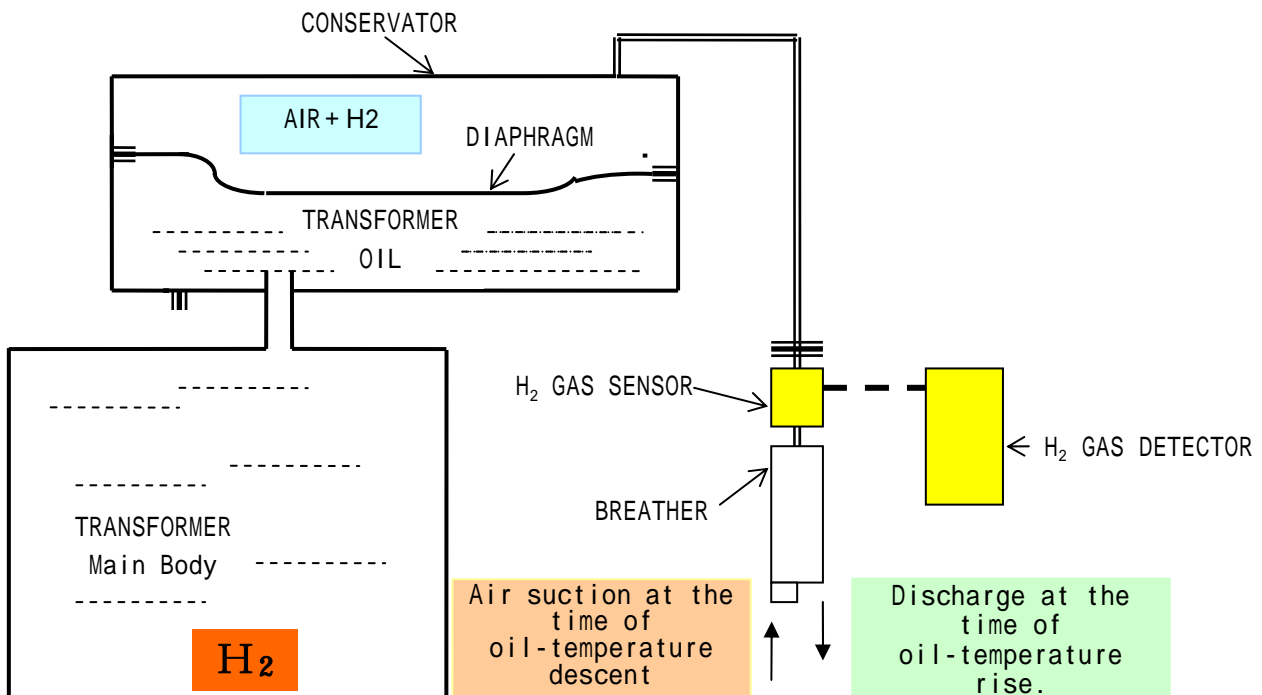


☞ Principle of operation

When local part overheating, poor contact, etc. occur inside transformer, inflammable gas occurs. Because active energy is high in the hydrogen gas which dissolved in oil, it penetrates a diaphragm and comes out to the conservator air side. When the oil temperature of the transformer rises, the gas in the conservator air side is exhaled through the breather, and can detect hydrogen gas in gas by the sensor installed in the upper breather.

Although the hydrogen concentration in the gas breathed out is changed according to temperature, the pattern of load, and the model of a conservator, about temperature, the temperature sensor inside GASTECTOR rectifies and others are converted into the concentration in oil of transformer by setup of a conversion constant. Level display of two-step setup, operation of an alarm contact will record to memory with this value.



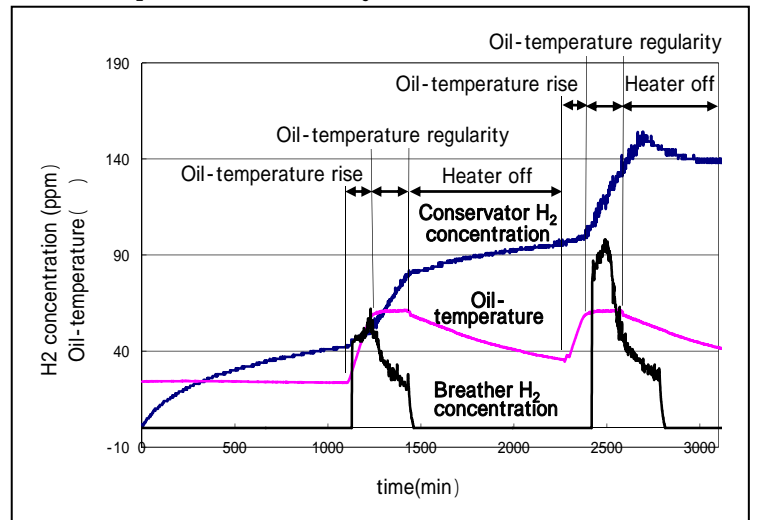
Priority sequence of the initiative gas classified by cause.

(JAPAN ELECTRIC TECHNOLOGY RESEARCH ASSOCIATION, Transformer oil maintenance & management)

	INITIATIVE GAS		
	1	2	3
Overheating	C ₂ H ₄	CH ₄	H ₂
Arc discharge	H ₂ C ₂	H ₂	-
Partial discharge	H ₂	C ₂ H ₂	-
Insulating oil mixture	H ₂	C ₂ H ₂	-

Note: 1, 2, and 3 show priority rule ranking.

Example of measure by a model of transformer



Conservator / breather H₂ concentration (output by breathing action)