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.

### Analyzer Information

#### System Configuration:
One 10-port valve and one 6-port valve / four packed columns with one TCD detector

#### Sample Information:
O2, N2, CO, CO2, CH4

#### Concentration Range:

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of Compound</th>
<th>Concentration Range</th>
<th>Detector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>O2</td>
<td>0.01% - 50%</td>
<td>TCD-1</td>
</tr>
<tr>
<td>2</td>
<td>N2</td>
<td>0.01% - 50%</td>
<td>TCD-1</td>
</tr>
<tr>
<td>3</td>
<td>CO</td>
<td>0.01% - 10%</td>
<td>TCD-1</td>
</tr>
<tr>
<td>4</td>
<td>CH4</td>
<td>0.01% - 90%</td>
<td>TCD-1</td>
</tr>
<tr>
<td>5</td>
<td>CO2</td>
<td>0.01% - 10%</td>
<td>TCD-1</td>
</tr>
</tbody>
</table>

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

### Typical Chromatograms

![Fig. Chromatogram of TCD](image)

**No.** 54

System Gas Chromatograph

Permanent Gas with CO/CO2 Gas Analysis System

Nexis GC-2030PCC2

GC-2014PCC2