(1) EU-TYPE EXAMINATION CERTIFICATE

(2) Equipment and Protective Systems intended for use in Potentially Explosive Atmosphere - **Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number

TÜV 18 ATEX 8225 X

Issue: 00

(4) Equipment: **Meters**

(5) Manufacturer: **Compac Industries Ltd**
(6) Address: **52 Walls Road, Penrose Auckland**
New Zealand

(7) This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The TÜV Rheinland Zertifizierungsstelle für Explosionsschutz of TÜV Rheinland Industrie Service GmbH, Notified Body No. 0035 in accordance with Article 21 of the Council Directive 2014/34/EU of 26th February 2014, certifies this product which has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmosphere, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report 557/Ex8225.00/18

(9) Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to:

EN 60079-0:2012/A11:2013 **EN 60079-11:2012**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and specification for construction of the equipment or protective system. It does not cover the process for actual manufacture or supply of the equipment or protective system, for which further requirements of the directive are applicable.

(12) The marking of the equipment shall include the following:

II 2 G **Ex ib IIA T4 (-40°C ≤ Ta ≤ +70°C)**

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz Cologne, 2018-06-29

Dipl.-Ing. Klauspeter Gratzl

This EU-Type Examination Certificate without signature and stamp shall not be valid.
This EU-Type Examination Certificate may be circulated only without alteration. Extracts or alterations are subject to approval by the TÜV Rheinland Industrie Service GmbH TÜV Rheinland Group Am Grauen Stein 51105 Köln
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(13) Annex

(14) # EU Type Examination Certificate

TÜV 18 ATEX 8225 X Issue: 00

(15) Description of equipment

15.1 Equipment and type:

Meters COM50, COM125, COM250 and C5000 Encoder

15.2 Description / Details of Change

General product information

The Compac Meters COM50, COM125, COM250 and C5000 Encoder are metallic enclosures with an internal encoder board. The COM50 contains a CI180 encoder board using Hall effect sensors on the positive displacement rotary vane shaft. The COM125 and COM250 meters use similar Hall effect sensors mounted on a CI163 encoder board. The C5000 Encoder uses a CI111 Encoder board using optical sensors to sense the position of the rotating shaft.

The encoder board components are mounted on a single printed circuit board with semiconductor, resistors, capacitors. A two metre cable is connected to each of the boards and is terminated with a six pin connector for connection to unspecified associated intrinsically safe circuits. The cable provides a 6 V intrinsically safe supply to the board and returns signals from each of the sensors, or via the microcontroller and buffer on the CI180 board. The CI180 is a smart encoder and also has an onboard microcontroller, LDO regulator, supervisory IC and Schmitt trigger buffer.

Technical Data

Nominal input voltage 5V

Tamb -40°C ≤ Ta ≤ +70°C

(16) Test-Report No. 557 / Ex 8225.00/18

(17) Special Conditions for safe use

1. The following parameters must be observed when connecting in an intrinsically safe circuit:

C5000 Encoder with CI111 board (Pins 2, 4 and 6 wrt pin 1)	
Ui	6 V
Ii	235 mA
Pi	1.1 W
Li	50 µH
Ci	135 nF

COM50 Meter with CI180 board (Pins 2, 4 and 6 wrt pin 1)	
Ui	6 V
Ii	235 mA
Pi	1.1 W
Li	50 µH
Ci	6.2 µF

COM125/COM250 Meters with CI163 board (Pins 2, 4 and 6 wrt pin 1)	
Ui	6 V
Ii	235 mA
Pi	1.1 W
Li	50 µH
Ci	163 nF

Note that while the Encoder Boards are provided with a 2 metre cable, the parameters above consider cable lengths to the maximum extended length of 50 metres.

(18) Basic Safety and Health Requirements

Covered by afore mentioned standard

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz Cologne, 2018-06-29

Dipl.-Ing. Klauspeter Graffi

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