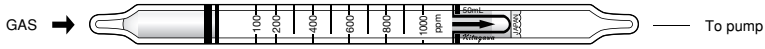
Tube No.
**119LPG**

# METHANOL IN LP GAS




## 1. PERFORMANCE

1) Measuring range : 100-1,000 ppmv
   Number of pump strokes 1/2 (50mℓ)
2) Sampling time : 30 seconds/1/2 pump strokes
3) Detectable limit : 20 ppmv
4) Shelf life : 3 years
5) Operating temperature : 0 ~ 40℃
6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE")
7) Reading : Direct reading from the scale calibrated by 1/2 pump stroke
8) Colour change : Yellow → Blue or Yellowish green

## 2. RELATIVE STANDARD DEVIATION

RSD-low : 10% RSD-mid. : 10% RSD-high : 10%

## 3. CHEMICAL REACTION

By reacting with Perchlorate, PH indicator is discoloured.

$CH_3OH + Mg(ClO_4)_2 \rightarrow$ Alkaline compound

## 4. CALIBRATION OF THE TUBE

DIFFUSION TUBE METHOD

## 5. INTERFERENCE AND CROSS SENSITIVITY

| Substance | ppmv | Interference |
|---|---|---|
| Hydrogen sulphide | 0.4 | The accuracy of readings is not affected. |
| Sulphur dioxide | 0.5 | 〃 |
| Toluene | 10 | 〃 |

TEMPERATURE CORRECTION TABLE

Temperature ; Multiply the reading by the correction factors to correct for temperature.

| Temperature (℃) | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| Correction Factor | 1.40 | 1.38 | 1.36 | 1.34 | 1.32 | 1.30 | 1.28 | 1.26 | 1.24 | 1.22 |
| Temperature (℃) | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| Correction Factor | 1.20 | 1.18 | 1.16 | 1.14 | 1.12 | 1.10 | 1.08 | 1.06 | 1.04 | 1.02 |
| Temperature (℃) | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| Correction Factor | 1.00 | 0.98 | 0.96 | 0.94 | 0.92 | 0.90 | 0.88 | 0.86 | 0.84 | 0.82 |
| Temperature (℃) | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| Correction Factor | 0.80 | 0.80 | 0.79 | 0.79 | 0.78 | 0.78 | 0.77 | 0.77 | 0.76 | 0.76 |
| Temperature (℃) | 40 | | | | | | | | | |
| Correction Factor | 0.75 | | | | | | | | | |