

| I/O Definition for Olfactometer V102 |                               |             |                               |             |                               |             |                               |
|--------------------------------------|-------------------------------|-------------|-------------------------------|-------------|-------------------------------|-------------|-------------------------------|
| Bank-1                               |                               | Bank-2      |                               | Bank-3      |                               | Bank-4      |                               |
| Digital I/O                          | J6                            | Digital I/O | J15                           | Digital I/O | J22                           | Digital I/O | J29                           |
| Bit                                  | Function                      | Bit         | Function                      | Bit         | Function                      | Bit         | Function                      |
|                                      | 0 Odor Select Valve-1         |             | 0 Odor Select Valve-1         |             | 0 Odor Select Valve-1         |             | 0 Odor Select Valve-1         |
|                                      | 1 Odor Select Valve-2         |             | 1 Odor Select Valve-2         |             | 1 Odor Select Valve-2         |             | 1 Odor Select Valve-2         |
|                                      | 2 Odor Select Valve-3         |             | 2 Odor Select Valve-3         |             | 2 Odor Select Valve-3         |             | 2 Odor Select Valve-3         |
|                                      | 3 Odor Select Valve-4         |             | 3 Odor Select Valve-4         |             | 3 Odor Select Valve-4         |             | 3 Odor Select Valve-4         |
|                                      | 4 Odor Select Valve-5         |             | 4 Odor Select Valve-5         |             | 4 Odor Select Valve-5         |             | 4 Odor Select Valve-5         |
|                                      | 5 Odor Select Valve-6         |             | 5 Odor Select Valve-6         |             | 5 Odor Select Valve-6         |             | 5 Odor Select Valve-6         |
|                                      | 6 Odor Select Valve-7         |             | 6 Odor Select Valve-7         |             | 6 Odor Select Valve-7         |             | 6 Odor Select Valve-7         |
|                                      | 7 Odor Select Valve-8         |             | 7 Odor Select Valve-8         |             | 7 Odor Select Valve-8         |             | 7 Odor Select Valve-8         |
|                                      | 8 Odor Select Valve-9         |             | 8 Odor Select Valve-9         |             | 8 Odor Select Valve-9         |             | 8 Odor Select Valve-9         |
|                                      | 9 Odor Select Valve-10        |             | 9 Odor Select Valve-10        |             | 9 Odor Select Valve-10        |             | 9 Odor Select Valve-10        |
|                                      | 10 Odor Select Valve-11       |             | 10 Odor Select Valve-11       |             | 10 Odor Select Valve-11       |             | 10 Odor Select Valve-11       |
|                                      | 11 Odor Select Valve-12       |             | 11 Odor Select Valve-12       |             | 11 Odor Select Valve-12       |             | 11 Odor Select Valve-12       |
|                                      | 12 Odor Select Valve-13       |             | 12 Odor Select Valve-13       |             | 12 Odor Select Valve-13       |             | 12 Odor Select Valve-13       |
|                                      | 13 Odor Select Valve-14       |             | 13 Odor Select Valve-14       |             | 13 Odor Select Valve-14       |             | 13 Odor Select Valve-14       |
|                                      | 14 Odor Select Valve-15       |             | 14 Odor Select Valve-15       |             | 14 Odor Select Valve-15       |             | 14 Odor Select Valve-15       |
|                                      | 15 Odor Select Valve-16       |             | 15 Odor Select Valve-16       |             | 15 Odor Select Valve-16       |             | 15 Odor Select Valve-16       |
|                                      | 16 Soft Enable Valve          |             | 16 Soft Enable Valve          |             | 16 Soft Enable Valve          |             | 16 Soft Enable Valve          |
|                                      | 17 Dilution PWM Valve-1       |             | 17 Dilution PWM Valve-1       |             | 17 Dilution PWM Valve-1       |             | 17 Dilution PWM Valve-1       |
|                                      | 18 Dilution PWM Valve-2       |             | 18 Dilution PWM Valve-2       |             | 18 Dilution PWM Valve-2       |             | 18 Dilution PWM Valve-2       |
|                                      | 19 Dilution PWM Valve-3       |             | 19 Dilution PWM Valve-3       |             | 19 Dilution PWM Valve-3       |             | 19 Dilution PWM Valve-3       |
|                                      | 20 Enable Odor PWM Valve      |             | 20 Enable Odor PWM Valve      |             | 20 Enable Odor PWM Valve      |             | 20 Enable Odor PWM Valve      |
|                                      | 21 Enable Dilution PWM Valves |             | 21 Enable Dilution PWM Valves |             | 21 Enable Dilution PWM Valves |             | 21 Enable Dilution PWM Valves |
|                                      | 22 Enable Carrier PWM Valve   |             | 22 Enable Carrier PWM Valve   |             | 22 Enable Carrier PWM Valve   |             | 22 Enable Carrier PWM Valve   |
|                                      | 23 Hard Enable                |             | 23 Hard Enable                |             | 23 Hard Enable                |             | 23 Hard Enable                |
|                                      |                               |             |                               |             |                               |             |                               |
| Analog In                            | J2                            | Analog In   | J10                           | Analog In   | J17                           | Analog In   | J24                           |
|                                      | 0 Odor PID Sensor-1           |             | 0 Odor PID Sensor-2           |             | 0 Odor PID Sensor-3           |             | 0 Odor PID Sensor-4           |
|                                      | 1 Dilution PID Sensor-1       |             | 1 Dilution PID Sensor-1       |             | 1 Dilution PID Sensor-1       |             | 1 Dilution PID Sensor-1       |
|                                      | 2 Dilution PID Sensor-2       |             | 2 Dilution PID Sensor-2       |             | 2 Dilution PID Sensor-2       |             | 2 Dilution PID Sensor-2       |
|                                      | 3 Dilution PID Sensor-3       |             | 3 Dilution PID Sensor-3       |             | 3 Dilution PID Sensor-3       |             | 3 Dilution PID Sensor-3       |
|                                      | 4 Dilution PID Sensor-4       |             | 4 Dilution PID Sensor-4       |             | 4 Dilution PID Sensor-4       |             | 4 Dilution PID Sensor-4       |
|                                      | 5 Carrier PID Sensor-1        |             | 5 Carrier PID Sensor-2        |             | 5 Carrier PID Sensor-3        |             | 5 Carrier PID Sensor-4        |
|                                      |                               |             |                               |             |                               |             |                               |
| Analog Out                           | J4                            | Analog Out  | J12                           | Analog Out  | J20                           | Analog Out  | J27                           |
|                                      | 0 Odor PID Valve-1            |             | 0 Odor PID Valve-2            |             | 0 Odor PID Valve-3            |             | 0 Odor PID Valve-4            |
|                                      | 1 Dilution PID Valve-1        |             | 1 Dilution PID Valve-1        |             | 1 Dilution PID Valve-1        |             | 1 Dilution PID Valve-1        |
|                                      | 2 Dilution PID Valve-2        |             | 2 Dilution PID Valve-2        |             | 2 Dilution PID Valve-2        |             | 2 Dilution PID Valve-2        |
|                                      | 3 Dilution PID Valve-3        |             | 3 Dilution PID Valve-3        |             | 3 Dilution PID Valve-3        |             | 3 Dilution PID Valve-3        |
|                                      | J5                            |             | J14                           |             | J21                           |             | J28                           |
|                                      | 4 Dilution PID Valve-4        |             | 4 Dilution PID Valve-4        |             | 4 Dilution PID Valve-4        |             | 4 Dilution PID Valve-4        |
|                                      | 5 Carrier PID Valve-1         |             | 5 Carrier PID Valve-2         |             | 5 Carrier PID Valve-3         |             | 5 Carrier PID Valve-4         |