



DATA ACQUISITION UNIT PRODUCT INFORMATION (409-XXX-XX)

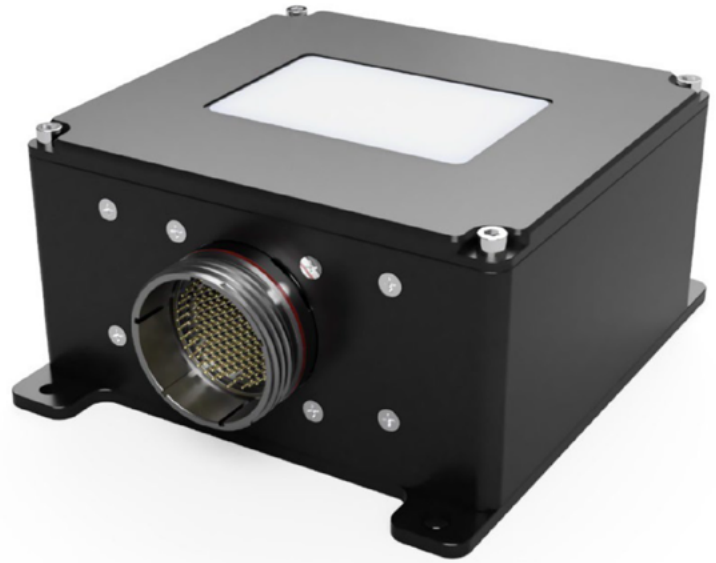
The Data Acquisition Unit (DAU) series 409-XXX-XX features an internal back plane with up to eight interchangeable cards to support rapid customisation and configuration for various applications.

The unit supports a dual channel configuration with redundant acquisition cards and redundant processing used to support higher integrity applications.

FPGA based processing coupled with high speed analog front ends allows both digital (e.g. ARINC-429) and analog (e.g. Synchro) signals to be measured with the same pins in different applications.

Total I/O capability is determined by exact card configurations and pin availability, e.g.

- Differential (input): 48 channels
- Single Ended (input): 96 channels
- Transceivers: 6 channels
- Discrete Outputs: 2 channels
- Auxiliary Outputs: 4 protected 28VDC



AVAILABLE I/O CARDS

Part Number	Type	Description	Application
402-000-00	Input	24 Channel High Speed Differential	<ul style="list-style-type: none"> • Digital Data Buses: ARINC429, ARINC717, CSDB • RS232, RS422, RS485 (receive only) • Analog DC (2 wire differential, ratiometric) • Analog AC (including Synchro, Resolver, Frequency)
402-004-00	Input and Output	4 Port Ethernet	<ul style="list-style-type: none"> • 4 Port 10/100 Ethernet
402-005-00	Input and Output	16 Channel Adaptive Bus	<ul style="list-style-type: none"> • 2 wire Smart Sensors, Remote Data Concentrators • Maximum 10W power output per port
402-006-00	Input	48 Channel Single Ended	<ul style="list-style-type: none"> • Discrettes (Shunt, Series) • Includes pin programmable current source (500uA) • Basic accuracy single ended analog inputs
402-009-00	N/A	Controller Card	<ul style="list-style-type: none"> • FPGA and 500MHz 32bit ARM Processor
402-010-00	Power, Input and Output	Dual 28V ARINC Transceiver Card	<ul style="list-style-type: none"> • Dual 28VDC Inputs • 1 channel ARINC429 Transmitter (Output) • 1 channel ARINC717 Transmitter (Output) • 1 channel ARINC825 Transceiver (Input and Output)
402-016-00 <i>In development</i>	Input and Output	Dual 28V ARINC and MIL-STD-1553B Transceiver Card	<ul style="list-style-type: none"> • Dual 28VDC Inputs • 1 channel ARINC429 Transmitter (Output) • 1 channel ARINC717 Transmitter (Output) • 1 channel ARINC825 Transceiver (Input and Output) • 2 channel MIL-STD-1553B Transceiver (Input and Output)

Physical and Electrical Specifications	
Height	71mm (2.8")
Width	134mm (5.3")
Depth	154mm (6.1")
Weight	Less than 1kg (< 2.2 lb)
Mounting Type	Flanged with Qty 4 #10 QPL fastener (e.g. NAS1352-3-10)
Mounting Orientation	Unrestricted
Construction	Aluminium AMS QQ-A-200/8, ASTM-B221
Finish	MIL-DTL-5541 Type II Class 3, painted subject to requirement (excluding faying surface)
Power supply input	Dual 28 VDC nominal, 10 to 80 VDC, DO-160 CAT Z
Power supply consumption	Maximum 10 watt (excluding inrush and external powered loads)
Power supply hold-up energy	5 seconds minimum
Input Connector	MIL-DTL-38999 Series III, D38999/20FJ35PN
Mating Connector	MIL-DTL-38999 Series III, D38999/26FJ35SN
Operating Temperature (operating)	-55 to +71 degrees Celcius
Operating Temperature (non-operating)	-55 to +85 degrees Celcius
Operating Altitude	Up to 55,000 ft
Environmental Qualification	RTCA DO-160G
Design Assurance	RTCA DO-254 and DO-178C (as applicable)
Production Approvals	FAA PMA (where PMA assist applies), otherwise Certificate of Conformance