

## Warranty Policy

See the company website for warranty information at:

<http://www.teledyne-hi.com/terms&conditions.htm>

## Return Policy

See the company website for return information at:

<http://www.teledyne-hi.com/terms&conditions.htm>

Any product returned for either warranty or non-warranty repair must have been issued a Return Material Authorization (RMA) form.

RMA Forms may be obtained from the Information section of the Hastings Instruments website:

<http://www.teledyne-hi.com/inforeg.htm>



**WARNING:** Contaminated parts can be detrimental to health and environment. Ensure instruments are free of hazardous contamination prior to shipment.

### Company contact information

TELEDYNE HASTINGS INSTRUMENTS  
804 NEWCOMBE AVENUE  
HAMPTON, VIRGINIA 23669 U.S.A.  
ATTENTION: REPAIR DEPARTMENT

TELEPHONE (757) 723-6531  
1-800-950-2468

FAX (757) 723-3925

E MAIL [mailto:hastings\\_service@teledyne.com](mailto:hastings_service@teledyne.com)

INTERNET ADDRESS <http://www.teledyne-hi.com>

[www.teledyne-hi.com](http://www.teledyne-hi.com)



**TELEDYNE HASTINGS INSTRUMENTS**  
Everywhere you look™

# HVG-2020A

## QUICK START GUIDE



Visit [www.teledyne-hi.com](http://www.teledyne-hi.com) for WEEE disposal guidance

**ISO 9001**

C E R T I F I E D

## Important Safety, Compliance and Warranty Information



**WARNING:** Read the manual before product use.

<http://www.teledyne-hi.com/resource-center/manuals/vacuum-manuals>



**CAUTION:** There are no operator serviceable parts or adjustments inside the product. Do not disassemble or attempt to service this product. If product is not operating properly, call Teledyne Hastings service.



**CAUTION:** If this equipment is used in a manner other than that specified, the protection provided by the equipment may be impaired.



**NOTICE:** The instrument is designed for INDOOR use only and non-condensing environments. Also, the ambient temperature and process gas temperature must be such that the gauge temperature remains between -20 and 70°C.

## ELECTRICAL



**NOTICE:** The instrument may be available with multiple pin-outs. Ensure that all electrical connections are correct. Consult the manual for proper output load resistance, set-point pull-up resistance and voltage requirements.



**WARNING:** Care must be taken to avoid any high voltages that may be present when dealing with power supplies. The instrument is designed for Class 2 installations in accordance with IPC standards. Use Class 2 power 150 VA Max fused.



**WARNING:** Do not power with isolated drive circuits that are more than 36 volts above ground potential or could reach above 36 volts in the event of a fault. Failure to heed this warning could result in serious personal injury and/or damage to the equipment.



**NOTICE:** Power requirements are 12 to 36 VDC input. Use of an underpowered or under-voltage supply could result in equipment damage.



**NOTICE:** Either the base or pin 6 must be connected to ground for proper noise immunity and to meet CE Mark standards.



**NOTICE:** The serial cable length must be less than 30 meters long (unless housed in a metal conduit) to meet CE Mark requirements.

## INSTALLATION



**WARNING:** If poisonous or injurious gases have been used in the vacuum system, ensure that all residues have been evacuated or flushed with inert gas before opening the system to install the gauge tube.



**NOTICE:** The gauge should be installed in a clean and careful manner. Take care not to drop the product and avoid impacts to prevent damage. Care should be taken to prevent objects, particles or condensate from dropping inside the gauge if mounted upside down.



**WARNING:** If devices employing gaseous electrical discharges are present in the vacuum system, the discharge may couple dangerous high voltage through the gas in the chamber directly to ungrounded conductive surfaces or electrical conductors. Seriously injury or death can occur from contacting exposed ungrounded conductive surfaces/conductors at high potential.

Ensure that the vacuum port to which the gauge is mounted is electrically grounded. It is essential for personnel safety as well as proper operation that

the envelope of the gauge be connected to a facility ground. Vacuum connections that use an O-ring for a seal such as a KF type flange or a quick connect fitting may electrically isolate the surfaces on the other side of the connection. This may also occur on an NPT fitting if PTFE tape is used on the sealing surfaces. In these conditions add a ground lug on a flange bolt to provide a ground path back to a protective earth terminal.



**NOTICE:** When installing the 1/8" NPT version, be certain to use the 1/2" wrench flats. Do not tighten using the aluminum housing as a grip or damage may result.



**NOTICE:** Do not apply excessive pressure, liquids or sharp objects to the touch screen to avoid damage. To clean the display, breathe on the surface and gently wipe it with a soft cotton or microfiber cloth.



**WARNING:** The HVG-2020A is only rated for a maximum operating pressure of 20 PSIA and using the instrument above its rated maximum overpressure of 40 PSIA (25 PSIG), could result in damage to the instrument or alter its behavior. If operating near the maximum operating pressure, ensure there is a pressure relief valve in the system.



**WARNING:** Do not install a weld stub terminated gauge in an O-ring sealed quick connect fitting if system pressure could exceed atmospheric pressure.

## QUICK START

1. Unpack and inspect all items for any obvious signs of damage due to shipment. Immediately advise the carrier who delivered the shipment if any damage is suspected.
2. If needed, wire the 9-pin "D" connector according to cable pinout using 24 AWG or other suitable wire. (See table)
3. Using a unipolar DC Power Supply, set the desired operating voltage within the range of 12 VDC to 36 VDC.
4. Transducer tube may be installed in any orientation. However, if condensation is likely to occur, then the tube port should be orientated downward.
5. When installing 1/8" NPT style transducer tube, use the 1/2" wrench flats.
6. Connect power via the 9-pin cable or a 2mm bayonet-style power jack.
7. With system at atmosphere, turn on the power supply. Gauge is now reading pressure.
8. For best accuracy, the gauge should now be zeroed. Pump the vacuum system down to less than 0.1 Torr. Ideally the gauge should be operated in this condition for two hours before setting the zero.
9. To set the zero, press the menu icon, scroll to the Set Zero menu page and press the EDIT button. Alternatively, press and hold the Zero button until the LEDs flash.

Pin #	
1	High Setpoint
2	Low Setpoint
3	+ Power (12-36 VDC)
4	Power/Digital Common
5	Analog Output
6	Case Ground
7	Tx (TTL)
8	Analog Common
9	Rx (TTL)