

ENJOY THE BEST OF TWO WORLDS. DATA ACQUISITION AND REAL TIME CONTROL FRONT-END IN ONE DEVICE.



IOLITE® INDUSTRIAL REAL TIME DATA ACQUISITION DEVICES



Scan for more information

- DUAL EtherCAT®: IOLITE uses two EtherCAT® buses in parallel. EtherCAT® primary bus is used for full speed buffered data acquisition to a computer. EtherCAT® secondary bus is mainly used for real-time data to any 3rd party control system.
- GREAT SIGNAL CONDITIONING: IOLITE features high-quality amplifiers which offer great signal quality and up to 20 kHz sampling rate.

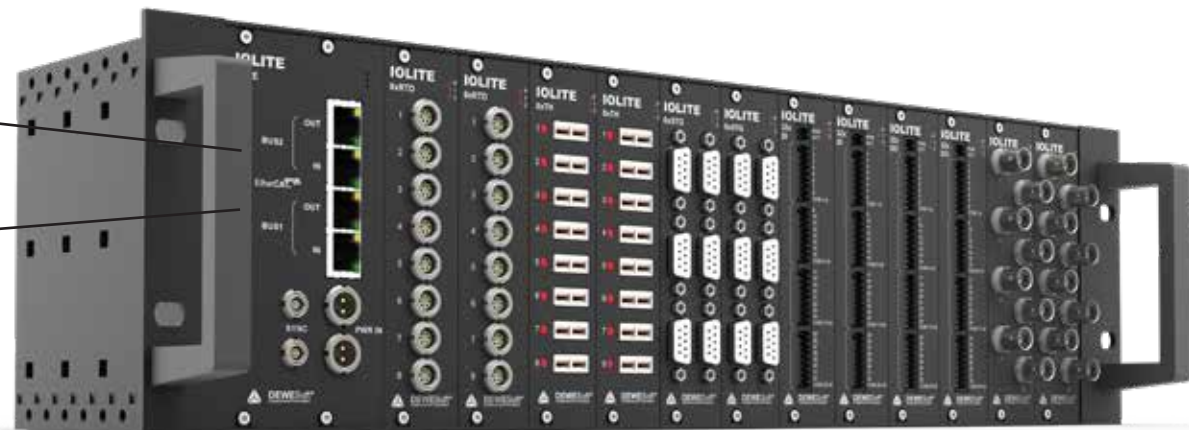
IOLITEr

19" rack version with up to twelve slots, dual EtherCAT® interface and redundant power supply

DAQ system with Dewesoft

Real time control system

*Clemessy Syclone
Beckhoff TwinCAT®
MATLAB® Simulink
Acontis*



- REDUNDANT POWER SUPPLY: Together with dual EtherCAT® interface provides maximum system reliability.
- MULTIPLE CHASSIS OPTION: IOLITE can be configured in the 19-inch cabinet compatible chassis or in more rugged SIRIUS-like compatible chassis.
- GREAT PRICE/PERFORMANCE: IOLITE offers great price/performance ratio and is suitable for test-bed and industrial applications.

IOLITEs

SIRIUS form chassis with up to eight slots, dual EtherCAT® interface and redundant power supply



Data acquisition and real-time control front-end system for industrial applications.

All-in-one solution for real-time control and feedback monitoring AQ

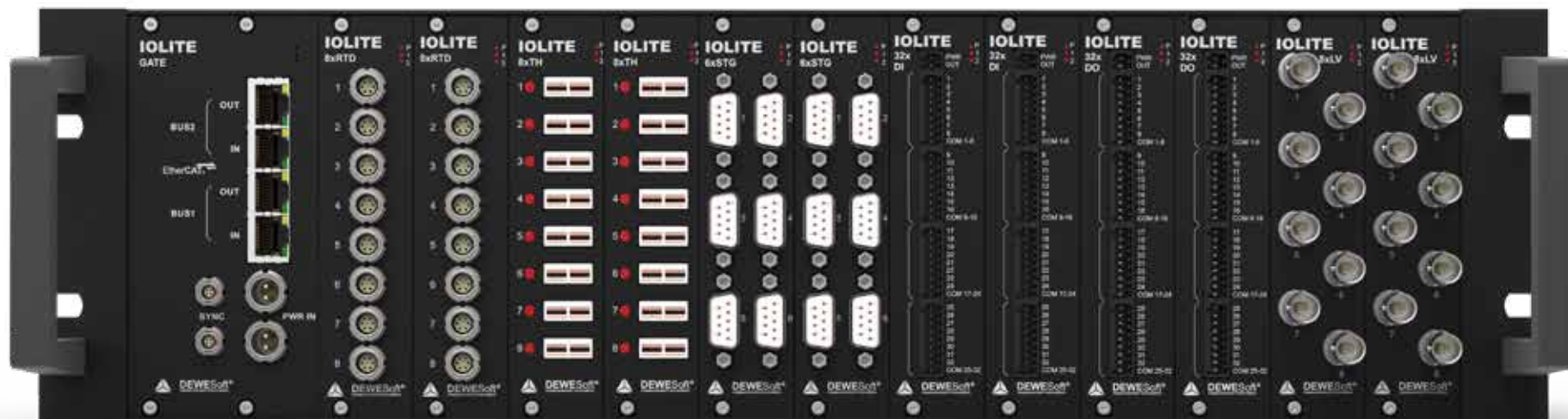
IOLITE® MODULES



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AMPLIFIERS

IOLITE 6xSTG	Universal 6 channel differential voltage, current and Full/Half/Quarter bridge input with DSUB9 connector. Compatible with DSI adapters for IEPE, CHG, 200V, RTD, TH measurements.	IOLITEi 32xDO	32 channel digital output module with screw terminal connections and integrated watchdog function.
IOLITE 8xLV	8 channel-channel isolated voltage inputs with BNC or screw terminal connectors	IOLITEi 8xRTD	8 channel-channel isolated PTx temperature, resistance and voltage with Lemo 0B connector.
IOLITEi 8xTH	8 channel-channel isolated universal thermocouple input module with mini TC connector. Accepts K, J, T, R, S, N, E, C, B thermocouple types.	IOLITE 16xAO	16 channel to GND isolated analog voltage output. Multiple output ranges with DSUB37 connector.
IOLITEi 32xDI	32 channel isolated digital input module with screw terminal connection.		



	32XDI	32XDO
Connectors	Terminal block	Terminal block
#ch per module	32	32
Data rate / channel	20 kS/sec	20 kS/sec
	Digital input	
Input low level	-1V ~ +1V	
Input high level	-48V ~ -3V, +3V ~ +48V	
Input high current @5V	UIN < 1 mA	
Input high current @30V	UIN < 1 mA	
Overvoltage protection	100 V continuous (250 V peak)	
Isolation voltage peak	1000 V channel/ground & channel/ channel	
	Digital Output	
Compatibility	Open collector	
Maximum sink current	1A	
Maximum switching voltage	50V	
Maximum update rate	depending on EtherCAT® master	
Isolation voltage peak	1000V channel to ground, no channel to channel isolation	
	General	
Advanced functions	Watchdog	

	8XLV
Connectors	BNC, screw terminal
#ch per module	8
Data rate / channel	20 kS/sec
Resolution	24 bit
Bandwidth	0.49 fs
Voltage ranges	±10V, ±1V
Input coupling	DC
Excitation	-
Bridge connection	-
Programmable shunt	-
IEPE input	-
Current	-
Temperature (PTx)	-
Thermocouple	-
Resistance	-
Potentiometer	-
LVDT	-
Charge	-
TEDS	-
Isolation voltage	1000V
Advanced functions	High voltage, high isolation

IOLITE[®] SPECS

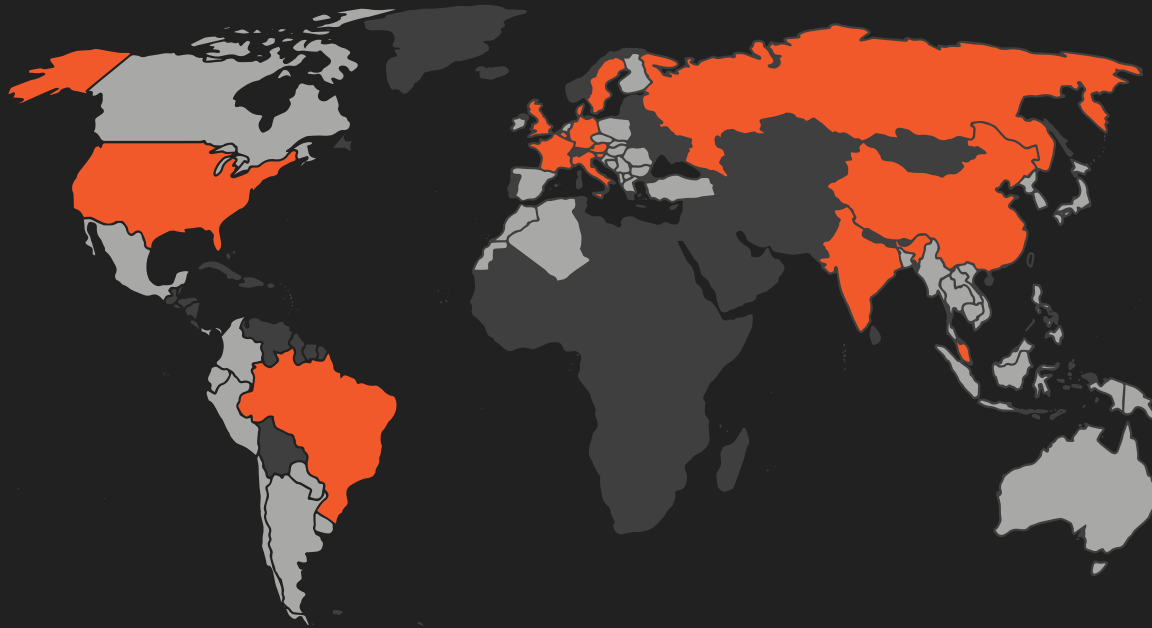
AMPLIFIERS SPECS

16XAO			
Connectors	DB37		
DAC type	24bit delta-sigma		
Output rate	Simultaneous 200kS/sec		
Number of channels	16		
Function	File replay, conditioned AI output, FGen (option)		
Specifications			
Full Scale	±10 Volt		
Analog out bandwidth	40 kHz		
Accuracy	±0.05% of reading ±0.003V		
Temperature drift	±50ppm/K of reading ± 100 μV/K		
Output configuration	Single Ended		
SNR @ 50 (200) kS/s output rate	95 dB (86 dB) @ 100 kHz Bandwidth		
Inter channel phase mismatch	0.1° * f _{out} [kHz] + 0.1°		
Output filter 1)	programmable: 50Hz to 100kHz, 2nd or 4th order, Bessel or Butterworth		
THD	< -90 dB @ 1 kHz, 10 V _{peak} - peak		
Output impedance	< 1 Ω		
Maximum output current	20 mA		
Maximum load	> 1000 Ω		
Output protection	Continuous short to ground		
Signal delay	100 S/s..50 kS/s	50kS/s..100kS/s	100kS/s..200kS/s
Signal conditioning mode	14 Samples + 50μs	19 Samples + 2μs	12 Samples + 35μs

8XTH	
Connectors	Thermocouple
#ch per module	8
Data rate / channel	100 S/sec
Resolution	24 bit
Bandwidth	0.5 fs
Voltage ranges	1V, 100mV
Input coupling	DC
Excitation	-
Bridge connection	-
Programmable shunt	-
IEPE input	-
Current	-
Temperature (PTx)	-
Thermocouple	K, J, T, R, S, N, E, C, U, B
Resistance	-
Potentiometer	-
LVDT	-
Charge	-
TEDS	-
Isolation voltage	1000 V
Advanced functions	High voltage, high isolation

6XSTG	
Connectors	DB9
#ch per module	6
Data rate / channel	20 kS/sec
Resolution	24 bit
Bandwidth	0.49 fs
Voltage ranges	±50 V, ±10 V, ±1V, ±100mV
Input coupling	DC, AC 1 Hz (3, 10 Hz SW)
Excitation	"0..12 V (bipolar), 0..24 V (unipolar), 0..44 mA, max. 0.4 W/ch"
Bridge connection	Full, ½, ¼ 350 Ω, ¼ 120 Ω 3 wire
Programmable shunt	100 kΩ
IEPE input	DSI-ACC
Current	20 mA (internal shunt), DSI-5A
Temperature (PTx)	DSI-RTD
Thermocouple	DSI-TH
Resistance	✓
Potentiometer	✓
LVDT	DSI-LVDT
Charge	DSI-CHG
TEDS	✓
Isolation voltage	Differential
Advanced functions	Supports all strain types and high input range

8XRTD	
Connectors	LEMO (L0B6f)
#ch per module	8
Data rate / channel	100 S/sec
Resolution	24 bit
Bandwidth	0.5 fs
Voltage ranges	1V, 100 mV
Input coupling	DC
Excitation	-
Bridge connection	-
Programmable shunt	-
IEPE input	-
Current	-
Temperature (PTx)	PT100, 200, 500, 1000, 2000
Thermocouple	-
Resistance	10kΩ (resistance)
Potentiometer	-
LVDT	-
Charge	-
TEDS	-
Isolation voltage	1000 V
Advanced functions	High voltage, high isolation; DC or AC (square) Current excitation



DEWESOFT® WORLDWIDE: SLOVENIA, Austria, Brasil, China, Denmark, France, Germany, Hong Kong, Italy, India, Russia, Singapore, Sweden, UK, USA, BELGIQUE and PARTNERS IN MORE THAN 50 COUNTRIES

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