MFDAU Mini-Flight Data Acquisition Unit

Mandatory Compliance, Aircraft Condition Monitoring and Data Recording is achieved in one unit. Teledyne Controls' Mini-Flight Data Acquisition Unit (MFDAU) provides Business and Regional aircraft operators with significant cost savings over three LRU configurations (DAU, DMU, QAR/DAR) by reducing weight, wiring, rack space and most significantly, the cost of two additional LRUs. Furthermore, the MFDAU can be utilized as either a stand-alone data acquisition system or as a complementary unit to reinforce an existing DAU system onboard the aircraft.

3-in-1 Data Management Solution

Experience countless benefits with Teledyne Controls' enhanced MFDAU. This 3-in-1 system provides the functionality of the mandatory Data Acquisition Unit (DAU), with an option for a Data Management Unit (DMU) and a recorder (QAR/DAR) in a single Line Replaceable Unit (LRU), to reinforce and promote a high performance data management program.

Flexible ACMS Capability

Like other Teledyne airborne avionics systems, the MFDAU is fully user-programmable via Teledyne's MS Windows-based Application Generation Software (AGS). This software tool allows operators to easily customize the various elements of their ACMS applications, such as QAR/DAR output data maps, enhanced ACMS, and MCDU screens and reports. The MFDAU is fully equipped with dual independent power PC processors to ensure isolation of the mandatory recording from the user programmable ACMS, without recertification issues.

Key Benefits and Features:

- Software loadable using ARINC 615 Airborne Data Loader (ADL/PDL)
- Integral PCMIA module for recording for recording maintenance data as well as copying/recording DFDR data (4MCU)
- The MFDAU is capable of outputting data to one or two Flight Data Recorders (FDR) at a rate of up to 2,048 words per second
- Capable of interfacing with ASCB (Version A, B, or C) and CSDB busses
- Capable of receiving and merging existing ARINC 573/717 DFDR data with additional acquired parameters
- Accepts signals from different aircraft sensors; analogs, discrete, and digital data bus inputs

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MFDAU Interfaces:

- Harvard-BiPhase (DFDR) Recorder Inputs (up to 2)
- Recorder Outputs
  - Harvard Bi-Phase (DFDR/DAR) (up to 2)
  - BipolarRZ (QAR) (1)
  - Audio Synchronization (AMU-CVR) (1)
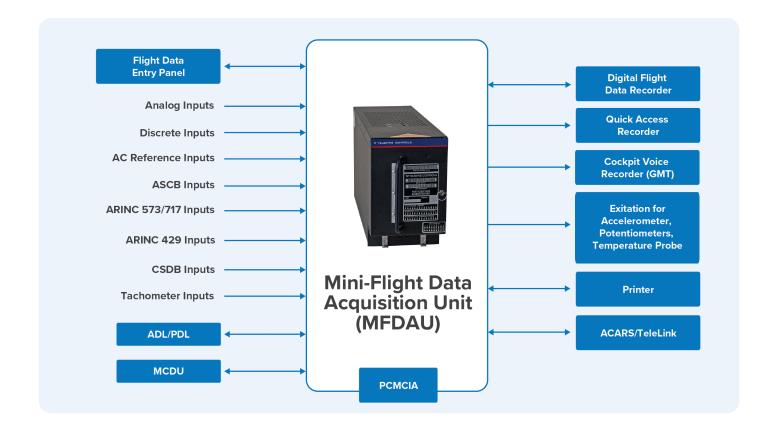- PCMCIA ATA, Type II or form-factor (1)
- ARINC 429 Peripherals (up to 4)

MFDAU Interfaces:

- Three wire analog input channels (up to 53)
- Aircraft Standard Communications Bus (ASCB) digital serial inputs (Version A, B, or C) and CSDB (up to 8)
- Flight Data Entry Panel (FDEP) for documentary data inputs
- Shunt Series and AC Type Discrete inputs (up to 128)
- ARINC 429 inputs (up to 29)

Technical Characteristics:

- Form-factor: 3 MCU (Mandatory Only)
- 4 MCU (Mandatory, ACMS, and Recording)

- **Weight:**   14 lbs
- **Input Power:**   28 VDC

Flight Data Entry Panel

Analog Inputs

Discrete Inputs

AC Reference Inputs

ASCB Inputs

ARINC 573/717 Inputs

ARINC 429 Inputs

CSDB Inputs

Tachometer Inputs

ADL/PDL

MCDU

Mini-Flight Data Acquisition Unit (MFDAU)

PCMCIA

Digital Flight Data Recorder

Quick Access Recorder

Cockpit Voice Recorder (GMT)

Exitation for Accelerometer, Potentiometers, Temperature Probe

Printer

ACARS/TeleLink

Data Acquisition