PLC / ARINC-429 / ETHERNET

# MELD-2100

## DATA RECORDER & INTERFACE

Acquire **ControlLogix PLC tags**, make authorized **live parameter adjustments**, or receive and record **ARINC-429** data - with Ethernet connectivity and browser access.

STANDARD ON ALL CONFIGURATIONS

Recording • 128 GB microSD • Wi-Fi HMI




PRODUCT IMAGE / FOR REFERENCE

BUILT TO BRING FIELD DATA INTO VIEW

# Connect. Monitor. Adjust. Record.

Monitor and record mapped ControlLogix tags or ARINC-429 labels. Make permitted PLC parameter changes during testing, and use advanced supervisory tools to analyze control-loop response.

### 01 LIVE PLC INTERFACE

Monitor and write permitted ControlLogix tags, or receive ARINC-429 data.

### 02 ONBOARD RECORDING

A 128 GB microSD card is included for logs, configuration and reference files.

### 03 BROWSER ACCESS

Local browser HMI over built-in Wi-Fi; wired Ethernet HMI also available.

LIVE CONTROL / SUPERVISORY CAPABILITIES

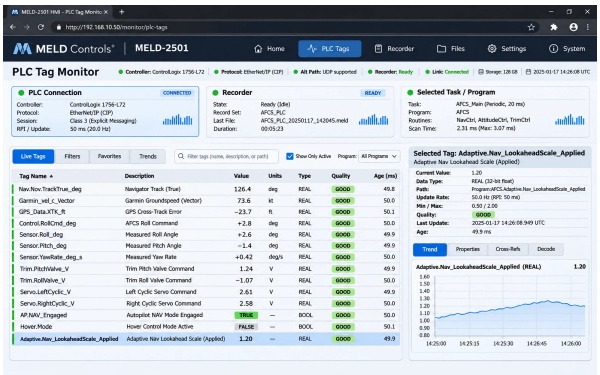
### REAL-TIME PLC TAG ADJUSTMENTS

Read/write mapped gain, setpoint and tuning tags over EtherNet/IP (CIP) during authorized testing.*

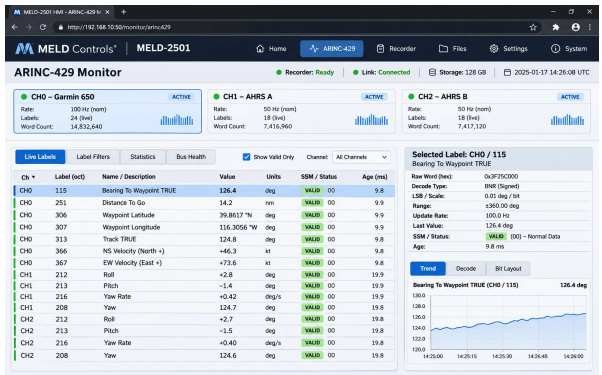
### AI SUPERVISOR / DEVELOPMENT

Analyze loop response and review bounded tuning requests; the PLC retains final authority.*

REPRESENTATIVE BROWSER HMI VIEWS




ControlLogix tag monitoring — PLC / TAGS




ARINC-429 label monitoring — ARINC / RX

*Illustrative display data; available pages depend on installed hardware and application profile.*

# Technical specifications

One MELD-2501-based recorder platform for ControlLogix and ARINC-429 configurations. Live tag read/write is application-controlled; AI Supervisor is an advanced development integration.

## PLATFORM / POWER

| | |
|---|---|
| Base hardware | MELD-2501 controller family |
| Supply input | 8-32 VDC (28 V nominal) |
| Storage | 128 GB microSD (installed) |
| Enclosure | Black anodized aluminum |
| Mounting | Integral mounting base |

## NETWORK / USER ACCESS

| | |
|---|---|
| Wired link | 10/100 Ethernet via J4 |
| Services | UDP / EtherNet/IP (CIP)* |
| Local HMI | Wi-Fi browser interface, standard |
| Wired HMI | Monitoring and maintenance |
| Service port | USB-C; functions vary by release |

## DATA / CONTROL FUNCTIONS

| | |
|---|---|
| PLC source | Configured ControlLogix tags |
| Tag adjustment | Live mapped read / write over CIP* |
| AI Supervisor | DEV / custom integration only* |
| ARINC-429 | 0, 2 or 4 receive channels |
| ARINC direction | Receive only; no transmission |

## OPERATION / HARDWARE

| | |
|---|---|
| Recording | Controlled sessions to microSD |
| Live display | Tags or received-label data* |
| J4 connector | DA-15, standard density |
| Indicators | PWR, RUN; REC depends on build |
| Breakout | RJ45, power and ARINC leads** |

## CONFIGURATION OPTIONS

| APPLICATION | ARINC RX | BOARD / PROFILE | PRIMARY USE |
|---|---|---|---|
| MELD-2100 PLC | 0 | 2501-0 / PLC-0 | PLC data |
| MELD-2100 ARINC-2 | 2 | 2501-2 / REC-2 | ARINC logs |
| MELD-2100 ARINC-4 | 4 | 2501-4 / REC-4 | ARINC logs |

## J4 / DA-15 ELECTRICAL PIN GROUPS

| | | | |
|---|---|---|---|
| ETHERNET TX | 1 (+) / 2 (-) | ARINC RX 1 | 6 (A) / 7 (B) |
| ETHERNET RX | 3 (+) / 4 (-) | ARINC RX 2 | 9 (A) / 10 (B) |
| POWER / RETURN | 11 VIN / 12 GND | ARINC RX 3 | 8 (A) / 15 (B) |
| CHASSIS GROUND | 5 CGND | ARINC RX 4 | 13 (A) / 14 (B) |

* Live tag writes require mapped parameters, operator permission and PLC-side validation. AI Supervisor is development software (currently Windows-hosted), not a standard onboard MELD-2100 function; tuning features depend on integration/profile. ** Harness inclusion depends on order. Pin numbers show electrical assignments.

Engineering/test use. Aircraft or safety-critical installation requires independent qualification and approval. Specifications subject to change.