Open Workbench Select scope from the tree on the right



Click on the "CHANNELS" tab and then select "<User Defined>" from the pull down menu:

l	Chan	nels Time-base and Trigger	Service M	lotion M	lotion Tasks				
I	Id	Source	Color	Hide	Y Axis				
I	1	<user defined=""></user>	-		Default				
	2 3 4 5 6	Velocity loop error (VL.ERR) External feed-forward (VL.BUSFF) Velocity feedback (VL.FB) Velocity feedback filter (VL.FBFILTER) Unfiltered Velocity Feedback (VL.FBUNFILTERED) Velocity loop model (VL.MODEL) Velocity overall feed-forward (VL.FF)							
I		<user defined=""></user>	· ·		-				

Replace "<User Defined>" with 0x2000186e.s16".

Chan	nels Time-base and Trigger	Service Mo	tion 1
Id	Source	Color	Hide
1	0x2000186e.s16		
2	None		
3	None		
4	None		
5	None		
6	None		

Now click on the "TIMEBASE AND TRIGGER" tab. Set up as seen below:

Sampling		Trigger			
Recording time:	10000.0000 🕂	ms	Source:	Immediate	
Sampling Frequency:	500.000	Hz	Level:	0.000	
Number of samples:	5,000		Position:	1000.0000 💉 ms	
Sampling Interval:	2000	μs	Slope:	0 - Negative	

When your ready to plot the feedback, click on the "START RECORDING" button (on the right side). Your plot will record for 10 seconds.

Time [milliseconds]									
Channels Time-base an	d Trigger Service Motion 1	Motion Tasks Servo G	ains Observer All (Gains AR Filter	Save and Print Measu	ıre Cursors Displa	y Settings		
Sampling									
Recording time:	10000.0000 🛨 ms	Source: Immediat	•						Idle
Sampling Frequency:	500.000 Hz	Level:	0.000						Stop Motion
Number of samples:	5,000	Position: 1000.000	0 💉 ms						Enable
Sampling Interval:	2000 µs	Slope: 0 - Nega	ive 💌						Start Becording
More >>	Repeat Arming								Refresh

To save a plot to email me, click on the "SAVE and PRINT" tab. Save the plot as a "CVS" so I can use Excel to review it.

Channels Time-base and Trigger Service Motion Motion Tasks Servo Gains Observer All Gains AR Filter	Save and Print
Save Image As	
Save csv File	
Load csv File	
Print Image	
Page Setup	

The results are in counts. The signal is $(\sin^2 + \cos^2)/2$.

For a resolver:

// The voltage levels for triggering broken wire faults.

enum

{ resolverLowLevel = 6124, // 2.25 Volts RMS 35.7% less than 3.5 volts rms resolverHighLevel = 11778 // 4.375 Volts RMS 25% larger than 3.5 volts rms};

According to the fpga module specification the conversion factor is 2692 counts/Volt rms