JDF-FA Modular Support Arm System



Technical & Installation Manual

Document Version: 1.0

Manufacturer: Huizhou Jin Ding Feng Automation Technology Co., Ltd.

Website: www.jdf-fa.com

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1. Product Overview

The JDF-FA Modular Support Arm System is designed to provide ergonomic, flexible, and robust mounting solutions for HMI (Human-Machine Interface) enclosures, control boxes, and display screens. Constructed from high-quality anodized aluminum alloy profiles, it features integrated cable management and modular joints, ensuring a clean, modern, and safe industrial workstation.

2. Technical Specifications & Series Selection

We offer three standard series to meet different load requirements. **Please calculate the total weight of your control box and all internal components before selecting.**

Feature	5065 Series	6095 Series	75110 Series
Load Class	Light Load	Medium Load	Heavy Load
Max Load Capacity	500 N (≈51 kgf)	1,000 N (≈102 kgf)	1,500 N (≈153 kgf)
Recommended Panel Weight	Up to ~40 kg	~40–60 kg	Over ~60 kg
Max Arm Length	≤ 1,000 mm	≤ 1,500 mm	≤ 2,000 mm
Profile Cross-Section	50–65	60–95	75–110
Standard Connection	Ø 130 mm	Ø 130 mm	Ø 130 mm
Material	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum
Protection Rating	IP54	IP54	IP54

(Note: The longer the arm length, the lower the maximum load capacity. Please refer to the specific load-length curve for critical applications.)

3. Package Components (Typical Assembly)

The system is packed in modular components for easy transport and customized assembly:

Mounting Base: Wall seat, Top seat, or Fixed base (Die-cast aluminum).

Support Arm Profiles: Standard lengths of 250mm, 500mm, and 750mm (Can be cut to specific length).

Joint Modules: 90° angle coupling, Intermediate hinge, or adaptor.

Box Connector: To attach the HMI enclosure to the arm.

Accessories: Cable protection edge strips, assembly screws, and hex wrenches.

4. Installation Instructions

⚠ **WARNING: Before installation, ensure the machine surface or wall can support the total weight of the arm system and the control box.**

Step 1: Install the Mounting Base

Secure the wall seat, top seat, or fixed base to your machine surface using appropriate bolts (not included, depends on surface material). Ensure it is perfectly level and tight.

Step 2: Assemble the Support Arm Profiles

Route your cables and wires through the hollow profiles before connecting them.

Connect the profiles to the base using the joint modules (e.g., 90° angle or intermediate hinge). Tighten the fastening screws.

Step 3: Install the Box Connector

Attach the box connector to the back of your HMI control box using the provided screws.

Mount the control box onto the support arm and secure it.

Step 4: Cable Management

Place all cables inside the aluminum profile channel.

Snap on the plastic cable protection edge strips to keep wires hidden and prevent chafing.

Step 5: Load Adjustment

Use the adjustment screws on the joints to fine-tune the friction. The arm should be able to hold the control box firmly in place without sagging when the operator releases it.

5. Maintenance & Safety

Inspection: Periodically check all fastening screws and joints every 3 months to ensure they have not loosened due to machine vibration.

Cleaning: Clean the anodized aluminum surface with a damp cloth. Do not use harsh chemical solvents or abrasive sponges.

Load Limit: NEVER exceed the maximum load capacity stated in the specification table. Exceeding the limit may cause the joint to fail and the control box to fall, resulting in equipment damage or personal injury.

6. CAD Drawings & Support

To integrate our support arm system into your machine design, we provide complete 2D and 3D CAD drawings (STEP, IGS formats).

Download Center: Visit our website at www.jdf-fa.com/download/ to download the drawings.

Technical Support: For custom lengths, special colors, or assembly questions, contact our engineering team:

Email: jdf@jdf-fa.com

Company: Huizhou Jin Ding Feng Automation Technology Co., Ltd.