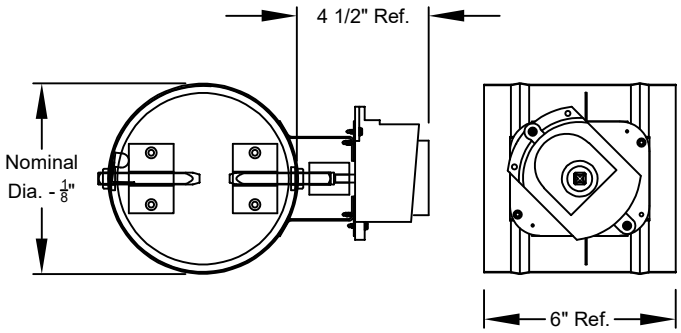
**Model I-3**
**Round Power / Balance System™**
**Round Single Blade Damper**

## APPLICATION

Model I-3 the original and patented remote powered, manual balancing damper used in finished ceiling and difficult access applications. The I-3 offers an easily installed, maintenance free damper solution operated with a hand-held remote that interfaces damper motor control The hand-held device is equipped with a 9 volt power supply that operates the damper motor via optional RJ11 cable terminating at an RJ11 connector, located at the diffuser or wall box.




## Standard Construction

**Frame:** 6" Long 20 Gauge Galvanized Steel
**Blades:** 20 Gauge Galvanized Steel
**Axles:** 3/8" Square Plated Steel
**Bearings:** Molded Synthetic Nylon 6/6.
**Hand Quadrant:** 3/8" Square

## SIZE

**Minimum:** 4" (102) Diameter
**Maximum:** 24" (610) Diameter

## OPTIONS

**Stand-Off Bracket -** 2" (51)

## VARIATIONS

**Stainless Steel Construction -** Frame, Blade, Axles and Hand Quadrant.
**Aluminum Construction -** .063 thick aluminum frame and blade. (Axles, clamps Ect. Galv. or Stn. Stl.)

| Maximum Velocity | | |
|---|---|---|
| **Diameter** | **FPM (M/S)** | **Max. Pressure Differential Inches w.g. (kpa)** |
| **4" - 8" (102 - 203)** | **2600 (13.2)** | **3" (0.75)** |
| **10" - 12" (254 - 305)** | **2400 (12.2)** | **2.5" (.062)** |
| **14" - 18" (356 - 457)** | **2300 (11.7)** | **2" (0.5)** |
| **20" - 24" (508 - 610)** | **3200 (11.7))** | **1.5" (0.37)** |

## Standard Construction

### Remote Control

Note: The Recommended maximum RJ-11 cable Length is 100 Ft.

## Optional Remote Plate Options

**J100 -** Wall mount RJ-11 gang boxes
**Available in Ivory, White, Brown, Black, Gray, and Almond**
**RJ50 -** Wall or ceiling mount RJ-11 Connector.
**J150 -** Diffuser terminal point

## Model J100

Available up to 12 ports in one box.

**Notes:**
1. Dampers are furnished approx. 1/8" (3) undersized, unless otherwise noted.
2. Dimensions shown in parentheses () indicate millimeters.

**U.S. Pat. No. 8,038075**
**Air Damper Balancing System Mothod**

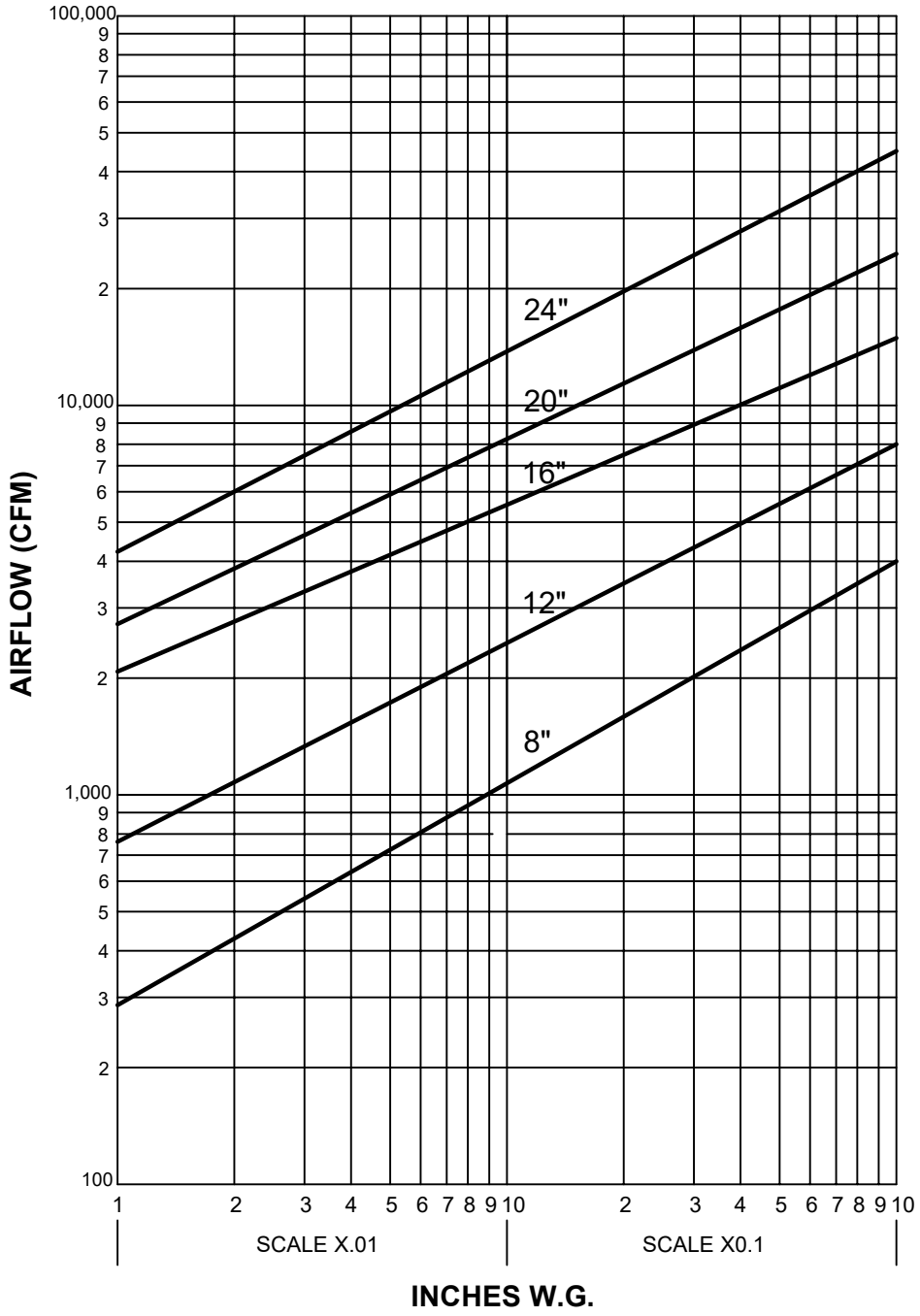
United Enertech
3005 South Hickory Street
Chattanooga, Tennessee 37407
Tel: (423) 689-7715
www.unitedenertech.com

**I-3 Round Power / Balance System™**

| DRAWN BY: | DATE: | REV. DATE: | REV. NO. | DWG. NO. |
|---|---|---|---|---|
| KSM | June 2025 | | | **PD-023** |

# Performance Data

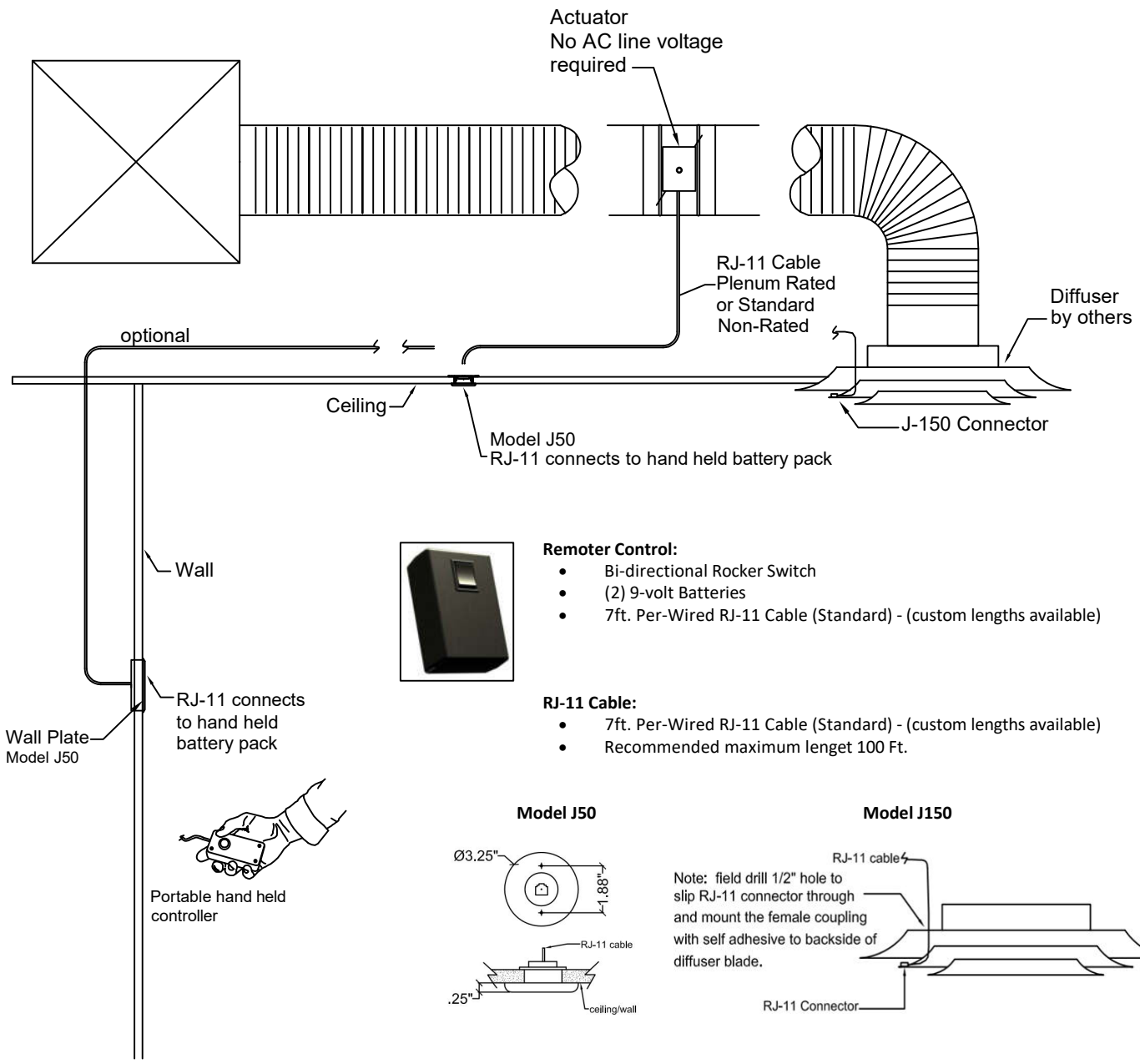
## STATIC PRESSURE DROP




**Determining Static Pressure Drop (Round)**
To determine static pressure drop through an open damper, start on the left side of the damper pressure drop chart. Given the CFM of air flow through the damper, follow the CFM line to the diagonal line of the damper size required, then down to the static pressure drop of the unit.

**Example:**
**The pressure drop of an 8" (203) diamenter damper with 700 cfm flow is .051 inches w.g.**

# I-3 Operation






**Remoter Control:**

- Bi-directional Rocker Switch
- (2) 9-volt Batteries
- 7ft. Per-Wired RJ-11 Cable (Standard) - (custom lengths available)

**RJ-11 Cable:**

- 7ft. Per-Wired RJ-11 Cable (Standard) - (custom lengths available)
- Recommended maximum lenget 100 Ft.

**Model J50**




**Model J150**




## Suggested Specification

**Furnish and install, at locations shown on plans or as in accordance with schedules, remote control Power Balance control dampers meeting the following specifications: Dampers shall be of the butterfly type, consisting of a circular blade, fastened to a continuous $\frac{3}{8}$" mild steel square shaft. Inside frame surface shall be clean and smooth. Frame shall be minimum 20 gage (1.0) G60 galvanized steel and include full circumference rolled stiffener beads to allow easy sealing of spiral or flex duct joints. Blade shall be of the same material as the frame. Bearing shall be molded nylon, and shall be formed to the shape of the axle, reducing leakage around shaft penetration points. 9 volt DC operated damper motor shall be factory installed and commissioned prior to shipping to the job site. Actuator shall include a factory wired RJ11 connector. Damper shall be installed with plenum rated RJ11 cable terminating at the RJ11 damper motor connector on one end and an RJ11 connector located in a wall box or diffuser on the other end. The damper assembly shall be powered by a remote 9 volt battery operated controller that is plugged into the RJ11 connector located in the wall box or diffuser. Material and construction specifications shall be minimum equivalent to United Entertech I-3.**

United Enertech
3005 South Hickory Street
Chattanooga, Tennessee 37407
www.unitedenertech.com