



Product Information

GM 35

In-situ Multi-Component Analyzer for CO, CO₂, H₂O, Temperature and Pressure



Efficient Control of Combustion Processes and Dehydration Plants



Either simultaneously or as individual measurements: the GM 35 measures CO, CO₂ and humidity concentrations as well as temperature and pressure quickly, easily and economically. Due to its in-situ measurement technology the GM 35 detects the measuring values directly in the gas stream without gas sampling. Reliability, precision and short response time of the analyzer offer a key advantage for efficient control loops in all CO and CO₂ generating processes.

Fields of Applications

- Power stations and cement plants
- Refuse incineration plants
- Petrochemical industry
- Chemical industry
- Pulp and paper industry
- Drying and dehydration plants

In-situ Technology

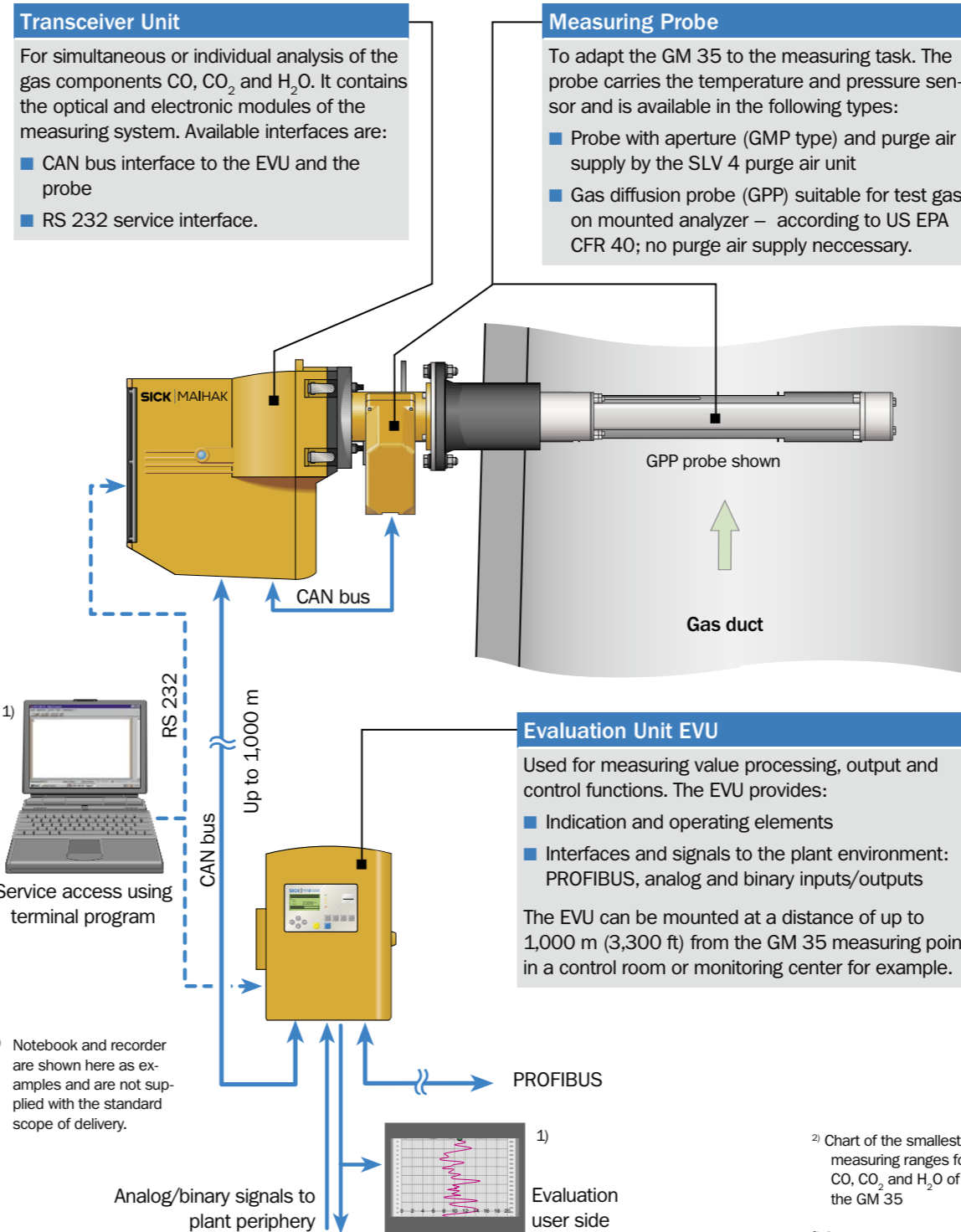
- Continuous and rapid measurements – directly in the gas duct
- Easy to install, commission
- Low maintenance
- Remote diagnosis via modem
- Integrated temperature and pressure measurement
- Calculated value output (ppm, vol%, mg/m³ in operating/standard state; ppm)

Key Features

- Compact transceiver unit with built-in zero-point reflector, gas cell and grid filter – thus enables a **real zero-and span point test**
- Suitable for applications with high dust contents
- With GPP measuring probe (EPA compliant) test gas measurement possible
- Only **one** cutout in the duct (due to probe technology) for all measuring components necessary
- Provides the H₂O measur. values.

GM 35 Configuration

- Transceiver unit
- Measuring probe: GMP or GPP
- Purge air unit for GMP probe
- Evaluation unit EVU
- Options for example PROFIBUS, weather-proof cover, differential pressure monitor for purge air monitoring, CAN bus modules for expanding inputs and outputs.



Transceiver Unit
For simultaneous or individual analysis of the gas components CO, CO₂ and H₂O. It contains the optical and electronic modules of the measuring system. Available interfaces are:

- CAN bus interface to the EVU and the probe
- RS 232 service interface.

Measuring Probe
To adapt the GM 35 to the measuring task. The probe carries the temperature and pressure sensor and is available in the following types:

- Probe with aperture (GMP type) and purge air supply by the SLV 4 purge air unit
- Gas diffusion probe (GPP) suitable for test gas on mounted analyzer – according to US EPA CFR 40; no purge air supply necessary.

Evaluation Unit EVU
Used for measuring value processing, output and control functions. The EVU provides:

- Indication and operating elements
- Interfaces and signals to the plant environment: PROFIBUS, analog and binary inputs/outputs

The EVU can be mounted at a distance of up to 1,000 m (3,300 ft) from the GM 35 measuring point, in a control room or monitoring center for example.

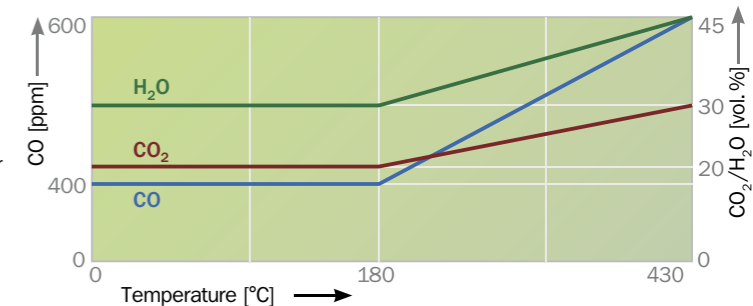
¹⁾ Notebook and recorder are shown here as examples and are not supplied with the standard scope of delivery.

²⁾ Chart of the smallest measuring ranges for CO, CO₂ and H₂O of the GM 35

³⁾ Standard state

Technical Specifications of the GM 35

Measurement data	
Meas. principles	GM 35: filter/gas filter correlation
Measuring ranges:	refer to chart ²⁾ ; accuracy: ± 2 %
■ CO, CO ₂ , H ₂ O	
■ temperature	adjustable; for example 0...200 °C (0...392 °F)
■ pressure	600...1200 hPa (8.7...17.4 PSI)
Response time	5...360 sec
Application data	
Meas. gas temp.	max. 430 °C (800 °F)
Meas. gas pressure	<120 hPa (1.74 PSI)
Ambient temp.	-20...+55 °C (-70...+130 °F)
Dust concentration	GMP: <2 g/m ³ s.s. ³⁾ , GPP: <30 g/m ³ s.s. ³⁾
Analyzer data	
Measuring probe	length: 0.9 m (3.2 ft)/1.5 m (4.9 ft)/2.0 m (6.6 ft)/2.5 m (8.2 ft) aperture: 0.25 m (0.8 ft)/0.5 m (1.6 ft)/0.75 m (2.4 ft)/1.0 m (3.2 ft)
Purge air unit	GMP only see data sheet SLV 4, order no. 8 008 088
Power supply:	
■ transceiver	115/230 V AC; +10/-15%, 48...62 Hz; 350 VA max. power consumption
■ evaluation unit	115/230 V AC; +10/-6%, 50/60 Hz; 50 VA max. power consumption
Dimensions (W x H x D)	transceiv.: 291 x 530 x 570 mm ³ (11.5 x 21 x 22 in ³) EVU: 300 x 400 x 170 mm ³ (12 x 16 x 7 in ³)
Weight	transceiver: 29 kg (64 lbs), EVU: 4 kg (8.8 lbs), GMP max: 25 kg (56 lbs), GPP max.: 45 kg (99 lbs)
Protection class	IP 66/NEMA 4x
Signals, interfaces via evaluation unit (customer side)	
Signals	3 analog outputs/1 analog input: 0...20 mA 3 relays: 48 V AC/DC, 1 A; 3 status inputs: 24 V el. isol.
Interface	PROFIBUS (optional); RS 232 for service purpose



The dialogue continues.

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Industry/Field of Application	

Yes, I would like to know more about the field of:

- | | |
|--|---|
| <input type="checkbox"/> Process gas analysis | <input type="checkbox"/> I would like a detailed consultation with one of your project advisors. Please arrange a meeting for me. |
| <input type="checkbox"/> Flue gas monitoring | |
| <input type="checkbox"/> Emission monitoring | |
| <input type="checkbox"/> Dust measurement | |
| <input type="checkbox"/> Volume flow measurement | |
| <input type="checkbox"/> Data acquisition and evaluation | |
| <input type="checkbox"/> Water analysis | |
| <input type="checkbox"/> Liquid analysis | |
| <input type="checkbox"/> Level measurement | |
| <input type="checkbox"/> Tunnel sensors | |
| <input type="checkbox"/> Special measuring technology | |

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