

**RIKEN**

For Maintenance of Breakers and Transformers  
at Electrical Substations

# SF6 GAS PURITY ANALYZER

**Model FI-21-SF6**

Verify purity of recycled SF6 gas



**SMALL SIZE / LIGHT WEIGHT**

**NO WARM-UP TIME REQUIRED**

**QUICK RESPONSE**

Complies with SF6 Recycling guide of CIGRE  
(Conference Internationale des Reseaux  
Electriques a haute tension)

## Features

- Small size / Light weight
- No warm-up time required
- Quick response
- Easy operation / Simple digital LCD
- Operates on 4 C size alkaline batteries (standard) or 100 / 115VAC (option)
- 20 hours continuous operation with alkaline batteries
- 0-100% volume range (1% accuracy)
- Stores 100 readings in memory
- High pressure sampling



97ER-005



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# What is SF6 ?

SF6 is the best known insulator gas, and it has the highest global warming potential of the 6 gases specified in the Kyoto protocol. There are no practical replacements for this gas, therefore it is very important to recycle SF6. In order to recycle it, the purity must be measured before re-use.

→ Building up to the recycle flow of SF6 is important.

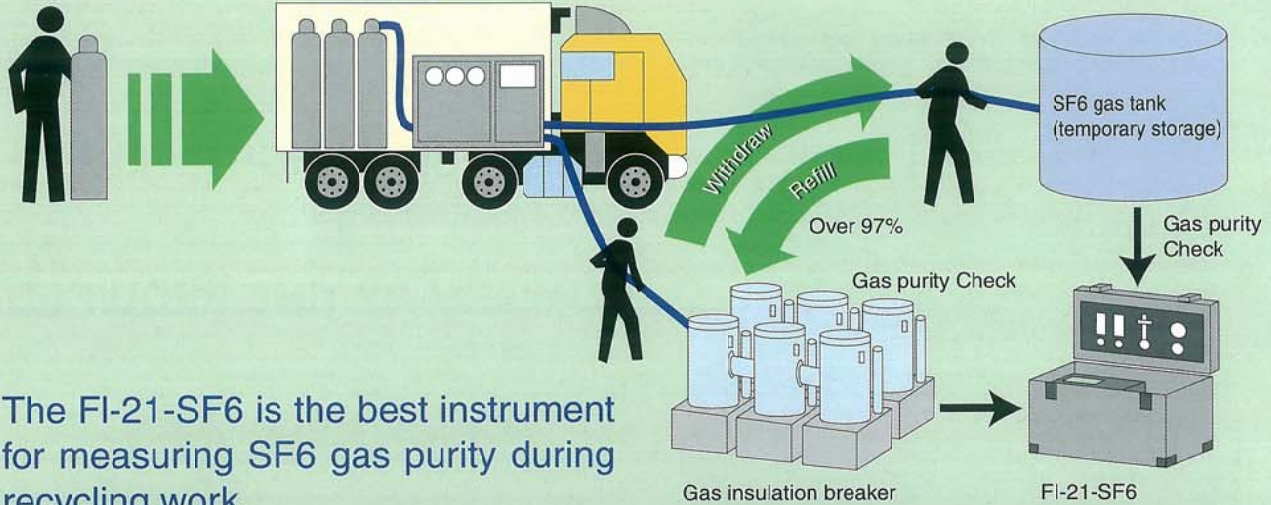
## Kyoto protocol

- Agreed at The Kyoto Conference held in December 1997.
- Agreed that the advanced countries will reduce emissions of 6 critical greenhouse gases by at least 5% for 12 years from 2008, compared to 1990 levels. These 6 gases are CO2, CH4, N2O, HFC, PFC, and SF6.

## Flow at substation

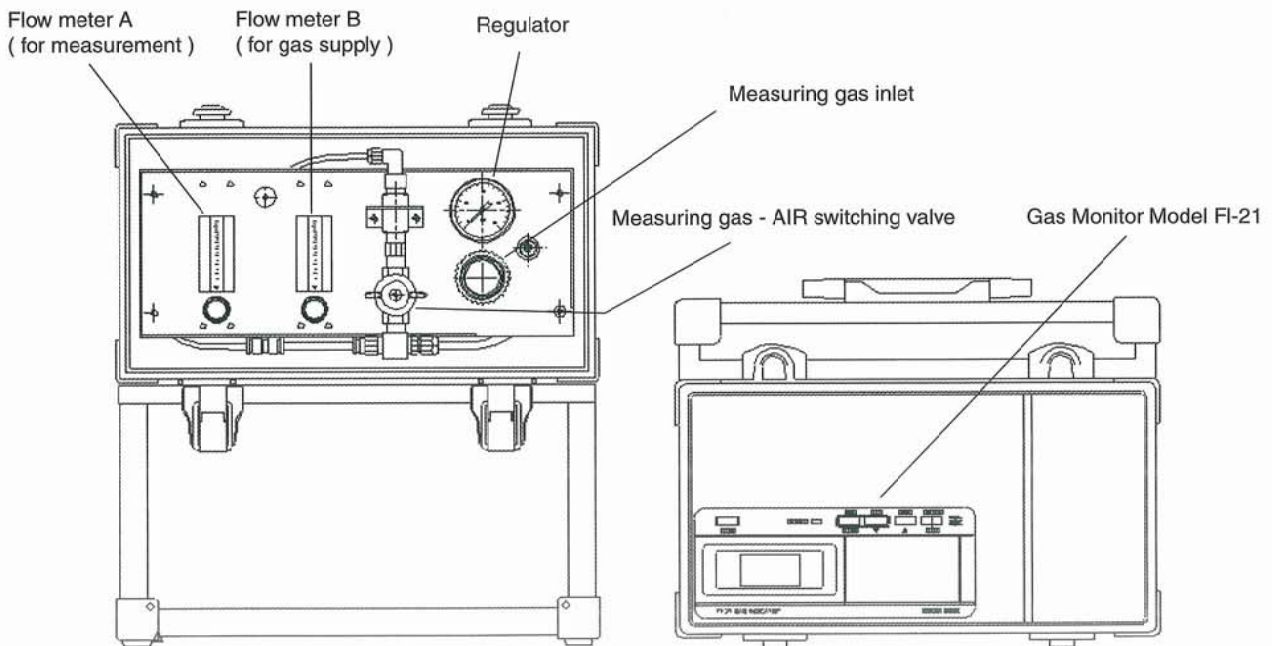
Newly supplied pure SF6 gas from gas company

SF6 gas fill-withdraw tool



The FI-21-SF6 is the best instrument for measuring SF6 gas purity during recycling work.

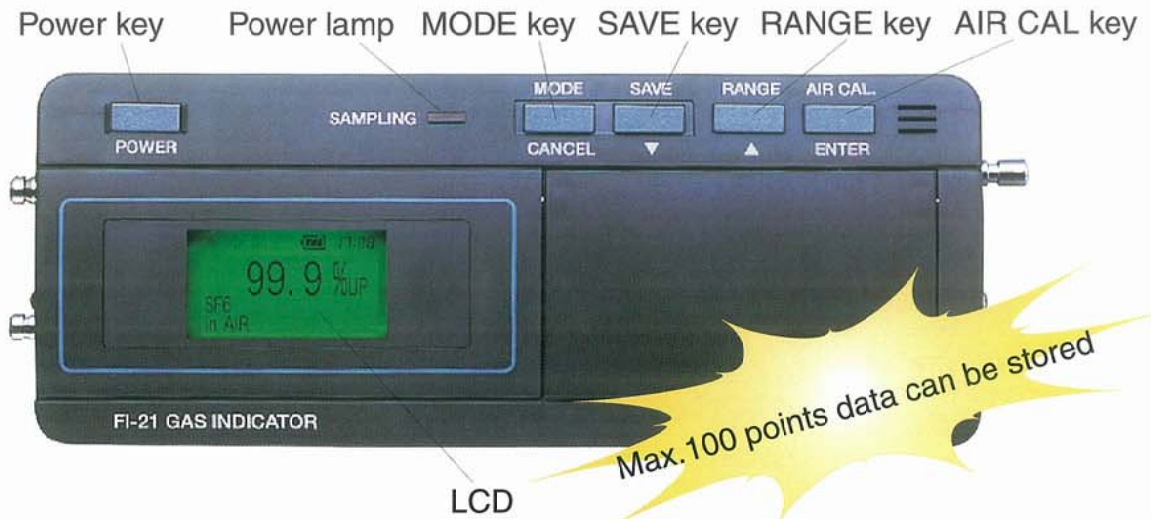
## Appearance



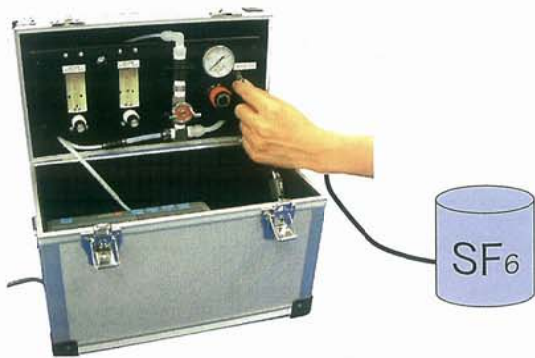


## Detection method

The FI-21 utilizes an optical interferometric (light diffraction) method as the detection principle, and realizes  $\pm 1\%$  volume detection accuracy for the measuring range of 0-100% volume. (in accordance with CIGRE)



## Measuring procedure



# Specifications

*model FI-21-SF6*

Model	FI-21-SF6
Detection principle	Optical interferometric method
Measuring gas	SF6 in air
Measuring range	0-100vol% (0.1vol% / digit)
Indication accuracy	±1vol%
Display	Digital LCD
Response time	Approx. 30 seconds (T99.5)
Flow rate	Above 400ml / min
Sampling pressure	0.15 - 0.7Mpa (22 - 100 psig)
Operating temp. & humidity	-10~+40°C, 95%RH or below (non-condensing)
Power source	C size alkaline batteries (4pcs ) or 100/115VAC adaptor (optional)
Dimensions	Approx. 13.6"×9.8"×7.3" (346(W)×248(H)×186(D) mm)
Weight	Approx. 5.5kg (12lbs)
Others	Air-pressure compensation function & Temperature compensation function included.
Standard accessories	Pressure-resistance sampling tube for high pressure sampling, Gas sampling adaptor (for sampling point)
Optional accessories	100 or 115VAC adaptor

Pressure - resistance Sampling tube



Gas sampling adaptor

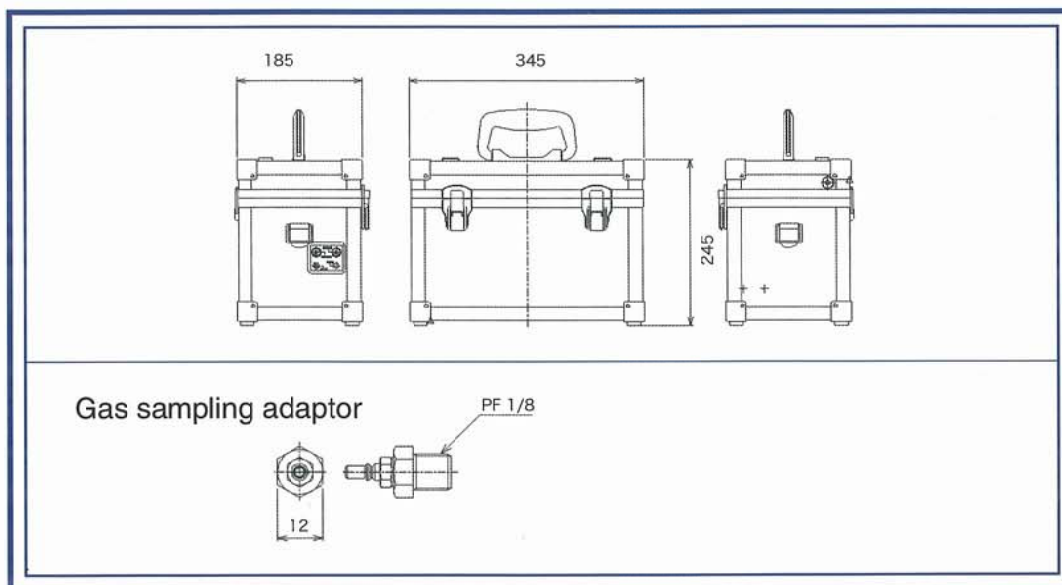


Exclusive AC adaptor (Option)



※Specifications subject to change without notice

# Dimensions



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