

SIRIUS® MODULAR



UP TO 8 ISOLATED ANALOG CHANNELS OF SIRIUS DUAL-CORE, HIGH-SPEED OR EXTRA HIGH-SPEED.

UP TO 16 ANALOG CHANNELS WITH HD AMPLIFIERS.

SCALABLE

SIRIUS DAQ systems can grow with needs at any time - from a single channel to a system with thousands of channels.

FLEXIBLE

SIRIUS single slices provide you the most flexible configuration. Slice-based systems can be split or combined at any time, to handle different measurement tasks.

DISTRIBUTABLE

SIRIUS EtherCAT® slices can be located up to 100 meters (328 feet) apart from each other, using a single cable that carries data, sync, and power!

Versatile USB and EtherCAT® data acquisition systems. Any signal, any sensor - packed with cutting edge technology.

USB / ETHERCAT® / ETHERNET INTERFACE

You can connect SIRIUS DAQ systems via USB or EtherCAT® to any data acquisition computer, or to one of our high-performance data loggers. SIRIUS XHS offers also Ethernet interface including PTPv2 synchronization

SIRIUS® AMPLIFIERS

HIGH-DYNAMIC - DualCoreADC® SIRIUS®

Our DualCoreADC® technology boosts dual 24-bit delta-sigma ADC's with an anti-aliasing filter on each channel, achieving an astonishing 160 dB of dynamic range in the time and frequency domains, with up to 200 kS/s/ch sampling rate per channel. Up to 8 channels per SIRIUS module.

Counter input: Most amplifiers can be also ordered with additional counter input featuring event counting, waveform timing, angle, encoder and speed measurements. Each counter has 3 digital inputs and 1 digital output.

	HIGH-DYNAMIC - DualCoreADC® SIRIUS®								
	UNI	STG	STGM	MULTI	ACC	MIC200	CHG	HV	LV
Connectors	DSUB-9, L2B10f	DSUB-9, L2B7f, L2B10f	DSUB-9, L2B7f, L2B10f	DSUB-15, L2B16f	BNC, TNC	L1B7f	BNC, TNC	BANANA	DSUB-9, BNC, BANANA
Counter version	✓	✓	✓	✓	✓	X	✓	X	✓
Channels per slice	8	8	8	8	8	8	8	8	8
Data rate / channel	200 kS/s USB, 20 kS/s EtherCAT	200 kS/s USB, 20 kS/s EtherCAT	200 kS/s USB, 20 kS/s EtherCAT	200 kS/s USB, 20 kS/s EtherCAT	200 kS/s USB, 20 kS/s EtherCAT	200 kS/s USB, 20 kS/s EtherCAT	200 kS/s USB, 20 kS/s EtherCAT	200 kS/s USB, 20 kS/s EtherCAT	200 kS/s USB, 20 kS/s EtherCAT
Resolution	24-bit DualCoreADC	24-bit DualCore-ADC	24-bit DualCore-ADC	24-bit DualCore-ADC	24-bit DualCore-ADC	24-bit DualCoreADC	24-bit DualCore-ADC	24-bit DualCore-ADC	24-bit DualCoreADC
Bandwidth	70 kHz	70 kHz	70 kHz	70 kHz	70 kHz	70 kHz	70 kHz	70 kHz	70 kHz
Voltage ranges	±100 V, ±10 V, ±1 V, ±100 mV, ±10 mV	±50 V, ±10 V, ±1 V, ±100 mV	±10 V, ±1 V, ±100 mV, ±10 mV	±10 V, ±1 V, ±100 mV, ±50 mV	±10 V, ±500 mV	±10 V, ±500 mV	±10 V, ±500 mV	±1200 V, ±50 V	±200 V, ±10 V, ±1 V, ±100 mV
Input coupling	DC, AC 0.3 Hz / 0.16 Hz (1, 3, 5, 10, 20 Hz SW)	DC, AC 1 Hz (3, 10 Hz SW)	DC	DC	DC, AC 0.1 Hz, 1 Hz	AC 0.35 Hz (3, 10 Hz SW)	DC, AC 0.1 Hz, 1 Hz, 10 Hz, 100 Hz	DC	DC, AC 1 Hz (3, 10 Hz SW)
Sensor excitation	0..20 V max. 0.8 W, 0..60 mA max 0.5 W, IEPE 2..20 mA	0..20 V max. 0.8 W, 0..60 mA max 0.5 W	0..15 V max. 44 mA	0..12 V max. 44 mA	IEPE 2, 4, 8, 12, 16, 20 mA	14 V bipolar, 200 V polarization	IEPE 4, 8, 12 mA	X	2..30 V bipolar, 0..24 V unipolar, max. 0.2 A / 2 W
Bridge connection	Full, ½, ¼ 350 Ω, ¼ 120 Ω 3, 4 wire	Full, ½, ¼ 350 Ω, ¼ 120 Ω 3, 4 wire	Full, ½, ¼ 350 Ω, ¼ 120 Ω 3 wire	Full, ½, ¼ 350 Ω, ¼ 120 Ω 3 wire	X	X	X	X	Full
Programmable shunt	59.88 kΩ, 175 kΩ bipolar	59.88 kΩ, 175 kΩ bipolar	100 kΩ bipolar	59.88 kΩ	X	X	X	X	X
IEPE input	✓	DSI-ACC	DSI-ACC	DSI-ACC	✓	X	✓	X	DSI-ACC
Resistance	✓	✓	X	X	X	X	X	X	X
Temperature (PTx)	✓	✓	DSI-RTD	DSI-RTD	X	X	X	X	DSI-RTD
Thermocouple	DSI-TH	DSI-TH	DSI-TH	DSI-TH	X	X	X	X	DSI-TH
Current	ext. shunt, DSI	ext. shunt, DSI	ext. shunt, DSI	ext. shunt, DSI	ext. shunt	ext. shunt	ext. shunt	X	ext. shunt, DSI
Potentiometer	✓	✓	✓	✓	X	X	X	X	X
LVDT	DSI-LVDT	DSI-LVDT	DSI-LVDT	DSI-LVDT	X	X	X	X	DSI-LVDT
Charge	DSI-CHG	DSI-CHG	DSI-CHG	DSI-CHG	X	X	100 k, 10 k pC	X	DSI-CHG
TEDS	✓	✓	✓	✓	✓	✓	✓	X	✓
Isolation voltage	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	CAT II 1000 V	1000 V
Power consumption per channel	2 W/ch	2 W/ch	1.3 W/ch	1.3 W/ch	1 W/ch	1.1 W/ch	1.2 W/ch	1 W/ch	1.2 W/ch
Advanced functions	Supports all strain types, IEPE sensors and high input range	Supports all strain types and high input range	Low power, sensor and amplifier balance, bipolar shunt	Analog Output, Low power, sensor and amplifier balance	Sensor error detection, high dynamic range	Supports polarized condenser microphones	Sensor error detection in IEPE and CHG mode (injection)	High voltage, high isolation	High sensor power and multi range