



主材进口
Main material import

出口美国
Export to USA

美国技术
American technology

美国标准
American standard

Ep级超高纯洁净压力表

Ep class ultra-high purity clean pressure gauge

For semiconductor, electronics, medical, biotechnology High degree gas distribution systems for the technical and pharmaceutical industries



型号 Model : U/HPG50

超/高纯净压力表-VCR1/4"外/内端面密封旋转/NPT接头-EP/BA

Ultra/High Purity clean pressure gauge -VCR1/4" Male / Female Face Seal Swivel /NPT connection -EP/BA



产品特点 Product Features

The U/HPG-50 Ultra/high purity clean pressure gauge is designed and manufactured for gas distribution equipment used in semiconductor manufacturing.

The welded threaded VCR face seal connection provides a thread-free pressure seal, eliminating pollution sources

超声波清洗 Ultrasonic cleaning	All parts	Pure water treatment
洁净度 Cleanliness	Particles, fibers, hydrocarbon The compounds meet the standard	ES1-STD-021246 Level 100 R1 (exceed ASME B40.100 Level IV)
气路表面粗糙度 Gas path surface finish	<10Rajin(0.25 μm)-EP	<10Rajin(0.4 μm)-VCR-BA <32Rajin(0.8 μm)-NPT-BA
主材焊接 Main material welding	Oxygen free vacuum chamber high purity argon shielded welding	SEMI F81-0611
氦气测漏 Helium leak detection	Leak less than 10 ⁻⁹ mbar/sec	SEMI F1-0812
主材高耐腐蚀性 High corrosion resistance	316L/AISI 316L VM SS	SEMI F20-0706
连接形式多样化 Diversity of connection form	Female/Male Face Seal Swivel Male Face Seal Fixed NPT Male	1/4VCR(M), 1/4VCR(F), NPT1/4, G1/4, 9/6-18UNF
组装定标、及包装 Assembly calibration and packaging	C.R100 class assembly, calibration.C.R grade 10 vacuum packaging	Nitrogen purification, double bag packaging

完善的生产流程 Perfect Production Process

1	选材 Select materials	
2	原材料检验及处理 Raw material inspection and processing	
3	超声波清洗1 Ultrasonic cleaning1	C.R1000 class
4	组焊1 Group Welding 1 (11ppm02)-NPT does not have this	
5	超声波清洗2 Ultrasonic cleaning2	C.R1000 class
6	组焊2 Group Welding 2 (11ppm02)	
7	超声波清洗3 Ultrasonic cleaning3	C.R1000 class
8	组焊3 Group Welding 3 (11ppm02)	
9	氦气测漏 (Leak less than 10 ⁻⁹ mbar/sec) Helium leak detection	-
10	超声波清洗4 Ultrasonic cleaning4	C.R1000 class
11	组装1 Assemble1	
12	超压 Overpressure (125%, 30min)	C.R100 class
13	超声波清洗5 Ultrasonic cleaning5	C.R1000 class
14	组装2 Assemble2	
15	调试 Debug	C.R100 class
16	超声波清洗6 Ultrasonic cleaning6	C.R1000 class
17	组装3 Assemble3	C.R100 class
18	P-N2定标 P-N2 calibration	C.R100 class
19	组装4 Assemble4	C.R100 class
20	真空包装 Vacuum packaging	C.R10 class
21	外包装 Outer packing	
22	运输 Transport	

场景展示-工艺设备 Scene show - Process equipment



Cleaning - Drying

Clean workshop external equipment



Oxygen free track welding

Welding internal inspection



Helium leak detection

Precise Adjustment



C.R100 class Vacuum packing

尘埃粒子实时监测
Real-time monitoring of dust particles

场景展示-试验 Scene Show - Test



温度试验 -Temperature test

压力试验-Pressure test



疲劳试验-Fatigue test

爆破试验-Blasting test

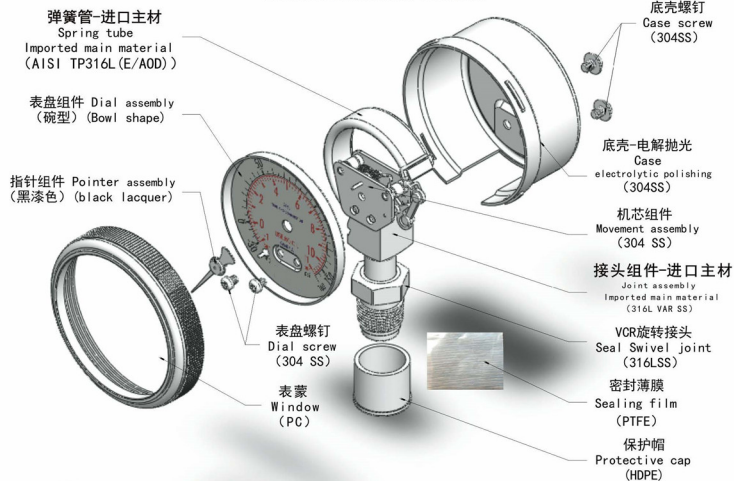
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产品分解示意图
Product Breakdown Diagram



主材加工特点 Main Material Processing Characteristics



端面完好, 无斑点、腐蚀、变色等现象
Face intact, no spots, corrosion, discoloration, etc



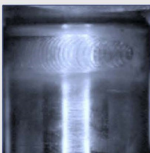
焊接符合SEMI F81-0611规范
Welding conforms to SEMI F81-0611 specification



弹簧管
组件
Bourdon
tube
assembly



焊接均匀, 无杂质、无泄漏
Welding uniformly, no impurities, no leakage



焊接符合SEMI F81-0611规范
Welding conforms to SEMI F81-0611 specification



标记材料及符号: 螺纹完整, 镀银保护
Marking material and symbol: Complete thread, silver-plated protection



高气净化, 双袋真空包装, G R 10级
Nitrogen purification, double bag
packaging, G R100 class

型号 Model: U/HPG50

超/高纯净压力-VCr1/4"外/内端面密封旋转/NPT接头-EP/BA

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高标准化规范 High standard specification

公称直径 Dia. (mm)	50
压力范围 Range	-0.1~0 ~ 0~28MPa
位移Displacement (mm)	1.1~1.4
精度等级Accuracy (%)	ASME B40.100-2013 GradeA
负载能力 Load Capacity	稳定 Stable: 75%FS;
	波动 Fluctuating: 66%FS;
	瞬时 Short time: 100%FS
工作环境 Working Environment	环境温度 Ambient Temperature: -40° C~65° C
	最高 Medium max. : +100° C;
	相对湿度 Relative humidity: 50%
温度影响 Temperature Influence	在参考温度 (20° C) 以上和以下的精度将受到影响, 每满量程10° C约±0.4% Accuracy at temperature above and below the reference temperature (20° C) will be effected by approximately ±0.4% per 10° C of full scale



超高配置 Ultra high configuration

VCr1/4" Male / Female Face Seal Swivel - EP	
螺纹连接 Connection	
VCr1/4" Fmale/Male Face Seal Swivel :316L SS	
VCR tubes and fittings :316L VAR SS	
(SEMI F20 UHP)	
(available upon request)	
安装方式 Fitting:Lower Mount (L)/Center Back Mount (C)	
测量元件 Measuring Element	
<10MPa C型波登管 Bourdon tube:AlSi 316L VM SS	
≥10MPa 螺旋波登管 Spiral bourdon tube:AlSi 316L VM SS	
机芯 Movement:304 SS	
表盘组件 Dial Assembly	
Panel: Aluminum, white background, black/red lettering,	
dual pressure scale (bar/psi) Stud : 304 SS	
指针组件 Pointer Assembly	
Needle:Aluminum plate, black paint; Needle cap: Aluminum alloy	
底壳 Case :304 SS (electrolytic polishing)	
表蒙 Window : Polycarbonate(PC)	

VCr1/4" Male / Female Face Seal Swivel /NPT connection -BA	
螺纹连接 Connection	
VCr1/4" Fmale/Male Face Seal Swivel :316L SS	
VCR tubes / 1/4"NPT Male :316L SS	
(SEMI F20 UHP)	
(available upon request)	
安装方式 Fitting:Lower Mount (L)/Center Back Mount (C)	
测量元件 Measuring Element	
<10MPa C型波登管 Bourdon tube :316L SS	
≥10MPa 螺旋波登管 Spiral bourdon tube :316L SS	
机芯 Movement:304 SS	
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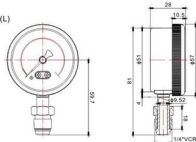


外观及安装尺寸 Appearance and mounting dimensions (mm)

EP-VCR

外接-径向

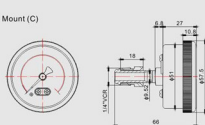
Male-Lower Mount (L)



EP-VCR

外接-轴向

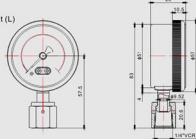
Male-Center Back Mount (C)



EP-VCR

内接-径向

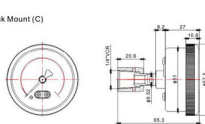
Female-Lower Mount (L)



EP-VCR

内接-轴向

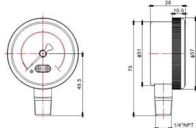
Female-Center Back Mount (C)



BA-NPT

径向

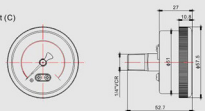
Lower Mount (L)



BA-NPT

轴向

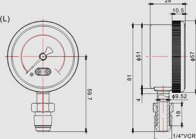
Center Back Mount (C)



BA-VCR

外接-径向

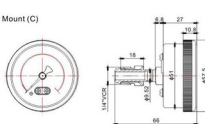
Male-Lower Mount (L)



BA-VCR

外接-轴向

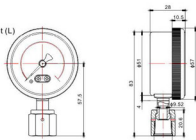
Male-Center Back Mount (C)



BA-VCR

内接-径向

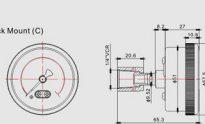
Female-Lower Mount (L)



BA-VCR

内接-轴向

Female-Center Back Mount (C)



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型号编号 Model number

UPG/HPG 50 - VP/AP XXXX - F/G/A/4 - L/C

L - 径向安装 Lower Mount (L)

C - 轴向安装 Center Back Mount (C)

安装方式 Fitting

F - VCR1/4"外端面密封旋转接头 VCR1/4"Male Face Seal Swivel

G - VCR1/4"内端面密封旋转接头 VCR1/4"Female Face Seal Swivel

A - VCR1/4"外端面密封固定接头 VCR1/4" Male Face Seal Fixed

4 - 1/4"NPT外螺纹接头 1/4"NPT Male

连接方式 Connection

-30 INHG ~ 0psi (0bar) --- VP 0000	0 ~ 15psi (1bar) --- AP 0015
-30 INHG ~ 15psi (1bar) --- VP 0015	0 ~ 30psi (2bar) --- AP 0030
-30 INHG ~ 30psi (2bar) --- VP 0030	0 ~ 60psi (4bar) --- AP 0060
-30 INHG ~ 60psi (4bar) --- VP 0060	0 ~ 100psi (6.8bar) --- AP 0100
-30 INHG ~ 100psi (6.8bar) --- VP 0100	0 ~ 150psi (10.2bar) --- AP 0150
-30 INHG ~ 160psi (11bar) --- VP 0160	0 ~ 160psi (11bar) --- AP 0160
-30 INHG ~ 200psi (13.6bar) --- VP 0200	0 ~ 200psi (13.6bar) --- AP 0200
-30 INHG ~ 300psi (20.4bar) --- VP 0300	0 ~ 300psi (20.4bar) --- AP 0300
	0 ~ 400psi (27.2bar) --- AP 0400
	0 ~ 600psi (40.8bar) --- AP 0600
	0 ~ 1000psi (68bar) --- AP 1000
	0 ~ 2000psi (136bar) --- AP 2000
VP - 真空压力 Vacuum pressure	0 ~ 3000psi (204bar) --- AP 3000
AP - 压力 Pressure	0 ~ 4000psi (272bar) --- AP 4000

压力范围 Pressure Range

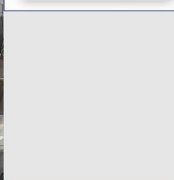
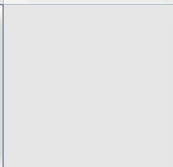
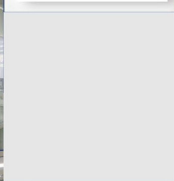
公称直径 Nominal Diameter: 50mm (2")

公称直径 Nominal Diameter

UPG-超高纯净净压力表 Ultra High Purity clean pressure gauge

HPG-高纯净净压力表 High Purity clean pressure gauge

产品类型 Product Type



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