

# Leak Detector HELIOT 700 Series

Leak detector HELIOT 700 series offers compatibility with all types of leak testing methods, thereby simplifying the system and cost reduction, making it an ideal choice for system upgrades and also as a replacement for systems based on conventional testing methods. The next generation Leak detector offers easy operation and advanced maintenance procedures while maintaining a commitment to environment friendliness and energy efficiency.



HELIOT701



### Features

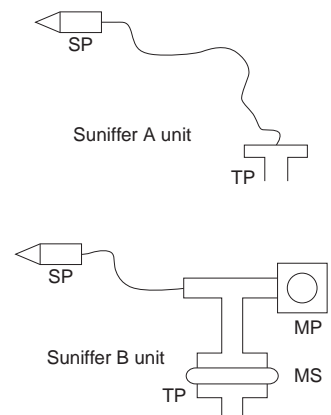
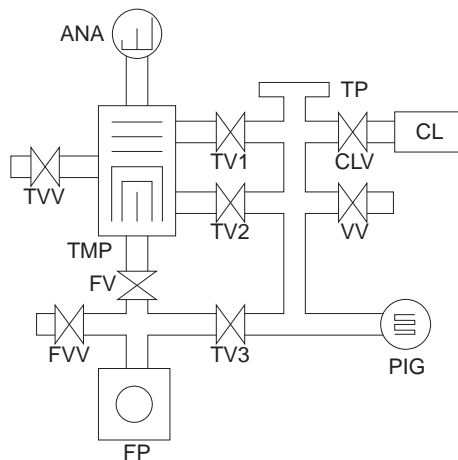
- Abundant of models, allowing you to build a leak test system at low cost.
- Fully automatic leak detection by "Select Free Flow" (patent) technology for a large variety of requirements.
- Outstanding sensitivity (minimum detectable leak rate is  $10^{-13}$  Pa m<sup>3</sup>/s). \*at super fine flow setting.
- External calibration via an external calibration leak. \*The external calibration leak feature is an option.
- Easy-to-understand informative color touch panel.
- Preannouncement of maintenance by an automatic system monitoring feature. (patent).
- Reduction of parts for easy maintenance.
- CE and IP30 applicable \*standard units only.

### Applications

- Leak testing on piping and tubing assemblies.
- Maintenance and management of leakage on vacuum process chambers.
- Verification of airtightness of food and pharmaceutical packaging and containers.
- Measuring of permeability, adsorption, and flow rate.

### Pumping System Diagram

| Indication | Description                        |
|------------|------------------------------------|
| TP         | Test port                          |
| CL         | Calibrated leak                    |
| CLV        | Calibrated leak valve              |
| VV         | Vent valve                         |
| PIG        | Pirani vacuum gauge                |
| TV1        | Test valve 1                       |
| TV2        | Test valve 2                       |
| TV3        | Test valve 3                       |
| ANA        | Analyzer tube                      |
| TMP        | Compound molecular pump            |
| TVV        | Compound molecular pump vent valve |
| FV         | Fore valve                         |
| FVV        | Fore line vent valve               |
| FP         | Fore pump                          |
| SP         | Sniffer probe                      |
| MS         | Micro separator                    |
| MP         | Membrane pump                      |



Specifications

|  | 701W1<br>702W1   | 704W2<br>702W2   | 704D2<br>702D2      | 704D3<br>702D3   | 701D1<br>702D1  |                 |
|--|--|------------------|---------------------|------------------|---|-----------------|
| Sensitivity  | 10 <sup>-13</sup> Pa m <sup>3</sup> /s ( Super fine leak flow setting)   |                  |                     |                  | 10 <sup>-11</sup> Pa m <sup>3</sup> /s (Fine leak flow setting)   |                 |
| Main pump  | 25 L/s Compound molecular pump   |                  |                     |                  |   |                 |
| Fore pump  | Oil rotary pump  |                  | Scroll pump         |                  | Membrane pump   |                 |
|  | 30 L/min   | 135 L/min        | 90 L/min            | 250 L/min        | 20 L/min  |                 |
| Dimension *1<br>(W x D x H) mm                                 | 480 x 335 x 505  | 480 x 400 x 1010 | 480 x 335 x 600     | 480 x 380 x 1010 | 480 x 335 x 505   |                 |
| Weight   | Approx. 43 kg  | Approx. 80 kg    | Approx. 50 kg       | Approx. 80 kg    | Approx. 39 kg   |                 |
| Power<br>Max. electric current/<br>stationary electric current | AC100V<br>10A/5A   | AC200V<br>6A/3A  | AC100V<br>15A/11.5A | AC200V<br>11A/6A | AC100V<br>10A/5A  | AC200V<br>6A/3A |
|  | Standard AC100V, Options(AC110, 115, 200, 220V)  |                  |                     |                  | Standard AC100V, World voltage<br>(AC85 ~ AC132V, AC170 ~ AC265V) |                 |
| Analyzer   | Magnetic sector type mass spectrometer   |                  |                     |                  |   |                 |
| Vacuum gauge   | Pirani vacuum gauge  |                  |                     |                  |   |                 |
| Test port  | NW25   |                  |                     |                  |   |                 |
| Warming up time  | 3 min (quick start setting)  |                  |                     |                  |   |                 |
| Shutdown time  | 3 min  |                  |                     |                  |   |                 |
| I/O interface  | RS232C (cable excluded) / leak rate output / printer output / audio alarm I/O (3 set points) etc.                          |                  |                     |                  |   |                 |
| Test screen  | Graph, meter and value/ color touch panel  |                  |                     |                  |   |                 |
| Test flow  | Auto, fine leak, middle leak, gross leak, super fine leak and sniffer flow ( optional parts are required for sniffer flow) |                  |                     |                  |   |                 |
| Calibration  | Auto calibration during start-up / External calibration (external calibration leak is an option)                           |                  |                     |                  |   |                 |
| Zero adjustment  | Auto zero adjustment function  |                  |                     |                  |   |                 |
| Touch panel  | Instructions and warnings on the color touch panel   |                  |                     |                  |   |                 |
| Language   | Japanese, English, Chinese (China), Chinese (Taiwan), Korean, German (Standard Japanese)                                   |                  |                     |                  |   |                 |

\*1 W=Width, D=Depth, H=Height

External Dimension Diagram

(unit: mm)

