

Detect & Monitor  
Key Fault Gases  
dissolved in dielectric liquid

**Technology is evolving,  
so is our TransPRO® KeyGas monitoring instrument!**

#### ➔ **Key Advantages**

This instrument brings the transformer on-line monitoring to a new level: no worry about vacuum, no worry about dead oil, and no harassment of replacing the carrier gas and frequent maintenance on-site.

What KGX5A/B distinguishes from its competitors is:

- sensor withstanding various oil pressure, even vacuum --the first of its kind in the world
- eliminating the possibility of dead oil at the probe -- thanks to an embedded micro-pump
- mounting all-in-one controller on a single valve --light-weight and quick-connect solution
- maintenance-free -- no carrier gas or other part replacement required.

***Fit to virtually all kinds of valves used  
in transformers***

***--new or serviced!***

***Help you protect & manage your most  
important assets***

***-- peace of mind!***

#### ➔ **Key Benefits**

- Enable condition-based maintenance
- Avoid unscheduled power outages
- On-time, proactive decision-making
- Safer working environment



Two sensor models are available for standard configuration: KG2100A and KG2100B (see back page).

***“Your Concern Is Ours”***

# TransPRO® KGX5A/B Enhanced Transformer On-Line Dissolved Gas Monitor

## General

<b>Description of Instrument</b>	Continuous, on-line intelligent dissolved gas monitor with enhanced internal oil re-circulation
<b>Instrument Components</b>	KG2100 gas sensor and an intelligent transmitter in a stainless steel enclosure, an embedded recirculating micro-pump and a Windows based Host software.
<b>Applications</b>	Detection of failure conditions in oil-filled HV electrical equipment through monitoring of fault-related key gases in insulating oil.

## Sensor Analytical Specifications

<b>Sensor model</b>	KG2100A (Monitor Model KGX5A)	KG2100B (Monitor Model KGX5B)
<b>Reading</b>	Composite reading of H <sub>2</sub> , CO, C <sub>2</sub> H <sub>2</sub> and C <sub>2</sub> H <sub>4</sub>	Selective reading of H <sub>2</sub> only
<b>Relative sensitivity to H<sub>2</sub> to CO to C<sub>2</sub>H<sub>2</sub> to C<sub>2</sub>H<sub>4</sub></b>	100% 10-20% 10-20% 2-8% (see sensor calibration sheet supplied with the instrument)	100% } ≤1%
<b>Range (μL/L)</b>	0~2000	
<b>Limit of detection (μL/L)</b>	H <sub>2</sub> : 10 (99% confidence)	
<b>Accuracy</b>	H <sub>2</sub> ± 10% reading or ± 20μL/L, whichever is greater	
<b>Response time (H<sub>2</sub>) in oil to 80% of step change to 100% of step change</b>	≤10 min ≤60 min	
<b>Oil pressure at the sensor</b>	0.7 MPa positive to absolute vacuum allowed	

## Enhanced Oil Re-Circulation

<b>Valve coupler</b>	Fitted to a single transformer valve with oil inlet and outlet ports to force oil recirculation
<b>Purge port</b>	Allow removal of air, as well as sampling of oil by glass syringe fitted with Luer stopcock for laboratory DGA
<b>Micro oil pump</b>	PTFE material as wetted part, driven by the state-of-the-art brushless DC motor

## Integrated Controller

<b>Hardware and Firmware</b>	Microprocessor, watchdog and real-time clock with embedded firmware
<b>Comm. / Network</b>	Standard RS-485 port allows for daisy-chaining of multiple transmitters RS485/232 or RS485/TCP-IP, selectable when ordering
<b>Front Panel</b>	Alarm indicator: Normal, Gas Hi, and Gas Hi-Hi. LED gas level reading display
<b>Alarm Relays</b>	Normal, Gas Hi, and Gas Hi-Hi, synchronized to front panel indicator.
<b>Power Supply</b>	220VAC/50Hz±15%, 500 VA Max. 120VAC/60Hz also available
<b>Dim. &amp; Weight</b>	Stainless steel enclosure, W 272mm×H 350mm×D 272 mm, ≤15 kgs
<b>Host PC Software</b>	Support networking, Windows 2003/2008/XP/Win 7

## Environmental Test

<b>Outdoor protection</b>	IEC60529, IP55
<b>Vibration</b>	IEC68-2-6
<b>High &amp; Low temp</b>	IEC68-2-1 / IEC68-2-2, 60°C & -40°C
<b>EMC</b>	IEC61000-4-2/ 4 / 5 / 8, Grade 4
<b>Other</b>	CE Mark, RoHS

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