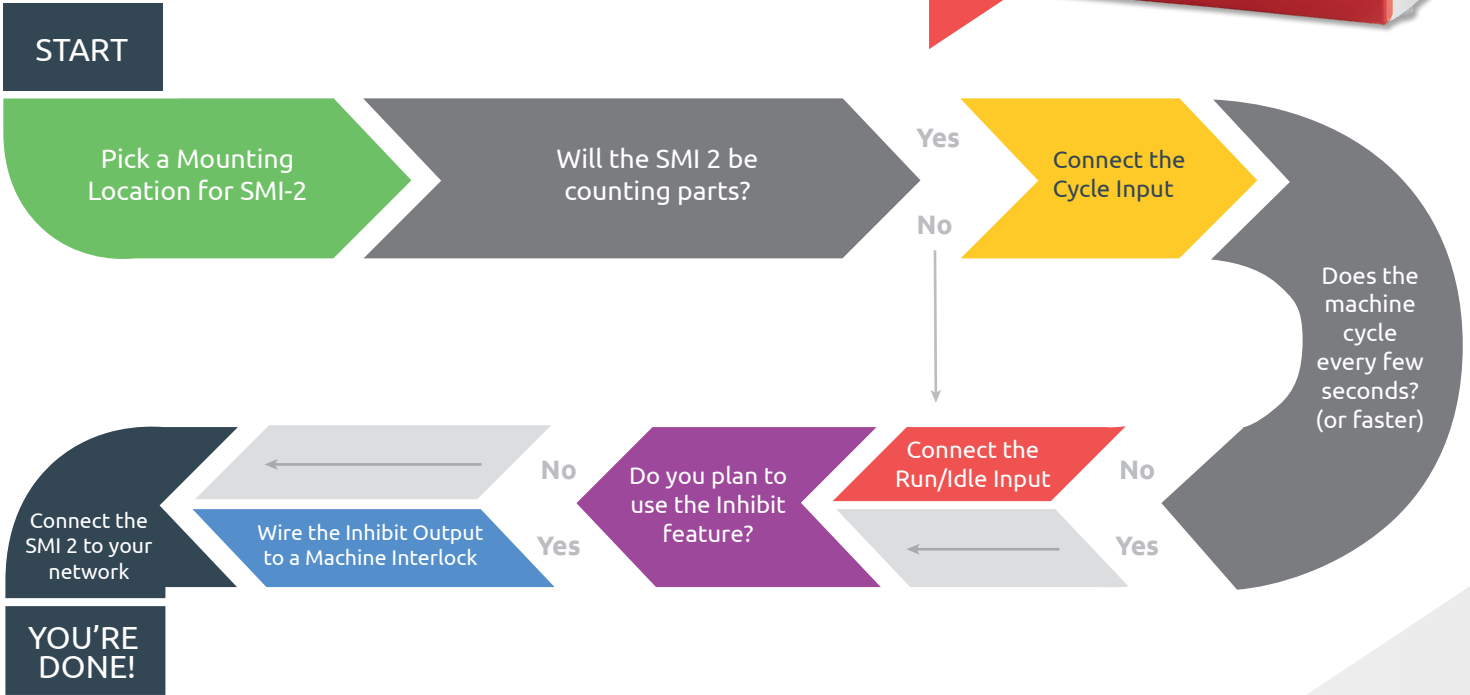


SMI 2 Machine Connections and Wiring

Quick Start Guide

The purpose of this guide is to highlight important considerations prior to installing your SMI 2. For additional information not covered in this guide please refer the user manual (www.sfcdocs.com)



Mounting location

Select a convenient viewing height that's easily accessible to the machine operator. Bring power to the unit (120VAC or 24VDC).

Connect the Cycle Input

The cycle input is a 24 VDC signal that actuates once per machine cycle. This can come from an existing machine control signal; or if no appropriate signal exists, from a user-supplied sensor (proximity, photosensor, current, accelerometer, etc.).

The SMI 2 uses the cycle input to count parts. The SMI has multipliers if the machine makes >1 part per cycle or requires more than one cycle to complete a part.

If the machine cycles frequently enough, the SMI 2 can use the Cycle input to detect whether the machine is running or stopped. You do not need to connect the Run/Idle Input unless the cycle rate is slower than 5 cycles per minute.

Connect the Run/Idle Input

When activated, this 24VDC input tells the SMI that the machine is running. It is required if the SMI will not be counting parts (Cycle input not used), or if the cycle rate is slower than 5 parts per minute in counting applications. It's usually derived from an existing machine control signal. It can also come from a user-supplied sensor if no appropriate signal exists.

Do you Plan to use the Inhibit Feature?

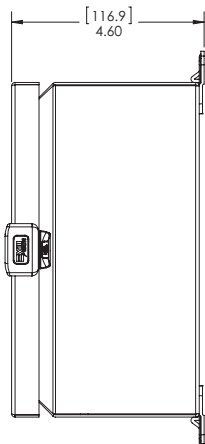
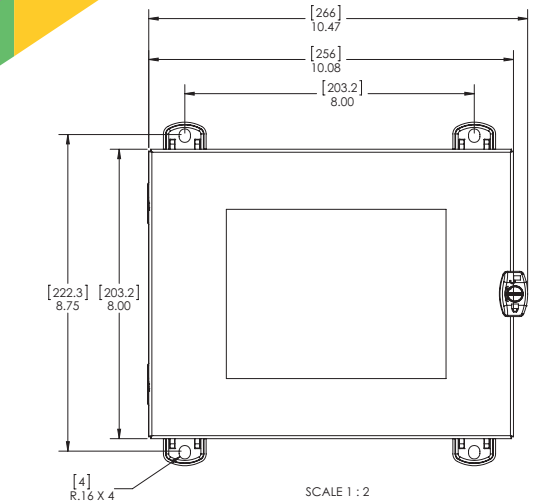
The inhibit feature gives the SMI 2 the ability to prevent the machine from restarting until a downtime reason is specified. This important and unique feature enables ShopFloorConnect to capture the reason for every significant machine stoppage.

Wire the Inhibit Output to a Machine Interlock

The inhibit output is a dry contact that opens after a user-specified period of idle time, and closes when the operator selects a downtime reason. It can be connected to a machine safety interlock, a stop circuit, or even in series with the machine's start button.



Enclosure



Optional Inputs

Scrap:

Most commonly used for automated scrap/reject handling systems (e.g. a diverter arm). This input also provides a convenient way to manually enter scrap/rejects via a normally open momentary switch.

Setup:

Used to suspend counting and downtime reason entry requirement during setup.

Automatic Downtime Inputs:

Four additional inputs are associated with four

ShopFloorConnect downtime reasons, when activated, the associated downtime reason will be automatically logged and sent to SFC.

Installation Note

If you plan to use relays to isolate input signals from the machine to the SMI 2, we strongly recommend a good quality 24 VDC power relay with bifurcated contacts rated for 1V DC, 100 uA minimum (e.g. IDEC RJ22S-CLD-D24 with Standard socket or DIN rail base SJ2S-05B).

Wiring Diagram

