



# Application Data Sheet



### System Gas Chromatograph

## Hydrocarbon NGA/RGA Gas Analysis System Nexis GC-2030HNR2 GC-2014HNR2

This method is for determining the chemical composition of natural gases and similar gaseous mixtures within the composition range shown in the specification sheet. This test method provides data for calculating physical properties of the sample, such as heating value and relative density, or for monitoring the concentrations of one or more of the components in a mixture. A total of 1 valve and 2 columns are used in this GC system. Sample is introduced into four sample loops for introduction into the GC.. Using a pre-column, C6+ components are back-flushed as a single peak. The valve timing then allows the hydrocarbons C3 through C5 to be separated individually through Alumina capillary column and to be detected by FID. The final analysis time is approximately 10 minutes. The system includes LabSolutions workstation software and BTU and Specific Gravity calculation software.

#### Analyzer Information

#### System Configuration:

One10-port valve / one packed and one capillary columns with one FID detector

Sample Information: C1-C6

#### **Concentration Range:**

No.	Name of Compound	Concentration Range		Detector
		Low Conc.	High Conc.	
1	CH4	0.001%	80.0%	FID
2	C2H4	0.001%	10.0%	FID
3	C2H6	0.001%	10.0%	FID
4	C2H2	0.001%	10.0%	FID
5	C3H8	0.001%	5.0%	FID
6	C3H6	0.001%	5.0%	FID
7	i-C4H10	0.001%	1.0%	FID
8	n-C4H10	0.001%	1.0%	FID
9	Propadiene(C3H4)	0.001%	1.0%	FID
10	Trans-C4H8	0.001%	0.5%	FID
11	1-C4H8	0.001%	0.5%	FID
12	i-C4H8	0.001%	0.5%	FID
13	Cis-2-C4H8	0.001%	0.5%	FID
14	i-C5H12	0.001%	0.5%	FID
15	n-C5H12	0.001%	0.5%	FID
16	1,3-C4H6	0.001%	0.5%	FID
17	C3H4	0.001%	0.5%	FID
18	C6+	0.001%	1.0%	FID

Detection limits may vary depending on the sample. Please contact us for more consultation.

#### **System Features**

- · Versatile software easy GC system operation
- One FID channel
- Good repeatability





Shimadzu Corporation www.shimadzu.com/an/

For Research Use Only. Not for use in diagnostic procedures. The content of this publication shall not be reproduced, altered or sold for any commercial purpose without the written approval of Shimadzu. The information contained herein is provided to you "as is" without warranty of any kind including without limitation warranties as to its accuracy or completeness. Shimadzu does not assume any responsibility or liability for any damage, whether direct or indirect, relating to the use of this publication. This publication is based upon the information available to Shimadzu on or before the date of publication, and subject to change without notice.

First Edition: November, 2017