

订货信息 Order Information

产品编码 Product Code	型号 Model	名称 Name	备注 Remark
AC001009506	HD-810-2	氮氢检漏仪 Nitrogen-Hydrogen Leak Tester	主机+ HA-10 + LE-10-2 Mainbody + HA-10 + LE-10-2
AC001009507	HD-810-4	氮氢检漏仪 Nitrogen-Hydrogen Leak Tester	主机+ HA-10 + LE-10-4 Mainbody + HA-10 + LE-10-4
AB080007007	HA-10	探枪 Sniffer	扩散式, 量程0.5~1000 ppm, 不含电缆 Diffusion Type. Range: 0.5~1000 ppm. Without cable.
AB080006037	LE-10-2	电缆线 Cable	探枪与主机连线, 2米线 Cable between sniffer and main body, 2m
AB080006038	LE-10-4	电缆线 Cable	探枪与主机连线, 4米线 Cable between sniffer and main body, 4m
AC017003010	CEU-1	充排气控制装置 Charge/Exhaust Unit	使用压力0~1MPa, HD-810/830系列通用 Working pressure range 0~1MPa. Common used for HD-810 and HD-830 series.
AC017003011	CEU-5	充排气控制装置 Charge/Exhaust Unit	使用压力0~5MPa, HD-810/830系列通用 Working pressure range 0~5MPa. Common used for HD-810 and HD-830 series.
AC001009508	HD-830-2	氮氢检漏仪 Nitrogen-Hydrogen Leak Tester	主机+HA-30+LE-30-2 Mainbody + HA-30 + LE-30-2
AC001009513	HD-830-4	氮氢检漏仪 Nitrogen-Hydrogen Leak Tester	主机+HA-30+LE-30-4 Mainbody + HA-10 + LE-10-4
AB080007009	HA-30	吸枪 Gas Suction Gun	吸入式, 量程0.5~1000ppm, 不含电缆 Gas Suction Type. Range: 0.5~1000 ppm. Without cable.
AB080006044	LE-30-2	电缆线 Cable	2m电缆线 Cable length 2m
AB080006045	LE-30-4	电缆线 Cable	4m电缆线 Cable length 4m
A039101004	PF060	过滤网	过滤网 10片/包 10 pieces per package

注: 标准漏孔的选型参考相应的定型产品。
Note: When select standard leak, please see the relevant approved product for reference.

技术指标 Technical Qualification

型号 Model	HD-810	HD-830
测定方式 Testing Method	扩散式 Gas Diffusion Type	吸枪式 Gas Suction Type
最小可检漏率 Minimum Detectable Leakrate	5x10 ⁻⁸ Pa.m ³ /s (5% H ₂ + 95% N ₂), 相当于0.1克/年R134a 5x10 ⁻⁸ Pa.m ³ /s (5% H ₂ + 95% N ₂), which is equivalent to 0.1g/year of R134a	1x10 ⁻⁷ Pa.m ³ /s (5% H ₂ + 95% N ₂), 相当于0.2克/年R134a 1x10 ⁻⁷ Pa.m ³ /s (5% H ₂ + 95% N ₂), which is equivalent to 0.2g/year of R134a
安装方式 Mounting Type	桌上式, 可面板安装 Desktop, or panel mounting	
分辨率 Resolution	浓度: 0.1 ppm Concentration: 0.1 ppm	
浓度检测范围 Concentration Detection Range	0.5 ~ 1000 ppm	
显示 Display	LCD显示 (蓝色LED背光) LCD Display (Blue LED Backlight) 显示点阵数 320 x 240 Dot Matrix: 320 x 240 有效显示尺寸 W124mm x D94mm Effective Display-Size: W124mm x D94mm	
组号设定机能 Group Setting	0~15ch (合计16ch) 0~15ch (16ch Total)	
后端子个数 External Terminals	输入信号: 10个 输出信号: 8个 电磁阀控制信号: 8个	Input Signals: 10 Output Signals: 8 Valve Control Signals: 8
电源电压 Power Source	AC 100 ~ 240V, 50/60Hz	
功耗 Power Consumption	< 50W	
温、湿度范围 Operation Temperature/Humidity Range	5 ~ 40 °C, 45 ~ 85%RH, 无结露 With no Precipitation	
重量 Weight	主机 Main Body: 6.5kg	探枪 Sniffer: 0.2kg



氮氢检漏仪
Nitrogen-Hydrogen Leak Tester

HD-810/830 系列
Series

- 使用5%氢气+95%氮气的混合气体作为示踪气体
- 符合国际标准 ISO10156 : 2010的非可燃性安全气体
- 最小可检漏率5 × 10⁻⁸Pa.m³/s (相当于0.1克/年R134a)
- 对泄漏点精确定位、测量感度高
- 可自动进行ppm, g/year, ml/min, ml/sec, Pa.m³/s换算



主要产品 ● 气密检漏仪 ● 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

博益(天津)气动技术研究所有限公司
BOYI (Tianjin) Pneumatic Technology Institute Co., Ltd.



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C-BY-HD81030-X-01
Printed in China

- Using mixed gas containing 5% Hydrogen and 95% Nitrogen as a tracer gas
- Non flammable safe gas approved by ISO10156 : 2010
- Minimum detectable leak rate of 5 × 10⁻⁸Pa.m³/s(equivalent to 0.1g/year of R134a)
- Accurate positioning with high sensitivity
- Auto conversion among ppm, g/year, ml/min, ml/sec and Pa.m³/s

成本更低、灵敏度更高、稳定性更好 Lower cost with higher sensitivity and stability

大屏幕显示 Large Screen Display

中/英文操作界面
Chinese/English operation interface
测试过程曲线显示
Curve display during the detection process



自动清零 Auto Zero Function

消除环境本底对测试的影响
Eliminate the influence caused by background

组号设定 Group Settings

可以进行16组参数设定, 面板或后端子切换
16 groups available, switchover between manual mode and remote mode

探枪 Sniffing Probe(HD-810)

可进行数据显示及报警 Data display and alert

吸枪 Gas Suction Gun(HD-830)

数据分析显示 Data Analysis Display

▶ 500个历史检测数据查看、图表显示、个数统计, 辅助进行质量分析控制。
▶ Review of 500 historical data, graphic display and number statistics can carry out the quality analysis and control.

自动检测功能 Self-Check Function

▶ 利用后端子I/O控制, 能连接电磁阀、气缸、PLC和充排气控制装置等外部设备配合检测, 组成各种检测系统。
▶ With the help of I/O control, external devices including solenoid valves, cylinder, PLC, charge and exhaust units can be connected to form varied detection systems.

HD-810:

采用扩散式原理, 被测物在密闭容器内测试, 不会受到本底影响。
Gas diffusion principle is applied. The test is conducted inside the sealed container to avoid the effect of background.

HD-830:

采用吸入式原理, 采样流量可在0~100ml/min范围内调节, 在不利于氢气扩散的环境下也能迅速捕捉到泄漏出来的氢气。
Gas suction principle is applied. The sampling flowrate can be adjusted within 0~100ml/min, and the leaked hydrogen can be caught under the condition that is hard for hydrogen diffusion.

气体特性对比 Gas Characteristic Comparison

种类 Type	氢气 Hydrogen Leak	氮气 Nitrogen	空气 Air
粘性 (mPa·s) Viscosity	8.7	19.4	18.7
分子量 Molecular Weight	2	4	29
本底 Background	0.5ppm	5ppm	-

氮氢法与其他方法的对比 Comparison between Nitrogen-Hydrogen Method and Other Methods

项目 Item	氮氢法 Nitrogen-Hydrogen Detection Method	氦质谱检测法 Helium Mass Spectrometer Detection Method	浸液法 Immersion Method	压降法 Pressure Decay Method
灵敏度 (Pa·m³/s) Sensitivity	5×10^{-8}	$5 \times 10^{-7} \sim 10^{-8}$ (吸枪法) Sniffer Method	$10^{-4.5}$	$10^{-4.5}$
响应时间 Response Time	约1秒 Approx. 1sec	约1秒 Approx. 1sec	缓慢 Slow	缓慢 Slow
成本 Cost	中等 Medium	昂贵 Expensive	便宜 Cheap	便宜 Cheap

定量检测模式 Quantitative Detection Mode

可确定泄漏量大小
Confirm the leak rate
感度高达 $5 \times 10^{-8} \text{ Pa} \cdot \text{m}^3/\text{s}$, (5% H₂ + 95% N₂), 相当于0.1克/年R134a
High sensitivity of $5 \times 10^{-8} \text{ Pa} \cdot \text{m}^3/\text{s}$ (5% H₂ + 95% N₂), which is equivalent to 0.1g/year of R134a
自动记录环境本底, 测试结果无本底干扰
Record the background automatically to avoid disturbance
多种测试单位选择ppm, g/year, ml/min, ml/sec and Pa·m³/s
Varied detection units including ppm, g/year, ml/min, ml/sec and Pa·m³/s

定位检测模式 Positioning Detection Mode

可确定泄漏点位置
Confirm the leak point
响应速度快
Fast response
去除时间短
Shortly return to original state

型号 Model: FFM-1000 	使用气体 Gas Applied 5%氢气+95%氮气, 或指定 5% hydrogen mixed with 95% nitrogen, or specified 压力范围 Pressure Range -0.1MPa~2.0MPa任意指定 Specified freely 漏率范围 Leak Rate Range $10^{-5} \sim 10^{-7} \text{ Pa} \cdot \text{m}^3/\text{s}$ 外形尺寸 Dimensions Φ17 X 77mm
型号 Model: FFM-2000 	使用气体 Gas Applied 5%氢气+95%氮气, 或指定 5% hydrogen mixed with 95% nitrogen, or specified 气罐压力 Pressure Range -0.1MPa~1.0MPa 漏率范围 Leak Rate Range $10^{-5} \sim 10^{-7} \text{ Pa} \cdot \text{m}^3/\text{s}$ 外形尺寸 Dimensions Φ45 X 290mm
充排气控制装置 Charge/Exhaust Controlling Unit EU-1/EU-5 	仪器功能: 可实现对被测物抽空-充气, 保证测试时示踪气体浓度。检测后自动排气-清除, 可有效清除被测物内残留的气体, 控制测试环境本底。 Device Function: This device can conduct gas evacuation and charge progress for the measured piece to guarantee the tracer gas concentration. After the detection, automatic exhaust and clearance progress are conducted to remove the residual gas inside the measured piece to control the background. 压力范围 Pressure Range -0.1~1.0MPa -0.1~5.0MPa 外形尺寸 Dimensions 342.6W X 193.5H X 361D (mm)

外观尺寸 Dimensions

主机 Main Body (342.6mm × 193.5mm × 361mm)

探枪 Sniffer (56mm × 46mm × 333.9mm)