IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx ExTC 17.0009X Issue No: 0

Status: **Current**

Date of Issue: **2018-06-13**

Applicant: **Compac Industries Ltd**
52 Walls Road
Penrose
Auckland 1061
New Zealand

Equipment: **Compac COM50, COM125 and COM250 Meters and C5000 Encoder**

Optional accessory:

Type of Protection: **Intrinsic Safety 'ib'**

Marking:

Ex ib IIA T4 Gb

-40°C ≤ Tamb ≤ +70°C

Approved for issue on behalf of the IECEx Certification Body: David Price

Position: Certification Authority

Signature:
(for printed version)

Date: 2018-06-13

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

Ex Testing and Certification Pty Ltd
1/30 Kennington Drive
Tomago NSW 2322
Australia

TESTING & CERTIFICATION

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Manufacturer: **Compac Industries Ltd**
52 Walls Road
Penrose
Auckland 1061
New Zealand

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

AU/EXTC/ExTR17.0012/00

Quality Assessment Report:

AU/TSA/QAR08.0008/06

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

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.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to Annexe for details.

Annex:

IECEx ExTC 17.0009X-0 Annex.pdf

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Annexe

Annexe for Certificate No.:	IECEx ExTC 17.0009X	Issue No.:	0

Description:

Refer to certificate.

Conditions of Certification pertaining to Issue 0 of this Certificate:

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.

Drawing list pertaining to Issue 0 of this Certificate:

Manufacturer's Documents				
Title:	Drawing No.:	Pages	Rev. Level:	Date:
Installation & Safety Data for COM Meters and Encoder	AP398	3	A	2018-06-08
CI111				

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Annexe

Annexe for Certificate No.:	IECEx ExTC 17.0009X	Issue No.:	0

Title:	Drawing No.:	Pages	Rev. Level:	Date:
3 CHANNEL ENCODER CI111 ISSUE B (Circuit Schematic)	CI111	1 of 4	B1	2017-12-11
ENCODER (Top Overlay)	CI111	2 of 4	B	2003-05-08
ENCODER (Top Layer)	CI111	3 of 4	B	2003-05-08
ENCODER (Bottom Layer)	CI111	4 of 4	B	2003-05-08
CP-ENC-3CH (BOM)	CI111P	1	B2	2017-12-12
Rotary Encoder Assembly	SW107	Sht 8	C	2014-11-10
C5000 Control Unit Labels Optical Encoder	AP392	1 of 3	B	2018-06-08
CI163				
COM 125/250 ENCODER (Circuit Schematic)	CI163	1	C2	2017-12-11
COM250 Encoder PCB (Top Overlay)	CI163	2 of 4	C	2003-01-20
COM250 Encoder PCB (Top Layer)	CI163	3 of 4	C	2003-01-20
COM250 Encoder PCB (Bottom Overlay)	CI163	4 of 4	C	2003-01-20
CP-ENC-CI163 (BOM)	CI163P	1	C3	2017-12-12
CI180				
COM 50 SMART ENCODER (Circuit Schematic)	CI180	1 of 4	D1	2017-12-12
COM50 Smart Encoder PCB (Top Overlay)	CI180	2 of 4	D	2010-06-28
COM50 Smart Encoder PCB (Top Layer)	CI180	3 of 4	D	2010-06-28
COM50 Smart Encoder PCB (Bottom Layer)	CI180	4 of 4	D	2010-06-28
CP-ENC-CI180EW (BOM)	CI180P	1	D1	2017-12-12
Common Drawings for CI163 and CI180				

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Annexe

Annexe for Certificate No.:	IECEx ExTC 17.0009X	Issue No.:	0

Title:	Drawing No.:	Pages	Rev. Level:	Date:
COM-Meter Encoder Assembly	SW052	Sht 07	D	2013-10-22
C5000 Control Unit Labels COM Series Meters	AP392	2 of 3	B	2018-06-08
C5000 Control Unit Labels COM Series Meters with gland	AP392	3 of 3	B	2018-06-08