

# Vacuum Measurement and Control Product Guide

**Rough Vacuum**

**Medium Vacuum**

**High/Ultra High Vacuum**

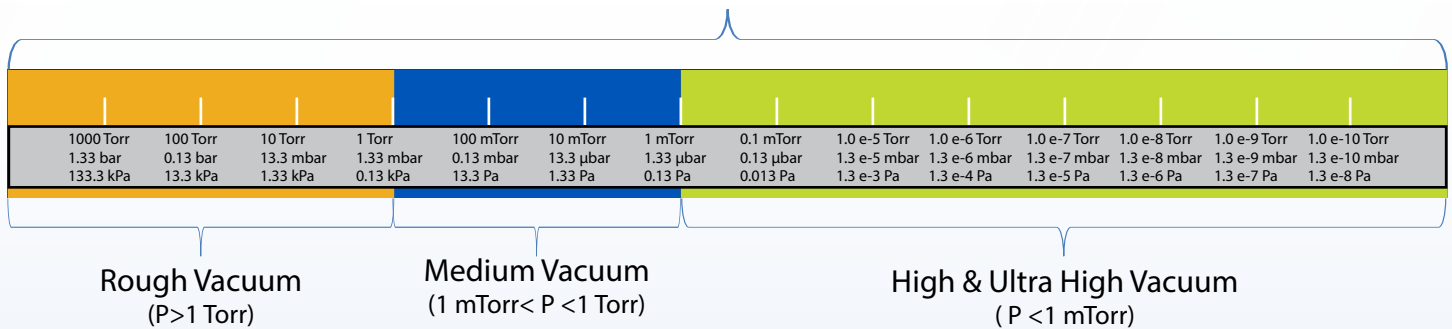


# Vacuum Measurement and Control

Teledyne Hastings Instruments brings our decades of experience to offer a full line of vacuum measurement and control instruments. With an experienced design team, vacuum measurement expertise, and global sales and service networks, we are able to provide both a broad selection of equipment and unrivaled customer support.

Find reliable solutions for applications in laboratory and industrial environments with our wide range of vacuum transducers and complementing gauges. Your needs can be met with these quality product lines, designed and manufactured by Teledyne Hastings.

Vacuum Measurement Range

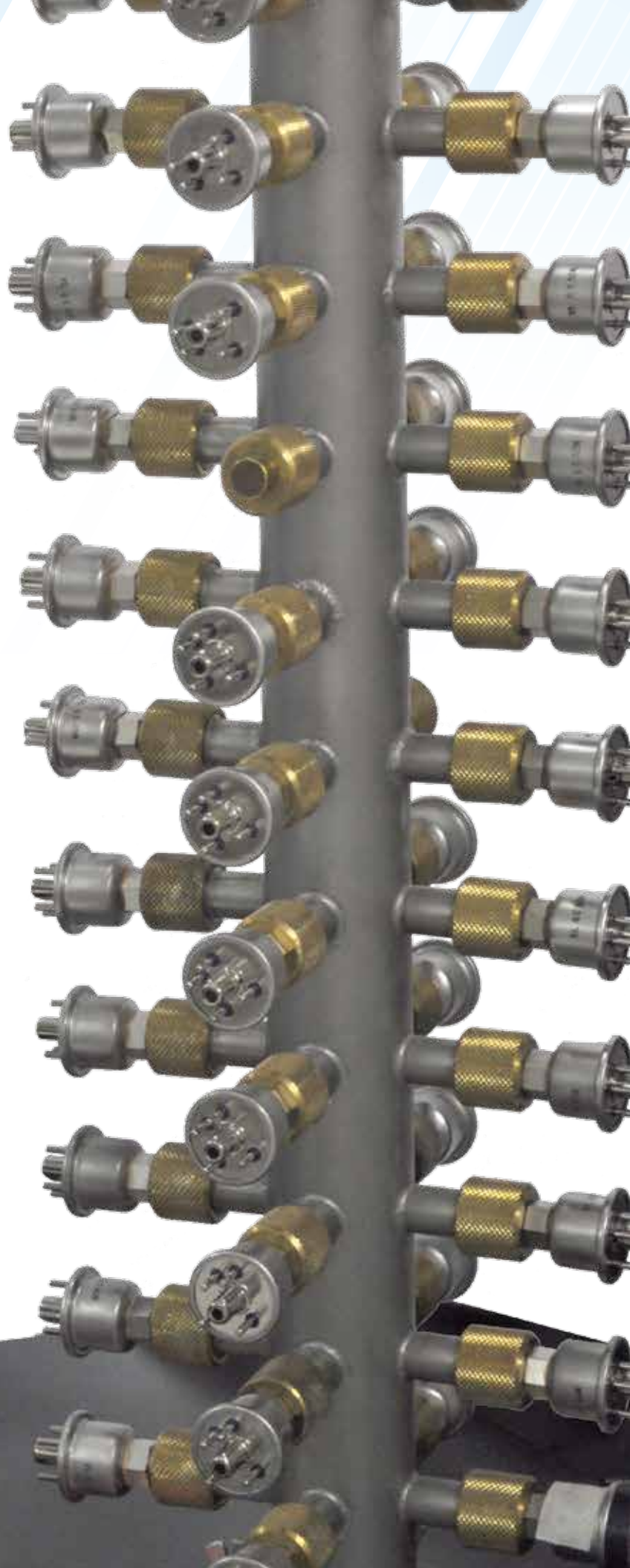


## OUR REPUTATION

Our vacuum products have established a reputation for ruggedness - even in the most demanding environments. Our products are routinely used in applications on the road, rail and sea. Our products have been to the moon and back, literally! Put that reliability to work for your application.

## ISO CERTIFICATION

Teledyne Hastings Instruments has earned the ISO certification, along with CE Mark approval, confirming a longstanding commitment to internationally accepted standards of quality.



# Thermocouple Vacuum Gauge Tubes

- Multiple Materials of Construction and Fittings
- Stable - Non-Contaminating - Rugged
- Multiple Configurations for High Pressure and High Temperature Applications



## DV-4 Series

Range: 0.1 to 20 Torr



## DV-6 Series

Range: 1 to 1000 mTorr



## DV-5 Series

Range: 0.1 to 100 mTorr





# Thermocouple Vacuum Gauge Meters and Controllers



## HPM 4/5/6

*Portable Battery Powered Vacuum Meter*

- Works with DV-4, DV-5 and DV-6 Series Vacuum Gauge Tubes
- Units: Torr, mbar, and Pascal
- Rugged Carrying Case Included
- Protective Cover / Detachable Cable
- Gauge Tubes and Reference Tubes Sold Separately



## DVT

*Digital Display / Panel Mount Vacuum Meter*

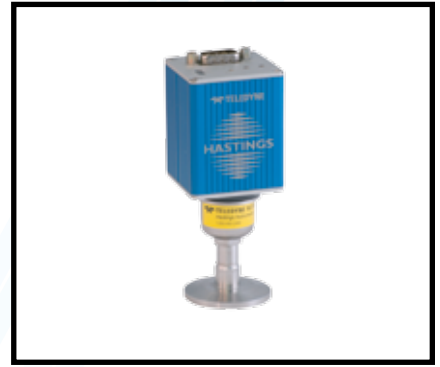
- Works with DV-4 and DV-6 Series Vacuum Gauge Tubes



## DCVT

*Digital Display / Panel Mount Vacuum Controller*

- Works with DV-4, DV-5 and DV-6 Series Vacuum Gauge Tubes
- Two Setpoints / Relays, RS232
- Linear Output: 0-1vdc, 0-5vdc, 0-10vdc, 4-20 mA, or 0-20 mA



## DAVC

*Transducer Mount Vacuum Controller*

- Works with DV-4, DV-5 and DV-6 Series Vacuum Gauge Tubes
- 1 Setpoint / TTL, RS232
- Linear Output: 0-1vdc, 0-5vdc, 0-10vdc, 4-20 mA, or 0-20 mA



## VT

*Vacuum Meter*

- Analog / Dial Face / Panel Mount
- Works with DV-4, DV-5 and DV-6 Series Vacuum Gauge Tubes
- Nonlinear Output: 0-1 vdc



## CVT

*Vacuum Controller*

- Analog / Dial Face / Panel Mount
- Works with DV-4, DV-5 and DV-6 Series Vacuum Gauge Tubes
- Nonlinear Output: 0-1 vdc
- Two Setpoints / Relays



## Reference Tubes / Accessories

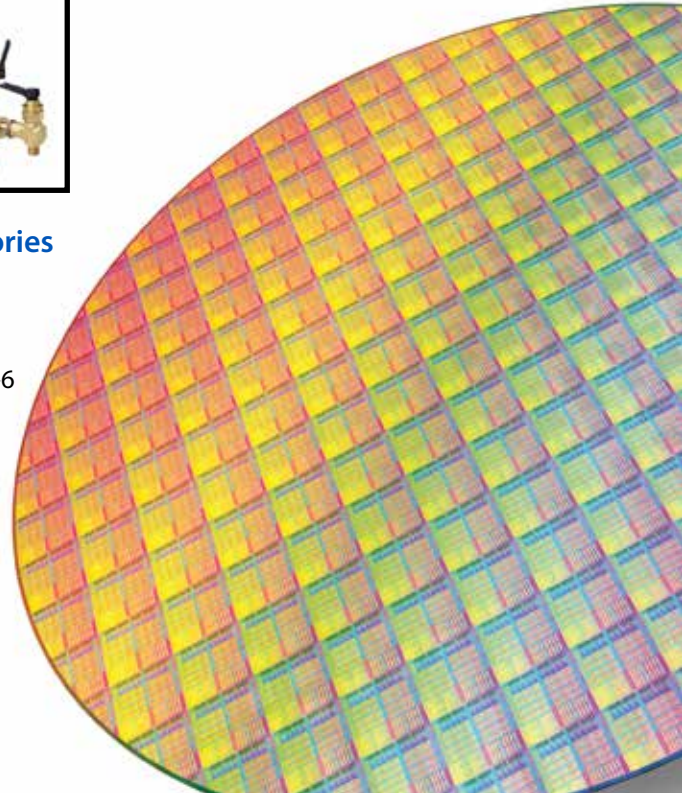
*Reference Tubes:*

- Instant Troubleshoot
- Calibration Check
- Works with DV-4, DV-5 and DV-6 Series Vacuum Gauge Tubes



*Accessories:*

- Save Time
- Ease of Installation
- Ease of Replacement





### HPM-760S (with optional THCD-100)

#### Stand-Alone Vacuum Sensor

- Range: 0.1 to 1000 Torr
- Accuracy:  $\pm (0.3\% \text{ of Rdg} + 1 \text{ Torr})$  for  $P \leq 760 \text{ Torr}$   
 $\pm (1.0\% \text{ of Rdg} + 1 \text{ Torr})$  for  $P > 760 \text{ Torr}$
- Input Voltage: 15 - 30 vdc
- Linear Outputs: 0-5 vdc, 0-10 vdc, 2-10 mA, or 4-20 mA
- Fittings: 1/8" NPT, KF-16, KF-25, or 1/4 VCR®
- Independent of Gas Composition
- Optional THCD-100 Power Supply / Display / Controller



### HPM-2002 & HPM-2002-OBE

#### Wide Range Vacuum Controller

- Range: 0.0001 to 1000 Torr
- Accuracy:  $\pm 1.5\%$  of reading (1000 to 50 Torr)  
 $\pm 20\%$  of reading (50 to  $1 \times 10^{-3}$  Torr)
- Multiple Outputs Available
- Two Setpoints / TTLs
- RS232/RS485 Available
- Multiple Fittings Available



### IGE-3000

#### Ultra High Vacuum Controller

- Miniature Hot Cathode Ionization Gauge
- Range:  $10^{-10}$  Torr to  $10^{-2}$  Torr
- System Mounted w/ Display
- Two Setpoints / TTLs
- RS232/RS485 Available
- Multiple Fittings Available



VCR® is a registered trademark of the Swagelok® Company.

# Here When You Need Us

Buy from the company that makes it easy!

Teledyne's technical staff is available to help you with application review, model selection, and product configuration. We listen to you to ensure that we understand the requirements of your application. Collectively, our technical staff has well over 100 years of experience in a broad array of applications. Put our vacuum control expertise to use for you.



### Lifetime Technical Support

We are always here for you. If you have questions about measurement and control of vacuum or you want to discuss a new application - we are here to help!



### Stocked Inventory

We may already have the instrument you need; it is ready to ship!

### Fast Delivery

We understand the importance of fast, on time delivery. When you need it even faster, we are able to provide expedited build, calibration and delivery service to keep your application up and running.



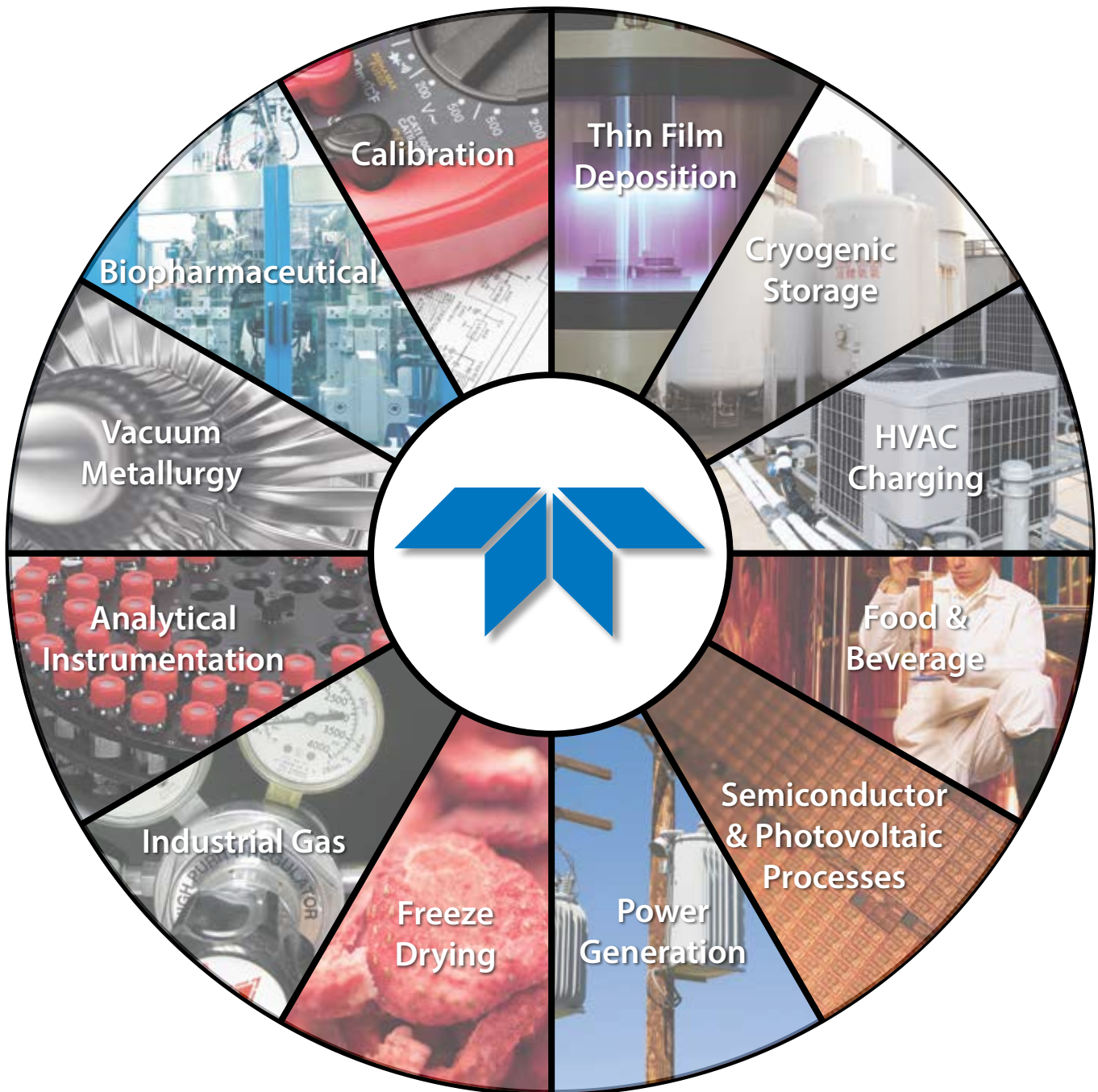
### Global Coverage

Teledyne Hastings has sales and service staff located around the world. Our team is ready to help you where you need us!



# Applications

For over 70 years, Teledyne Hastings has been a leader in vacuum measurement and control. Our vacuum products are used around the world in critical applications. Teledyne Hastings has an extensive track record for providing specialized and application-tailored products to research and industry.





# More From Teledyne Hastings



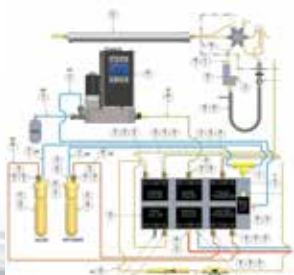
## Mass Flow Control

Teledyne Hastings Instruments brings our decades of experience to offer a full line of thermal mass flow measurement and control instruments. With an experienced design team, thermal mass flow expertise, and global sales and service networks, we are able to provide both a broad selection of equipment and unrivaled customer support.



## Calibration Services

We have teams located in Europe, Asia, and the USA dedicated to provide calibration of both our vacuum and flow products. In many cases, expedited service is available. To find the service center closest to you, visit our website or contact us directly.



## Engineered Solutions

We pride ourselves on our success at delivering customized vacuum and mass flow instruments for individual and OEM installations. With over 70 years of experience in designing solutions, our engineering team is ready for you. Talk to us.



**TELEDYNE HASTINGS INSTRUMENTS**  
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