

Dragonfly^{Modular}



Data Acquisition Module (1409-MOD)



Connect | Condition | Acquire

Key Features

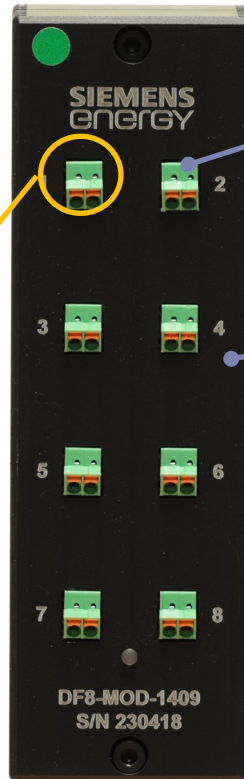
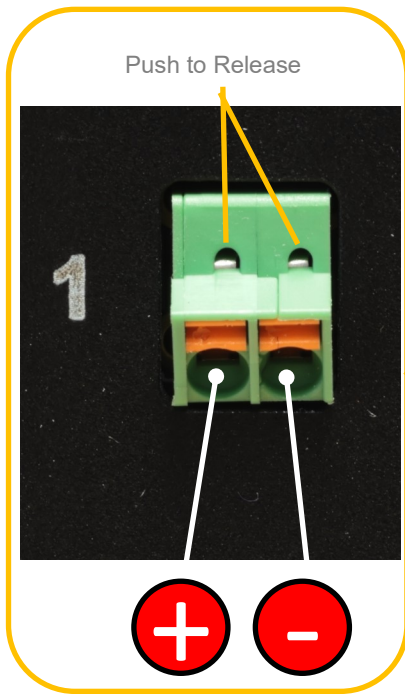
- Rugged and Lightweight (650g)
- 7-256kHz Programmable Sample Rates
- 16/24 bit ADC, >111dB SNR,
- Low power (12V d.c. from Base Unit @4W)
- Voltage, IEPE & 4-20mA Conditioning
- Multiple Input Ranges (25V, 10V, 1V, & 0.1V)
- Passive Cooling

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Connect

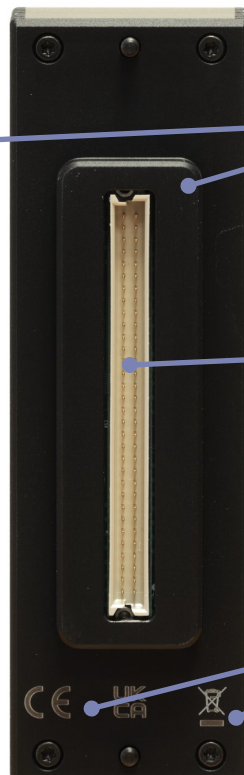
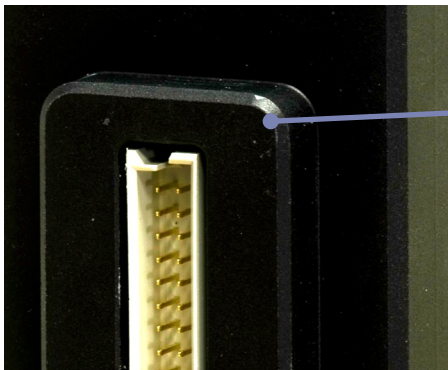


Independent Inputs

One $\Sigma\Delta$ ADC per Channel.
Simultaneous Sampling.
>120dB SNR.
Multiple Conditioning Options.

Rugged Chassis

Milled Aluminium Hard Anodised



Module Locator

Raised boss protects connector when modules inserted into Base Unit

Module can only be inserted in the correct orientation.

Module Connector

DIN-41612

Regulatory Markings

Dragonfly Modular



HGL
Dynamics

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Specification

General

Dimensions (W x H x D):	500 x 160 x 50 mm
Weight:	0.6 kg (typical)
Supply Voltage:	12V DC (from Base)
Power:	2.4 W (max)

Input Configuration (with no conditioning card)

Input Channels:	8
ADC Type:	Sigma-Delta
Quantization:	24-bit / 16-bit*
Input Impedance:	4M Ω (Differential), 2M Ω (Single-Ended)
SNR:	>111 dB
Anti-aliasing:	<-100 dB
Sample Rate:	5 - 256 kHz *
Dynamic Range:	140 dBFS / $\sqrt{\text{Hz}}$, 114 dB (broadband)
Inter-Channel Δ Phase:	< 20 nS (< 0.36° @ 10 kHz output signal)
Crosstalk:	< 100 dB @ 5 kHz, < 70 dB @ 100 kHz
Distortion:	< -80 dB, 0 to 80 kHz

*Software configurable parameter

Signal Conditioning (using any standard input)

Voltage:	
Input Ranges:	$\pm 25\text{V}$, $\pm 10\text{V}$, $\pm 1\text{V}$, $\pm 0.1\text{V}$ *
DC Offset:	< $\pm 0.15\text{mV}$
Coupling:	AC, DC *
Mode:	Single Ended, Differential *
IEPE:	
Excitation:	Constant Current 4mA fixed
4-20mA	
Control:	-470 Ω Resistor On/Off *

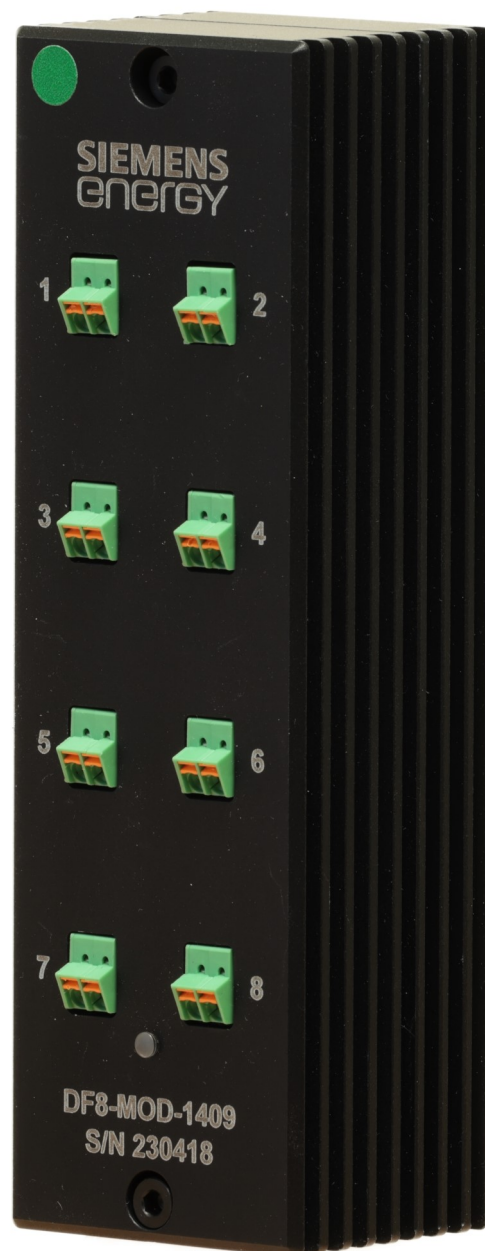
*Software configurable parameter

Accuracy

DC Offset Error:	< +/-0.1% of full scale range
DC Linearity:	< 0.01%
AC Error:	< +/-0.25%
Gain Linearity:	< +/-0.05%
Frequency Response:	DC to 100 kHz < $\pm 1.0\%$ (± 0.1) dB
Temperature Response:	< +/-0.01% / °C (calibration @25°C)
IEPE Excitation Error:	< +/-5% setting
Calibration Period:	< +/-0.25% - every 12 Months < +/-0.5% - every 3 Years < +/-1.0% - every 5 Years

Environmental

Operating Temp.:	-25 to 50°C
Storage Temp: -	40 to 85°C
Relative Humidity:	< 90% RH non condensing



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Training

Training

HGL Dynamics offers a wide variety of training workshops and courses. Workshops are conducted at one of our global offices or at the client's site by our training team, all of whom have many years' of industry experience and knowledge.

Typical training courses include: Vibration Fundamentals, Signal Processing, Rotating Machinery, Advanced use of HGL Software and Analysing Large Datasets.



Information

About HGL Dynamics

HGL Dynamics is a world-leading supplier of services and high specification equipment for the integrated capture, monitoring, analysis, storage and management of high bandwidth data.

Purchasing & Availability

The HGL Dynamics Dragonfly^{Modular} Data Acquisition Module is now available for purchase or lease. Please contact one of our HGL Dynamics offices below for further information or to request a quote.

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