



**EZ320-Series**

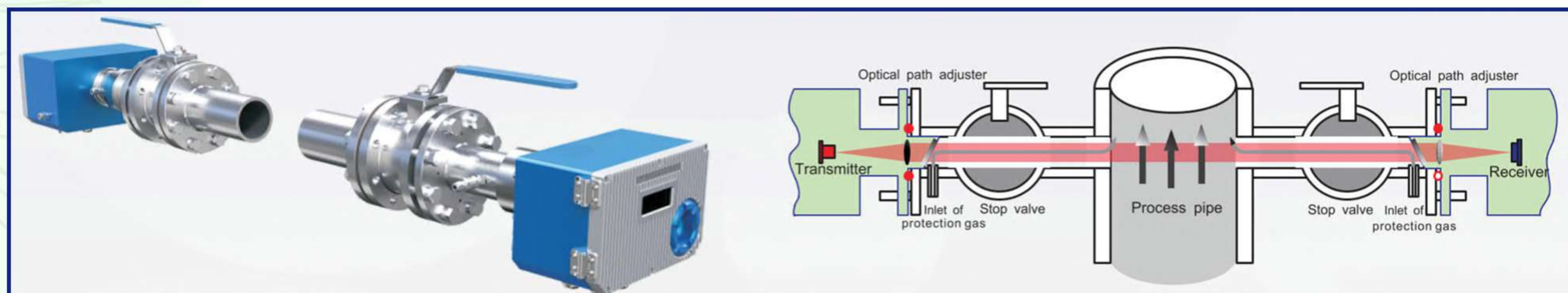
# Laser Gas Analyzer

Insitu Type: TDLAS



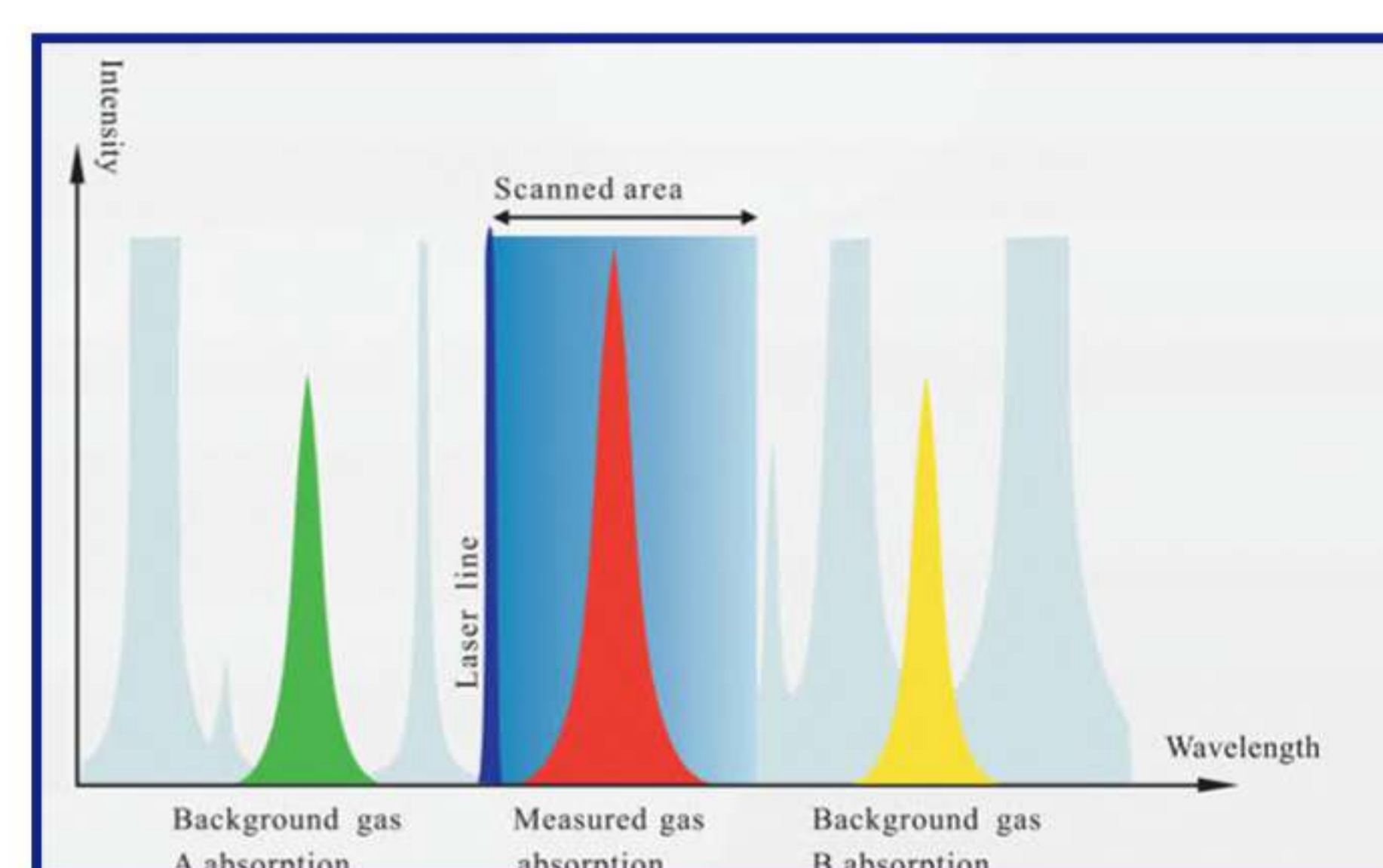
## OVERVIEW

EZ 320-Series Laser Gas Analyzer is an advanced in-situ, through-type measurement instrument. This analyzer is capable of directly measuring gases such as H<sub>2</sub>O, O<sub>2</sub>, CO, CO<sub>2</sub>, CH<sub>4</sub>, HCl, HF, and NH<sub>3</sub>, with the ability to monitor up to four components simultaneously. Explosion-proof and flame-proof models are also available on request.



## WORKING PRINCIPLE

The device leverages precise current and temperature control to modulate the wavelength of a tunable laser. This allows it to scan the specific absorption peak of the target gas, ensuring minimal interference from background gas absorption. By detecting the second harmonic signal of the target gas, combined with its spectral broadening characteristics, the gas concentration is accurately calculated.



## TECHNICAL SPECIFICATION

Measuring Principle	Tunable Diode Laser Absorption Spectroscopy(TDLAS)
Optical Path Length	≤20m
Linearity Error	≤±1%F.S.
Repeatability	≤1%
Zero Drift	≤±1%F.S./half year
Span Drift	≤±1%F.S./half year
Maintenance Cycle	≤2times/year, clean optical window
Calibration Cycle	≤2times/year
Type of Protection	Ex d op is px IIC T6 Gb
Enclosure Rating	IP65
Response Time (T)	≤1s
Analog Output	2× 4-20mA output (Isolation, max load750Ω)
Analog Input	2× 4-20mA input (temp. and press. Compensation)
Relay Output	4* output (24V,1A)
Digital Output	RS485/RS232
Power	24VDC,
Purge Gas	0.3MPa~0.8MPa industrial nitrogen, purification instrument air etc.
Installation Method	In-situ installation



## FEATURES

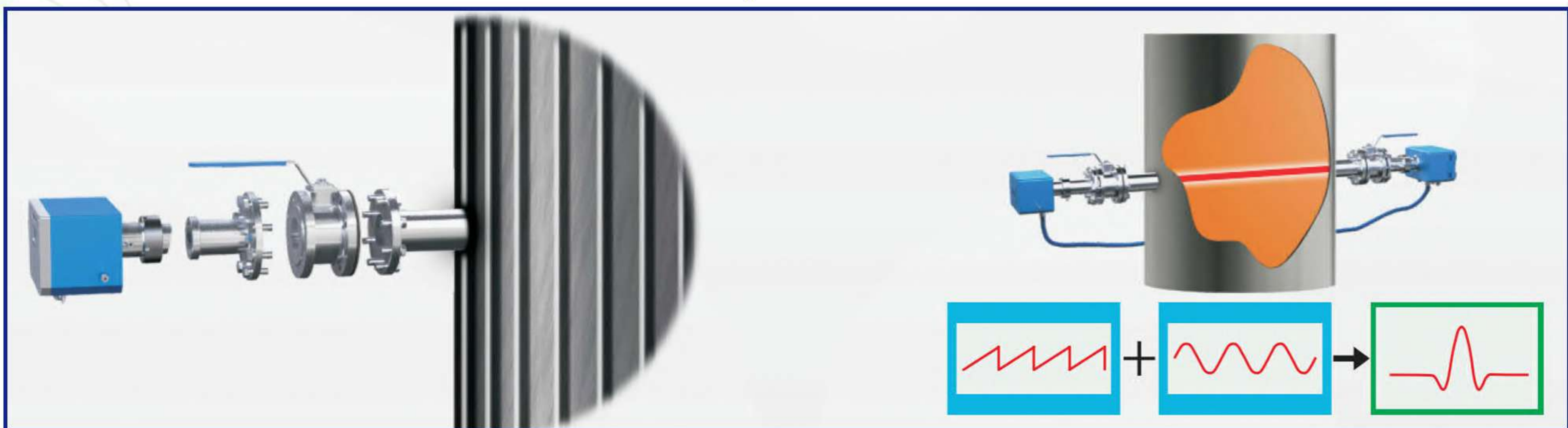
- Built –in online correction module: realize online correction function
- Employ “ Single –line spectrum” technology ; measurement is free from cross interface of back ground gases.
- Adopt integrated structure, without moving parts, high reliability and good stability
- Use multifrequency sinusoidal modulation method to drive the twin lase and realize measurement of multiple parameters(1~4 components),cost effective
- In-situ measurement ,dispense with pretreatment system; avoid problems of sampling absorption, blockage and component damage in processing; reduce operating cost

### Easy Maintenance:

Modular design, easy for maintenance; laser module and detector module can be replaced at site

### Support Online correction :

Adopt light splitting technology ,include reference gas chamber; support online correction operation, no need to disassemble transmitter and receiver

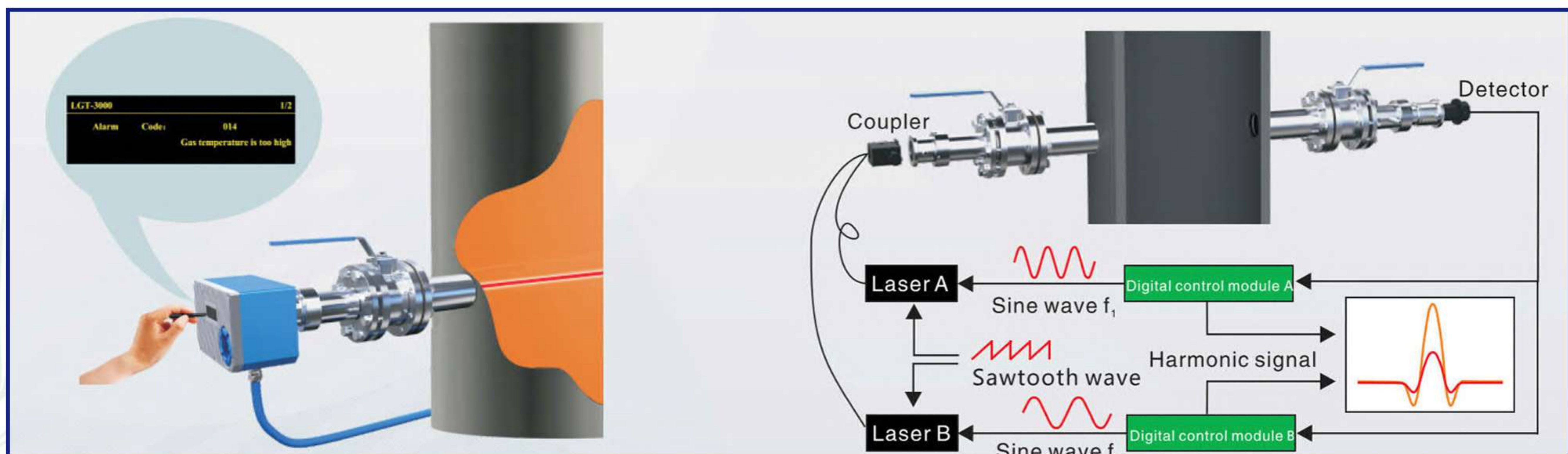


### Double Screen Display:

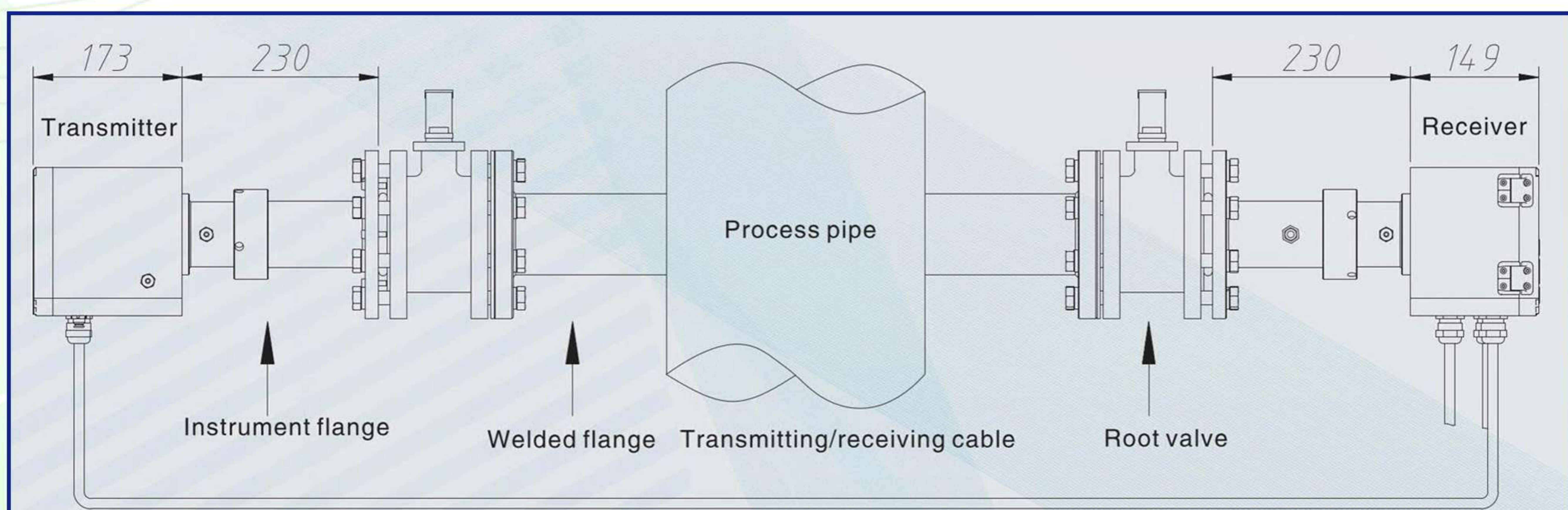
Equipped with display screen at both transmitting and receiving end, convenient for viewing transmittance during optical path debugging and related parameters during daily maintenance.

### Multicomponent Measurement:

Adopt multifrequency sinusoidal modulation method to drive two different lasers and couple the two light beams to measure multiple components.



## INSTALLATION DIMENSIONS





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