

无基准气密检漏仪 FL-610 系列

- **无需基准物**
无需对基准物进行日常管理（如基准物的检查和储存），削减成本
- **精度更高，节拍更短**
通过对比基准数据和检测数据，排除了形变、压缩热等干扰，最大限度的保证了精度和节拍。
- **配备USB接口**
数据传输和软件升级更加容易。可以快捷的对检测数据进行存储和处理。
- **对应不同检测对象**
可设置32种检测条件
- **大尺寸彩屏图形分析**
实时显示检测、分析的过程，波形图和数据分析

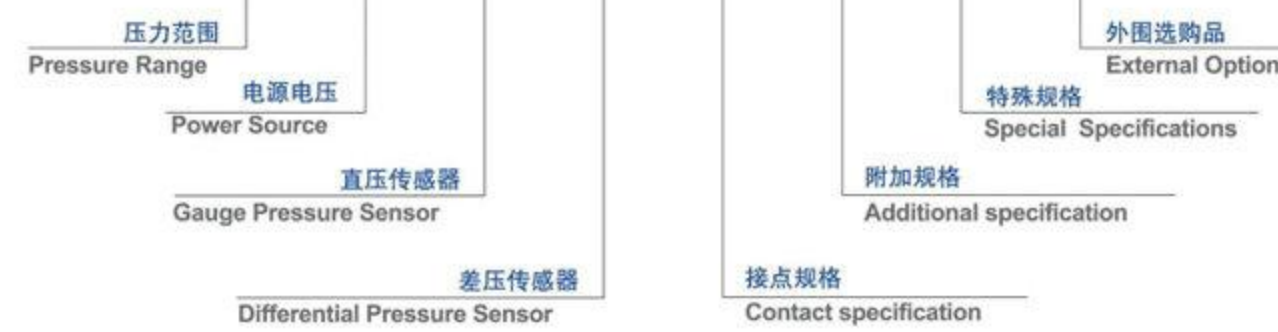


Master-Less Leak Tester

- **Master Management Not Needed**
There is no need for master management (for maintenance and storage areas), which serves to reduce cost
- **High Accuracy and Short Measurement Time**
Detection accuracy is enhanced by comparing master (reference) data structured with measured data, so that leaks can be detected in a short period of time
- **Equipped with USB Ports**
Easy processing of I/O data, update software. Measurement results date can be save USB-memory and handling of the data.
- **A Variety of Parts Covered**
32 different types of measurement conditions are configurable
- **Large-sized Graphic Color Display**
Processes of on-going measurements, wave forms, and data analysis can be displayed on the screen.

型号 Model

FL-610



型号 Mode	使用范围 Applied Pressure Range	设定范围 Setting Pressure Range	显示范围 Indicated Pressure Range
VB	-90.0 ~ -5.0 kPa	-90.0 ~ 0.0 kPa	-99.9 ~ 0.0 kPa
LC	5.0 ~ 20.0 kPa	0.0 ~ 20.0 kPa	0.0 ~ 50.0 kPa
LD	10.0 ~ 99.9 kPa	00.0 ~ 99.9 kPa	00.0 ~ 99.9 kPa
LE	10 ~ 100 kPa	0 ~ 100 kPa	0 ~ 125 kPa
LF	30 ~ 300 kPa	0 ~ 300 kPa	0 ~ 300 kPa
MC	100 ~ 700 kPa	0 ~ 700 kPa	0 ~ 999 kPa
HC	300 ~ 990 kPa	0 ~ 999 kPa	0 ~ 999 kPa

型号	产品名称	规格
FR-51	过滤器/减压阀	正压LC范围 标准规格R5 (0.5 ~ 10kPa)
FR-52		正压LC范围 精密规格 P-200
FR-53		正压LD, LE范围 标准规格
FR-54		正压LD, LE范围 精密规格
FR-55		正压LD, LE范围 精密规格+高精度过滤器
FR-56		正压LF, MC范围 标准规格
FR-57		正压LF, MC范围 精密规格
FR-58		正压LF, MC范围 精密规格+高精度过滤器
FR-59		正压HC范围 标准规格
FR-61		负压VB范围 标准规格
FR-62		负压VB范围 精密规格 P-200

型号 Mode	电源电压 Power Source	备注 Note
02	AC90 ~ 110V 200 ~ 240V	

型号 Mode	精度 Accuracy
01	± 2% F.S.

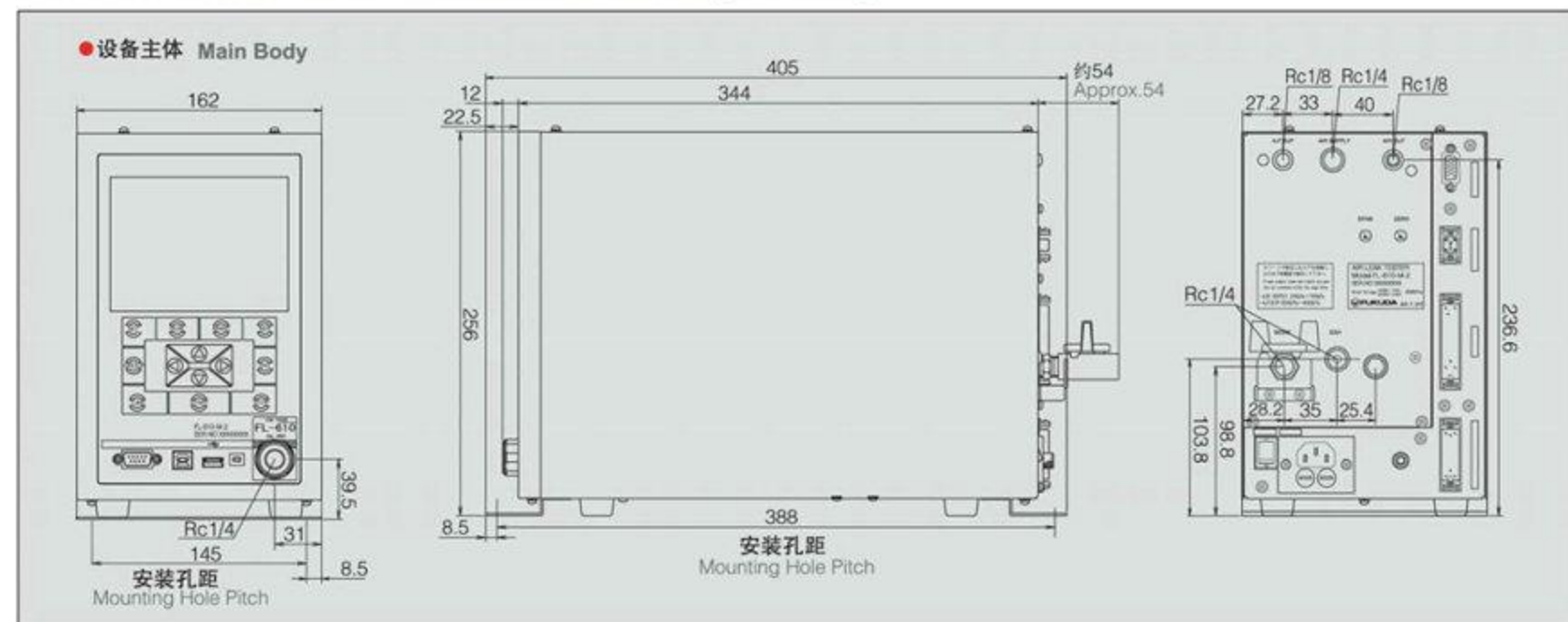
型号 Mode	规格 Specifications
02	2000 Pa

型号 Mode	输出 Output	备注 Note
02	NPN 输出 NPN output	
03	PNP 输出 PNP output	预计销售 Now Planned

Model	Product Name	Specifications
FR-51	Filter/Regulator Unit	Positive Pressure LC Range Standard spec. R5(0.5 ~ 10 kPa) Positive
FR-52		Pressure LC Range Precision spec. P-200
FR-53		Positive Pressure LD · LE Range Standard spec.
FR-54		Positive Pressure LD · LE Range Precision spec.
FR-55		Positive Pressure LD · LE Range Precision spec. and High Performance spec.
FR-56		Positive Pressure LF · MC Range Standard spec.
FR-57		Positive Pressure LF · MC Range Precision spec.
FR-58		Positive Pressure LF · MC Range Precision spec. and High Performance spec.
FR-59		Positive Pressure HC Range Standard spec.
FR-61		Negative Pressure VB Range Standard spec.
FR-62		Negative Pressure VB Range Precision spec. P-200

*1) 如需详细规格, 请联系福田公司
Please contact FUKUDA about the detailed specifications.

外形尺寸(单位: mm) External Dimensions (Unit: mm)



规格 Specifications

测定方式	被测物、固定基准物差压比较方式 (无基准物)
容积测定	使用定流量发生器或手动校正器进行容积测定和校准
差压传感器	VR-55A (2CD) F.S. 2000Pa/5V 被测物侧精度 ± 1% F.S. 基准物侧精度 ± 2% F.S.
直压传感器	VB型 -10kPa 精度 ± 2% F.S.
	LC型 50kPa 精度 ± 2% F.S.
	LD型 100kPa 精度 ± 2% F.S.
	LE型 100kPa 精度 ± 2% F.S.
	LF型 300kPa 精度 ± 2% F.S.
	MC型 1MPa 精度 ± 2% F.S.
HC型 1MPa 精度 ± 2% F.S.	
被测物侧容积	约6.2ml
基准容器容积	约28ml
测定精度	50ml标准被测物1ml/min的测试条件下, 测定误差在 ± 5%以内
推荐前导压	驱动压300 ~ 400kPa
显示	5.7英寸LCD显示 (320 x R.G.B.) X240 dot TFT色彩
组号设定	0 ~ 31 (共32组)
测试压力自动控制	自动压力控制器 (APU-70, APU-90, APU-120, APU-130)*
显示单位	检测结果单位: Pa, kPa, Pa/s, kPa/s, Pa/min, kPa/min, mL/s, mL/min, Pam ³ /s, Pa/DET, kPa/DET
	测试压单位: kPa, MPa, kgf/cm ² , psi, mbar, bar, mmHg, cmHg, inHg
外部输入/输出	REMOTE 50P (外部控制信号)
	APU SIGNAL 8P (APU控制信号)
	EXT VALVE SIGNAL 34P (外部选购信号)
	RS-232C D-SUB 9P (数据输出信号)
	ANALOG IN 15P (外部模拟信号)
	USB接口 A型接口
USB接口 B型接口	
温度/湿度范围	0 ~ 40°C 45 ~ 85%RH (无结露)
电源	AC90 ~ 110V 200 ~ 240V
耗电量	约100VA
重量	约12kg
语言	日语/英语

* APU可选 (请参考FL-600系列“可选设备”选项)

Testing Method	Work/ Fixed Master Comparison (Master-Less) Differential Pressure Method Air Leak Tester
Volume Testing	By employing a flow master, Volume testing and calibration can be done according to actual leak standards.
Differential Pressure Sensor	VR-55A(2CD)F.S. 2000Pa/5V Work Side Accuracy ±1% F.S. Master Side Accuracy ±2% F.S.
Gauge Pressure Sensor	VB Range -101 kPa Accuracy ±2% F.S.
	LC Range 50 kPa Accuracy ±2% F.S.
	LD Range 100 kPa Accuracy ±2% F.S.
	LE Range 100 kPa Accuracy ±2% F.S.
	LF Range 300 kPa Accuracy ±2% F.S.
	MC Range 1 MPa Accuracy ±2% F.S.
HC Range 1 MPa Accuracy ±2% F.S.	
Work Side Volume	Approx. 6.2 mL
Master Tank Volume	Approx. 28 mL
Testing Sensitivity	Standard work of 50mL Used for Leak Experiments ±5% 1mL/min
Recommended Pilot Pressure	Driving pressure 300 ~ 400 kPa
Display	5.7 Inch, LCD(320xR.G.B)x240 dot, Color TFT
Group Setting	0 ~ 31 group (32 Total)
Test pressure Automatic Control	Corresponds to Pneumatic Regulators (APU-70, APU-90, APU-120, APU-130)*
Display Unit	Testing Unit: Pa, kPa, Pa/s, kPa/s, Pa/min, kPa/min, mL/s, mL/min, Pam ³ /s, Pa/DET, kPa/DET
	Test Pressure Unit: kPa, MPa, kgf/cm ² , psi, mbar, bar, mmHg, cmHg, inHg
External Input/Output	REMOTE 50P (External Connection Signal)
	APU SIGNAL 8P (APU Connection Signal)
	EXT VALVE SIGNAL 34P (Externally Mounted Option Signal)
	RS-232C D-SUB 9P (Data Output Signal)
	ANALOG IN 15P (External Analog Signal)
	USB Host A connector
USB Function B connector	
Operation Temperature/Humidity Range	0 ~ 40°C 45 ~ 85%RH (With no Precipitation)
Power Source	AC90 ~ 110V 200 ~ 240V
Applied Current	Approx. 100 VA
Weight	Approx. 12 kg
Language	Japanese/ English

* APU is an option. (Please refer to the FL-600 series Additional Equipments.)

主要产品 ● 气密检测仪 ● 数字压力表 ● 流量计 ● 自动压力、流量控制器 ● 密封性能检测专用设备

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