

SELECTION GUIDE: Infrared Industries Pumps

| | Micro Diaphragm Single-Head Pump | Micro Diaphragm Dual-Head Pump | Mini Diaphragm Single-Head Pump | Mini Diaphragm Dual-Head Pump | Industrial CEP-1 Pump | IR-1050 Centurion Explosion-Proof Pump |
|--|--|--|--|--|--|---|
| Brush and brushless DC motor-driven | x | x | x | x | x | |
| Brushless AC motor-driven | | | | | x | x |
| Dimensions | 1.5" x .82" x 1.98" | 1.5" x .82" x 1.98" | 1.1875" x 3.5" x 2.5" | 1.19" x 3.5" x 3.1" | 2.4" x 5.4" x 4.9" | 7.4 W" x 13.4 L" x 8.1 T" |
| Weight | 1.8 oz. | 2.2 oz. | 7.2 oz. | 7.8 oz. | 3 lbs. 9 oz. | 12 lbs. |
| Ports | 0.1" | 0.1" | I.D.: 0.125" O.D.: 0.1875" | I.D.: 0.125" O.D.: 0.1875" | 1/8" NPT | 1/8" or 1/4" NPT |
| Balanced to cut down on vibration, reduce noise, and extend life of pump | x | x | x | x | x | x |
| One head can be used for low flow and one for high flow | | x | | | | |
| Each head can be configured for vacuum operation, pressure operation, or alternating between the two | x | x | x | x | | |
| Handles gases or liquids (both for dual-head) | x | x | x | x | | |
| Explosion-proof motors | | | | | | x |
| UL and CSA listed Class I | | | | | | x |
| Division 1, Group C and D and Class II, Group F and G certified | x | x | x | x | x | x |
| Wetted parts materials | Stainless steel 10% glass reinforcement PUMP BODY: Nylon DIAPHRAGM: Viton | Stainless steel 10% glass reinforcement PUMP BODY: Nylon DIAPHRAGM: Viton | Stainless steel 10% glass reinforcement PUMP BODY: Nylon DIAPHRAGM: Viton | Stainless steel 10% glass reinforcement PUMP BODY: Nylon DIAPHRAGM: Viton | Stainless steel PUMP BODY: Aluminum DIAPHRAGM: Teflon, Viton | HEAD: Teflon-coated Aluminum DIAPHRAGM: Teflon-coated EPDM |
| Maximum pressure range | 25 PSIG | 25 PSIG | 25 PSIG | 28 PSIG | 29.2 PSIG | 71 PSIG |

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|--|--|--|--|--|--|--|
| Vacuum range | 0-20 In Hg | 0-20 In Hg | 0-25 In Hg | 0-25 In Hg | 0-23 In Hg | 8.4-25.2 In Hg |
| Maximum unrestricted flow | 2.5 LPM | 5 LPM | 6 LPM | 11 LPM | 7.6 LPM and 0.268 CFM | 30.2 LPM |
| Operating environment | 41 to 158° F (5 to 70° C) | 41 to 158° F (5 to 70° C) | 41 to 158° F (5 to 70° C) | 41 to 158° F (5 to 70° C) | 32 to 104° F | 32 to 140 F |
| Humidity | 0-95% RH | 0-95% RH | 0-95% | 0-95% | 0-100% RH in vapor state | 0-100% RH in vapor state |
| Nominal motor voltages | 6, 9, 12 VDC NOTE: Other voltages available upon request | 6, 9, 12 VDC NOTE: Other voltages available upon request | 6, 9, 12 VDC NOTE: Other voltages available upon request | 6, 9, 12 VDC NOTE: Other voltages available upon request | 115 volts 60 Hz, 1PH or 230 volts, 50 Hz (dual voltage motor) | 115 volts 60 Hz, 1PH or 240 volts, 60 Hz |
| Current range (dependent on motor type, voltage, pressure/vacuum, and flow requirement) | 100 mA – 500 mA | 100 mA – 500 mA | 50 mA – 900 mA | 50 mA – 900 mA | 1.5 A @ 115 volts, 60 Hz 0.95 A @ 230 volts, 50 Hz | 3.6 A @ 115 volts, 60 Hz 2.1 A @ 230 volts, 50 Hz |
| Lifetime rating of the pump/motor | Up to 10,000 hours based on brushless design and user specifications | Up to 10,000 hours based on brushless design and user specifications | Up to 10,000 hours based on brushless design and user specifications | Up to 10,000 hours based on brushless design and user specifications | For 24x7 use, inspect diaphragm after 6-8 months Up to 20,000 hours for motor | For 24x7 use, inspect diaphragm after 6-8 months Up to 20,000 hours for motor |
| Low-flow | x | x | x | x | | |
| Extended or continuous operation | | | | | x | x |