

**DEVICE
MANAGEMENT
SOLUTIONS**

**MFT 4000 Documenting Modular Calibrator
with HART® Communications**

MFC 4100 HART® Communicator

DMS Device Management System Software



Access Anywhere at Anytime

**CALIBRATION
COMMUNICATION
CONFIGURATION
DOCUMENT
AUDIT**



MFT 4000 series Modular Calibrator with Database/Cal Management/HART® Interface



MFT 4000 is a breakthrough combination calibrator/communicator that is the instrument of choice for technicians in every industry. The MFT 4000 delivers the versatility of a modular calibrator and the convenience of HART® communications in one handheld unit.

Conventional and smart transmitters of all types require periodic calibration. The MFT provides flexibility and versatility in a NIST traceable calibrator that is not available in single-function units. Sensor module options cover a wide range of pressure, temperature, voltage and current measurement requirements.



Three bays hold positive-lock measurement modules that can be 'hot swapped'. Modules measure 2.3"L x 1.3"W x 2.6"D and weigh 8.3 ounces or less.

Dedicated memory for storing 600 device profiles, 200 configurations and 200 calibrations (As Found and As Left)

Powered by 6 AA alkaline or NiMH batteries or optional auxiliary 100-240 Vac power adapter. MFT-4000 self-tests upon power up and upon installation of sensor modules. Advisories are posted on the display.



Injected model ABS case with shock absorbing boot and hand strap/hanger loop. Measures 9" length x 4.70" width x 3.58" depth; weighs 28 ounces.

128 x 128 pixel graphic display with 2.6" x 2.6" viewable area with 5-digit resolution; view from 1 to 4 different measurements simultaneously.

Four soft keys and eight hard keys provide user interface. Auto shut-off occurs after user-selected period of keypad inactivity.

**Dedicated memory for storing 600 device profiles, 200 configurations and 200 calibrations (As Found and As Left).
Download new device profiles and firmware updates via the Internet – the MFT is never out of your hands.**



MFC 4100 HART® Communicator

The MFC 4100 HART® Communicator is a full function HART Communicator supporting Universal, Common Practice, and Device Specific commands. The MFC is designed for the life cycle of your plant process devices: commissioning, configuration and maintenance operations. All HART field devices can be configured, polled, and trimmed using the MFC with HART Communications.

This HART Communicator is designed for optimum convenience and usability. The MFC 4100 is never out of your hands because you don't need to send the unit off to get it updated. New device profiles are downloaded via the Internet, saving time and increasing availability. HART error messages are interpreted. Just consider the MFC 4100s standard features:



Dedicated memory for over 600 HART device profiles plus memory to store over 200 configuration files.



DMS

Device Management System

is a Microsoft® SQL-based software package that manages all aspects associated with the life cycle of devices in your plant!

Meriam Process

Technologies introduces the new generation in Device Life-Cycle Management: the Device Management System (DMS) software, MFT4000 calibrators and MFC4100 HART Communicator. Precise calibration, configuration and secure electronic documentation is assured with this scalable system.

Productivity, Availability, Agency Compliance, Work Orders, Audit Reports, Scheduled and Unscheduled maintenance – all of these issues must be addressed by today's plant personnel. The Device Management System (DMS) is the third component that ties the MFT4000 and MFC4100 into one complete Device Management Solution.

Meriam has leveraged its experience with calibration management and HART® communications to provide a tightly coupled solution that meets the bottom-up needs for productivity and efficiency and the top-down requirements for availability and agency compliance. Simply put, DMS:

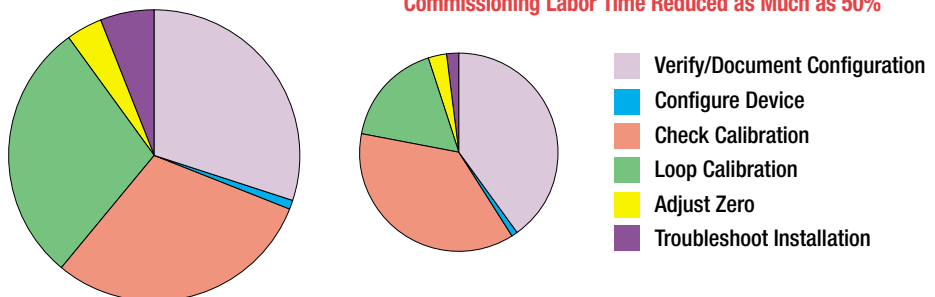
- Provides your plant support personnel with information they need to perform commissioning, configuration and calibration tasks more efficiently.
- Controls work-processes enabling conformance to strict internal and industry regulations for quality control requirements.
- Tracks and maintains activity associated with any conventional or HART devices in your plant, creating an audit trail.
- Serves as a portal, so valuable device management data can be shared among plant personnel and used for various plant-wide applications.

Commissioning and Start-Up Productivity

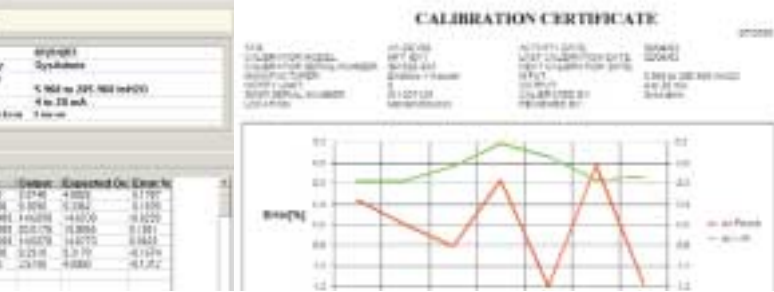
Commissioning field devices entails configuration, calibration, zero adjustment, loop calibration and documenting the results. **Cloning of like devices reduces engineering and commissioning effort – minutes versus hours.** Secure electronic documenting of all these functions is performed with a single tool – The MFT4000 series. The MFC4100 may be used in the marshalling cabinet to verify communication with field devices to reduce troubleshooting time.

There is no need to carry a laptop, communicator and calibrator into the field! **Calibration results and configurations are securely uploaded and documented in DMS in the form of an “electronic birth certificate.”** Moreover, programmed service-intervals minimize lifecycle maintenance planning.

Commissioning Labor Time Reduced as Much as 50%



Current Clipboard Commissioning Commissioning with DMS



The DMS takes an integrated approach to configuration and calibration management with its seamless interface to Meriam's documenting calibrator and communicator, the MFT 4000 series, and MFC 4100 for commissioning and configuration.



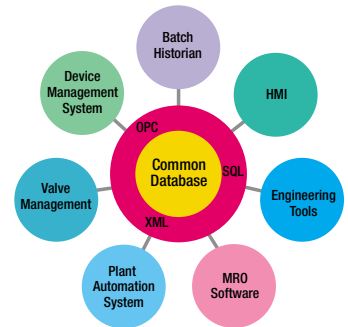
Linking DMS to the Enterprise/Data Management

DMS allows you to pull data together and deliver information that you can use to make informed decisions. A user-friendly Windows Explorer-like interface simplifies navigation and organization of data. Open standards such as OPC and Microsoft SQL data server enable access to other plant solutions.

For example, MRO software issues and tracks work orders, DMS executes the work steps and ensures the work is completed according to your standard operating procedures. Devices due for service are downloaded from DMS' Action list into either the MFT4000 or MFC4100, depending upon the actions required.

The MFT4000's menu-driven calibration functions step the operator through procedures for calibrating field devices. **User friendly services such as Quick-Cal™ and Smart Trim™ streamline the calibration steps to only those required to bring devices back into tolerance.** Our knowledge of device-specific HART commands simplifies the sensor trim procedures. All data is stored for secure electronic transfer to the DMS software, and includes date and time stamps.

Each device's audit trail is available at a glance. **Agency reporting is a mouse click away.**



Linking DMS to the Enterprise.

No plant is an island, and no software solution is an island. DMS is designed to leverage open standards designed to enhance connectivity to plant automation, and business systems.

Maintenance Productivity

Scheduled or opportunistic maintenance may include any or all of the following: diagnostics and testing, re-configuration, re-calibration, valve maintenance, and or device replacement. Every procedure and result must be documented for each affected device.

Secure electronic documenting of all these tasks is performed with a single tool – The MFT4000 series. **There is no need to carry a laptop, communicator and calibrator into the field!** The procedures, calibration results and configuration changes are securely uploaded and documented in DMS in the form of an “electronic bill of health.” Moreover, the next service interval is automatically determined and recorded, further minimizing lifecycle maintenance planning.

Unscheduled maintenance in the form of diagnostics, testing, and re-configuration may be performed and documented with the MFC4100 HART communicator. Device replacement is as simple as cloning a device from the stored configuration or existing device.

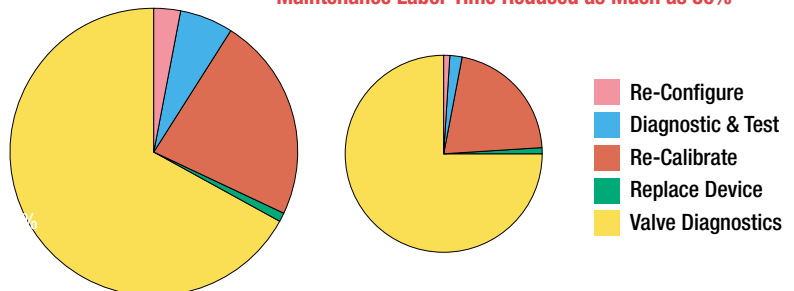
With the secure electronic documenting feature, the time associated with these processes is drastically reduced. All documentation is linked for agency and corporate compliance, and an audit trail is created.

Operational Excellence

Operational excellence is achieved by monitoring intelligent field devices in real time. Devices in critical-service applications or devices that fail most frequently may be monitored to prevent unplanned shutdowns, resulting in lost profits. The field devices messages are decoded within handheld MFC4100 or via DMS software online.

Status alerts include signal quality and process variable data. Diagnostic status information is returned with every message. This continuous communication increases integrity of control system information and provides an early warning of device problems. In this way, one can migrate from preventive to predictive “as needed” maintenance, streamlining the maintenance process.

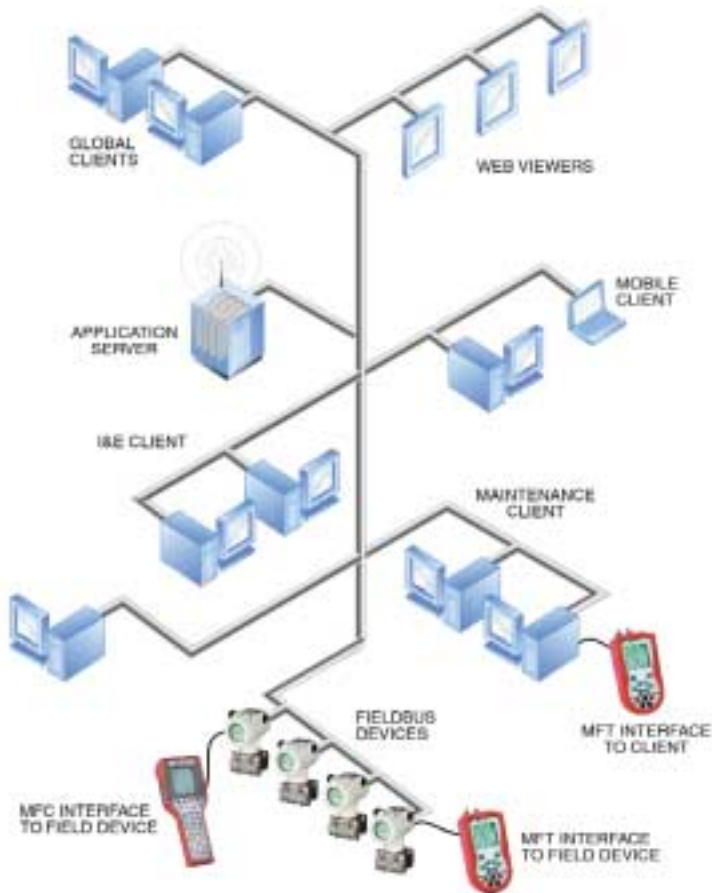
Maintenance Labor Time Reduced as Much as 50%



Current Clipboard Maintenance

Maintenance with DMS

- Re-Configure
- Diagnostic & Test
- Re-Calibrate
- Replace Device
- Valve Diagnostics



DEVICE MANAGEMENT SYSTEM

Scalable and flexible to accommodate any size operation.

DMS is designed for easy scalability, in terms of clients and devices. Functionality is limited by user group definitions and permissions, so that only authorized personnel can make changes to devices.

The DMS base software is a full-featured calibration and configuration management tool and supports HART® Fieldbus Technology. Software modules extend the feature set to include major functionality such as On-Line features to support connectivity to device networks.

New device model releases and revisions are maintained on our Web site. [These device model library additions and DMS software service packs are available from our download Web site.](#)

New devices can be configured and installed by cloning similar existing devices. The source for cloned devices exists as an off-the-shelf device or a device modeled in the DMS database. With DMS, an entire system can be cloned and used as a baseline for developing a similar system for a new division, streamlining plant expansion and Greenfield projects. **DMS is the complete device management solution for the life cycle of your process plant.**



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