



Ballistic Analyzer BA06L



Technical parameters (basic configuration)

VOLTAGE INPUTS					
Type :	IM07-0-D2SA (Differential, Two Channels)		IM07-1-D2HG (Single Ended, Two Channels, High-Gain)		
Input Ranges :	Range [V] G=1		Range [V] G=1	Range [V] G=10	Range [V] G=100
	1		1	0.1	0.01
	2		2	0.2	0.02
	5		5	0.5	0.05
	10		10	1.0	0.10
Input Impedance [kOhm] :	10		10	10	10
Slew Rate, min. [V/us] :	10		10	10	10
Bandwidth, min [kHz] :	400		400	400	100
Nonlinearity, max. [%] of FS	0.1		0.1	0.1	0.2
Total Error, max. [%] of FS @ Tcal	1.0		1.0	1.0	2.0
Max. Input Voltage (DC or AC <1kHz) [V] :	50		50	50	50

BA06 TIME MEAS. ACCURACY	
Total Error, max. @ Tcal, [s] :	(0.01% of Time) + (2/SR)
SR = Sample Rate (20 kHz = 20 000, 5 MHz = 5 000 000, etc.) Time = measured value of time (START - STOP) Temperature coefficient < 0.001%/°C	

BA06 VELOCITY MEAS. ACCURACY (with WLS03 or WTS03)	
Total Error, max. @ Tcal, [%] :	0.05 + 200 / (Time × SR)
SR = Sample Rate (20 kHz = 20 000, 5 MHz = 5 000 000, etc.) Time = measured value of time (START - STOP) Temperature coefficient < 0.005%/°C	

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BA06L : CHARGE AMPLIFIER			
Input Ranges (FSR) :	Range [pC]	dQ/dt @ AZON max. [pC/s]	dQ/dt @ AZOFF max. [pC/s]
	2 600	80	2
	5 200	80	2
	10 600	80	2
	20 200	80	2
Nonlinearity, max. [%] of FS :	0,05		
Total Error, max. [%] of FS @ Tcal :	0,25	(AZON, 1MHz)	
TC, max. [%/°C] :	0,005		
Noise (Peak Value, Unfiltered) :	< ± 0.015 % of FS		
Capacity of Cable & Sensor :	unlimited	(guaranteed stability only)	
Automatic Drift Compensation :	yes		
High-Speed Discharge :	yes		
High-Speed Overload Recovery :	yes		
High-Speed Overload Recovery Time, max. [s] :	1		
Max. Input Voltage (DC or AC, DC+AC <1kHz) [V] :	±50		
Bandwidth (-3dB) : (Bessel 2nd order Low-Pass Filter)	Filter [kHz]	Bandwidth [kHz]	Rise/Fall Edge 10% to 90% [µs]
	10	10	<50
	20	20	<25
	40	40	<12
	OFF	>500	<1

CHARGE CALIBRATOR	
Type :	BA06PCAL
Output Voltage [V]:	±2.4000
Output Voltage Step [V]:	0.0001
Output Voltage Error, max. [% of FS]:	±0.050
Output Voltage Temperature Drift, max. [% of FS / °C]:	±0.002
Output Voltage Time Drift, typ. [% of FS / 1000 hours]:	±0.005
Output Voltage Noise, 0.1-10Hz, typ. [µVpp]:	5
Output Impedance, typ. [Ohm]:	100
<p>BA06PCAL is precision voltage-step source, which is converted by means of precision reference capacitor to charge.</p> <p>Recommended calibration capacitor : KISTLER 5371A10000 (10nF nom. ±0.1%)</p>	

BA06S COMMON PARAMETERS						
Input Channels :	Max. 8 Independent Channels (ADC+RAM), Full Synchronised					
Analogue to Digital Converter (ADC) :	14 bit (±13 bit), ±5V Input Range					
Memory (RAM)	512k x 16 bit SRAM					
	Max. 400 000 Points Accessible					
	Max. -100 000 Points (Pretrigger), +300 000 Points (Posttrigger)					
Sample Rate & Record Length :	Sample Rate :	Pretrigger [Points] :	Pretrigger [ms] :	Posttrigger [Points] :	Posttrigger [ms] :	BREAK Function :
	10.0 MHz (MSa/s)	- 100 000	- 10	+ 300 000	+ 30	No
	5.0 MHz (MSa/s)	- 100 000	- 20	+ 300 000	+ 60	No
	2.0 MHz (MSa/s)	- 100 000	- 50	+ 300 000	+ 150	No
	1.0 MHz (MSa/s)	- 100 000	- 100	+ 300 000	+ 300	No
	0.5 MHz (MSa/s)	- 100 000	- 200	+ 300 000	+ 600	No
	0.2 MHz (MSa/s)	- 100 000	- 500	+ 300 000	+ 1 500	No
	0.1 MHz (MSa/s)	- 100 000	- 1 000	+ 300 000	+ 3 000	No
	50.0 kHz (kSa/s)	- 100 000	- 2 000	+ 300 000	+ 6 000	Yes
	20.0 kHz (kSa/s)	- 100 000	- 5 000	+ 300 000	+ 15 000	Yes
	10.0 kHz (kSa/s)	- 100 000	- 10 000	+ 300 000	+ 30 000	Yes
	5.0 kHz (kSa/s)	- 50 000	- 10 000	+ 300 000	+ 60 000	Yes
	2.0 kHz (kSa/s)	- 20 000	- 10 000	+ 300 000	+ 150 000	Yes
	1.0 kHz (kSa/s)	- 10 000	- 10 000	+ 300 000	+ 300 000	Yes
	0.5 kHz (kSa/s)	- 5 000	- 10 000	+ 300 000	+ 600 000	Yes
	0.2 kHz (kSa/s)	- 2 000	- 10 000	+ 300 000	+ 1 500 000	Yes
0.1 kHz (kSa/s)	- 1 000	- 10 000	+ 300 000	+ 3 000 000	Yes	
Time Base Parameters :	X-tal Controlled, Error < ±100 ppm, Ageing < ±5 ppm/year, Shock Resistance < ±20 ppm, Temperature Coefficient < ±1 ppm/°C					
Time Measurement Error :	±(0.0001 * Time) + 2 / (Sample Rate) Time = Measured Value of Time in [s] (between START and STOP Cursor), Sample Rate in [Hz] Temperature Coefficient < ±10 ppm/°C					
Trigger :	Trigger Source :	Channel A (CH0) to Channel H (CH7)				
	Trigger Level :	0 to ±87.5 % of Full Scale in 12.5 % Increments				
	Trigger Edge :	Rising or Falling				
Power Supply :	Voltage :	nom. 12V DC (11 - 26V DC) - External 100 - 240V AC Power Adapter included				
	Consumption :	nom. 25W (max. 40W)				
Operating Conditions :	Temperature Range :	-20°C to +40°C				
	Relative Humidity :	Less than 90% (no condensation)				
	Sealing :	IP51				