SENSORTECH

VQ25
Combustible Gas Detector Elements

To be read in conjunction with "Introduction to Pellistor Gas Sensors" and Pellistor Application Notes 1, 2, 3, 4, 6 and 7.

INTRODUCTION

The VQ25 consists of two matched elements which are used for the detection of combustible gases in air. **They are not generally suitable for the detection of methane in air.**

The elements are designed especially for use in situations where they are liable to be exposed to high concentrations of flammable gas, up to 100%. The VQ25 remains substantially unchanged, even after long periods of exposure to high concentrations, although it is advisable to check the zero calibration after each such exposure.

The VQ25 is also useful for the detection of combustible vapours containing halogens, or when small amounts of non-flammable halogenated hydrocarbons are present.

There is no interference from water vapour or carbon dioxide unless the concentrations are high enough to affect the flammability of the gas mixture. Using the recommended bridge circuit below and the mounting arrangement shown on page 3, the minimum sensitivity is 25 mV/1% n-butane.

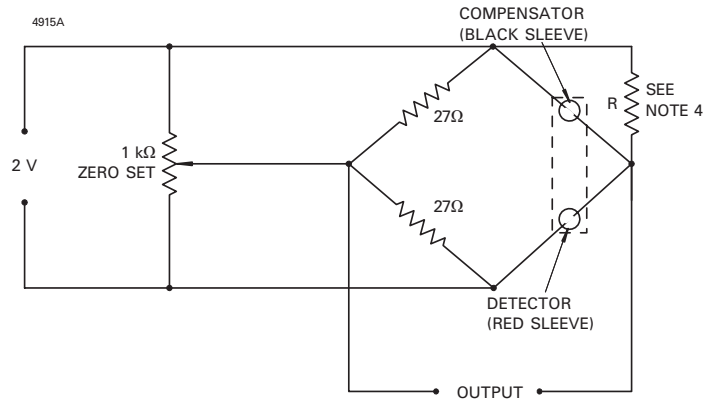
GENERAL DATA

Electrical

The information given below relates to the VQ25 operating in the recommended circuit shown.

Operation (see note 1)	continuous
Bridge supply	2.0 ± 0.1 V
Bridge power consumption	0.75 W max
Minimum sensitivity (see note 2)	25 mV/1% n-butane
Linearity	linear up to 1.5% n-butane
Response time to register 0.5% in a 1% concentration (see notes 2 and 3)	3 seconds

BRIDGE CIRCUIT



Mechanical

MARKING

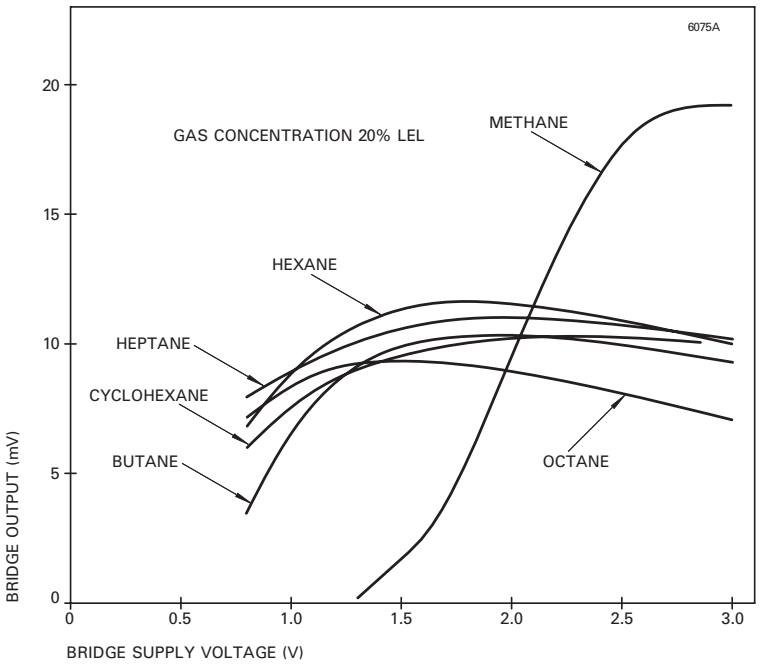
Each element is identified by a unique serial number written on the can of both the detector and compensator. The serial number is written in red on the detector and black on the compensator. In addition, the detector carries a red circular label on the base identifying the device type.

NOTES

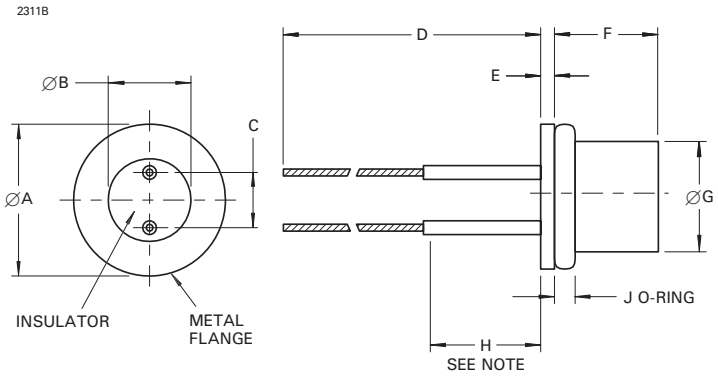
1. Operation may be under either direct flow or diffusion conditions in appropriate mountings (see page 3).
2. With open-circuit conditions at the bridge output.
3. The response time is a function of the type of mounting used.
4. The elements are supplied as a matched pair with a trimming resistor R of the correct value which is between 39 and 120 Ω. The trimming resistor is to be connected across the compensator element as shown below.

A1A-VQ25 Issue 5, March 2007

TYPICAL VARIATION OF BRIDGE OUTPUT WITH SUPPLY VOLTAGE



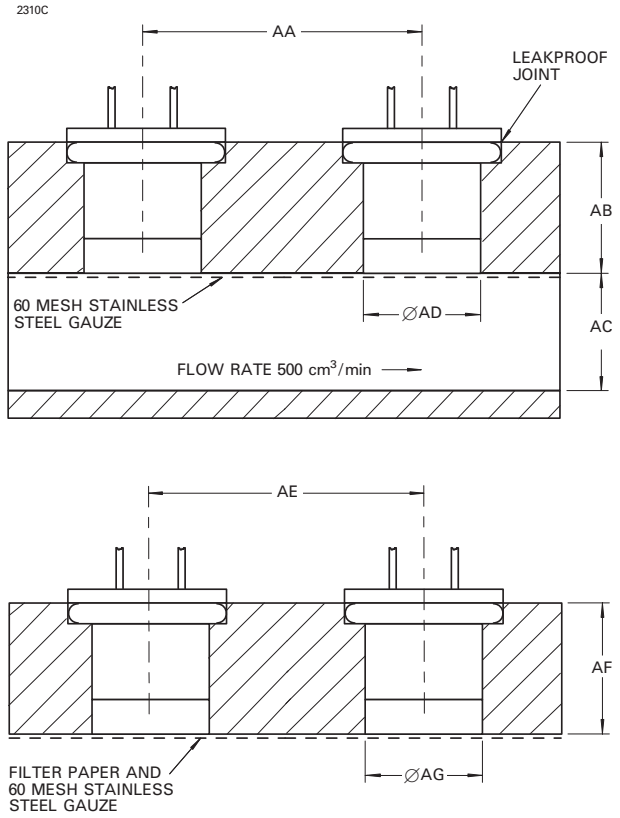
OUTLINE (All dimensions without limits are nominal)



Ref	Millimetres
A	11.05 ± 0.25
B	6.10 ± 0.25
C	3.56 ± 0.13
D	63.50 min
E	1.02
F	7.37 ± 0.51
G	8.20 max
H	9.53
J	1.52

Note No bends may be made in this length.

RECOMMENDED MOUNTING ARRANGEMENTS



Ref	Millimetres
AA	19.05 max
AB	9.53 ± 0.13
AC	8.33 ± 0.13
AD	8.20 min
AE	19.05 max
AF	9.53 ± 0.13
AG	8.20 min

Headquarter Switzerland:
Angst+Pfister Sensors and Power AG

Thurgauerstrasse 66
CH-8050 Zurich
Phone +41 44 877 35 00
sensorsandpower@angst-pfister.com

Office Germany:
Angst+Pfister Sensors and Power
Deutschland GmbH
Edisonstraße 16
D-85716 Unterschleißheim
Phone +49 89 374 288 87 0
sensorsandpower.de@angst-pfister.com

Angst+Pfister
Sensors and Power

We are here for you. Addresses and Contacts.

Sales Germany & Austria

Geometrical sensors
Other products

Kurt Stritzelberger
Phone +49 89 374 288 87 22
kurt.stritzelberger@angst-pfister.com

Pressure sensors
Other products

Gerhard Vetter
Phone +49 89 374 288 87 26
gerhard.vetter@angst-pfister.com

Gas sensors and modules

Peter Felder
Phone +41 44 877 35 05
peter.felder@angst-pfister.com

Sales Switzerland & Liechtenstein

Postcode 3000 – 9999

Basil Frei
Phone +41 44 877 35 18
basil.frei@angst-pfister.com

Postcode 1000 – 2999

Christian Mohrenstecher
Phone +41 76 444 57 93
christian.mohrenstecher@angst-pfister.com

Sales International Key Accounts

Peter Felder
Phone +41 44 877 35 05
peter.felder@angst-pfister.com

Sales Other Countries / Product Management

Pressure Sensors
Load Cells

Philipp Kistler
Phone +41 44 877 35 03
philipp.kistler@angst-pfister.com

Power supplies

Sebastiano Leggio
Phone +41 44 877 35 06
sebastiano.leggio@angst-pfister.com

Drive technology
CH Postcode 5000 – 9999 / DE

Roman Homa
Phone +41 76 444 00 86
roman.homa@angst-pfister.com

Gas sensors
Gas sensor modules

Dr. Thomas Clausen
Phone +49 89 374 288 87 24
thomas.clausen@angst-pfister.com

Linear position sensors
Angle sensors

Eric Letsch
Phone +41 44 877 35 14
eric.letsch@angst-pfister.com

Drive technology
CH Postcode 1000 – 4999 / AT / IT / FR

Christian Mohrenstecher
Phone +41 76 444 57 93
christian.mohrenstecher@angst-pfister.com

Flow / Level / Medical products

Dr. Adriano Pittarelli
Phone +49 89 374 288 87 67
adriano.pittarelli@angst-pfister.com

Accelerometers
Sensor elements

Christoph Kleye
Phone +49 89 374 288 87 61
christoph.kleye@angst-pfister.com

Harald Thomas
Phone +49 89 374 288 87 23
harald.thomas@angst-pfister.com