



# 103

## Chatterbox Intrinsically Safe Opto-Isolation Unit



The Chatterbox-e unit provides the necessary safety isolation between equipment generating pulses in the hazardous area and non intrinsically safe equipment located in the safe area.

Opto-isolators provide four isolated volt-free contacts from low frequency pulses generated by Gas Meters or Volume Correctors installed in the hazardous area.

Chatterbox-e operates from a self contained power supply lasting in excess of 10 years and is therefore suitable for installation in remote and difficult environments without the need for an external power supply.

The unit comprises of four independent circuits that transform high impedance pulses, or volt-free contact closures into isolated volt-free contact closures. One input can be connected to up to 4 isolated output circuits by using internal switches.

#### Inputs

Each input is designed to interface with the current 'sinking' pulse outputs from the ROOTS® Micro Corrector. The input will also interface directly with a volt-free contact closure, i.e., directly to a gas meter. Contact de-bouncing as standard.

#### Outputs

Each output is a 220ms pulse, current sinking output capable of accepting up to 20V, 130mA.

#### **Enclosure**

Weatherproof aluminium enclosure IP66 (equivalent to: NEMA 4x) rated suitable for wall or panel mounting.

Size: 160mm Wide x 120mm High over glands x 62mm Deep

### **Intrinsic Safety**

BASEEFA 05 ATEX 0429 II(1) G [EEx ia] IIC.

The Chatterbox-e **must** be installed in the safe area and is suitable for connection to equipment in hazardous areas Zone 0, 1 or 2.

#### **Power Supply**

Two 1/2AA Lithium cells giving an estimated life in excess of 10 years based on all four channels operating and an input frequency of <1 Hz from a volume converter.

#### **Features & Benefits**

- 10 Year battery life from standard cells; two 1/2 AA lithium
- 4 Channels as standard
- Channel selections via switches
- Two output glands as standard promotes ease of installation when more than one system is to be connected to the Chatterbox-e
- ATEX Certified Intrinsic Safety
- Weatherproof cast aluminium housing rated to IP66 (equivalent to NEMA 4x) offers flexibility of installation
- Compliance to UK Institute of Gas Engineers.
  Editions 1 & 2 "Electrical Connections to Gas Meters" and USA Article 500 of the National Electrical Code, ANSI/NFPA-70 (NEC)"
- Opto-Isolation increases reliability and reduces power consumption
- Simple mechanical and electrical installation
- Single or multiple outputs from single input
- No Corrector or Meter setting required. As soon as the Chatterbox-e receives a pulse, a 220ms isolated output pulse is generated