

## Application Note for 4 Channel Level or Pressure Alarm System with D1053S and PSD1001 Modules

### Application Note for 4 Channel Level or Pressure Alarm System:

This application note is intended to be read and used in conjunction with the relevant data and installation sheet of Series D1000 modules type D1053S (DTS0041, ISM0016) and PSD1001 (DTS0145, ISM0023).

### Application

In marine tanks, designed for chemical or petrochemical products, it is important to monitor continuously the level, or the pressure, of product's containers.

GM International has designed a 4 channel Alarm System, very simple, compact and cost effective, to alarm HIGH and HIGH-HIGH, for Level and/or Pressure, using 2 standard modules D1000 series:

**One** PSD1001 Four channel Intrinsically Safe Power Supply for 4 Level or Pressure Transmitters.

**Four** D1053S Double Trip Amplifier Converter Intrinsically Safe.

The 4-20 mA signal from the transmitter is fed to the alarm trip module D1053S which has the alarm "A" set for **High**, alarm "B" set for "**wires break**". This alarm is software activated for one of following conditions:

- 1) input open circuit.
- 2) input short circuit.
- 3) input open or short circuit.

In these conditions the system provides Alarm Relay NE, SPST contacts, for High, or High-High, of input signal (level or pressure transmitters) and an independent Alarm Relay NE, SPST contact, when the integrity of input circuit is effected by a fault condition.

Units provide 3 LED information:

- presence of power supply voltage (green).
- alarm, or normal condition on input variable (red).
- input open, or short circuit conditions (Red).

The following diagrams indicate how to connect the units.

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### 4 CHANNEL LEVEL OR PRESSURE ALARM SYSTEM

