Combiprobe CP100

CEMS SOLUTIONS

SICK
Sensor Intelligence.
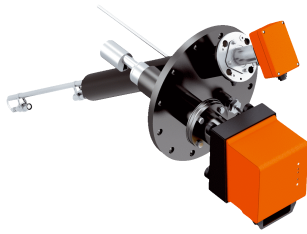
Ordering information

Type	Part no.
Combiprobe CP100	On request

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.

Our regional sales organization will help you to select the optimum device configuration.

Other models and accessories ➔ www.sick.com/Combiprobe_CP100

Product description

The Combiprobe CP100 is the combination of a DUSTHUNTER SP100 scattered light dust measuring device and a FLOWSIC100 PR volume flow measuring device on a flange plate. The combined probe also features a pressure transmitter and a resistance thermometer. The Combiprobe CP100 only requires a single mounting opening in the funnel in order to measure the dust concentration, volume flow, pressure and temperature. This means that there is considerably less outlay on installation than if the individual components were to be installed separately.

At a glance

- No need for mechanical adjustment
- Self-testing with the automatic control cycle
- Simple configuration and operation with easy-to-use software
- For gas temperatures up to 200 °C
- For funnels with an internal diameter of 0.7 m and above

Your benefits

- Easy to install complete solution for detecting dust emission and the emission-related benchmarks of volume flow, pressure and temperature
- Low operating costs due to the measuring devices' long maintenance intervals
- Durable and reliable components
- Scattered light dust measuring device and volume flow measuring device that have been performance-tested according to EN 15267

CE

Fields of application

- Emission monitoring in power stations
- Emission measurement during waste incineration
- Emission measurement within the cement and steel industry
- Process measurement in processing plants within the pharmaceutical, food and animal feed industries
- Monitoring of heat treatment and extraction systems
- Process monitoring within the chemical industry

Detailed technical data

Combiprobe CP100 system

Measured values	Dust concentration (after gravimetric comparison measurement), gas velocity, gas pressure, gas temperature
Maximum number of measurands	4
Measuring ranges	
Dust concentration	0 ... 5 mg/m³ / 0 ... 200 mg/m³
Gas velocity	0 ... ± 40 m/s / 0
Absolute gas pressure	800 ... 1,200 hPa
Gas temperature	–50 ... +400 °C
Response time (t_{90})	DUSTHUNTER SP100: 1 s ... 600 s Freely adjustable FLOWSIC100 PR: 1 s ... 300 s Freely adjustable
Uncertainty of measurement	Dust concentration: ± 2 % Of measuring range full scale Gas velocity: ± 0.1 m/s Gas pressure: ± 1 % Gas temperature: ≤ ± 0.5 %
Process temperature	–20 °C ... +200 °C
Process pressure	–70 hPa ... 10 hPa
Process gas humidity	Non-condensing
Duct diameter	≥ 0.75 m
Ambient temperature	–20 °C ... +60 °C Intake temperatures for purge air: –20 °C ... +45 °C
Electrical safety	CE
Enclosure rating	DUSTHUNTER SP100: IP 66 FLOWSIC100 PR: IP 65 Pressure sensor, temperature sensor: IP 54
Dimensions (W x H x D)	See dimensional drawings
Weight	DUSTHUNTER SP100: 7.8 kg FLOWSIC100 PR: 7.2 kg Pressure sensor: 0.2 kg Temperature sensor: 1.3 kg
Power supply	
Voltage	DUSTHUNTER SP100, FLOWSIC100 PR supply via control unit: 24 Pressure sensor, temperature sensor: 10 ... 30 V DC
Power consumption	DUSTHUNTER SP100, FLOWSIC100 PR: ≤ 70 W Pressure sensor, temperature sensor: ≤ 1 W

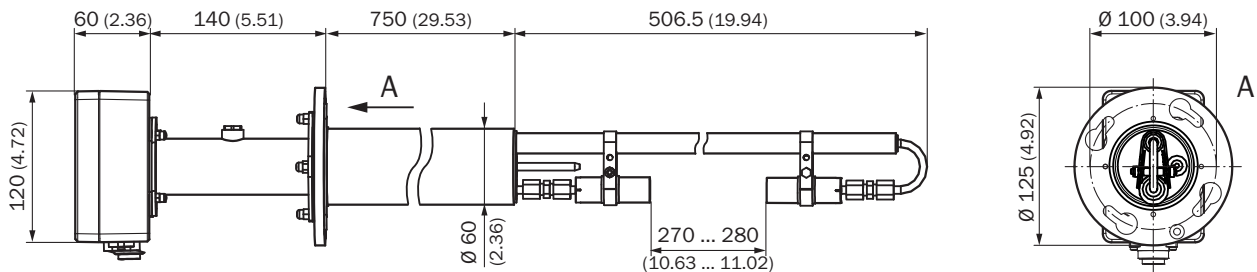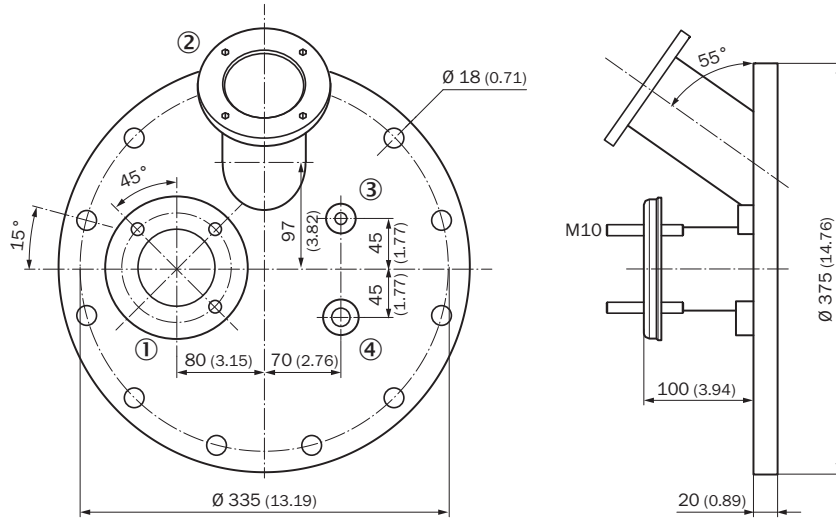## Dimensional drawings (Dimensions in mm (inch))

Combiprobe CP100 system
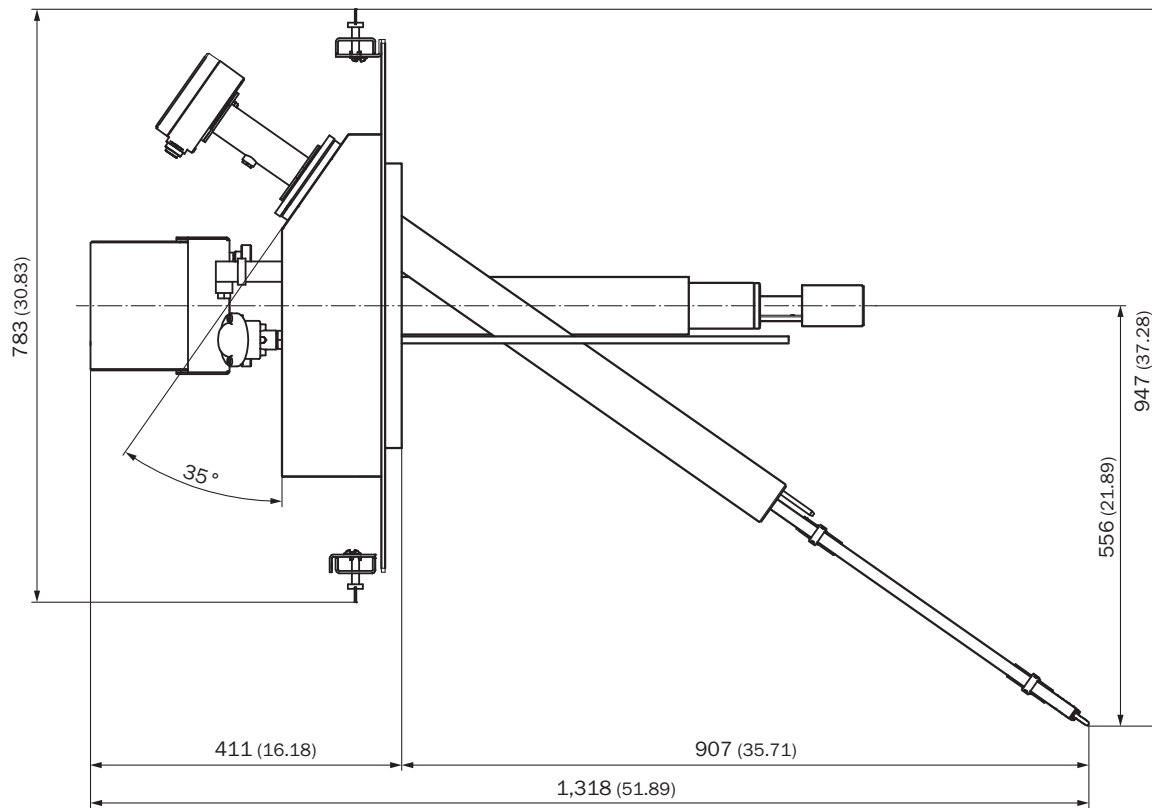
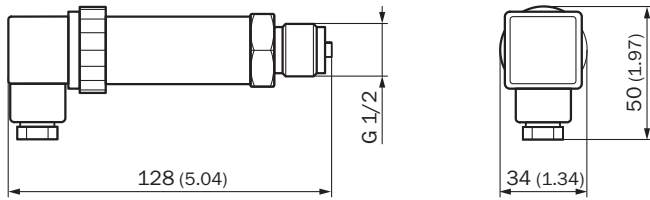DHSP-T2V2 sender/receiver unit
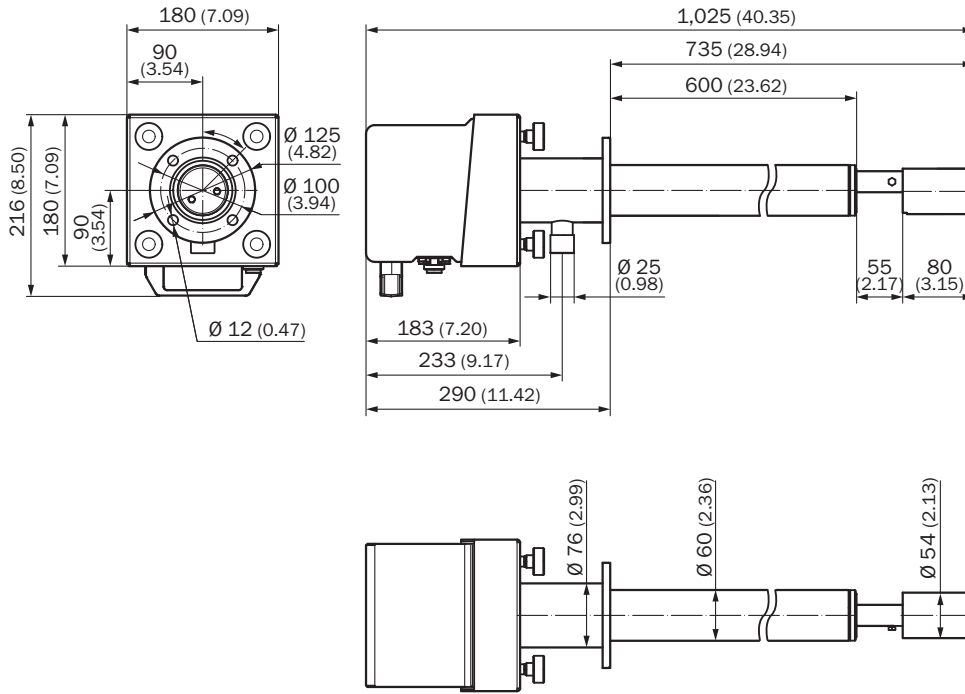
FLSE100-PR sender/receiver unit

Combined flange system
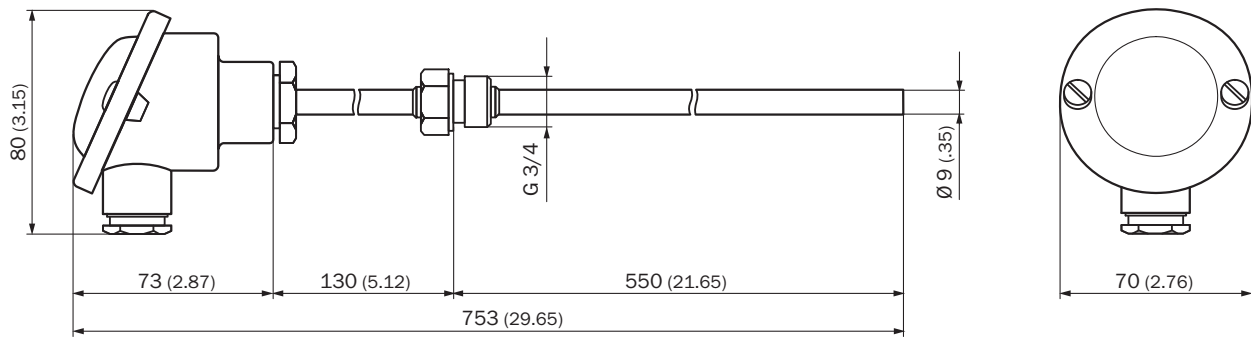

① Flange for DHSP-T2V2 sender/receiver unit
② Flange for sender/receiver unit FLSE100-PR
③ G 1/2 for pressure sensor
④ G ¾ for resistance thermometer

Pressure sensor

Resistance thermometer

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

WORLDWIDE PRESENCE:

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