TELEDYNE
INSTRUMENTS
Advanced Pollution Instrumentation
A Teledyne Technologies Company
9480 Carroll Park Drive, San Diego, CA 92121-5201
Phone (858) 657-9800 Fax: (858) 657-9818 Toll Free 1800 324-5190
E-mail: api-customerservice@teledyne.com http://www.teledyne-api.com

Service Note

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TEST CHANNEL SCALING IN API ANALYZERS

I. Scope:

This service note addresses scaling of the "Test Channel" voltage output on API equipment and analyzers.

II. Tools:

None

III. Procedure:

The Test Features are analog voltages generated by various transducers (flow meter, pressure sensor, temperature circuits, etc.). These voltages are in the range of 0-5 VDC. The Test Channel is normally a 0-5 Volt signal, which matches the analog input voltage from the transducers. The Test Channel voltage is scaled to the full- scale voltage as determined by the dip switch setting on the V/F card. The manual is written with a 5 VDC full-scale output in mind, as is the front panel. Thus, features such as PMT mV and DCPS are going to read 0-5 V on the front panel. These should match the Test Channel output, unless it has been scaled differently.

The output can be scaled as follows:
0-100 mV
0-1 V
0-5 V
0-10 V
To determine the actual Test Channel output, multiply the expected output, based on a 5 V full scale. The following table shows an example for DCPS. This would be typical for all analyzers.

Output Range	DCPS	Multiplier	Actual Output
0-100 mV	2500 mV	.02	50 mV
0-1 VDC	2500	.2	500 mV
0-5 VDC	2500	1.	2500 mV
0-10 VDC	2500	2	5000 mV

Should you have questions regarding this service note or any API equipment, please contact an API Customer Service representative.