

HF-TC-621

# Portable Dissolved Gas Analyzer



This Portable Dissolved Gas Analyzer applies advanced photoacoustic spectroscopy to detect eight gases and trace moisture in transformer oil in just 20 minutes. Lightweight under 10kg, it supports on-site sampling, mass data storage and built-in algorithms to diagnose potential transformer faults efficiently for substation daily maintenance.

### Key features

- Sub-ppm level detection limit for trace gas measurement
- Extra-long calibration interval: ranging from more than 10 months to several years
- Consumable-free design; purely physical detection method without chemical reagents
- Independent, constant built-in gas exchange system
- Intuitive single-point user calibration, wide dynamic range, compact short optical path

### Technical specifications

| Parameter                         | Value                                                                               |
|-----------------------------------|-------------------------------------------------------------------------------------|
| Operating Ambient Temperature     | +5 °C ~ +50 °C                                                                      |
| Sample Oil Temperature Range      | 0 °C ~ +45 °C                                                                       |
| Storage Temperature               | -30 °C ~ +80 °C                                                                     |
| Ambient Humidity                  | <=90% RH (non-condensing @ 30°C)                                                    |
| Vibration Resistance              | Complies with IEC 60068-2-6 (Fc test standard)                                      |
| Shock & Drop Resistance           | Complies with IEC 60068-2-31 & ISTA 1A                                              |
| Input Power Frequency             | 47 ~ 63 Hz                                                                          |
| Universal Power Input             | 90 ~ 250 VAC                                                                        |
| Net Weight                        | < 15 kg                                                                             |
| Overall Dimensions                | 484 mm (W) × 139 mm (H) × 440 mm (D) 19.1 in (W) × 5.5 in (H) × 17.3 in (D)         |
| Gas Cell Volume                   | < 30 ml                                                                             |
| Max Oil Volume in Extraction Unit | <= 50 ml                                                                            |
| Dynamic Range                     | 500 ~ 50,000                                                                        |
| Zero Drift                        | ± Detection Limit / per month                                                       |
| Measurement Repeatability         | ±5% of measured value (under reference conditions)                                  |
| Span Drift                        | ±5% of measured value / 12 months                                                   |
| Overall Accuracy                  | ±5% of reading OR ±2 ppm (whichever is larger) ±1% RH for water humidity (0~90% RH) |

### Standard scope of supply

| No. | Item                                                           | Qty     | Notes                                     |
|-----|----------------------------------------------------------------|---------|-------------------------------------------|
| 1   | Portable Dissolved Gas Analyzer Main Unit (DK-200P)            | 1 Set   | Core testing host                         |
| 2   | Oil Sampling Probe, Sampling Tube & Sealed Connection Fittings | 1 Set   | For transformer insulating oil extraction |
| 3   | Universal AC Power Cord & Power Adapter                        | 1 Piece | 90-250V wide voltage compatible           |
| 4   | USB Data Transmission Cable                                    | 1 Piece | For test data export to PC                |

| No. | Item                                                | Qty     | Notes                                                          |
|-----|-----------------------------------------------------|---------|----------------------------------------------------------------|
| 5   | Full English Operation & Maintenance Manual         | 1 Copy  | Detailed operation, calibration & troubleshooting guide        |
| 6   | Factory Calibration Certificate & Inspection Report | 1 Copy  | Official metrology calibration document                        |
| 7   | Shockproof Hard Rolling Transport Case              | 1 Piece | Dustproof, waterproof, anti-collision for field transportation |
| 8   | Spare Sealing Rings, Filter Accessories             | 1 Set   | Consumable spare parts for daily replacement                   |
| 9   | Quick Start Guide                                   | 1 Copy  | Simplified operation handbook for on-site technicians          |

Compliance and documents

|                         |                                                    |
|-------------------------|----------------------------------------------------|
| Applicable standards    | [ TO BE CONFIRMED ] standard applied to this model |
| Calibration certificate | [ TO BE CONFIRMED ]                                |
| Optional accessories    | [ TO BE CONFIRMED ]                                |

Warranty and support

12-month warranty on every exported instrument. English operation manual and remote video guidance at commissioning. T/T, L/C at sight and deposit terms for bulk orders; sea, air or rail shipping.