

TECHNICAL REFERENCE MANUAL

IOLITE® V26-1



6.2.7. IOLITEi 4xHV

The 4-channel high voltage module with a range of up to 2 kV and CATII 1000V isolation is perfect for high voltage measurements up to 40 kS/s.



IOLITEir-4xHV



IOLITEi-4xHV

6.2.7.1. IOLITEi 4xHV: Specifications

Analog inputs		IOLITEi 4xHV			
Input type	Voltage				
Number of channels	4				
ADC Type	24-bit delta-sigma with anti-aliasing filter				
Sampling Rate IOLITE	Simultaneous 40 kS/s per channel (software-selectable)				
Sampling Rate OBSIDIAN	Simultaneous 20 kS/sec per channel (software-selectable)				
Anti-aliasing filter	-3 dB @ 150 kHz (Butterworth 3rd order)				
Voltage mode					
Ranges	±2000 V	±1000 V	±400 V	±200 V	
Input Accuracy	±0.03 % of reading ±0.02 % of range				
Typ. Dynamic Range @ 10 kS	-137 dB	-137 dB	-137 dB	- 132 dB	
Typ. Noise floor @ 10 kS	-113 dB	-112 dB	-109 dB	-104 dB	
Typ. THD (40 kS/s, -6 dBFS sine wave @ 1 kHz)	N/A	N/A	N/A	-103 dB	
Typ. CMR @ 20 kS/s	80 dB @ 50 Hz, 64 dB @ 400 Hz				
Gain Drift	Typical 10 ppm/K, max. 25 ppm/K				
Offset Drift	Typical 100 µV/K + 2 ppm of range/K, max 200 µV/K + 4 ppm of range/K				
Gain Linearity	< 0.02% (2000 V range), < 0.01% (other ranges)				
Input Coupling	DC				
Input Impedance	10 MΩ				
Isolation voltage	CAT II 1000 V				
Analog input performance					
Bandwidth (-3 dB)	0.433*fs (0.49*fs < 5 kS/s)				
Alias-free Bandwidth	DC to 0.499*fs (DC to 0.45*fs @ < 5 kS/s)				
Alias Rejection	-105 dB (all sample rates)				
Delay Through ADC	34 / fs				
Oversampling	128				
Additional Specifications					
Rack	IOLITEir-4xHV				
Input connector	4mm safety banana jack				
Power supply	9 - 48 V DC				
Power Consumption	Typ. 2.6 W (max. 3 W)				
Weight	310 g				
Slice Dimensions	128.4 x 115.4 x 30.1 mm				
Additional Specifications					
Modular	IOLITEi-4xHV				
Input connector	4mm safety banana jack				
Power supply	9 - 48 V DC				

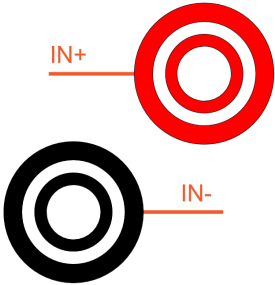
Power Consumption	Typ. 2.6 W (max. 3 W)
Weight	575 g
Slice Dimensions	136.75 x 127.2 x 35.0 mm

6.2.7.2. IOLITE 4xHV: Connectors

6.2.7.2.1. IOLITE 4xHV: Banana Connector: Pinout



IOLITEr-4xHV front



IOLITEr-4xHV connector: Pin-out

6.2.7.2.2. IOLITE 4xHV: Banana plug Connector: Wiring diagram

Voltage

