Syringe Force Sensor

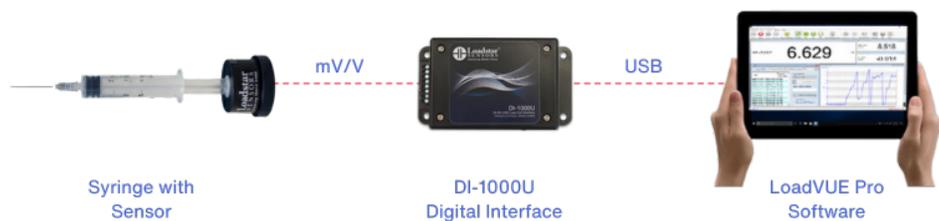Syringe with Sensor — mV/V — DI-1000U Digital Interface — USB — LoadVUE Pro Software

Our Syringe Force Measurement solution empowers you to accurately measure the force applied to the plunger of a syringe. The sensor is designed so that the user can simply hold it in their hand and administer the injection just as they normally would. Alternatively, it can be put into a jig and injected using a screw driven press apparatus.

The base sensor is a force sensor with a mV/V output. It can be purchased as a complete, ready-to-use USB or Wireless kit that includes the base with force sensor, an Interface (USB or wireless interface) & LV-1000 software to display, log and plot data in real time.

It can also be purchased as an Analog kit with an analog load cell interface that is calibrated to output 0-5 VDC or 4 - 20 mA.

If purchased as a digital or analog kit, it will come fully calibrated in compression mode with traceability to NIST standards.

This product is intended for laboratory research purposes only. It is not intended for clinical applications, or diagnostic procedures. This product has not been reviewed, cleared, or approved by the U.S. Food and Drug Administration (FDA) or any other regulatory agency.

Sensor Specifications

Parameter	Specification
Measurement Range	2kg (4.4 lb), 5kg (11 lb), 10kg (22 lb), 100 kg/220 lb
Input Power	5 VDC (via USB or 9 VDC Power Adapter)
Output Signal	Between 0.5 to 2 mV/V
Connection - Cable	3m, 2mm diameter
Current	< 10 mA
Power Consumed	< 50 mW
Accuracy	+/- 1% of full scale
Resolution	+/- 0.1% of full scale
Temperature Range	-10C to 40C
Material	Aluminum/Stainless Steel
Use Method	Insert the syringe in the base. Press on the plunger to measure the push force

NOTE: The Syringe Force Sensing solution can be used with different size syringes - 1ml (Plunger dia. 3.58mm), 2.25ml (Plunger dia. 6.17mm), 3ml (Plunger dia. 6.7mm).

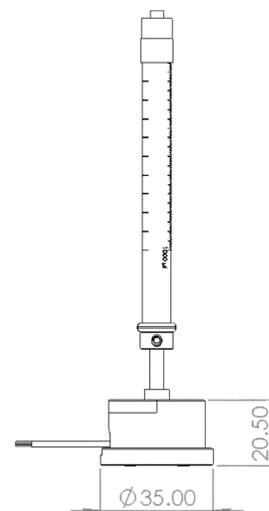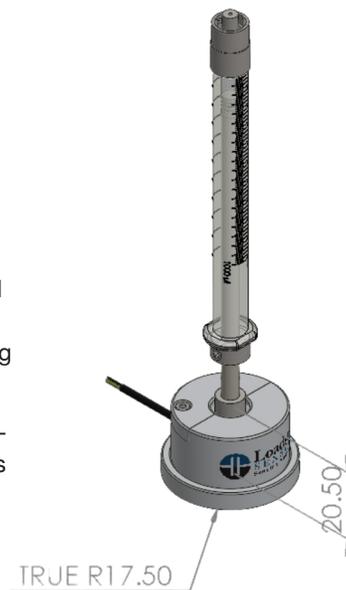### Recommended Interfaces

DI-1000U
Digital Sensor Interface

DI-1000ZP-5V/DI-1000WiFi-5V/DI-1000BLE
Wireless Sensor Interface

AI-1000/AI-1000-CV
Signal Conditioner

DS-3000-Pro/DS-4000-Pro
Touch Screen Display

Wiring Information

Cable Color	Code
Red	5V
Black	Ground
Green	Signal -
White	Signal +

Ordering Information

SKU	Capacity
iSFS-002M-S	2 kg
iSFS-005M-S	5 kg
iSFS-010M-S	10 kg
iSFS-100M-S	100 kg

www.loadstarsensors.com · sales@loadstarsensors.com · Specifications subject to change without notice.

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Wireless Configuration

mV/V

Syringe with Sensor

DI-1000ZP
Wireless Interface

LoadVUE Pro
Software

USB Configuration

mV/V · USB

Syringe with Sensor

DI-1000U
Digital Interface

LoadVUE Pro
Software
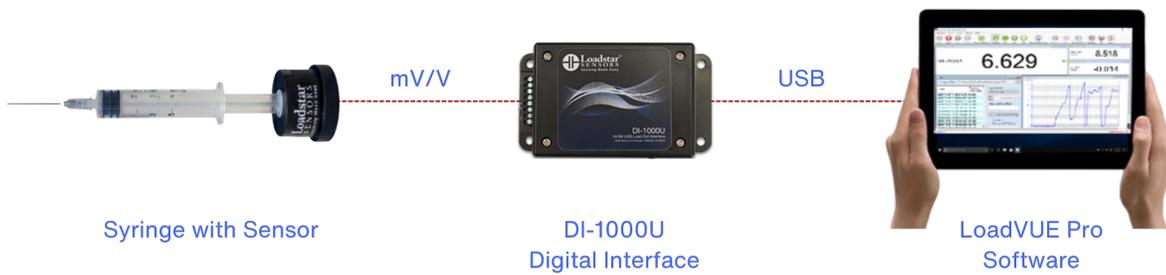
Touch Screen Display Configuration

mV/V · USB

5.00 lb

Syringe with Sensor

DI-1000U
Digital Interface

DS-3000-Pro-1
Touchscreen Display

Analog Configuration

mV/V

Multimeter

PLC

DAQ

Indicator

Syringe with Sensor

AI-1000
Analog Interface