

1 EU - TYPE EXAMINATION CERTIFICATE

2 Product or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU – Annex III

3 EU - Type Examination Certificate No.: **EMT16ATEX0023X**

4 Product: **Control Valve Positioner- IDP 7000 series**

5 Manufacturer: **Valtek Sulamericana Indústria e Comércio Ltda.**

6 Address: **Rua Goiás, 345 - Diadema - 09941-690 - SP - Brazil**

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

8 Element Materials Technology, Notified Body number 0891, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential report **TRA-014006-33-02A**.

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012/A11:2013

EN 60079-1:2014

EN 60079-18:2014


EN 60079-31:2014

Except in respect of those requirements listed at section 18 of the schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to specific conditions of use specified in the schedule to this certificate.

11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

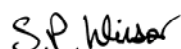
12 The marking of this product shall include the following:

 **II 2 G D**

Ex db mb IIC T6 Gb Ta = -40°C to +75°C

Ex tb IIIC T80°C Db Ta = -40°C to +75°C

This certificate and its schedules may only be reproduced in its entirety and without change. This certificate is issued in accordance with the Element Materials Technology Ex Certification Scheme.



S P Winsor, Certification Manager

Issue date: 2017-08-25

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CSF355 4.0

13 SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

14 EMT16ATEX0023X

15 Description of Product

The Chronos IDP7000 Series is a microprocessor-controlled control valve positioner family. The IDP7600 is based on the 4-20 mA signal and the HART protocol. The family also includes the IDP7800 based on the Foundation Fieldbus digital protocol and the IDP7900 based on Profibus PA digital protocol.

On the IDP7600 models, the setpoint is derived from an analog 4-20 mA input. The positioner implements the HART protocol which allows digital signals to be superimposed on top of the analog current loop. This facilitates two-way, digital communication with HART capable systems and devices. The 4-20 mA input provides the positioner with power, analog signalling and digital communication on the same pair of wires. The 4-20 mA signal is converted to a digital signal within the positioner.

The IDP7000 series can be configured for use with various types of single or double acting pneumatic actuators. Configuration can be performed easily via the front panel of the device which contains a backlit LCD and four push-buttons. The push-buttons can be accessed without removing the front cover and allow for comfortable navigation of the menu-driven local interface. In addition, the positioner can be configured remotely with HART, Fieldbus or Profibus interfaces, depending on the model. The main enclosure is constructed from aluminium or 316 stainless steel, approximate dimensions 214 mm x 132 mm x 116 mm.

See Annex A of this certificate for Model type break down.

16 Test report No. (associated with this certificate issue): TRA-014006-33-02A.

17 Specific Conditions of Use

1. The flameproof joints are not intended to be repaired, contact the original manufacturer for information on the dimensions of the flameproof joints.
2. The equipment shall be cleaned regularly such that a build up of dust not greater than 5 mm is allowed to accumulate on the enclosure.

18 Essential Health and Safety Requirements (Directive Annex II)

In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

| <u>Clause</u> | <u>Subject</u> |
|---------------|----------------|
| None | None |

19 Drawings and Documents

The list of controlled technical documentation is given in Appendix A to this schedule.

20 Routine Tests

1. The cemented joint of the enclosure cover is to be routinely overpressure tested at a pressure of 10.68 bar for 10 seconds. Blotting paper or an equivalent suitable medium is to be used to detect any leakage through the cemented joint. The test is considered to be satisfactory if no leakage occurs.
2. The encapsulated coil assembly shall be subjected to a visual inspection to ensure there is no damage such as cracks, exposure of encapsulated parts, flaking, shrinkage, swelling, decomposition, failure of adhesion or softening.

21 Specific Conditions for Manufacture

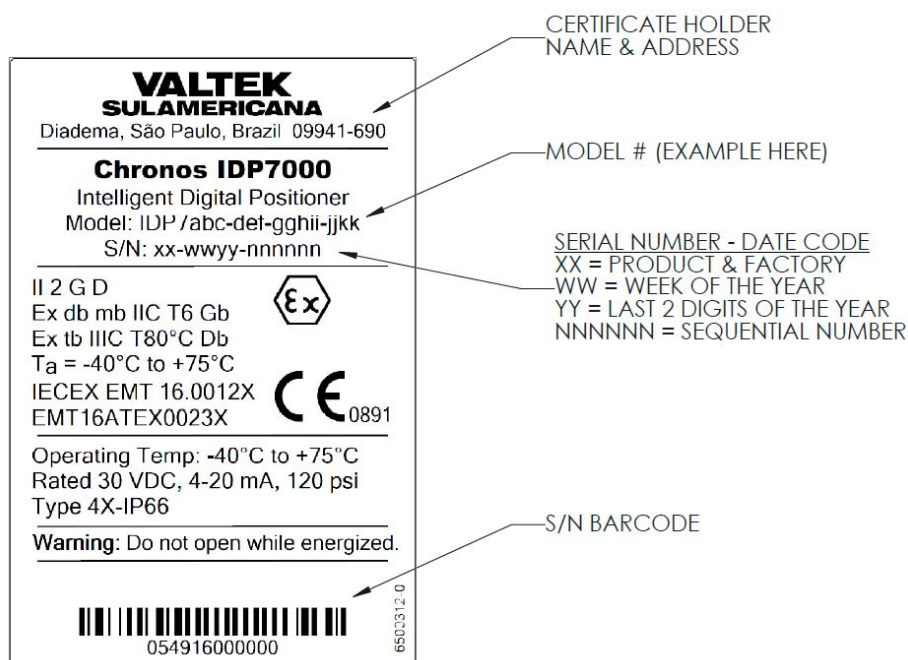
None.

22 Photographs



CONTINUATION OF SCHEDULE TO CERTIFICATE EMT16ATEX0023X

23 Details of Markings



24 Details of Variations to this Certificate

- None

25 Notes to CE marking

In respect of CE Marking, Element Materials Technology accepts no responsibility for the compliance of the product against all applicable Directives in all applications.

26 Notes to this certificate

Element Materials Technology certification reference: **TRA-014006-33-00.**

Throughout this certificate, the date format yyyy-mm-dd (year-month-day) is used.

Notified Body 0891 is the designation for Element Materials Technology Warwick Ltd (formerly known as TRaC Global Ltd).

27 Conditions for the validity of this certificate

This certificate remains valid for so long as:

- The equipment listed in section 4 is manufactured in accordance with the documents listed in Appendix A of this certificate.
- The standards listed in section 9 of this certificate continue to satisfy the Essential Health and Safety Requirements of Annex II of Directive 2014/34/EU and the generally acknowledged state of the art (e.g. as determined by the publishers of those standards).

CONTINUATION OF SCHEDULE TO CERTIFICATE EMT16ATEX0023X

APPENDIX A - TECHNICAL DOCUMENTS

| Title: | Drawing No.: | Rev. Level: | Date: |
|---|--------------|-------------|------------|
| Marking label IECEx / ATEX, IDP7000 | 6500312 | D | 2017-06-21 |
| I/P Coil Assy – Schedule Drawing, IDP7000 (2 pages) | 6500311 | C | 2017-01-23 |
| Flamepath Schedule Drawing, IDP7000 (7 pages) | 6500310 | D | 2017-02-18 |
| IOM 42 Installation, Operation and Maintenance Instructions Chronos IDP7000 – Section 14 only 'Hazardous Location Information' | PN-9865012 | 0 | 2016-05 |

ANNEX A- Model Types

Model types broken down by part number:

| PROTOCOL | |
|-----------------------|--|
| 4 | 4-20 mA, no communication |
| 6 | HART® |
| 8 | Foundation Fieldbus® |
| 9 | Profibus-PA® |
| DIAGNOSTICS | |
| 0 | Standard |
| 1 | Advanced diagnostics (with pressure sensors) |
| 2 | Premium diagnostics (with pressure sensors) |
| HOUSING | |
| 0 | Aluminum, with grey polyester painting (Valtek standard) and LCD display |
| 1 | Aluminum, with grey polyester painting (Valtek standard) and blind cover |
| 2 | Stainless steel, with LCD display |
| 3 | Stainless steel, with blind cover |
| S | Version with special painting (upon request) |
| CERTIFICATION | |
| G | General purpose |
| E | Explosion proof |
| SHAFT | |
| C | Clamped D, 316 SS |
| D | Standard D, 316 SS |
| N | NAMUR, 316 SS |
| ELECTRICAL CONNECTION | |
| I | 1/2" NPT |
| M | M20 |
| ACTION | |
| 40 | 4-Way (double-acting) |
| 30 | 3-Way (single-acting) |
| 4V | 4-Way with "vent" (double-acting) |
| 3V | 3-Way with "vent" (single-acting) |
| TEMPERATURE | |
| S | Standard operating temperature (-4 °F to +185 °F) |
| L | Low Operating Temperature (-40 °F to +185 °F) |
| GAUGES | |
| PB | Plastic, with brass internals, (psi/bar) |
| SB | Stainless steel, with brass internals (psi/bar) |
| SS | Stainless steel, with SS internals (psi/bar) |
| SO | Special Gauge Options (Customer specified) |
| NG | Without gauges |
| SPECIAL CIRCUITS | |
| 00 | No special circuits |
| PT | Position transmitter, 4-20 mA ⁽¹⁾ |
| 4S | Position transmitter, with 2 DO and 1 DI ⁽¹⁾ |
| AX | Auxiliary circuits |
| SPECIAL OPTIONS | |
| 00 | No special options |

IDP7 6 0 0 - E D I - 40 S SB - 00 00

Note: ⁽¹⁾ Not available with FF or Profibus-PA versions.**The model types covered by this approval are:**

IDP7abc-def-gghii-jkk

a = 4, 6, 8, 9

b = 0, 1, 2

c = 0, 1, 2, 3, S

d = E

e = C, D, N

f = I, M

gg = 40, 30, 4V, 3V

h = S, L

ii = PB, SB, SS, SO, NG

jj = 00, PT, 4S, AX

kk = XX