



DC – DC CONVERTER

MODEL VE102 (CHF22)

The DC to DC Converter is used in conjunction with the CH4 detector to make the CH4 detector and the detector cable “Intrinsic Safe”.

DESCRIPTION

- Designed as an interface to the Safdy CH4 detector.
- Originally designed for the South African mining industry, but can also be used for Industrial applications.
- Standard output of 4 to 20mA.
- Alternative output of 0 to 1mA.

TEST CERTIFICATES AND APPROVALS

- Intrinsically safe for use in coalmines - SABS approved for explosion proof.

CONSTRUCTION

- Main pcb and interface pcb enclosed inside a Phoenix housing for Eurorail.

METHOD OF OPERATION

- The DC to DC converter was developed to provide intrinsic safe conditions to the detector equipment to be installed in hazardous areas.
- The DC to DC converter acts firstly as an I/S power supply to the detector. The positive as well as the negative supply lines are I/S protected.
- Secondly it provides I/S isolation for the 4 to 20mA analogue feedback line.
- I/S isolation is provided and replaces the need for a Zener Barrier.

TECHNICAL DATA

Input Voltage	Min 14Vdc – Max 32Vdc
Output specs	17-20Vdc @ 130mA
Analogue Isolation	4-20mA
Load	Less than C=17uF & L=20mH
Supply Isolation	3kVA & 50pF Capacitance
Housing	Phoenix plastic for Euro-rail
Explosion protection	[Ex ia] I
Dimension	80 x 40 x 75 mm
Weight	300gm