AX System Overview

The AX system is a modular, flexible platform designed to perform a wide range of functions based on user requirements. Each module within the AX system is tailored to specific tasks, allowing users to configure and utilize only the modules they need — making AX a scalable and efficient solution for many different applications.

Configuration and Usage Options

The AX system can be configured and used in three main ways, depending on the application environment:

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1) PC-Based Operation

In this mode, a computer is used as the interface for display and data processing. The AXDLL software library provides access to a wide range of built-in functions and establishes communication between your PC and the connected modules.

- **Communication Channels Supported:**
  - Ethernet
  - USB
  - RS232
- **Base Modules Required:**
  These serve as the primary communication gateways and identify connected modules.
  - Ethernet Base
  - Wi-Fi Base
  - USB Base
  - RS232 Base
- **Compatible Modules:**
  - Measurement Modules
  - Auxiliary Modules
  - Functional Modules

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2) Display Based Operation

Ideal for desktop, laboratory, workbench, or DIN-rail installations, this mode offers a standalone experience. With battery-powered options available, the system is also portable. The indicator unit automatically detects connected modules and provides a user-friendly control panel with full access to settings and real-time display.

- **Compatible Modules:**
    - Measurement Modules
    - Auxiliary Modules
    - Functional Modules
    - Data Transfer Modules
    - Protocol Modules

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3) PLC or Robot Integration

For automation systems, protocol modules act as the base, providing seamless communication with PLCs or robotic systems.

- **Compatible Modules:**
    - Measurement Modules
    - Auxiliary Modules
    - Functional Modules
    - Data Transfer Modules

Measurement Modules

Measurement modules are used to connect physical sensors or standardized probes, enabling the collection of high-resolution, high-speed measurement data. Available options include:

1. **Inductive Probe Interface Module**
2. **Pneumatic Probe Measurement Module**
3. **Mitutoyo Digimatic Interface Module**
4. **Encoder Interface Module**
5. **RS232-Compatible Input Module**
6. **Analog-to-Digital Input Module for Analog Probes**
7. **RTD Temperature Probe Input Module**
8. **Thermocouple Temperature Probe Input Module**
9. **Wheatstone Bridge Module (commonly used for pressure and weight sensors)**

Auxiliary Modules

These modules are designed to extend system functionality or allow direct control in complex applications.

1. **Galvanically Isolated Inputs**
2. **Galvanically Isolated Outputs**
3. **Foot Pedal Module**
4. **Pneumatic Valve Module**
5. **Barcode Reader Module**
6. **Magnetic Card Reader Module**
7. **Environmental Sensor Module**

Functional Modules

Functional modules add dedicated capabilities to your projects. Multiple functional modules can be used simultaneously to optimize workflows.

1. **Leak Test Module**