



## Agilent MS40+

Mono Stage Rotary Vane Pump  
Small Footprint  
High Pumping Capacity

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**Agilent Technologies**

# Agilent MS40+ Mono Stage Rotary Vane Pump

## HIGHEST PERFORMANCES / SIZE RATIO

- Sophisticated Electronics and excellent mechanical design allow high pumping capacity and reduced dimensions
- Base pressure below  $5 \times 10^{-2}$  mbar ( $3.75 \times 10^{-2}$  Torr)
- High pumping speed over a wide range, from atmosphere to 1 mbar (0.75 Torr)
- Inverter technology allows to manage pumping speed to more than  $45 \text{ m}^3/\text{h}$  (26.5 cfm)
- Best noise level, with the highest throughput

**Best performance  
in the smallest package!**



## Inverter Technology

- Proven on-board electronics allow constant performance worldwide
- Inverter electronics enable tailoring pumping speed to each application
- Environmentally friendly and cost-effective due to reduced power requirements, low start up current (<10A) and standby mode

## Applications

- Suitable for steady and high gas throughput conditions at pressures below 10 Torr, in applications like Mass Spectrometry (including LC-MS, ICP-MS, GC-TOF-MS, etc.), Electron Microscopy, and other Scientific Instrumentation. Please contact Agilent to qualify use in cyclic applications

## Smallest Dimensions

- The smallest single stage  $40 \text{ m}^3/\text{h}$  pump in the market. 297 x 418 x 225 mm (11.69 x 16.46 x 8.86 inches) including on-board electronics, integrated exhaust filter and oil return kit.
- Easier system integration. Simple maintenance
- Allows smaller overall instrument design, therefore reducing costs

## Worldwide Service Capability

- Three levels of Product Support
    - 24h Advance Exchange
    - Factory Repair
    - Upgrade Program
- allow global coverage of service needs to maximize productivity and uptime

## Interface Capabilities

- I/O and RS232/RS485 enable adjustment of operating parameters simplifying system integration
- T-Plus software allows control of pump parameters via PC, improving uptime and reliability, and reducing maintenance costs

## Features and Benefits



### Inverter Technology

- Low start up current (<10A)
- Reduced operating power requirements
- Single phase
- Truly universal voltage and frequency



### Integrated Design including:

- Oil return kit
- Anti suck-back valve
- Exhaust filter

Resulting in Compactness, Reduced costs, Easier maintenance, Higher reliability



### Interface capabilities

- I/O and RS232 / RS485
- Adjustable speed: 40 - 60 Hz
- Tailored pump performance
- Adjustable acoustical signals
- Standby mode (low speed)

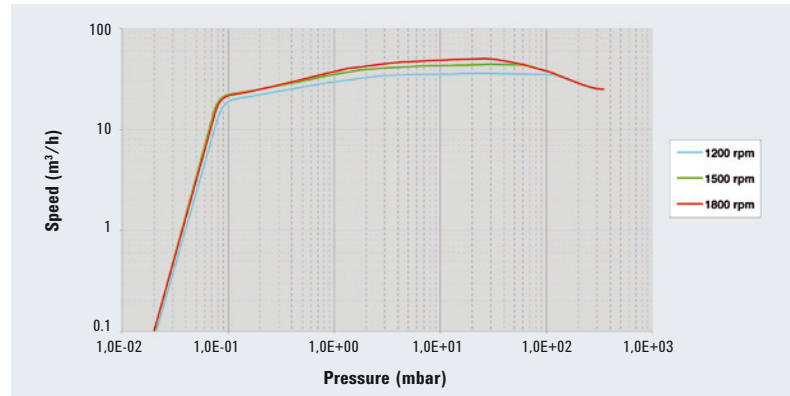
### Remote diagnostics

Allow the control of oil level, temperature, power, current

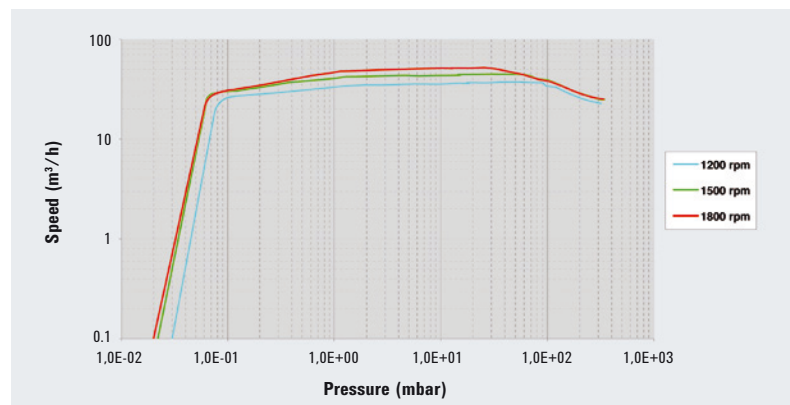
## Ordering Information

MS40+	Part Number
MS40+ RVP, 25KF Inlet Flange, with I/O and RS232/485 Interface, without Oil Level Sensor	949-9225
MS40+ RVP, 40KF Inlet Flange, Full Optional with I/O and RS232/485 Interface, with Oil Level Sensor	949-9240
MS40+ RVP, 40KF Inlet Flange, Base Version	949-9241
ACCESSORIES	Part Number
MS40+ Exhaust filter	949-9201
MS40+ 1 Litre Oil Tank	949-9202
MS40+ Maintenance Kit	949-9203
Power cable EU	949-9396
208Vac US Power cable	949-9400
Power cable UK	949-9398
Power cable IEC320	949-9399
T-PLUS Navigator SW (w/serial cable)	969-9883

## Pumping Speed Curve (Inlet Port KF25)



## Pumping Speed Curve (Inlet Port KF40)



## Technical Specifications

<b>Free air displacement</b>	828 l/min (29.2 cfm; 49.7 m³/h)
Pumping Speed (at 5 mbar inlet pressure)	40 m³/h
Ultimate Total Pressure	5x10 <sup>2</sup> mbar
Oil Capacity min/max	1 l
Motor Rating 3ph	0.75 kW
Noise Level with gas ballast closed	≤ 62 dB(A)
Oil Temperature	60 °C
Pump operating	140 °F
IP Value	20
Installation category	II
Pollution degree	2
Operating Temperature Range	12 – 40 °C
Nominal rotation speed	1450 rpm
Weight	33 Kg 72.7 lb
Inlet Flange 949-9225	DN 25KF
Inlet Flange 949-9240 / 949-9941	DN 40KF
Exhaust Flange	DN 25KF
Main Dimensions: - length	418 mm
- width	297 mm
- height	228 mm
Nominal Input Voltage	200-240 V
Input frequency	50 / 60 Hz
Max input power	1200 VA
Internal Main Fuse (TT type)	12.5 A

30%  
LOWER  
motor rating

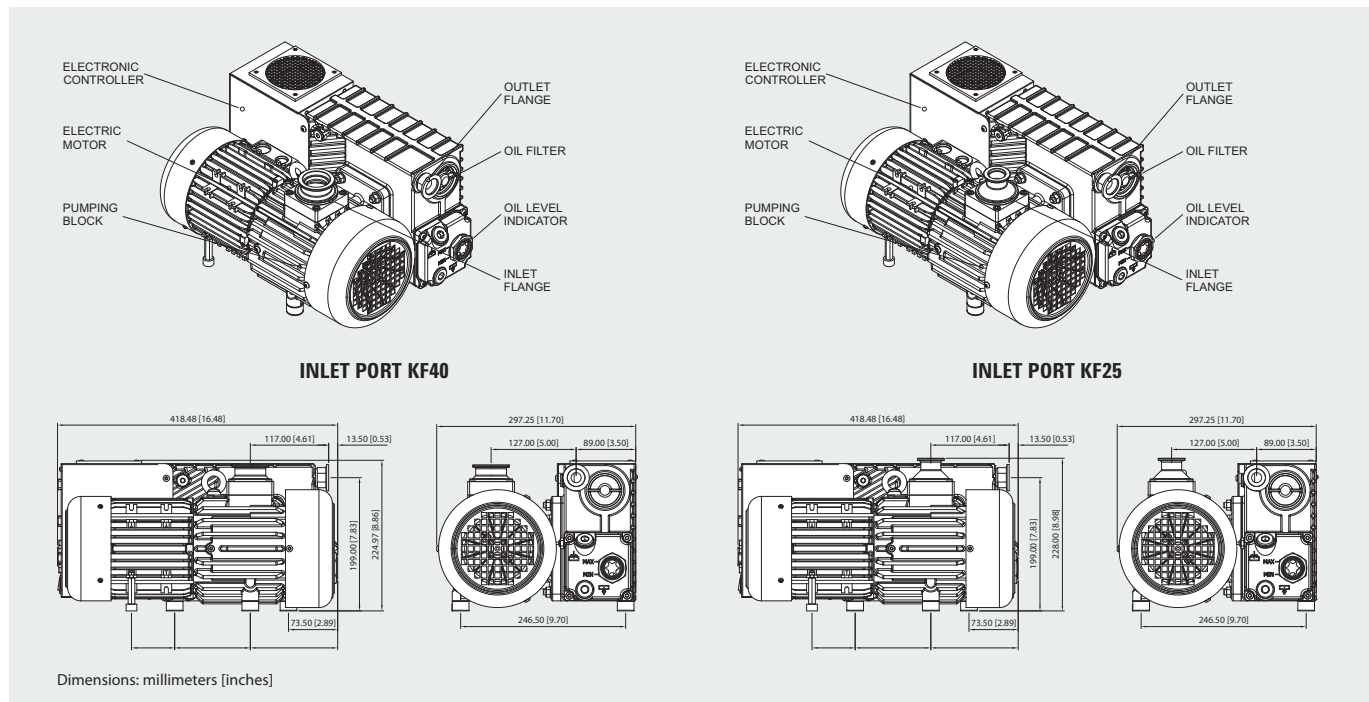
NOMINAL  
Pumping speed  
from 1 mbar to  
atmosphere

20%  
LESS  
weight

10%  
SMALLER  
dimensions

• Comparisons referred to published competitors' specifications

# Agilent MS40+ Rotary Vane Pump - Outline drawing

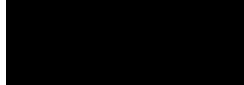


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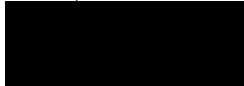
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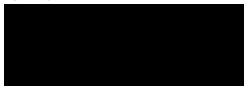
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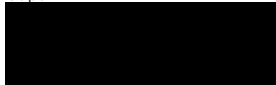
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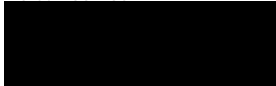
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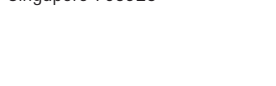
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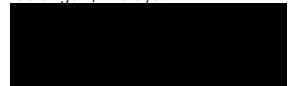
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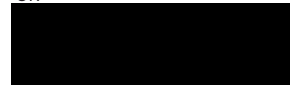
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Published May 27, 2011  
VPD-0311EN



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