Command 0 －All Clear (Reset)

{0}

Command 1 - Channel Setup

{ 1, Channel, Operation, Post-Processing, FFT Samples }

* Parameter value marked with asterisk are initial defaults.

Channel		Operation		Post-Processing		FFT Samples	
0	Clear all channels	-		-		-	
*1	Channel 1	0	Clear the selected channel.	*0	None	-	
2	Channel 2	*1	Auto-ID	1	d/dt		
3	Channel 3	2	Voltage (±10V)	2	d/dt, d2/dt2		
			(for Voltage probe)	10	FFT-Real	1 to 13	Samples used
		4	Resistance	11	FFT-Real, FFT-Imaginary	(*6)	2^n (2–8192)
		5	Period				
		6	Frequency				
		7	Temperature (Celsius)				
		8	Temperature (Fahrenheit)				
		9	Light				
		10	Voltage (0-5V)				
		11	Unavailable				
4	Unavailable						
5							
6							
10							
11							
12							
13	Built-in accelerometer channel (X axis)						
14	Built-in accelerometer channel (Y axis)						
15	Built-in accelerometer channel (Z axis)						

Command 3 - Sample and Trigger Setup

{ 3, Sampling Interval, Number of Samples, Record Time, Trigger Source, Trigger Threshold, Trigger Edge, Clock Source }

Sampling Interval		Number of Samples		Record Time		Trigger Source		Trigger Threshold	Trigger Edge		Clock Source	
0.00002	Number of seconds	1-120000	Number of samples	0	Off	0	None Start sampling immediately upon receipt of Command 3.	-	-		-	
- 16000		(*100)		*1	Absolute time recording	*1	Key Trigger Start measuring when Power-on/off button is pressed once.	Threshold	0	Falling edge	*0	Timer (Sampling interval)
(*0.1)				2	Relative time recording	2	CH1 Trigger	* Corrected values when	*1	Rising edge	10	Same as Trigger Source
						3	CH2 Trigger	Command 4	2	Rising and falling edge	(1-5)	
						4	CH3 Trigger	(*0.0)				
						5	CH1 Trigger					
						6	CH2 Trigger					
						7	CH3 Trigger					
						8	Unavailable					
						9						
						10						
						11						
						13	Built-in accelerometer channel (X axis)					
						14	Built-in accelerometer channel (Y axis)					
						15	Built-in accelerometer channel (Z axis)					
						20	Countdown Trigger	Count Number (sec) 1 - 10 (*10)				
						-1	Command 8					

Command 4 - Conversion Equation Setup

{ 4, Equation Number, Equation Type, Number Format, Constants }

Equation Number		Equation Type			Number Format		Constants
*0	Clear all equations.	-			-		-
1	Equation 1 (Channel 1)	*0	Clear equation selected by the equation number parameter.		*0	Standard	K0(, K1, ..., K9) *3,4
2	Equation 2 (Channel 2)	1	Polynomial	K0+K1X+K2X2+...+KnXn *1	10	Integer part	K–4(, ..., K–1, K0, K1, ..., K5) *3,4
3	Equation 3 (Channel 3)	2	Mixed polynomial	K–mX–m+...+K–1X–1+K0+K1X+.....+KnXn *2		(Decimal part cut off)	
		3	Power	K0X(K1)+K2			
		4	Modified power	K0K1(X)+K2			
		5	Logarithmic	K0+K1 In(X)			
		6	Modified logarithmic	K0+K1 In(1/X)			
		7	Exponential	K0 e(K1X)+K2			K0(, K1, K2, K3) *3,4
		8	Modified exponential	K0 e(K1/X)+K2			
		9	Geometric	K0 X(K1X)+K2			
		10	Modified geometric	K0 X(K1/X)+K2			
		11	Reciprocal logarithmic	[K0+K1 In(K2X)]–1+K3			
		12	Steinhart-Hart mode	[K0+K1 (In 1000X)+K2(In 1000X)3]–1+ K3			
13	Equation 4 (Built-in accelerometer channel (X axis))						
14	Equation 5 (Built-in accelerometer channel (Y axis))						
15	Equation 6 (Built-in accelerometer channel (Z axis))						
4	Unavailable						

*1 Polynomial: Input constants in sequence, from n = 0 to 9

*2 Mixed polynomial: Input constants in sequence from m = 4 to 1, and n = 0 to 5.

*3 Input of zero for constants can be skipped if all remaining constants are not used.

*4 Input 0 for constants that are not used.

• When the conversion result of the "conversion equation" selected by Command 4 causes an overflow, data-logger sends a result of zero (0) to the calculator.

Command 5 - Data Range Setup

{ 5, Channel Select, Data Select, Data Begin, Data End, Step, K (, FFT Samples) }

Channel Select		Data select		Data Begin	Data End	Step	K	FFT Samples
*0	Current send channel	*0	Raw data	1-120000 (*1)	1-120000 (*0: Last sample)	Data Range Steps –1: Data range number / K (*1)	*255	1-13 : Samples used 2^n (2-8192) (*6)
1	Channel 1	1	d/dt					
2	Channel 2	2	d2/dt2					
3	Channel 3	9	A/D conversion value					
4	Unavailable	10	FFT-Real					
5		11	FFT-Imaginary					
6	Recorded time data							
10	Unavailable							
13	Built-in accelerometer channel (X axis)							
14	Built-in accelerometer channel (Y axis)							
15	Built-in accelerometer channel (Z axis)							

Command 6 - System Setup

{ 6, Command, Auto Power Off Time }

Command	
0	Abort Sampling
1	Unavailable
2	
3	Turns sound off
4	Turns sound on
10	Unavailable

Command 7 - Status Check

{ 7 }

Command 8 - Sampling Start

{ 8 }

Command 10 - Sensor Warm-up

{ 10, Warm-up Time (sec) }

Warm-up Time (sec)	
0.1 - 360	Warm-up time (sec)
0	Auto
-1	None
-2	Normal warm-up

Command 11 - Buzzer and LED Operation Commands

{ 11, Output Select, Length, Period }

Output Select		Length	Period
*0	Buzzer	Operation Time (100μsec unit)	Sound period (100μsec unit)
1	Unavailable		
2	Ready LED		
3	Sampling LED		
4	Error LED		
5	Battery LED		

Command 12 - Data Send Sequence

{ 12, Send Sequence }

Send Sequence	
*0	Non-real Time Format
1	Real Time Format

Command 21 - Auto ID Information detect

{ 21 }