

GM901

Carbon Monoxide Gas Analyzers

CO measurement for emission monitoring and process control

Suited to a broad range of applications

- Measurement results in real time due to in-situ measurement
- Fast and simple installation and commissioning
- Easy, user-friendly operation
- Economical due to low maintenance



Monitoring carbon monoxide emissions innovatively and efficiently

It is generally accepted that measuring carbon monoxide levels is a crucial activity. We offer the GM901 in-situ gas analyzer high-performance solution. With its wide range of applications, this represents a virtually indispensable component when it comes to emissions monitoring and process control – and for just some of the proof of its capabilities, look no further than the over 1,000 installations in which it features worldwide.



Functionality and areas of application

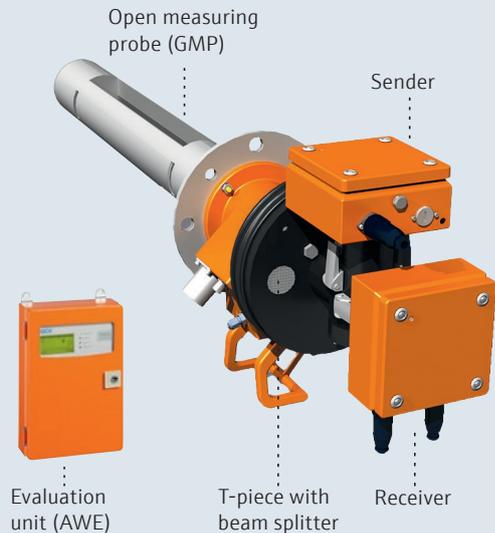
GM901 gas analyzer operates with exceptional efficiency. Thanks to its innovative in-situ measuring technology, it can be installed directly at the measuring site in question. Its straightforward installation, commissioning, and project planning methods keep costs down and save time – as do its low maintenance requirements.

GM901 in-situ gas analyzer's strengths come to the fore no matter where it is installed – power plants, coal processing facilities, cement industry systems, waste incineration plants, chemical industry systems, or even food industry facilities. And it is even designed primarily for difficult measuring tasks such as high dust loads, overpressure, critical flow profiles or high measuring gas concentrations.

Product versions

GM901 in-situ gas analyzer is available with a measuring probe and in a cross duct version:

GM901 – version with measuring probe

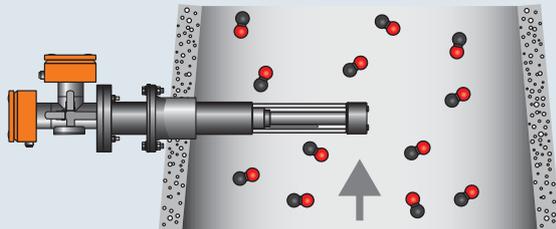


Device components

- Sender and receiver
- T-piece with beam splitter
- GPP measuring probe (gas permeable probe, verifiable using test gases) or GMP measuring probe (open aperture, purge air unit necessary)
- Evaluation unit

Optional components

- PROFIBUS interface
- Optical alignment unit, CO test cells, flange plate, PT100 sensor
- Purge air unit for GMP probe, for protecting sender and receiver



GM901 – cross duct version

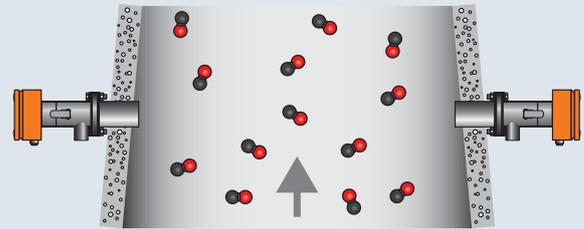


Device components

- Sender and receiver
- Evaluation unit

Optional components

- PROFIBUS interface
- Optical alignment unit, CO test cells, flange plate, PT100 sensor
- Purge air unit for protecting sender and receiver



GM901: CO measurement for emission monitoring and process control



Product Description

GM901 gas analyzer is available as a cross-duct or probe type. As a result, it is suited to a broad range of applications – even for difficult measuring

tasks such as high dust loads, over-pressure, critical flow profiles or high measuring gas concentrations.

At a glance

- Representative measurement across the duct
- Operation via evaluation unit
- Short response times
- Verifiable with gas-filled cuvette; gas testable probe with test gas

Your benefits

- Measurement results in real time due to in-situ measurement
- Fast and simple installation and commissioning
- Easy, user-friendly operation
- Economical due to low maintenance

Fields of application

- Optimization of all kinds of combustion processes
- CO monitoring in coal mills
- Process monitoring in food industry
- Control of small boiler facilities
- Optimization of biomass combustion plants
- Roasting processes



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/gm901



Technical data

The precise device specifications and product performance data may vary and are dependent on the respective application and customer specifications.

GM901

Description	Cross-duct version, probe version
Measured values	CO
Maximum number of measurands	1
Measurement principles	Gas filter correlation
Length of measuring path	0.5 m ... 8 m (19.69" ... 314.96")
Measuring ranges	
	CO 0 ... 500 ppm / 0 ... 20,000 ppm
	Relative to 1 m (39.37") measuring path
Response time	5 s ... 360 s
Accuracy	± 5 % of measuring range full scale
Process temperature	≤ +250 °C (+482 °F) With extended calibration: ≤ +430 °C (+806 °F)
Process pressure	≤ 30 hPa; depending on purge air supply
Process gas humidity	Non-condensing
Ambient temperature	-20 °C ... +55 °C (-4 ... + 131 °F)
Conformities	TUEV type-examination
Electrical safety	CE
Enclosure rating	IP 65
Power supply	
	Voltage 115 V / 230 V
	Frequency 50 Hz / 60 Hz
	Power consumption ≤ 75 W
Test functions	Manual span check with gas-filled cuvette

Sender

Description	Sender unit of the cross-duct measuring device
Dimensions (W x H x D)	150 mm x 169 mm x 240 mm (5.9" x 6.65" x 9.45")
Weight	3 kg (6.61 lbs); Including purge air fixture

Receiver

Description	Receiver unit of the cross-duct measuring device
Dimensions (W x H x D)	150 mm x 169 mm x 404 mm (5.9" x 6.65" x 15.9")
Weight	3 kg (6.61 lbs); Including purge air fixture

GM901 evaluation unit; steel sheet enclosure

Description	The evaluation unit serves as user interface and is responsible for data processing and output as well as control and monitoring functions
Enclosure rating	IP 65 / NEMA 4x
Analog outputs	1 output: 0/4 ... 20 mA, 500 Ω; Electrically isolated
Analog inputs	1 input: 0 ... 20 mA, 100 Ω
Digital outputs	2 relay contacts: 150 V AC, 1 A, 60 W / 125 V DC, 1 A, 30 W
Digital inputs	1 input: 5 V, 2 mA
Interfaces	RS-232 (service interface)
Bus protocol	CAN (internal system bus) PROFIBUS DP (option)
Indication	LC display Status LEDs: "Operation", "Service", "Warning" and "Malfunction"
Input	Arrow keys Functional keys
Model	Steel sheet enclosure
Dimensions (W x H x D)	200 mm x 346 mm x 97.5 mm (7.87" x 13.62" x 3.84")
Weight	4.3 kg (9.48 lbs)
Power supply	
Voltage	115 V / 230 V
Frequency	50 Hz / 60 Hz
Power consumption	≤ 50 W

Connection unit

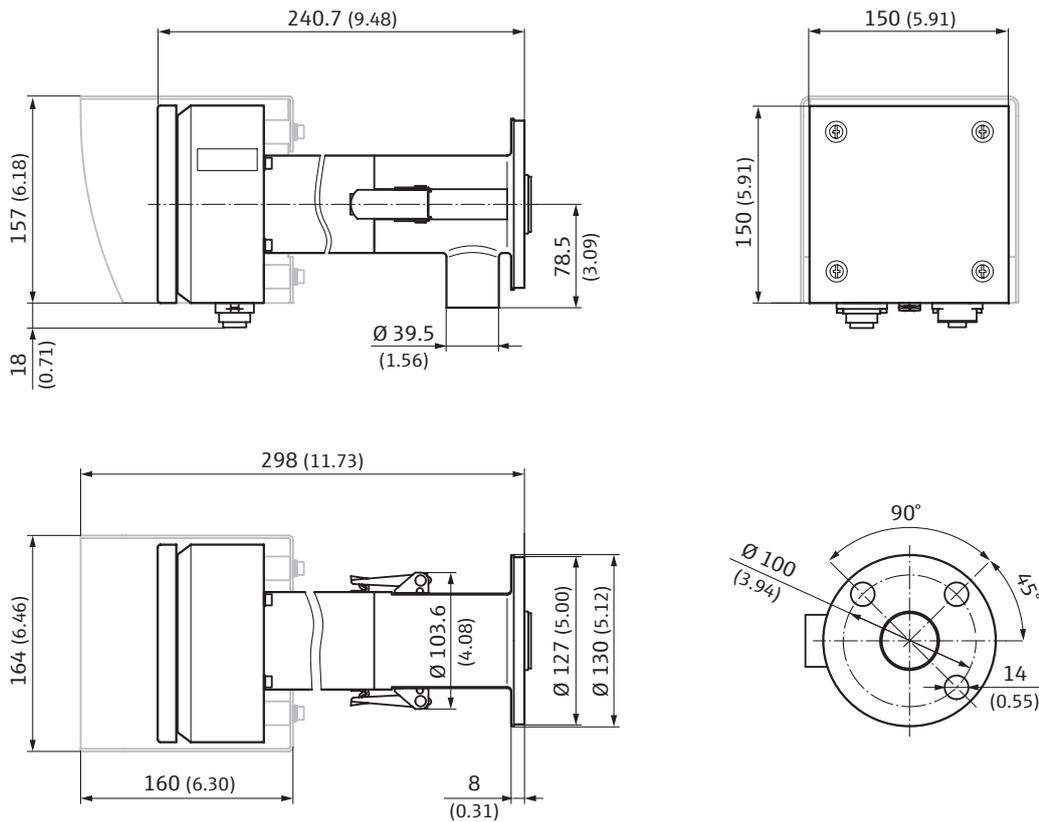
Description	To lengthen the internal CAN-Bus connection with cable provided by the customer
Bus protocol	CAN (internal system bus)
Dimensions (W x H x D)	175 mm x 110.5 mm x 175 mm (6.89" x 4.35" x 6.89")
Weight	3 kg (6.61 lbs)
Power supply	
Voltage	115 V / 230 V
Frequency	50 Hz / 60 Hz
Integrated components	Integrated 24 V power supply for sender/receiver unit

Order information

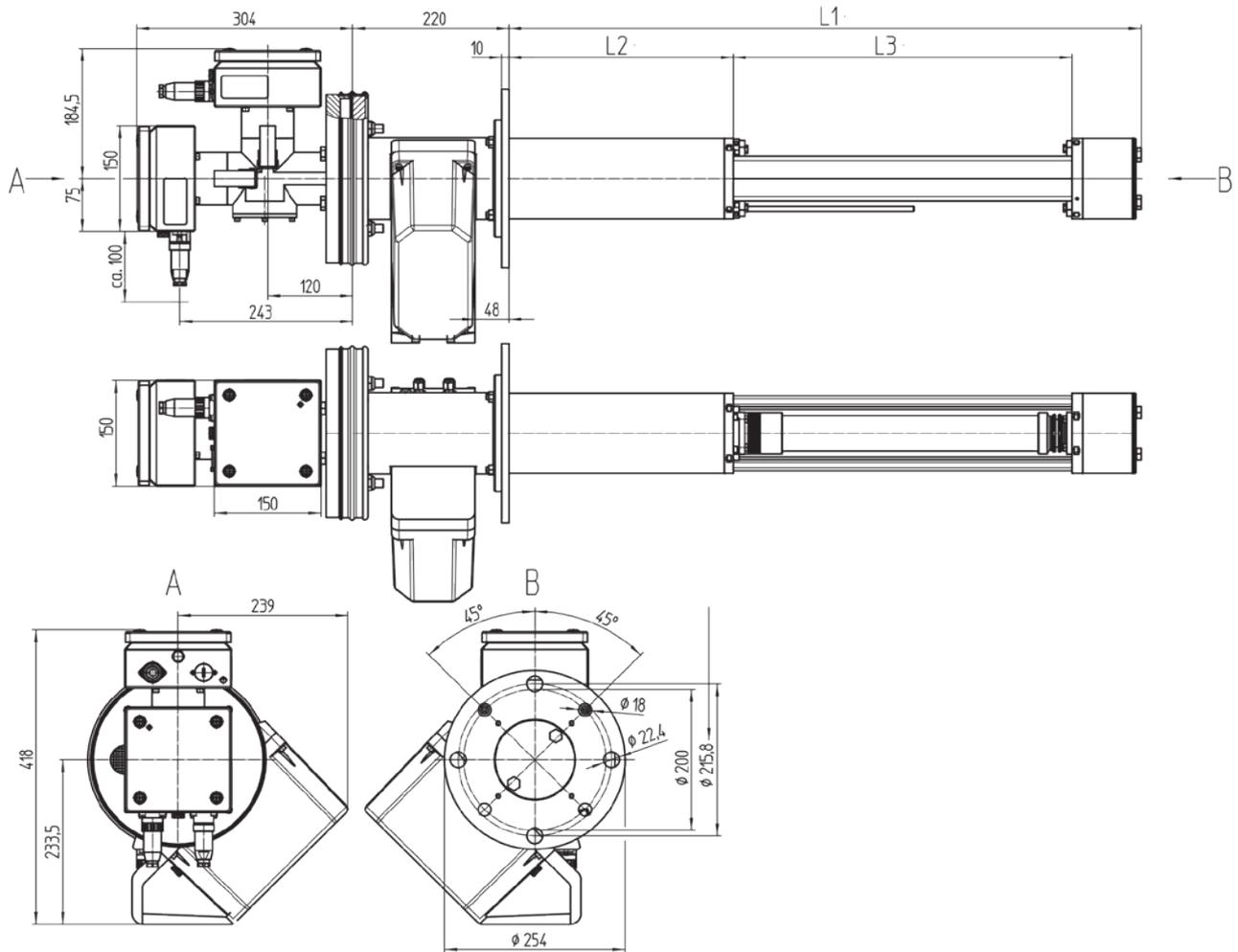
Our regional sales organization will be glad to advise you on which device configuration is best for you.

Dimensional drawings

Sender and receiver unit
(dimensions in mm)



Sender receiver, T adapter piece and gas testable probe (GPP) (dimensions in mm)



GPP measuring probes

Probe length, nominal

1,100

L1

890

Measuring gap L3 (active measuring path)

227

477

L2

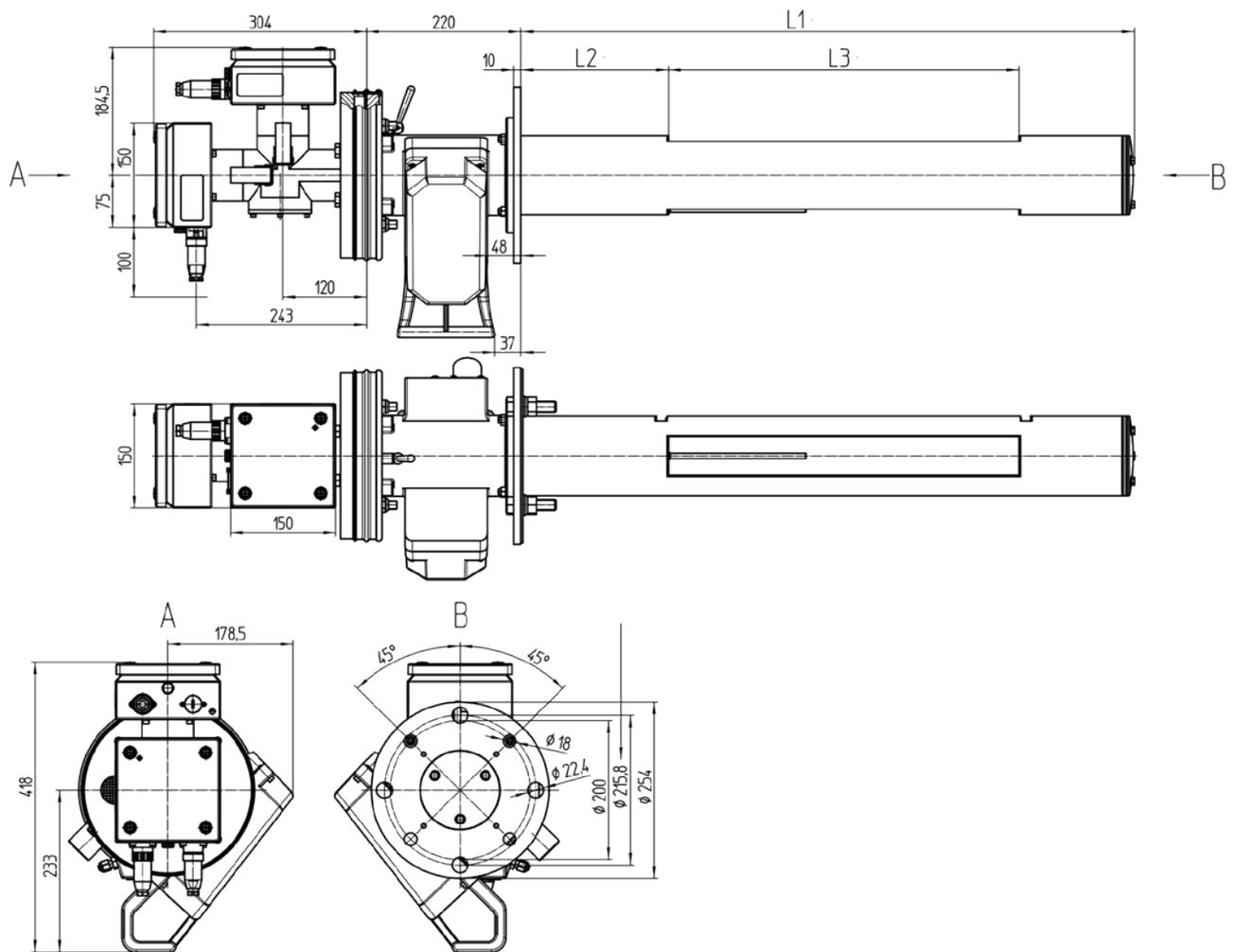
566

316

All dimensions in mm

Application-specific lengths available on request

Sender, Empfänger, T-Stück und offene Messlanze (GMP) (dimensions in mm)



GMP measuring probes

Measuring gap L3 (active measuring path)

Probe length, nominal

1,100

L1

876

250

500

L2

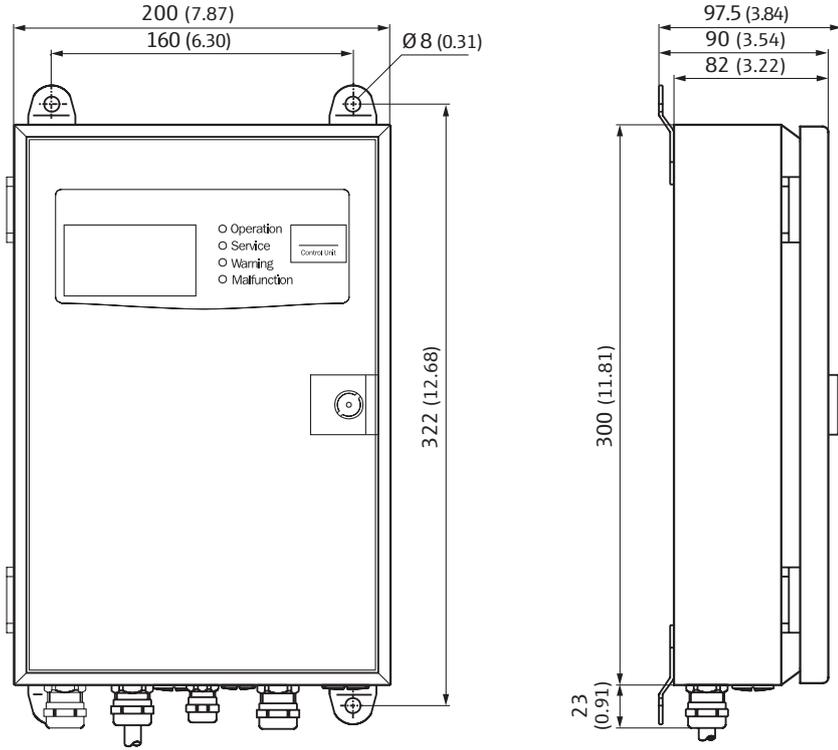
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211

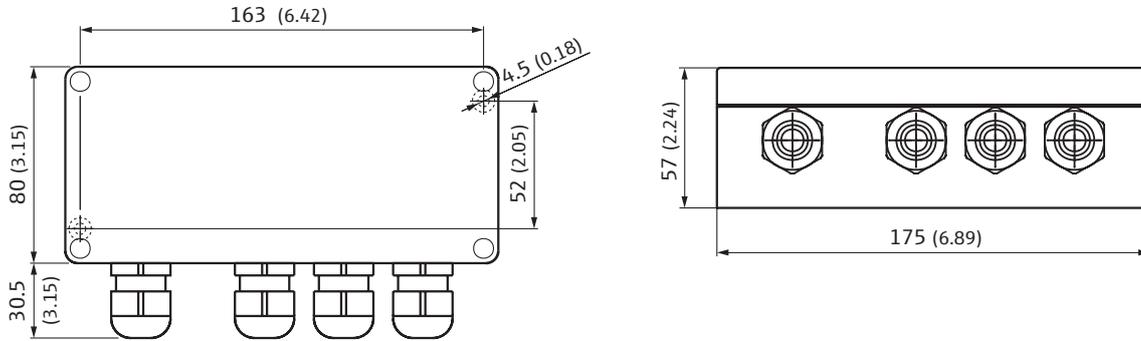
All dimensions in mm

Application-specific lengths available on request

Evaluation unit; steel sheet enclosure (dimensions in mm)



Connection unit



www.addresses.endress.com

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

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