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Data Sheet

August 13, 2026

FLUKE

Fluke 2680A Data Acquisition System

The Fluke 2680A is a networked modular data acquisition chassis supporting 20 to 120 analog channels via six 20-channel input modules (precision PAI or fast FAI). It communicates over 10/100 Ethernet (TCP/IP) and can be powered from AC or DC. Fluke DAQ software supports configuration, trending, and alarming.



MODEL

Fluke 2680A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

2680A

LISTING

<https://aumictechlabs.com/products/2680a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Fluke 2680A is a modular, scalable data acquisition platform engineered for precision multi-channel measurement in industrial and laboratory settings. It expands from 20 channels per chassis to over 2,000 channels through modular expansion, with universal input conditioning supporting Vdc, Vac, Ohms, frequency, RTD, thermocouple, thermistor, and AC/DC current on any channel in any combination. The system integrates into LANs via 10BaseT/100BaseT Ethernet and operates with Fluke DAQ software for configuration, control, and data logging.

Technical Specifications

- Capacity and Scalability 20 to 120 universal analog input channels per chassis Scalable to over 2,000 channels through multiple chassis and modules
- Six module slots per chassis: five for 20-channel analog input modules, one for Digital I/O or additional analog input capability
- Fast Analog Input Module (2680A-FAI) Throughput exceeding 3,000 channels per second
- 16- to 18-bit resolution Input range to +50 V Channel-to-channel isolation exceeding 15 V
- Scan rate up to 1,000 readings per second per module
- Precision Analog Input Module (2680A-

PAI) 18-bit resolution Up to 300 V input isolation on two channels; 150 V on 18 channels 1600 V transient overvoltage protection Scan rate of 140 channels per second Supports J, K, R, S, T, N, I, U, C, and B thermocouple types Digital I/O and Relay Output Module (2680A-DIO) 20 digital I/O channels Eight form C relay outputs rated 1 A at 250 V ac CAT I Digital inputs/outputs: 1.4 V threshold, 500 mV hysteresis, +30 V maximum, -4 V minimum (non-isolated) Up/down counter with preset start count capability Data Processing Up to 60 computed channels with math functions (addition, subtraction, multiplication, division, log, natural log, exponent, square root, absolute value, integer, average, time, and rate) ATA flash memory card support from 16 MBKey Features Universal input conditioning on any channel, any combination High-speed throughput (3,000+ channels/second) and precision isolation options Form C relays for direct equipment control Transient overvoltage protection to 1600 VTypical Applications Multi-point temperature and voltage monitoring; automated test systems; distributed data collection in networked facilities; thermocouple and RTD measurement at scale.Compatibility & Integration 10BaseT/100BaseT Ethernet connectivity; Fluke DAQ software configuration and logging.

Features & description

From manufacturer datasheet

Features

- 20-120 channels per chassis (six module slots) • Precision (PAI) and fast (FAI) analog input modules
- 10BaseT/100BaseT Ethernet TCP/IP • AC or DC power • Master alarm output per chassis

Applications

- Multi-channel industrial and lab data acquisition • Precision or high-speed scanning with PAI/FAI modules • Ethernet-networked distributed measurement • Alarming and PC-based logging with Fluke DAQ

2680A Characteristics / Specifications

PARAMETER	VALUE
Model	2680A
Manufacturer	Fluke
Instrument Type	Data Acquisition System
Alias	2680A; Fluke 2680A; 2680 Series
Channel capacity	20 to 120 channels per chassis (6 × 20-channel modules)
Communications	10BaseT/100BaseT, TCP/IP, RJ45 Cat 5
PAI measurement speed slow	6 readings/s nominal
PAI medium	41 (50 Hz) / 48 (60 Hz) readings/s nominal
PAI fast	to about 143 readings/s VAC nominal class
FAI slow	45 (50 Hz) / 54 (60 Hz) readings/s nominal
FAI medium	200 readings/s nominal
FAI fast	1000 readings/s nominal
PAI isolation class	300 V DC or AC rms on channels 1 and 11; lower on others
FAI isolation class	50 V DC or 30 V AC rms all channels
FAI resolution class	16-bit; scan to 1000 ch/s class
PAI resolution class	18-bit class
Power	100-240 V ac 50/60 Hz 100 VA max, or 9-45 V dc 50 W max
Master alarm	one open-collector per chassis Notes Specs from Fluke 2680 Series product specifications. Confirm installed PAI/FAI module mix on the chassis.

2680A Specifications

PARAMETER	VALUE
Fluke 2680A Data Acquisition System	Overview
Key Features	- 20-120 channels per chassis (six module slots)
Technical Specifications	Model: 2680A
Notes	Specs from Fluke 2680 Series product specifications. Confirm installed PAI/FAI module mix on the chassis.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Master alarm	one open-collector per chassis
Notes	
Specs from Fluke 2680 Series product specifications. Confirm installed PAI/FAI module mix on the chassis.	

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.