

V E R S A **B U I L T**
R O B O T I C S



VersaDoor Door Sensor Manual

VersaBuilt Robot2CNC Panel

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VersaDoor Sensor Overview

VersaDoor Design

VersaDoor is designed to be a simple, low-cost and easy to install door opener that can be adapted to a wide range of CNC machines. The VersaDoor uses common, low-cost pneumatic cylinders to actuate the door.

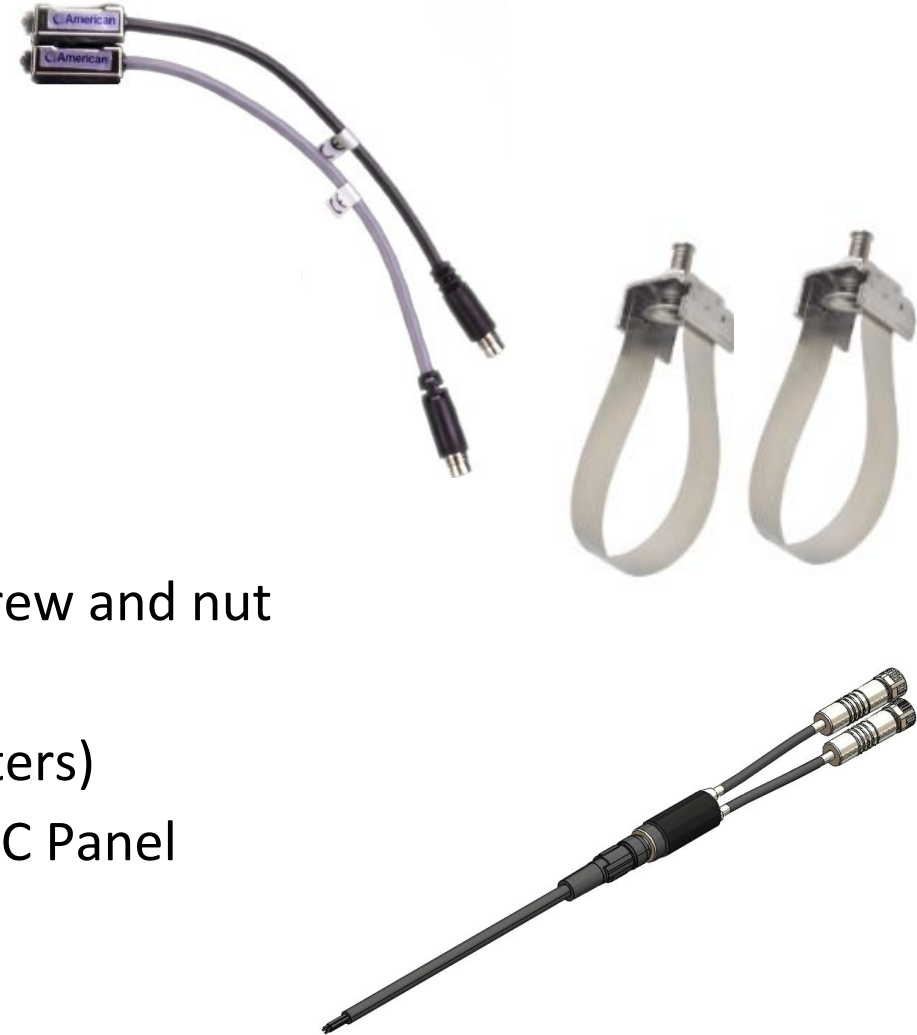
Optional Sensor Kit

The open or closed position of the door can be detected using the optional door sensor kit. VersaDoor air cylinders have magnetic pistons, thereby enabling the addition of sensors to detect piston position. Two proximity sensors indicate the fully open or closed door position.

VersaDoor Sensor Kit Components

Each VersaDoor Sensor Kit includes the following:

1. 2x sensors
 - PNP sourcing solid state switches
 - 5-30 VDC
 - Green Indicator Light
2. 2x cylinder sensor mount clamping bands
 - Strap wraps around air cylinder body
 - Strap connects like belt, with sensor secured with screw and nut
3. Cable to connect to Digital Inputs
 - M8 3-pin to 4-pin Y-Cable plus M8 4-pin cable (5-meters)
 - M8 cable end for connecting to VersaBuilt Robot2CNC Panel

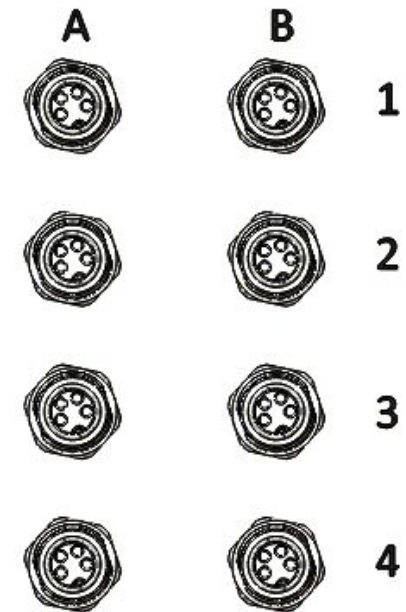


VersaDoor Sensor Kit - Connecting signals

Electrical connections

- Single Door Openers:
 - Connect the M8 4-pin cable to the Digital Input connection labeled “A3”
- Double Door Openers:
 - Connect 2x M8 4-pin cables to the bottom 2 Digital Input connections labeled “A3” and “A4”

DIGITAL I/O

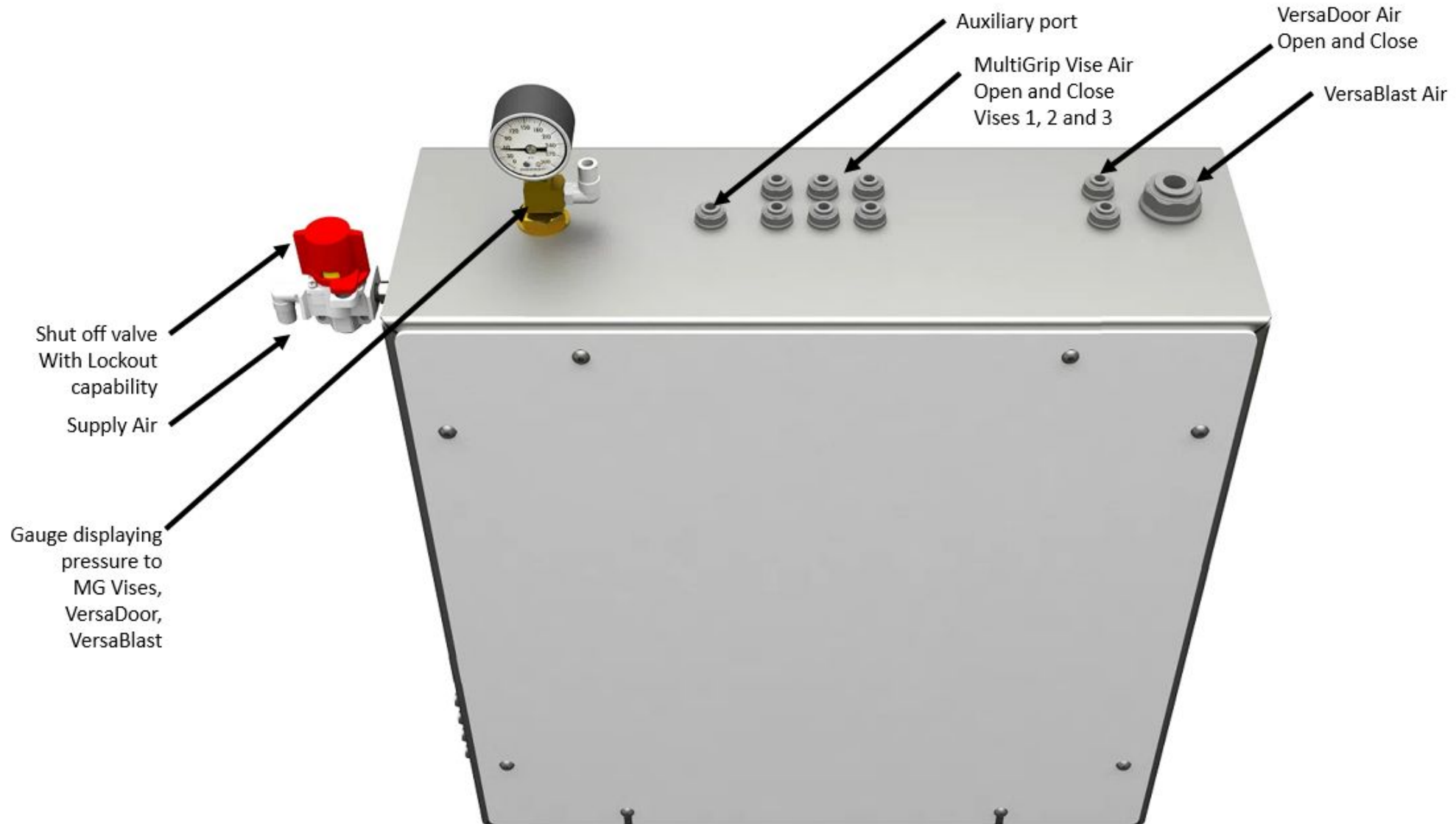


VersaDoor Sensor Kit - Connecting signals

Pneumatic Connections

- Refer to the image on the following page, showing all air connections to the VersaBuilt Robot2CNC Panel
- Pneumatic connections are available for:
 - Air input with shut-off valve
 - 3x MultiGrip Vises
 - VersaDoor
 - VersaBlast

VersaDoor Sensor Kit - Air Connections



Required Tools and Supplies

Tools

- 7mm Wrench
- 2mm Hex Key

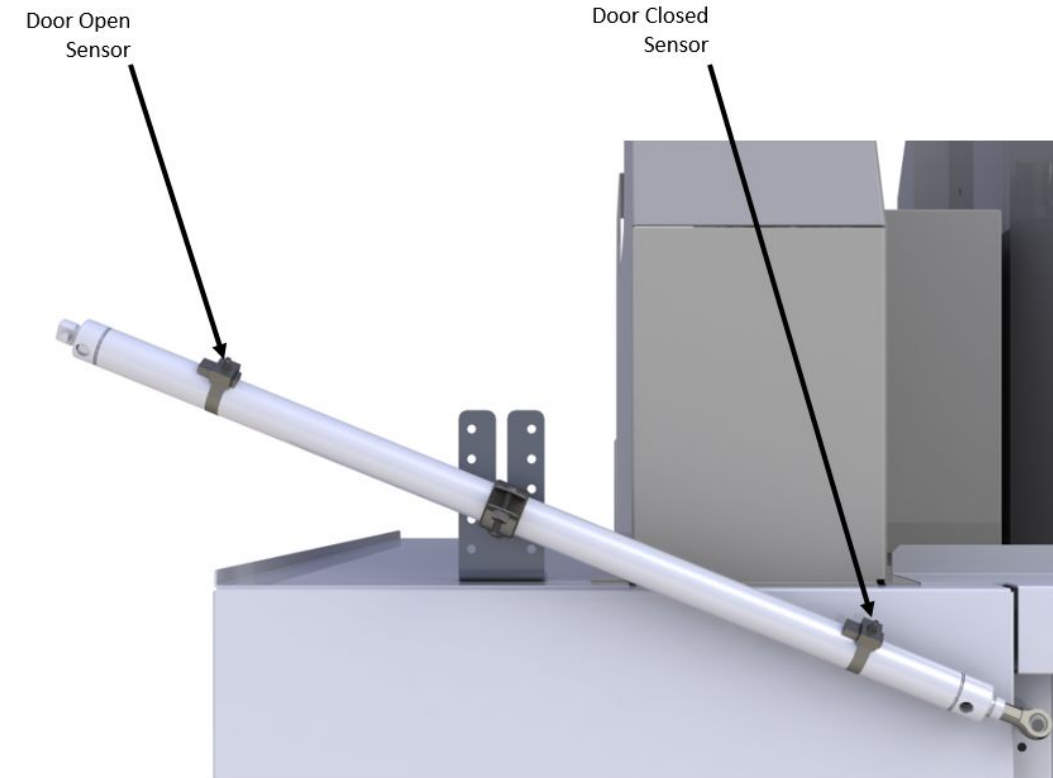
Supplies

- Zip-ties

VersaDoor Sensor Kit - Assembly and Testing

After mounting VersaDoor to CNC:

1. Lightly secure sensors to air cylinder with clamping bands
2. Position 2 sensors at the ends of the cylinder, for detecting door open and door closed positions
3. With VersaDoor fully installed with air and electrical connected to Robot2CNC panel open the CNC door
4. Adjust the Door Open Sensor until the Green LED is illuminated and then secure the sensor in place
5. Close the CNC door then adjust the Door Closed Sensor until the Green LED is illuminated and then secure the sensor in place
6. Test multiple open/close cycles to make certain the sensors are secure and illuminating at open and close



VersaDoor Sensor Kit

For further information or questions, please visit www.versabuilt.com or contact us at helpdesk@versabuilt.com