

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

HIGH-DENSITY HD SIRIUS®

High-density SIRIUS module with up to 16 channels per SIRIUS slice is the perfect choice for high channel count applications.

HIGH-SPEED HS SIRIUS®

1 MHz 16 bit SAR technology with software selectable alias-free filtering is the perfect choice for transient recording. Up to 8 channels per SIRIUS module.

	HIGH-DENSITY HD SIRIUS®			HIGH-SPEED HS SIRIUS®				
	HD-STGS	HD-LV	HD-ACC	HS-HV	HS-LV	HS-ACC	HS-CHG	HS-STG
Connectors	DSUB-9, L1B10f	DSUB-9, BNC	BNC	BANANA	DSUB-9, BNC, BANANA	BNC	BNC, TNC	DSUB-9
Counter version	X	X	X	✓	✓	✓	✓	✓
Isolated version	✓	✓	✓	✓	✓	✓	✓	✓
Differential version	✓	✓	✓	✓	✓	✓	✓	✓
EtherCAT version	✓	✓	✓	✓	✓	✓	✓	✓
Rack version	✓	✓	✓	✓	✓	✓	✓	✓
Fanless version	X	X	X	✓	✓ (see 1)	X	X	X
Channels per slice	16	16	16	8	8	8	8	8
Data rate / channel	200 kS/s USB, 10 kS/s EtherCAT	200 kS/s USB, 10 kS/s EtherCAT	200 kS/s USB, 10 kS/s EtherCAT	1 MS/s	1 MS/s	1 MS/s	1 MS/s	1 MS/s
Resolution	24-bit	24-bit	24-bit	16-bit	16-bit	16-bit	16-bit	16-bit
Bandwidth	70 kHz	71 kHz	72 kHz	2 MHz	1 MHz	500 kHz	500 kHz	1 MHz
Voltage ranges	±10 V, ±1 V, ±100 mV, ±10 mV	±100 V, ±10 V, ±1 V, ±100 mV	±10 V, ±5 V, ±1 V, ±200 mV	±2000 V ... ±20 V	±100 V ... ±50 mV	±10 V ... ±200 mV	±10 V ... ±100 mV	±50 V ... ±20 mV
Input coupling	DC	DC	DC, AC 0.1 Hz, 1 Hz	DC	DC, AC 1 Hz (3, 10 Hz SW)	DC, AC 1 Hz (3, 10 Hz SW)	DC, AC 0.1 Hz, 1 Hz, 10 Hz, 100 Hz	DC, AC 1 Hz (3, 10 Hz SW)
Sensor excitation	0..12 V max. 44 mA	2...30 V bipolar, 0...24 unipolar, max. 0.2 A / 2 W	IEPE 4,8,12 mA	X	2...30 V bipolar, 0...24 V unipolar, max. 0.2 A / 2 W	IEPE 4 mA, 8 mA	IEPE 4, 8, 12 mA	0...20 V max. 0.8 W, 0..60 mA max 0.5 W
Bridge connection	Full, ½, ¼ 350 Ω, ¼ 120 Ω 3-wire	Full	X	X	Full	X	X	Full, ½, ¼ 350 Ω, ¼ 120 Ω, 3 or 4 wire
Programmable shunt	100 kΩ	X	X	X	X	X	X	59.88 kΩ, 175 kΩ bipolar
IEPE input	DSI-ACC	DSI-ACC	✓	X	DSI-ACC	✓	✓	DSI-ACC
Resistance	X	X	X	X	X	X	X	✓
Temperature (PTx)	DSI-RTD	DSI-RTD	X	X	DSI-RTD	X	X	✓
Thermocouple	DSI-TH	DSI-TH	X	X	DSI-TH	X	X	DSI-TH
Potentiometer	✓	X	X	X	X	X	X	✓
LVDT	DSI-LVDT	DSI-LVDT	X	X	DSI-LVDT	X	X	DSI-LVDT
Charge	DSI-CHG	DSI-CHG	X	X	DSI-CHG	X	1 k ...100 k pC	DSI-CHG
Current	"ext. shunt, DSI"	"ext. shunt, DSI"	ext. shunt	X	ext. shunt, DSI	ext. shunt	ext. shunt	ext. shunt, DSI
TEDS	✓	✓	✓	X	✓	✓	✓	✓
Isolation voltage	500 V in pairs	500 V in pairs	500 V in pairs	CAT II 1000 V	1000 V	1000 V	1000 V	1000 V
Power consumption per channel	1.3 W/pair	1.3 W/pair	1.3 W/pair	1 W/ch	1.2 W/ch	2 W/ch	1.2 W/ch	2 W/ch
Advanced functions	Low power, sensor and amplifier balance	High sensor power and multi range	Sensor error detection	High voltage, high bandwidth, high isolation	High sensor power and multi range	Sensor error detection, high speed	Sensor error detection in IEPE and CHG mode (injection)	High speed, supports all strain types and high input range

(1) Fanless operation only for BNC or Banana version (without excitation)