Gas Analyzers
Multi component analyzing system, MCS300P

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Model Name  > MCS300P

The MCS300P is an extractive process photometer for measurement of gaseous or liquid media. It measures IR and VIS active components with variable measuring ranges from very low (ppm) to high (vol%) concentrations. For monitoring of toxic or flammable mixtures, it has special process cuvettes with safety devices like twinseals and flushing gas feeds. The heatable cuvettes made of corrosion-resistant materials have a high pressure resistance. Automatic adjustment, innovative operation concept and modern communication protocols make the MCS300P an all-purpose photometer, also for potentially explosive atmospheres.

At a glance
• Simultaneous measurement of up to 6 components
• Process cuvettes up to 60 bar and 200 °C
• Automatic sample point switching
• Integrated adjustment unit
• Safety devices for measurement of toxic or flammable mixtures
• Extended operation via PC and software SOPAS ET
• Flexible I/O module system

Your benefits
• Automatic adjustment without expensive test gases
• Integration in existing networks
• Integration of external parameters like temperature or pressure
• Suitable for potentially explosive atmospheres

Fields of application
• Process monitoring in production of vinylchloride or isocyanate
• Process control in chemical industry
• Monitoring of processes in the production of plastics
• Raw gas monitoring in waste incineration
• Monitoring of flue gas purification plants
• Determination of the water content of liquid chemicals

Note
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.
**Technical data**

**Measurement principles:** Gas filter correlation, Interference filter correlation

**Measured values:** Br₂, C₂Cl₄, C₂H₂, C₂H₂Cl₂, C₂H₃Cl, C₂H₄, C₂H₄(OH)₂, C₂H₄Cl₂, C₂H₆, C₂H₆Cl₃, C₂F₆, C₃H₄, C₃H₆, C₃H₇OH, C₃H₈, C₄H₁₀, C₄H₆, C₄H₈, C₆H₁₄, C₆H₄Cl₂, C₆H₅Cl, C₆H₆, C₇H₈, CI₂F₂, CI₄, CH₂Cl₂, CH₃CHO, CH₃Cl, CH₃COOC₂H₅, CH₃OH, CH₄, CH₃OH, CI₂, CO, CO₂, COCl₂, H₂O, HCl, HCN, HCOOH, HF, N₂O, NH₃, NO, NO₂, R-NCO, SiF₄, SO₂

**Max. number of measurands:** 6

**Comment:** Measuring ranges depend on application and combination of measuring components

More than 60 measuring components available

**Process temperature:** +50 ... +200 °C

**Process pressure:** 0.8 ... 60 bar

**Ambient temperature:** +5 ... +40 °C

**Temperature change ±10 °C/h maximum**

**Ex-approvals ATEX:**

II 2G Ex px IIC T3 Gb
II 2G Ex px IIC T4 Gb
II 3G Ex pz IIC T3 Gc
II 3G Ex pz IIC T4 Gc

Process cuvette: II 2G Ex e IIC Gb

**Electrical safety:** CE

**Enclosure rating:** Housing: IP 65
Cuvette: IP 20

**Analog outputs:** 2 outputs:
0/4 ... 22 mA, 500 Ω
electrically isolated; max. number of outputs depends on application

**Analog inputs:** 2 inputs:
0/4 ... 22 mA, 100 Ω
electrically isolated; max. number of inputs depends on application

**Digital outputs:** 5 outputs
2 power relays, electrically isolated; 3 outputs, floating; max. number of outputs depends on application

**Digital inputs:** 4 inputs
open contacts, floating; max. number of inputs depends on application

**Interfaces:**

Ethernet (in the Ex-version only when device is open for service purposes)

**Bus protocol:** Modbus TCP (not in the Ex-version)
OPC (not in the Ex-version)

**Operation:**

Via operating unit in the analyzer
Via software SOPAS ET (not in the Ex-version)
Two operating levels, one password-protected

**System components:**

Analyzer
Sampling probe
Sample gas line
Sample point switching
Sample conditioning

**Corrective functions:** Internal adjustment unit (option)

**Test functions:** Automatic control cycle for zero and span point
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