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### 12.1 WARRANTY

Zellweger Analytics operates a standard warranty statement.

## 12.2 CERTIFICATION APPROVALS

Europe	CENELEC (ATEX) BAS 01 ATEX 1216 Ex 112G EEX ia d IIC T4 (-20°C to +55°C)
North America	UL Ex ia Class 1 Div 1 Group ABCD T4 T <sub>amb</sub> (-4°F to +131°F). See Control Drawing for Safelink Connection
Australia	TestSafe AUS Ex 02.3809X Ex ia s ZONE 0 I/IIB T4 (-20°C to +55°C)
DMT Performance	DMT 02 ATEX G 001 PFG Nr. 41300502
Canada	CSA Ex ia Class 1 Div 1 Group ABCD T4 T <sub>amb</sub> (-20°C to +55°C).
Brazil	Inmetro BR-Ex ia d IIC T4 T <sub>amb</sub> (-20°C to +55°C).
MDA (Australia)	AUS MDA GD 5053

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### 12.2.1 DMT Test Report

The type tested measuring ranges are given below.

Measured Gas	Range	
Oxygen	0.0 to 25.0%v/v	
Methane	0 to 100%LEL	
Propane	0 to 100%LEL	
Carbon Monoxide	3 to 500ppm	
Hydrogen Sulfide	0.4 to 50.0ppm	
Carbon Dioxide	0.2 to 3.0 %v/v	

Zero Variation (CO,  $H_2S$  and  $CO_2$  Channels)

Measured Gas	Zero Variation
Carbon Monoxide	6ppm
Hydrogen Sulfide	2ppm
Carbon Dioxide	0.2 %v/v

Long Term Drift CO, H<sub>2</sub>S and CO<sub>2</sub> (Channels after 3 months)

Measured Gas	Zero Drift	Span Drift
Carbon Monoxide	1ppm	6% (relative)
Hydrogen Sulfide	2ppm	2% (relative)
Carbon Dioxide	0.1 %v/v	20% (relative)

### **DMT/EXAM TEST REPORT**

#### PFG-No. 41300502/20.05.2003-14.11.2003

#### 5. Special Conditions for Safe Use

 The portable gas detector Impact / Impact Pro by Zellweger Analytics Ltd. is, based on the information and test results contained in the test reports PFG-No. 41300502P and PFG-No. 41300502P NI suitable for the measurement of Carbon Monoxide up to 500 ppm CO, Hydrogen Sulphide

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up to 50 ppm H<sub>2</sub>S, Carbon Dioxide up to 3 % CO<sub>2</sub> and Oxygen up to 25 % (based on the use for monitoring the atmosphere of oxygen deficiency and enrichment), if it's properties and design conform to the documents listed in the test reports PFG-No. 41300502P and PFG-No. 41300502P NI if it is used accordingly and if the following conditions are met:

- The operating (manual) presented and approved by EXAM is to be followed in detail. It is essential that the instructions for correct use are followed.
- Prior to operating the gas detector it has to be checked whether the response times are sufficiently low, so that alarms triggered by the apparatus are generated as fast as possible so that, critical situations can be avoided. If necessary, the alarm levels need to be set well below the safety related limits.
- A calibration for the instrument with a measuring range of 0 - 3 % CO<sub>2</sub> must only be performed at temperatures > 10 °C.
- A permanent displayed value of -0.0 in the measuring range of 0 - 3 % CO<sub>2</sub> requires an immediate calibration of the instrument.
- The first alarm level (A1) in the measuring range of 0 3 % CO<sub>2</sub> must not exceed 0.5 % CO<sub>2</sub>.
- For the measuring range 0 3 % CO<sub>2</sub> the STEL and LTEL time weighted average values may exceed the true values due to the behaviour of the sensor.
- It should be noted that sampling of oxygen deficient gases using the integrated pump could result in values measured/ displayed being slightly higher than permitted.
- When extracting gases with the integrated pump in combination with additional probes the increased response time of the sensors needs to be taken into consideration.

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- The calibration needs to be checked, especially that of the H2S channel, if the instrument was subjected to excessive mechanical shock (e.g. dropping the instrument from normal operational height).
- The confidence beep must be activated.
- The BG information BGI 518 and BGI 836 (4, 5) need to be read and understood.
- The instruments shall be labelled with a permanent label, including information regarding the manufacturer, type and serial no. and the inscription:

#### PFG-No. 41300502'

- Additional marking instructions, according to EU Directive 94/9/EG in particular, are unaffected. The manufacturer confirms with this type label that the instrument supplied contains the documented features and technical characteristics as described in this report. Each instrument without such a label does not conform to this report.
- An entire copy of this report and the test reports PFG-No. 41300502 and PFG-No. 41300502P NI will be made available upon the request of the user.

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### 12.2.2 Safelink Connection Drawing





- 2. Safelink cable assembly is connected to 'Data Connector' on base of impact portable and retained via 2 position screws into baseplate.
- 3. Cable is 2 connector with overall foil/braid shield.

Data Connector	Data Connector	
PIN 12 (CAN H)	PIN 12 (CAN H)	
PIN 13 (CAN L)	PIN 13 (CAN L)	
PIN 14 (DGND)	PIN 14 (DGND)	

PIN 14 Connects to braid/screen

4. Alternatively, interconnection may be made between impact units located in hazardous and non hazardous areas.