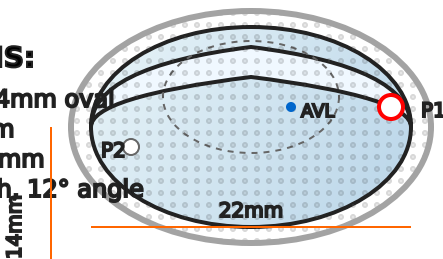


VACUUM CUP DESIGN OVERVIEW

Medical Device Component for Vacuum Controller System

KEY DIMENSIONS:

- Inner cavity: 22x14mm oval
- Dome depth: 14mm
- Wall thickness: 2.0mm
- Seal lip: 6mm width, 12° angle



MATERIALS & SPECIFICATIONS

Shell:

- PC/Tritan (medical grade)
- Wall: 2.0 ±0.2mm uniform

Seal Lip:

- Platinum-cured silicone
- Shore A 10-15 (soft contact)

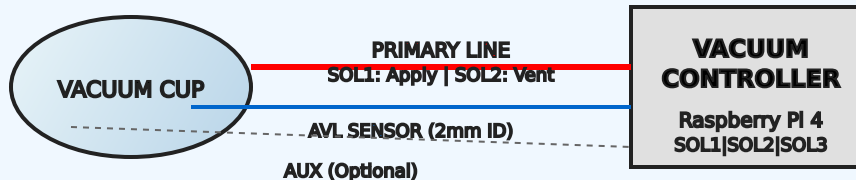
Pressure Rating:

- 40 kPa continuous operation

PORT IDENTIFICATION

- P1 - Primary Port
Female Luer-lock (P/N 0-0-1)
3.9mm ID, ISO 80369-7
- P2 - Auxiliary Port (Optional)
Future expansion, not used
- AVL - Applied Vacuum Level

VACUUM CONTROLLER INTEGRATION



Anti-Detachment System:

- AVL sensor monitors applied vacuum
- Pressure rise indicates detachment
- Auto-compensation via SOL1
- Emergency release via SOL2

Hardware:

- MCP3008 ADC
- MPX5010DP sensors
- Solenoid valves
- I2bglod control

COMPLIANCE: ISO 10993 Biocompatibility | ISO 80369-7 Luer Connections | Medical Device Standards

Designed for vulva stimulation with anti-detachment monitoring • Continuous operation: -40 kPa • Transient max: -60 kPa