Technical specifications of descope DPR Items (Olfactometer)

A) Olfactometer

1. Product Overview:

- **Purpose:** For precise and controlled delivery of olfactory stimuli in research and clinical settings.

2. General Specifications:

- **Stimulus Delivery:**
  - **Type:** Computer-controlled dynamic olfactometer
  - **Stimuli:** Capable of delivering pure odors, binary mixtures, and complex odor mixtures
  - **Carrier Gas:** Clean, dry air, with precise control over flow rates
  - **Odor Concentration:** Adjustable with high precision, covering a wide range from sub-threshold to supra-threshold levels
  - **Number of Odor Channels:** Minimum 8 odor channels, expandable to at least 16 channels
  - **Switching Time:** Rapid odor switching, less than 100 ms between stimuli
  - **Output Consistency:** Ensure uniform delivery of odorants across all channels

3. Technical Specifications:

- **Control System:**
  - **Software:** User-friendly software for experiment design, data logging, and analysis
  - **Connectivity:** USB, Ethernet, or wireless options for PC control
  - **Data Export:** Compatible with standard data formats (e.g., CSV, TXT)
  - **Triggering:** External trigger input/output for synchronization with other devices (e.g., EEG, fMRI)
  - **Automation:** Support for automated sequences, randomization, and counterbalancing of stimuli

- **Olfactometer Design:**
  - **Material:** Non-reactive, low-odor materials for all parts in contact with odorants (e.g., Teflon, stainless steel)
  - **Cleaning:** Components should be easily disassembled for cleaning and maintenance
  - **Leak Detection:** Integrated system for detecting leaks in odor delivery pathways
  - **Noise Level:** Quiet operation, below 35 dB

4. Environmental and Operating Conditions:

- **Temperature Range:** Operates effectively in environments from 15 °C to 45 °C
- **Humidity:** Tolerant of relative humidity levels from 20% to 80% (non-condensing)
- **Power Supply:** Compatible with standard laboratory power outlets (e.g., 240V, 50Hz)
- **Compliance:** Meets relevant safety and electromagnetic compatibility standards (e.g., CE, IEC 60601)

5. Calibration and Maintenance:

- **Calibration:** Includes calibration tools and protocols for regular accuracy checks

Vijaya.
16/01/2026

- **Maintenance:** Supplier must provide detailed maintenance manuals and offer ongoing support
- **Warranty:** Minimum 5 years +2 year CMC, with an option for extended warranty

6. Accessories:
- **Odorant Cartridges:** Refillable or replaceable cartridges for a variety of odorants
- **Cleaning Kit:** Complete set of tools and instructions for thorough cleaning
- **Carrying Case:** Protective case for transport/storage

7. Regulatory Compliance:
- **Safety Standards:** Certified for use in research environments with appropriate safety marks (e.g., CE, ISO 9001)
- **Environmental Standards:** Compliant with RoHS and WEEE directives

8. Documentation and Training:
- **User Manual:** Comprehensive manual covering installation, operation, troubleshooting, and maintenance
- **Training:** On-site or virtual training for researchers and technicians, included with purchase

9. Installation and Support:
- **Installation:** Vendor to provide installation and commissioning at the site
- **Technical Support:** 24/7 technical support for troubleshooting and user assistance

Vijaya. 16/01/2026