NEW

HORIBA

Explore the future

Automotive Emission Analyzer

MEXA-584L

Handy, efficient all-in-one gas analysis

Perfect for engine inspection and tuning, the MEXA-584L portable gas analyzer, complies with international standard ISO 3930/OIML R99 (2000) class0 and is loaded with features to make your analysis easier and accurate. It allows you to simultaneously measure CO, HC, CO_2 (non-dispersive infrared: NDIR) and air-to-fuel ratio (AFR) or excess air ratio(λ)in idle state. It optionally measures O_2, NO, engine speed (RPM) and oil temperature (TEMP). Lightweight and compact with a clear LCD and effortless operation, it can be used as a simple measurement instrument in any work situation.

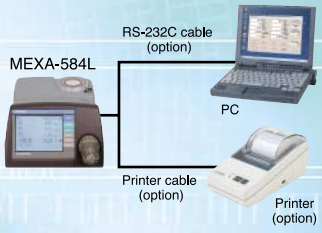
Measurement of each component during the two-speed idle test as an optional function

Lightweight** (Approx. 4kg), **compact and robust

Visual icon display for quick reference

- Sensitivity drop.
- Large reading fluctuation.
- The probe is disconnected.
- Filter needs replacement.
- Reading exceeds the measurable range.

RS-232C enables remote control, data acquisition and printer capability



Calibration

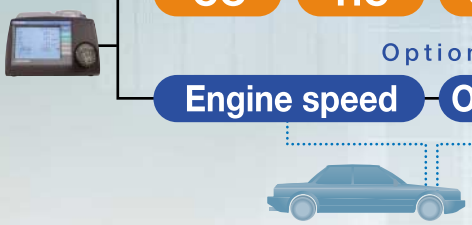
Measuring components

Option

CO — HC — CO_2 — AFR — λ — O_2 — NO

Option

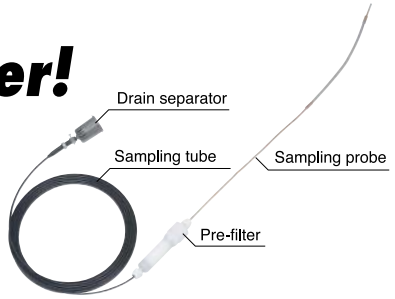
Engine speed — Oil temperature



ISO9001 JQA-0298 · ISO14001 JQA-E-90039 · IMS HORIBA is operating Integrated Management System · OHSAS18001 JQA-OH0068 · ISO13485 JQA-MD0010

Easier to use than ever!

- **Remote control and data acquisition available from PC by optional kit.**
- **Light, durable sampling tube is easy to handle and worry free.**



The communication software allows easy operation to import measurement data into a computer as a CSV format file (logging).

Drain separator (option) **improves the ability to remove water from the sample, and protects the detector from water damage.**

Specifications

- **Model:** MEXA-584L
- **Conformed standards :** ISO 3930/OIML R99 (2000) Class0 *8
  CE・FCC
- **Application:** Exhaust gases in idling status from gasoline vehicle (two-wheel or four-wheel vehicle), LPG vehicle (four-wheel vehicle)
- **Principle:**
  - CO, HC, CO_2: non-dispersive infrared (NDIR)
  - Air-to-fuel ratio (AFR), Excess air ratio (λ, lambda): carbon balance method, or Brettshneider method (with O_2 measurement) *1
- **Measured/displayed components:**
  Measured components (standard):
  - CO: 0.00 % vol to 10.00 % vol
  - HC: 0 ppm vol to 10,000 ppm vol, or 0 ppm vol to 20,000 ppm vol *2 (as hexane equivalent value)
  - CO_2: 0.00 % vol to 20.00 % vol
  - AFR: 10.0 to 30.0
  - LAMBDA: 0.000 to 9.999

  External input components (optional):
  - O_2: 0.00 % vol to 25.00 % vol
  - NO: 0 ppm vol to 5,000 ppm vol
  - Engine speed (RPM): 0 rpm to 9990 rpm
    (Guaranteed range for linearity is 200 rpm to 6000 rpm)
  - Oil temperature (TEMP): 0 ℃ to 150 ℃
- **Monitor display:** LCD (black and white, 320 x 240 dot)
- **Input/outputs:**
  - Digital input/output: RS-232C (standard), RS-485 (option) *3
  - Printer: RS-232C
- **Calibration gas:**
  Dedicated cylinder
  - Mixed gas of CO, C_3H_8 and CO_2,
  - NO (for the instrument with NO analyzer (optional))
- **Environment:**
  - Ambient temperature:
    0 ℃ to 45 ℃
    5 ℃ to 40 ℃ (for OIML conformity)
  - Humidity: below 90 % as relative humidity
  - Ambient pressure: 80 kPa to 106 kPa
- **Power supply** *4**:** 100 V to 240 V AC 50/60Hz, single phase
- **Power capacity:** Approx. 90 VA at stable state
- **Dimensions:**
  260(W) x 357(D) x 157(H) mm (without optional units)
- **Mass:** Approx. 4 kg (without optional units)
- **Response speed** *5, 6**:** Within 15 s, as Td + T95,
- **Repeatability** *5, 7**:**
  - CO: Within 0.01 % vol, or within 1.7 % of reading (whichever is larger)
  - HC: Within 3.3 ppm vol, or within 1.7 % of reading (whichever is larger)
  - CO_2: Within 0.17 % vol, or within 1.7 % of reading (whichever is larger)
- **Warm-up time:** 5 minutes

Options

- **O_2 sensor**
- **NO sensor**
- **Engine Speed sensor**
- **Oil temperature sensor**
- **Serial printer**
- **Printer cable** (1.5 m)
- **Input/output cable**
  (RS-232C cable; 2.5 m, 5 m, 10 m)
- **Analog output board** (0 - 1 V)
- **Optional probe** (φ6/φ4 mm, copper pipe)
- **Drain separator** (Separately attached)

Printout example

```
***** VEHICLE      *****
***** INSPECTION
***** REPORT       *****
CO          3.76  %vol
HC           636  ppmvol
CO2         7.96  %vol
AFR         17.5
LAMBDA     1.180
NO           103  ppmvol
O2          0.02  %vol
H/C         1.85
O/C         0.00
```

Remarks

*1 Air-to-fuel ration (AFR) and excess air ratio (λ) are calculated by the carbon balance method in standard configuration.
In case that an optional O_2 sensor is connected, the Brettshneider equation is applied for the calculation.
*2 For optional range for HC, 20,000 ppm vol, display resolution is 2 ppm vol within the range of 0 ppm to 4,000 ppm, and 20 ppm vol within the range of 4,000 ppm vol to 20,000 ppm.
*3 Contact HORIBA for quotation on RS-485 connection (optional). For connecting by USB, please use a RS232C/USB converter.
*4 For using the analyzer with a DC power source, please prepare a DC/AC inverter.
*5 Span gas for the performance test shall be approx. 0.5 % vol for CO, 200 ppm vol for C_3H_8 and 14 % vol for CO_2.
*6 When calibration gases are switched at sample inlet with the optional probe attached.
*7 Repeatability is described as the standard deviation of values of 20 repeated measurements. It is also corresponding with less than one third of the linearity.
*8 Except the following items of the ISO 3930/OIML R99 Standard. : The measurement is stopped, 1. If the value at a leak check and/or HC hang-up test exceeds the limit value.
2. When the pressure in sample gas line is too low (filter alarm).

⚠ **Please read the operation manual before using this product to assure safe and proper handling of the product.**

HORIBA continues contributing to the preservation of the global environment through analysis and measuring technology.

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