

Application Data Sheet

No.54

System Gas Chromatograph

Permanent Gas with CO/CO₂ Gas Analysis System Nexis GC-2030PCC2 GC-2014PCC2

The system enables a quantitative and qualitative analysis of O2, N2, CO and CO2, in municipal gas. A fixed volume of gas sample is introduced into the chromatographic system by loop sample injection and individual components of the sample are identified by the thermal conductivity detector (TCD). Using a backflush column, H2O and C3+ are vented out of the system. The valve timing allows the O2, N2, CH4 and CO as a mixed peak to elute to an MS-13X for separation while the CO2 is separated by the P-Q and detected by TCD-2014. Lab Solution chromatography workstation system handles all aspects of GC control, automation, and data handling.

System Configuration:	Concentration Range:				
One 10-port valve and one 6-port valve / four		Name of Compound	Concentration Range		Detector
•		-	Low Conc.	High Conc.	
packed columns with one TCD detector	1	O2	0.01%	50%	TCD-1
Sample Information:	2	N2	0.01%	50%	TCD-1
•	3	CO	0.01%	10%	TCD-1
O_2, N_2, CO, CO_2, CH_4	4	CH4	0.01%	90%	TCD-1
$0_2, 1_2, 00, 00_2, 01_4$	5	CO2	0.01%	10%	TCD-1

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

System Features

- Versatile software for operate the system easily
- One TCD channel
- Good repeatability

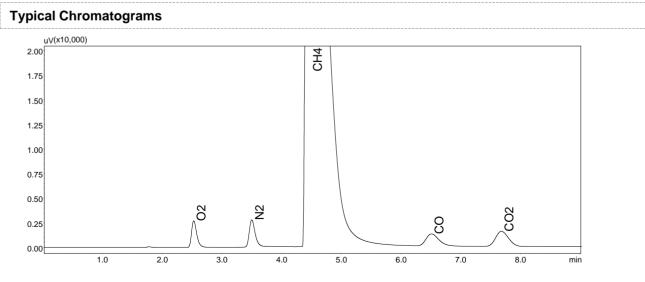


Fig. Chromatogram of TCD

First Edition: November, 2017

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 "a sis" 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.