



kelman



TRANSFIX
On-Line DGA and
Moisture for Transformers

TRANSFIX

Accurate knowledge of the condition of transformers is essential for all electrical networks and on-line monitoring of critical transformers is increasingly vital. This information allows valuable assets to be maximised and expensive failures to be avoided.

Dissolved gas analysis (DGA) and moisture measurement of the insulation oil are recognised as the most important tests for condition monitoring of transformers.

- Transformer faults detected in their infancy, minimising costly unplanned outages and equipment failure.
- Transformer output optimised safely, maximising asset.
- Transformer ageing can be calculated.
- Type of fault can be classified from results.



Fig 1 - Inside the TransFix unit.

The TransFix is a new generation of on-line DGA equipment giving invaluable insight into the condition of transformers. Extensive field use has proved that Transfix provides reliable information and represents an invaluable tool for Asset Management:

DGA & Water

8 fault gases plus moisture.

No Consumables

No carrier gases or calibration gases required.

Minimal Maintenance

Reduces expense and inconvenience for user.

Comms Options

Extensive local and remote communications options.

Alarm Settings

Sophisticated programmable alarm system.

Easy Installation

Simple, straightforward procedures.

Hourly Sampling

Sampling rates settable down to once per hour.

TransCom[®]

PC software allows downloading, trending and analysis of results.

Load Monitoring

Allows results to be analysed with the loading of the transformer.

No External Sensors

All measurements take place in the Transfix unit (**Fig 1**).

Reliable Gas Extraction

No use of membranes or vacuum extraction.

ON-LINE DGA AND MOISTURE FOR TRANSFORMERS



TransFix installations.

TECHNICAL FEATURES

- Uses photo-acoustic spectroscopy to give highly reliable results.
- 8 target gases plus moisture measured.
- Full embedded processor - 10,000 records stored internally.

ALARMS

- Two Sunlight Visible Front panel LED Arrays (Red and Yellow) and three Alarm Relay contacts, each user configurable.
- All alarms can be set or changed locally or remotely using **TransCom®** PC Software (**Fig 2**).
- Six alarm setting screens or scenarios are available
- Three that can set alarms based on the level of eight gasses, TDCG, and rates of change for each gas.
- Two screens that you can set alarms based on gas ratios.
- Each screen can activate one of three alarm relays, the red or yellow front panel indicator or send a SMS message if equipped with the optional Cellular - GSM CDMA modem.
- The alarm results of each screen are independent of the other screens.

- A detailed history of the alarm settings is kept.
- All settings including alarm settings can be password protected.

COMMUNICATIONS

- RS-232, USB, PSTN Modem, GSM, Other options available.

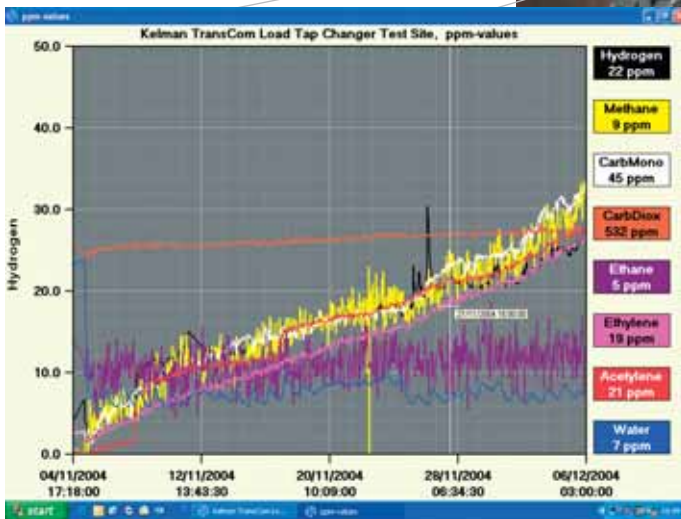


Fig 2 - TransCom[®] PC Software.

TECHNICAL SPECIFICATION

PARAMETER	VALUE/MEETS
GAS MEASURED	LOWER DETECTION LIMIT (LDL)
HYDROGEN (H ₂)	6.0 PPM
METHANE (CH ₄)	1.0 PPM
ETHANE (C ₂ H ₆)	2.0 PPM
ETHYLENE (C ₂ H ₄)	1.0 PPM
ACETYLENE (C ₂ H ₂)	1.0 PPM
CARBON MONOXIDE (CO)	1.0 PPM
CARBON DIOXIDE (CO ₂)	10 PPM
OXYGEN (O ₂)	100 PPM
CALIBRATED RANGE	Hydrogen: LDL - 5,000 PPM All other gases: LDL - 50,000 PPM
ACCURACY	±5% or ±LDL - whichever is greater
WATER	0-100% RS (given at 25°C, or at measured oil temp, or PPM)
ENVIRONMENTAL	
EXTERNAL TEMP RANGE	-40 to 55°C
OIL TEMPERATURE RANGE	-40 to 120°C
OPERATING HUMIDITY	10 - 95% RH non-condensing
WEIGHT	80Kg (170lbs)
POWER REQUIREMENTS	90-250Vac; 47-63Hz; 150W; 8A max single phase Alarm Relays: NO and NC provided, 5A 250VAC, 5A 30VDC.
MEASUREMENT FREQUENCY	Variable - 1 per hour to 1 per day



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