



SMART DATA ACQUISITION SYSTEM
KDAQ-1-8

- Wide temperature range -40°F to +255°F (-40°C to +125°C)
- Single or dual Ethernet, RS-485 outputs available
- Simultaneous sampling on all channels
- DAQ and calibration software and LabVIEW® drivers provided
- Ethernet communication supports IEEE-1588 (PTP)

The KDAQ data acquisition system has been designed to optimize pressure measurements using Kulite pressure transducers. The communication interface can be changed by replacing the communication board allowing for easy reconfiguration to different test environments. A dual-Ethernet option allows for daisy-chained configurations. Each of the 8 channels measures both the pressure and temperature of the transducer by using the Kulite 5th wire temperature measurement approach. The KDAQ then uses coefficients, either stored on the sensor or programmed into the KDAQ, to temperature compensate the transducer and output the corrected data. This allows for high accuracy, high speed data to be output from transducers even in very harsh environments where digital electronics can not survive. The KDAQ features IEEE-1588 timing and simultaneous sampling on all channels allowing precise timing across all sensors. Ask our sales staff about ordering your new Kulite transducer pre-configured for use with KDAQ.



INPUT	Input Range	10 - 100mV bridge sensors or 100-1000Ω Platinum RTDs
	Input Coupling	DC
	Input Impedance	>10 MΩ
	Dynamic Range	75 - 90 dB depending on input range
	Rated Electrical Excitation	8 to 32 VDC
	Maximum Current	0.3 A (0.1 A Typ)
	Insulation Resistance	100 Megaohms @ 50 VDC
OUTPUT	Interface	Ethernet/RS-485
	Resolution	24 Bits
	Total Error Band (Voltage)	± 0.1% FSO over full KDAQ temperature
	Static Accuracy (Pressure end to end)*	± 0.05% FSO
	Total Error Band (Pressure)*	± 0.1% FSO (for -40°F to +255°F sensor) (-40°C to +125°C) KDAQ at stable temperature ± 0.25% FSO (for -40°F to +255°F sensor) (-40°C to +125°C) over full KDAQ temperature
	Total Error Band (RTD)*	± 1.0°F (± 0.55°C) (for -40F to +255°F (-40°C to +125°C) class A 4-wire RTD)
	Data Rate	30,000 Samples/sec/chan (4 chans) 20,000 S/s/chan (8 chans)
	Effective Over Sampling	128 times (Min.)
	Down Sample / Filter Rates	5000, 1000, 500, 100 Samples/second
	Usable Bandwidth (+/-1 dB)	DC - 0.48 X sampling rate
Time Accuracy	< 1 μs	
ENVIRONMENTAL	Operating Temperature Range	-40°F to +255°F (-40°C to +125°C)
	Compensated Temperature Range	-40°F to +255°F (-40°C to +125°C)
	Linear Vibration	20g Peak, Sine 10 to 2000 Hz
PHYSICAL	Output Electrical Connector	15 Pin Micro D-Sub
	Sensor Electrical Connectors	9 Pin Micro D-Sub
	Weight	90 grams (Approx.)
	Length	4 inches (100)
	Width	4.1 inches (110)
	Height	0.875 inches (22)

* Using sensors calibrated for use with the KDAQ after re-zero of system

(A)

Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2026 Kulite Semiconductor Products, Inc. All Rights Reserved.