

**ENGEZER**

SOLUÇÕES EM ANÁLISE DE

**GASES**

# IR4030 Analisador Infravermelho

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# IR4030 series infrared analysers

Portable, single-gas analysers in rugged case

- Methane (CH<sub>4</sub>), carbon dioxide (CO<sub>2</sub>) or carbon monoxide (CO)
- Choice of ranges
- Weatherproof case
- Non-depleting sensor, no consumables
- Dual wavelength for stability and accuracy



## Applications

- Gas mixing
- Biogas monitoring
- Composting
- Fermentation
- Respiration studies
- Gasification

The **IR4030 series analysers** combine established NDIR sensor technology with Hitech's application know-how to measure methane, carbon dioxide and carbon monoxide in a variety of applications. Versatility is assured with the in-built pump, on-board filter, temperature and pressure correction over ambient ranges making the analyser 'plug-and-play' for a wide range of uses. The non-depleting sensor has a long life and infrequent calibration requirement resulting in a low cost of ownership. The rugged case is IP65 rated when closed and contributes to the extended lifetime of the analyser.

**Methane (CH<sub>4</sub>) analysers** are available with 0-10%, 0-30% and 0-100% ranges for general purpose applications. A special 0-100% version is available for typical biogas backgrounds as seen in landfill gas, biogas and anaerobic digester applications.

**Carbon dioxide (CO<sub>2</sub>) analysers** are available in 5 ranges from 0-10% up to 0-100% ranges for general purpose applications. A special 0-100% version is available for typical biogas backgrounds as seen in landfill gas, biogas and anaerobic digester applications. A special 0-30% version is designed for argon backgrounds as found in welding gas applications.

**Carbon monoxide (CO) analysers** are available with 0-3%, 0-10%, 0-30% and 0-100% ranges for general purpose use. Typical applications include gas mixing and blending.

**Nitrous oxide (N<sub>2</sub>O), butane (C<sub>4</sub>H<sub>10</sub>) and hexane (C<sub>6</sub>H<sub>14</sub>) analysers** are also available in ppm ranges for special purpose applications. Please enquire stating your full process conditions for more details on these products.

**All IR4030 series models feature outputs and alarms.** The standard output is 0-1V and fully programmable over the range of the analyser. Two alarms for indication can be programmed for concentration, function and hysteresis. The on-board hydrophobic filter will withstand normal conditions, but for dirtier or wetter applications an additional external filter can be added. Hitech are pleased to advise on bespoke systems according to specific application requirements.

## SPECIFICATION

### Gas measurement ranges

#### Methane:

0-10%, 0-30%, 0-100%  
0-100% in biogas background

#### Carbon Dioxide:

0-10%, 0-30%, 0-100%  
0-30% in argon background  
0-100% in biogas background

#### Carbon Monoxide:

0-3%, 0-10%, 0-30%, 0-100%

*Consult Hitech for other gases and ranges*

### Stability

<1 % f.s.d./month

### Accuracy

±2% of f.s.d.

### Speed of response

T90: 10 seconds (typ.)

### Sample flow

100 - 300ml/min for optimum performance

### Sample temperature range

5°C to +40°C (non-condensing)

### Sample pressure

Pump off: Max. inlet 3 barg

Pump on: Max. inlet atmospheric

### Sample connections

Inlet and outlet: Captive seal compression suitable for 0.25inch (or 6mm) o.d. tube

### Output (isolated)

0 - 1V, User-programmable  
Minimum load 10k ohms

### Alarm (indication only)

Two alarms: Each programmable for concentration, function (high, low and off) and hysteresis

### Ambient operating temperature range

-10°C to +40°C,  
(0-90% R.H. non-condensing)

### Power

Internal NiMH rechargeable battery with built-in charger

**Charger supply:** 100-240V AC, 50/60Hz

**Battery life:** >8 hours – pump off

**Battery charge time:** <16 hours

(figures depend on environmental factors and are for guidance only)

### Enclosure details

Rimfil plastic case, mild steel panel

**Protection:** IP65 closed, IP40 open

**Net weight:** 5 kg

**Dimensions (mm):** 400w x 325d x 175h

### Accessories supplied

Mains lead, spare fuse, 2 x 4mm plugs

## ORDERING INFORMATION

Part no	Gas	Range	Background	Description	
IR4030	Methane	0-10%	General	Complete analyser in rugged transportable case  Power: Internal rechargeable battery  Charger supply: 100-240V AC 50/60 Hz  Supplied complete with internal pump, flowmeter and needle valve	
		0-30%	General		
		0-100%	General		
	Carbon Dioxide	0-10%	General		
		0-30%	General		
		0-100%	Biogas		
	Carbon Monoxide	0-3%	General		
		0-10%	General		
		0-30%	General		
			0-100%		General
			0-100%		General
			0-100%		General
		0-100%	General		
		0-100%	General		
		0-100%	General		
		0-100%	General		



**IR4030 Front Panel**



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**Caso queira adaptar este produto a suas necessidades usando um sistema de condicionamento, uma automação ou formando um produto, contate:**

**COMERCIAL@ENGEZER.COM.BR**

*\*para mais informações ou preços*



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