure detection
- Temperature of the system components up to 200 °C (390 °F)
- Automated sample point switching for up to 3 sample points (optional)
- Automated adjustment to the zero and reference point
- Integrated adjustment of the device without test gas (optional)
- Extended operation via PC and configuration software
- Flexible I/O module system

Your benefits

- Economic, automatic adjustment without expensive test gases
- Easy remote control by integration in existing networks
- Automatic control of the complete measuring system and probe
- Low maintenance and reliable due to hot measurement
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Fields of application

- Monitoring of flue gas conditioning in waste or sewage sludge incinerators
- Monitoring of the scrubber in flue gas conditioning
- Measurement directly at the kiln inlet in cement plants



More Information online

For more information, enter the link or scan the QR code to get direct access to technical data, operating instructions, software, application examples, and much more.

www.endress.com/mcs300p-hw



Technical data

The exact device specifications and performance data of the product may deviate from the information provided here, and depend on the application in which the product is being used and the relevant customer specifications.

MCS300P HW

Measured values	CO, CO ₂ , HCl, H ₂ O, NH ₃ , NO, NO ₂ , N ₂ O, SO ₂ , O ₂
Measurement principles	Interference filter correlation, Gas filter correlation, Zirconium dioxide sensor
Gas flow rate	150 l/h ... 800 l/h (5 cft/hr ... 28 cft/hr)
Measuring ranges	
CO	0 ... 800 ppm / 0 ... 5 Vol.-%
CO ₂	0 ... 20 Vol.-% / 0 ... 100 Vol.-%
HCl	0 ... 700 ppm / 0 ... 12,000 ppm
H ₂ O	0 ... 1 Vol.-% / 0 ... 60 Vol.-%
NH ₃	0 ... 550 ppm / 0 ... 5,000 ppm
NO	0 ... 750 ppm / 0 ... 15,000 ppm
NO ₂	0 ... 500 ppm / 0 ... 4,000 ppm
N ₂ O	0 ... 500 ppm / 0 ... 7,500 ppm
O ₂	0 ... 1 Vol.-% / 0 ... 21 Vol.-%
SO ₂	0 ... 200 ppm / 0 ... 10 Vol.-%
Remark	Other measuring ranges and components on request; 2 measuring ranges per component
Response time (t ₉₀)	≤ 150 s; depending on type and length of sample gas line
Zero point drift	IR: < 2 %: of measuring range full scale per week
Detection limit	≤ 2 %: of measuring range full scale
Process temperature	≤ +1,300 °C (2,370 °F); depending on sampling probe
Sample gas temperature	≤ +220 °C (+390 !F)
Process pressure	800 hPa ... 1,200 hPa (11.6 psi ... 17.4 psi)
Ambient temperature	+5 °C ... +35 °C (41 °F ... 95 °F); temperature change maximum ±10 °C/h
With cooling device:	+5 °C ... +45 °C (41 °F ... 113 °F); temperature change ±10 °C/h maximum Other temperatures on request
Ambient humidity	≤ 80 %; non-condensing
Electrical safety	CE
Enclosure rating	IP 43
Analog outputs	2 outputs: 0/4 ... 22 mA, 500 Ω Electrically isolated; additional outputs if using I/O modules (option)
Analog inputs	2 inputs: 0/4 ... 22 mA, 100 Ω Electrically isolated; additional inputs if using I/O modules (option)
Digital outputs	2 power relays: el. isolated; additional outputs if using I/O modules (option)
Digital inputs	2 potential-free contacts: additional inputs if using I/O modules
Modbus	✓
Type of fieldbus integration	TCP
Ethernet	✓
Function	Connection to SOPAS ET software or OPC server
Indication	LC display, status LEDs: "Power," "Failure," and "Maintenance request"

Input	Functional keys
Operation	Via control unit in the analyzer Two operating levels, one password-protected Application specific programs for system control Via software SOPAS ET
Model	Steel sheet cabinet
Dimensions (W x H x D)	800 mm x 2,160 mm x 600 mm (for details see dimensional drawings) (31.5" x 85" x 23.6") (for details see dimensional drawings)
Weight	300 kg (661 lbs)
Power supply	
Voltage	Depending on device version
Corrective functions	Cross-sensitivity compensation of up to 6 interferences Internal adjustment unit (option)

Test functions

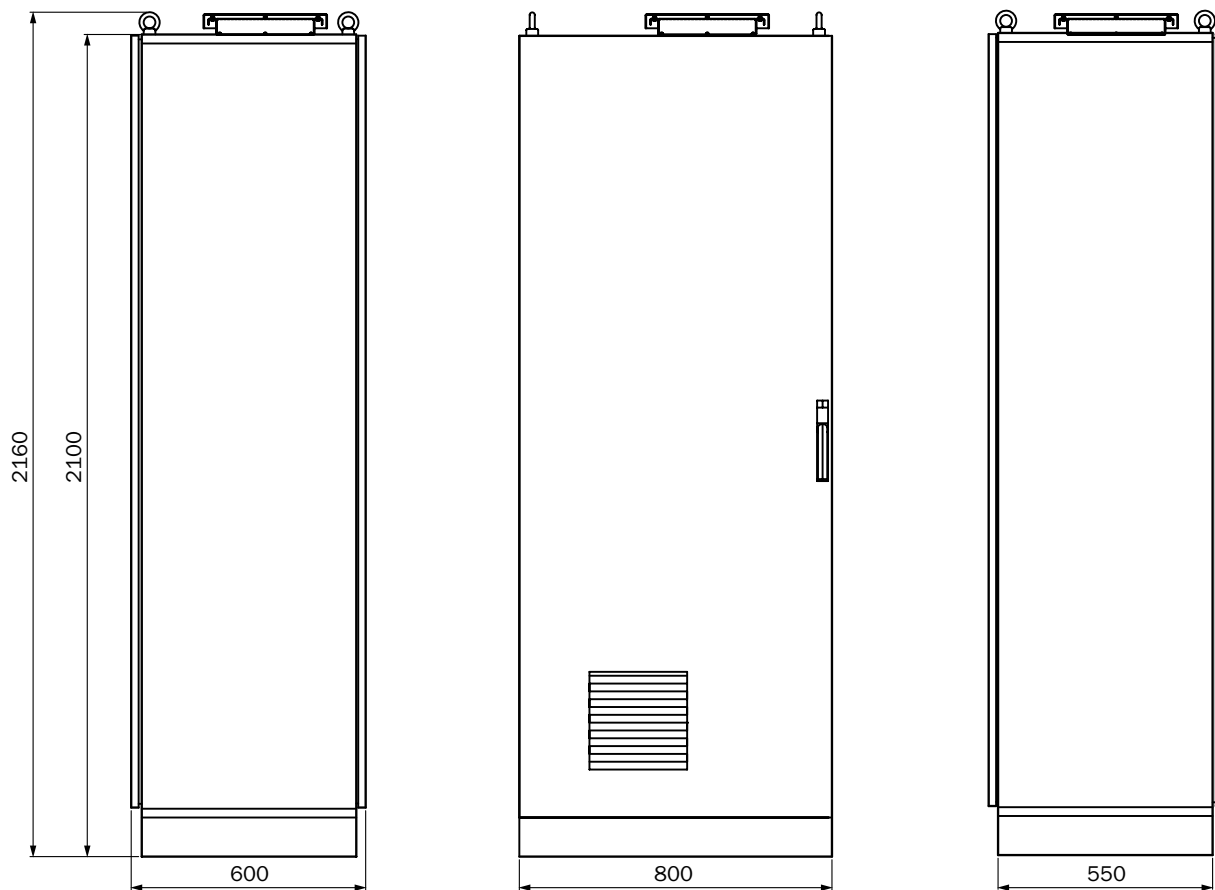
Automatic check cycle for zero and span point

Order information

Our regional sales organization will be glad to advise you on which device configuration is best for you.

Dimensional drawings

MCS300P HW analyzer cabinet



www.addresses.endress.com

Eco-friendly produced and printed on paper
from sustainable forestry.

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