

Model HI 1756-nDF Dispenser-Filler Module

Applications PROCESS WEIGHING

- Filling/Dispensing
- Material flow measurement
- Material feed by weight



Features

THE HARDY PROCESS TOOLBOX

The Hardy Process Toolbox is a set of productivity tools that delivers value across process weighing functions. Each tool saves time, increases accuracy, improves efficiency or reduces risk in your process weighing applications.



Electronic calibration without test weights



Weighing system monitoring, diagnostics and troubleshooting



Vibration immunity from mechanical noise



Easy to configure and setup with a Rockwell Automation PLC

Rockwell Add-on-Profile

Hardy's HI 1756-nDF Dispenser/Filler modules for Allen-Bradley® ControlLogix® PLCs are easy to install and set-up. They are the answer to a variety of material-feed by weight applications, especially when speed, repeatability and accuracy are important.

The HI 1756-nDF Dispenser/Filler modules can be used in a variety of material-flow applications where speed, repeatability and accuracy are paramount to the overall process. Whether filling or dispensing solids, liquids or gases, the HI 1756-nDF automates the entire process by monitoring, controlling, tuning and maintaining the dispense/fill operation.

Material-feed management is used in filling or dispensing solids, powders, or liquids. The HI 1756-nDF automates the entire process by monitoring, controlling, tuning and maintaining the dispense/fill operation.

The HI 1756-nDF is available as a single slot, single channel (HI 1756-1DF) or dual channel (HI 1756-2DF) Dispenser/Filler module that mounts in an Allen-Bradley® ControlLogix® Chassis. The modules also operate in a customary adaptive or a rapid predictive pre-act adjustment mode. The modules are supported by a Rockwell certified AOP (Add-On-Profile) for easy integration.

The HI 1756-nDF will calculate Gross weight, Net weight, & Flow Rate (FR) outputs

simultaneously. Two integrated solid state DC or AC relays per channel place process control within the instrument, making it a true DCS device.

INTELLIGENT PRACT

The 1756-nDF's preact function precisely achieves a setpoint weight value by automatically and continuously adjusting for in-flight material after a dispense or fill valve has been opened or closed. Based on a predictive algorithm, as well as proportional and integral filters, the preact function can accommodate the most challenging non-linear flows caused by varying material densities and head pressures. The 1756-nDF also comes programmed with auto-refill software enabling the process to continue uninterrupted while material is being restocked into a vessel.

BENEFITS

- Reducing costs by less raw material waste
- Reducing costs related to finished product loss and reworks of finished product
- Increasing line capacity
- Increasing quality and customer satisfaction
- Increasing compliance to regulations

COMPONENTS TO COMPLETE YOUR HARDY SYSTEM

Hardy Bench Scales, Floor Scales and Load Points

Hardy carries a wide variety of strain gauge load points and scales to meet your application requirements.



ADVANTAGE Series
Load Point with
C2 Calibration

Hardy Bench Scales



Weighing Instruments Dedicated to Your Applications

Controllers, Weigh Modules, Weight Processors

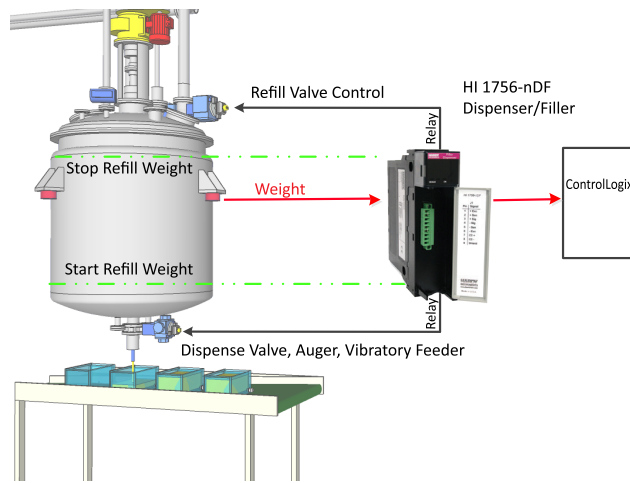
Allen-Bradley® Compatible
Plug-in Weigh Scale Modules



HI 3000 Series
HI 4050 Controllers
and HI 6000 Series



TYPICAL CONFIGURATION



To learn more about the HI 1756nDF visit our web site for

- full product specifications
- ordering information
- application notes
- technical description
- operator's manual

www.hardysolutions.com

or call us:

1-800-821-5831
1-858-278-2900

SPECIFICATIONS

Update Rate

- 110 updates per second

Resolution

- Internal, 1:8,388,608

Input

- Up to eight 350-ohm Full Wheatstone Bridge, Strain Gauge Load Sensor/Cells (5 volt excitation) on one vessel

Non-Linearity

- 0.0015% of Full Scale

Common Mode Rejection

- 110dB at or below 60 Hz

Common-Mode Voltage Range

- 2.5VDC maximum (with respect to earth ground)

Backplane Input Voltage

- 5 VDC and 24 VDC

Backplane Current Load

- < 1 Amp at 5 VDC
- 0.0125 Amps at 24 VDC (with 4-350 Ohm Load Cells)

Backplane Power Load

- < 5W at 5 VDC
- < .3W at 24 VDC with 4-350 Ohm Load Cells

C2® Calibration Signals

- Isolation from digital section 1000 VDC minimum

Cable Lengths

- 1000 feet maximum of C2 authorized cable
- 250 feet maximum of C2 authorized cable (Maximum of 4 load sensors) with IT Junction box.

C2® Maximum Cable Length

- 1000' for C2, Non C2, or JB Card
- 250' for IT

Load Cell Excitation

- 5 VDC +/- 1.15 W maximum
- Isolation from digital section 1000 VDC minimum

Number of Weigh Scale Channels

- HI 1756-1DF 1 Weigh Scale Channel
- HI 1756-2DF 2 Weigh Scale Channels

Averages

- 1-255 User-selectable in Single Increments
- Averages current and previous N samples to provide the current weight value

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WAVERSAVER®

- User Selectable

Outputs

- Two solid state DC or AC relays per weigh scale channel
- For resistive loads only (Form A - Normally Open)

DC Relay

- 5 to 30 VDC
- 0°C to 25°C: max current = 3A
- 0°C to 40°C: max current = 2A
- 0°C to 60°C: max current = 1A
- Minimum load current 2mA

AC Relay

- 24-280 (47-63Hz) VAC
- Max current rating 0.5A @ 60°C
- Minimum load current 70mA

Operating Temperature Range

- 0 to 60° C (32° F to 140° F)

Storage Temperature Range

- -40 to 85° C (-40 to 185° F)

Certifications

- UL, CUL, RoHS & REACH

Warranty

- Two-year warranty against defects in workmanship

All specifications subject to change without notice. Please contact the Hardy factory or visit our website for the latest specifications.



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