

## NEW PRODUCT FOR AUTOMATION CONTROL REPRESENTATIVES VPAC/1276 On-Line Valve Leak Monitoring for Oil and Gas

The VPAC/1276 Intrinsically Safe Subsystem provides On-Line Valve Leak Monitoring and Quantification with 4-20ma outputs for Plant DCS.

- Instant On-line valve leak detection and quantification, essential for safety!!
- Can save Millions of \$'s in Losses to flare
- Intrinsically safe
- Direct connection to plant DCS via 4-20ma

The VPAC/1276, configured for valve leak detection, provides an on-line alternative to the portable VPAC/5131 for loss control in refineries, gas plant, and offshore.

The VPAC/5131 saves >\$1m per annum per unit in losses.\* Some advantages of the new on-line systems include:

- Instant response when a valve sticks or leaks, saving the losses that occur between manual surveys. Often a repeat valve operation or adjustment of the limits is all that is needed to re-seat a valve properly. This provides an essential safety function.
- Reduced need for personnel to conduct manual surveys on critical valves.

Based on more than 15 years experience with VPAC technology, the most cost-effective strategy for installing 1276-VPAC is to target the Emergency Blow-Down Valves (EBDV), hydrogen valves, and C2/C3 control valves leading to flare that are responsible for the majority of losses. Difficult to reach valves, i.e. those on top of towers that may never be surveyed, is another ideal use.

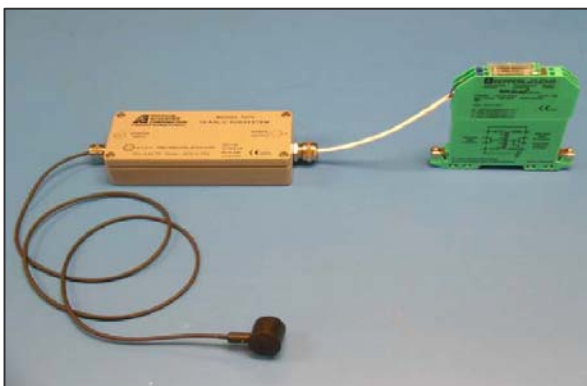
The VPAC/1276 provides a current loop output capable of driving several miles of cable, and is supplied with an intrinsically safe VPAC sensor and I.S. barrier, ready for direct connection to the plant DCS. When valves do not close properly or leak for other reasons, the operator knows immediately!!



Valve Leaks are serious safety hazardous as seen from the remains of Piper Alpha and they cost millions in product losses as well as environmental fines



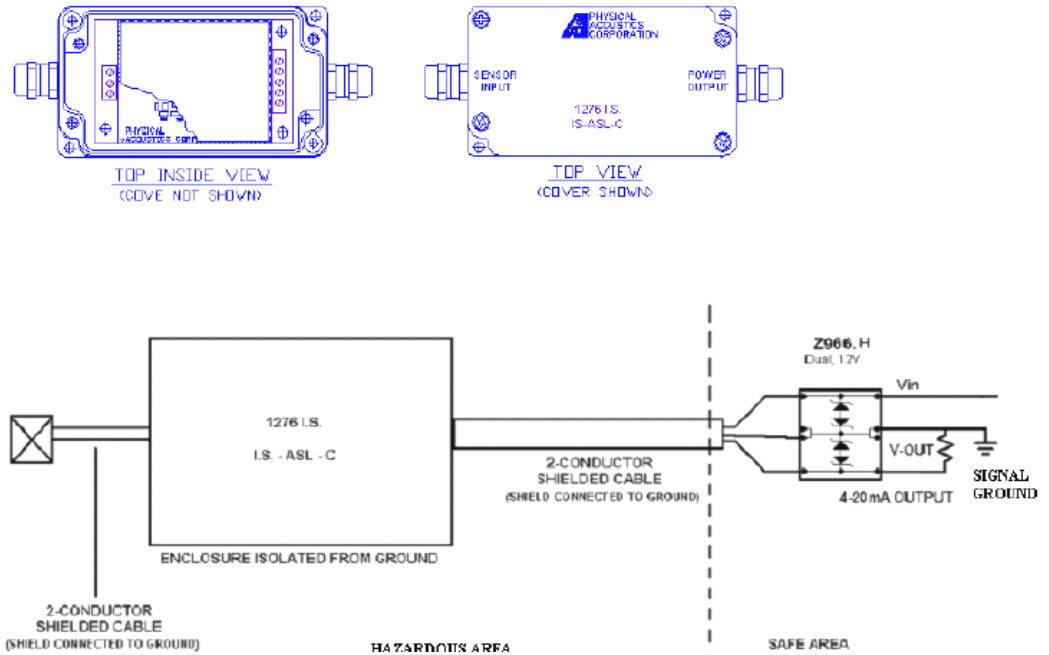
VPAC-1276 on-line system



New System for permanent installation VPAC-1276 (left) and portable VPAC-5131 method on right

# On-line VPAC for Valves

Block diagram of the setup when the 4-20mA output is used. The 4-20mA output is terminated with a 250-ohm resistor to SIGNAL ground after the barrier to give a 1-5 Volt output. The cable connecting the preamplifier and the barrier has to meet maximum entity parameters.



## Hardware Specifications

Size: (LxWxH)	5.92" x 2.50" x 1.38"
Weight:	0.78 lbs.
Power Consumption:	<0.25 watt
Noise:	1.8uV RMS RTI w/ sensor (40dB 100 - 400kHz)
Operating Temperature:	-22 - 158 F (30 - 75 C)
Power Requirements:	11.0 volts DC @ 20mA quiescent @ 35mA maximum
Power Consumption:	<0.40 watt
4-20mA Output Drive:	Corresponds to 0 - 100 dB AE 1-5 volts with 250-ohm termination
<b>Sensor:</b>	ISD9203B-V, 0.9" dia. X 0.8" high, temp. -30 to 125 C
<b>Barrier Specification:</b>	
Manufacturer:	Pepper1+Fuchs Model: Z966.H Max Vin: 11.7 Volts
Fuse current:	100mA Safe area connections: C max: 1.5uF
L max:	1.34mH I max: 163mA

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